THE WORLD LEADER IN GASES FOR INDUSTRY, HEALTH AND THE ENVIRONMENT

AIR LIQUIDE

2011 REFERENCE DOCUMENT

INCLUDING THE CORPORATE SOCIAL RESPONSIBILITY AND SUSTAINABLE DEVELOPMENT REPORT

EXPLORE

Contents

1 Management report 3

Key figures 4
10-year consolidated financial summary 6
Stock market performance 8
History of the Group 10
Overview of activities and risk factors 13
2011 performance 26
Investment cycle and financing strategy 38
Innovation 45
Strategy and outlook 47

2 2011 Corporate Social Responsibility and Sustainable Development Report 51

Introduction 52
Shareholders 53
Customers and patients 57
Employees 60
Communities 68
Improve the environmental footprint 71
Enhance business practices and governance 86
Innovate relentlessly 90
Reporting methodology 95
Statutory Auditors' limited assurance report on a selection of Human Resources, Safety and Environment indicators 97
Appendix 99

3 Corporate Governance 101

Management and Control 102
Report from the Chairman of the Board of Directors 104
Report on remuneration of the Executive Officers and Directors of L'Air Liquide S.A. 120
Statutory Auditors' Report 133
Transactions involving Company shares performed by corporate officers and members of Executive Management 134
Share subscription option plans and Conditional Grant of Shares to Employees (CGSE) 135
Employee savings and share ownership 142
Information concerning members of the Board of Directors and Executive Management 143
Statutory Auditors' offices and remunerations 152

4 Financial statements 155

Consolidated financial statements 157
Statutory accounts of the parent company 234

5 Annual General Meeting 2012 261

Board of Directors' Report on the resolutions presented to the 2012 Combined Shareholders' Meeting 262
Combined Shareholders' Meeting – May 9, 2012 268
Statutory Auditors' Reports 277

6 Additional information 285

Share capital 286
General information 290
Trade payables 299
Factors that may have an impact in the event of a takeover bid 300
Person responsible for the Reference Document 302
Cross-reference table 303
Cross-reference table for the Financial Annual Report 307
Glossary 308

2011 Reference document

including the Corporate Social Responsibility and Sustainable Development Report

Air Liquide is the world leader in gases for industry, health and the environment, and is present in **80 countries** with **46,200 employees.** Oxygen, nitrogen, hydrogen and rare gases have been at the core of Air Liquide's activities since its creation in 1902. Using these molecules, Air Liquide continuously reinvents its business, anticipating the needs of current and future markets. The Group innovates to enable progress, to achieve dynamic growth and a consistent performance.

Innovative technologies that curb polluting emissions, lower industry's energy use, recover and reuse natural resources or develop the energies of tomorrow, such as hydrogen, biofuels or photovoltaic energy… Oxygen for hospitals, homecare, fighting nosocomial infections… Air Liquide combines many products and technologies to develop valuable applications and services not only for its customers but also for society.

A partner for the long term, Air Liquide relies on employee commitment, customer trust and shareholder support to pursue its vision of sustainable, competitive growth.

The **diversity** of Air Liquide's teams, businesses, markets and geographic presence provides a solid and sustainable base for its development and strengthens its ability to push back its own limits, conquer new territories and build its future.

Air Liquide explores the best that air can offer to preserve life, staying true to its Corporate Social Responsibility and sustainable development approach.

Rendez-vous sur notre site
www.airliquide.com

AUTORITÉ DES MARCHÉS FINANCIERS
AMF

The original French version of this Reference document was filed with the French financial markets Authority (AMF), on March 20, 2012, in accordance with Article 212-13 of its General regulations. It may be used in support of any financial transaction if it is supplemented by a prospectus approved by the AMF. This document contains all information required for financial Annual report. It was prepared by the issuer and its signatories assume responsibility for it.

This document is a free translation from French into English and has no other value than an informative one. Should there be any difference between the French and the English version, only the text in French language shall be deemed authentic and considered as expressing the exact information published by Air Liquide.

Management report 1

KEY FIGURES	4
10-YEAR CONSOLIDATED FINANCIAL SUMMARY	6
STOCK MARKET PERFORMANCE	8
HISTORY OF THE GROUP	10
OVERVIEW OF ACTIVITIES AND RISK FACTORS	13
Overview of activities	13
Risk Factors	21
2011 PERFORMANCE	26
2011 key figures	26
2011 highlights	27
2011 income statement	28
2011 cash flow and balance sheet	36
INVESTMENT CYCLE AND FINANCING STRATEGY	38
Investments	38
Financing strategy	42
INNOVATION	45
The innovation cycle	45
An international network	45
Some initiatives launched in 2011	46
STRATEGY AND OUTLOOK	47
Strategy	47
Outlook	50

KEY FIGURES

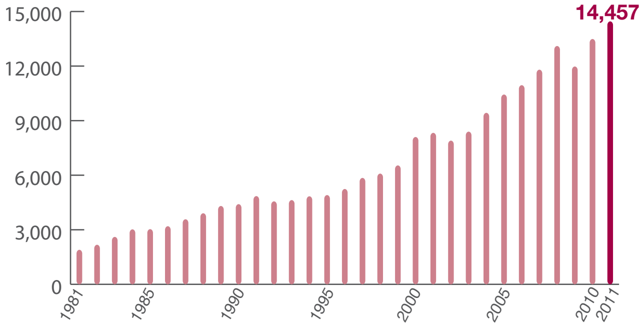
GROUP

Numerous financial terms as well as their calculation method are explained in the Glossary provided at the end of this Reference Document.

PERFORMANCE REGULARITY

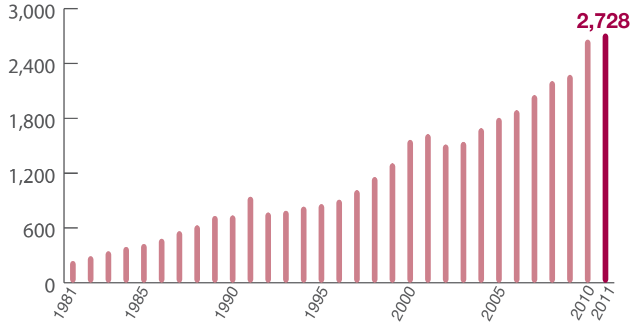
Revenue
(in millions of euros)

Average annual growth over 30 years: +7.0 %
Growth rate 2011-2010: +7.2 %



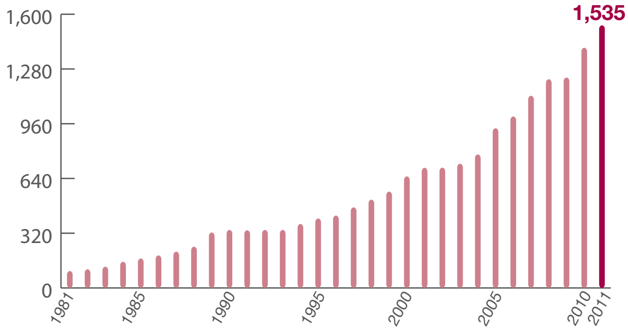
Cash Flow from Operating Activities before changes in working capital requirement
(in millions of euros)

Average annual growth over 30 years: +8.5 %
Growth rate 2011-2010: +2.5 %



Net Profit
(in millions of euros)

Average annual growth over 30 years: +9.6%
Growth rate 2011-2010: +9.4%



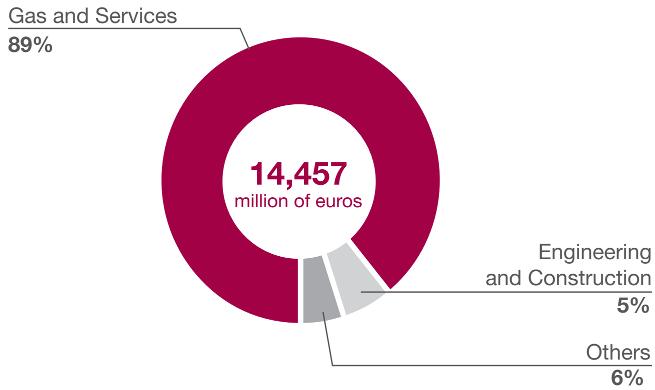
> PRESENT IN **80 COUNTRIES**

> **46,200** EMPLOYEES

> FOUNDED IN **1902**

Group

2011 Revenue by activity



€2.0 billion
2011 Investment decisions

€1.7 billion
2011 Net Capex [(a)]

12.9%
2011 Capex/Sales ratio [(a)]

53%
2011 Gearing

12.1%
2011 ROCE

(a) Including transactions with minority shareholders.

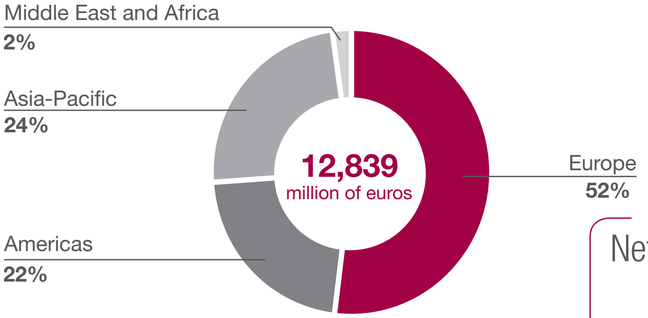
GAS AND SERVICES

2011 Gas and Services revenue	**€12.8 billion**
2011 Operating margin (OIR/Sales)	**18.9%**
Growth in current operating income for Gas and Services	**+6.2%**

WORLD LEADER IN GAS AND SERVICES

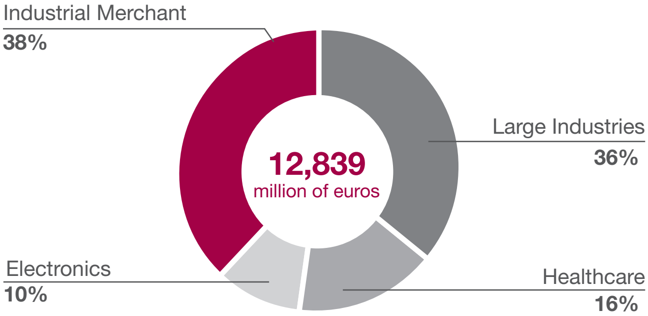
21% of Sales in developing economies in 2011

Gas and Services 2011 revenue by geography



49% of Net investments located in developing economies in 2011

Gas and Services 2011 revenue by world business line



Industrial Merchant
4,892 million of euros
+3% in 2011 [a]
+2% 5-year average

Large Industries
4,585 million of euros
+12% in 2011 [a]
+9% 5-year average

Electronics
1,286 million of euros
+12% in 2011 [a]
+8% 5-year average

Healthcare
2,076 million of euros
+7% in 2011 [a]
+7% 5-year average

(a) Comparable growth, excluding change, natural gas and significant perimeter impacts.

10-YEAR CONSOLIDATED FINANCIAL SUMMARY

	Notes	2002	2003	2004	2004 IFRS
Key figures *(in millions of euros)*					
Consolidated income statement					
Revenue		7,900.4	8,393.6	9,376.2	9,428.4
of which Gas and Services		*6,887.0*	*7,388.5*	*8,275.2*	*8,275.2*
Operating Income Recurring	(a)	1,161.6	1,196.0	1,276.9	1,374.6
Operating Income Recurring/revenue		14.7%	14.2%	13.6%	14.6%
Net profit (Group share)		703.2	725.6	777.5	780.1
Consolidated statement of cash flows					
Cash flow from operating activities before changes in working capital	(b)	1,514.1	1,542.2	1,694.9	1,691.7
Purchase of property, plant and equipment and intangible assets		632.8	746.8	875.4	901.0
Purchase of property, plant and equipment and intangible assets/ revenue		8.0%	8.9%	9.3%	9.6%
Acquisition of subsidiaries and financial assets		306.9	74.9	2,858.5	2,858.5
Total capital expenditures/revenue	(c)	11.9%	9.8%	39.8%	39.9%
Distributions related to fiscal year and paid in the following year	(d)	330.5	327.5	391.2	391.2
Consolidated balance sheet					
Shareholders' equity at the end of the period		5,219.3	5,079.2	5,373.6	4,916.3
Net indebtedness at the end of the period		2,022.3	1,730.2	3,790.3	4,012.5
Gearing		37.1%	31.2%	66.3%	76.7%
Capital employed at the end of the period	(e)	7,474.4	7,269.4	9,505,4	9,245.0
Share capital					
Number of shares issued and outstanding at the end of period		100,818,441	99,912,917	109,180,823	109,180,823
Adjusted weighted average number of shares outstanding	(f)	284,281,641	282,065,598	280,282,818	280,282,818
Key figures per share *(in euros)*					
Net profit per share	(g)	2.47	2.57	2.78	2.78
Dividend per share		3.20	3.20	3.50	3.50
Total dividend (including tax credit until 2003)		4.80	4.80	3.50	3.50
Adjusted dividend per share	(h)	1.12	1.12	1.35	1.35
Ratios					
Return on equity (ROE)	(i)	13.4%	14.1%	14.9%	16.3%
Return on capital employed after tax (ROCE)	(j)	10.8%	11.6%	11.3%	11.9%

Loyalty dividend:

Since 1995, a 10% loyalty dividend is attributed to shareholders holding their shares in registered form for at least two years on the December 31 preceding the period of distribution, and owned until the date of the payment of the dividend.

The dividend proposed to the Annual General Meeting for fiscal year 2011 is 2.50 euros per share, and the enhanced dividend is 2.75 euros per share representing a total distribution of 729.1 million euros. The tax credit associated to dividends is no longer applicable since fiscal year 2003.

(a) Operating income from 2002 until 2004.

(b) Funds provided by operations from 2002 until 2004 (before adjustments of profit/loss on disposal of fixed assets).

(c) Purchase of property, plant and equipment, intangible assets and long-term investments. Industrial and financial capital expenditures and transactions with minority shareholders are included.

(d) Without withholding tax of 8.7 million euros in 2003 and 83.9 million in 2002, and including a loyalty dividend of 19.5 million euros in 2011, 16.5 million in 2010, 14.7 million in 2009, 15.0 million in 2008, 13.5 million in 2007, 12.5 million in 2006, 10.4 million in 2005, 9.1 million in 2004, 7.8 million in 2003 and 7.8 million in 2002.

2005	2006	2007	2008	2009	2010	2011
10,434.8	10,948.7	11,801.2	13,103.1	11,976.1	13,488.0	14,456.9
9,147.7	*9,628.0*	*9,998.5*	*11,027.6*	*10,191.8*	*11,885.7*	*12.838.6*
1,517.6	1,659.2	1,794.1	1,949.0	1,949.0	2,252.2	2,408.7
14.5%	15.2%	15.2%	14.9%	16.3%	16.7%	16.7%
933.4	1,002.3	1,123.1	1,220.0	1,230.0	1,403.6	1,534.9
1,804.8	1,889.3	2,054.4	2,206.7	2,274.5	2,660.9	2,728.1
975.2	1,128.2	1,359,3	1,908.3	1,411.0	1,449.8	1,755.0
9.3%	10.3%	11.5%	14.6%	11.8%	10.7%	12.1%
76.2	72.3	1,308.2	242.3	109.2	239.9	99.5
10.1%	11.0%	22.6%	16.4%	12.7%	13.2%	12.9%
432.1	497.0	551.0	602.0	609.2	684.2	729.1
5,930.5	6,285.8	6,369.5 (l)	6,757.4 (l)	7,583.7	8,903.5	9,758.6
3,739.8	3,446.6	4,660.2	5,484.4	4,890.8	5,039.3	5,248.1
60.2%	52.5%	71.5%	79.5%	63.1%	55.3%	52.5%
9,948.5	10,013.4	11,179.8 (l)	12,386.1 (l)	12,642.7	14,151.8	15,243.8
109,538,475	121,149,189	238,844,710 (k)	260,922,348	264,254,354	284,095,093	283,812,941
279,788,860	282,756,384	281,751,555	277,362,290	279,350,557	281,491,673	282,615,649
3.34	3.54	3.99	4.40	4.40	4.99	5.43
3.85	4.00	2.25	2.25	2.25	2.35	2.50
3.85	4.00	2.25	2.25	2.25	2.35	2.50
1.48	1.70	1.91	2.11	2.11	2.35	2.50
17.2%	16.4%	17.7% (l)	18.6% (l)	17.2%	17.0%	16.8%
11.7%	11.9%	12.3% (l)	12.2% (l)	11.6%	12.1%	12.1%

(e) Capital employed at the end of period: shareholders' equity + minority interests + net indebtedness.

(f) Adjusted to account for, on the basis of the weighted number of shares outstanding, the two-for-one share split (in 2007), free share attribution (declared in 2010, 2008, 2006, 2004 and 2002), stock offerings (from 2002 to 2011) and treasury shares.

(g) Calculated on the adjusted weighted number of shares outstanding during the year (excluding treasury shares).

(h) Adjusted to account for share capital movements.

(i) Return on equity: (Net profit Group share) / (weighted average of shareholders' equity over the year).

(j) Return on capital employed after tax: (Net profit after tax before deduction of minority interests - net cost of debt (financial result before 2004) after taxes) / weighted average for the year of (shareholders' equity + minority interests + net indebtedness).

(k) The L'Air Liquide S.A. two-for-one share split on June 13, 2007.

(l) Corresponds to the amounts as of December 31 restated for the impacts of the application of the option offered by the revised IAS 19 "Employee Benefits", to immediately recognize all actuarial gains and losses and adjustments arising from the asset ceiling, net of deferred tax, in addition to the first-time adoption of IFRIC 14.

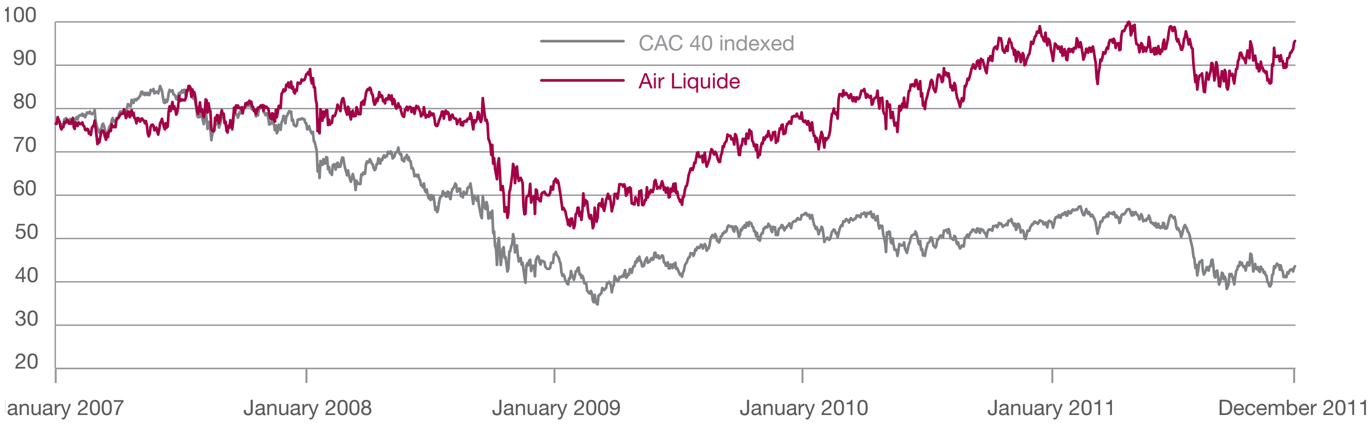
STOCK MARKET PERFORMANCE

STOCK MARKET INDICATORS

		2007	2008	2009	2010	2011
Market capitalization at December 31 *(in millions of euros)*		24,312	17,077	21,941	26,887	27,130
Adjusted share price [(a)] *(in euros)*	high	87.18	89.53	79.01	99.15	100.65
	low	70.28	52.21	51.51	70.60	80.90
	At December 31	86.62	61.27	77.72	94.64	95.59

(a) Adjusted for the two-for-one share split on June 13, 2007 and free share issues (2006, 2008 and 2010).

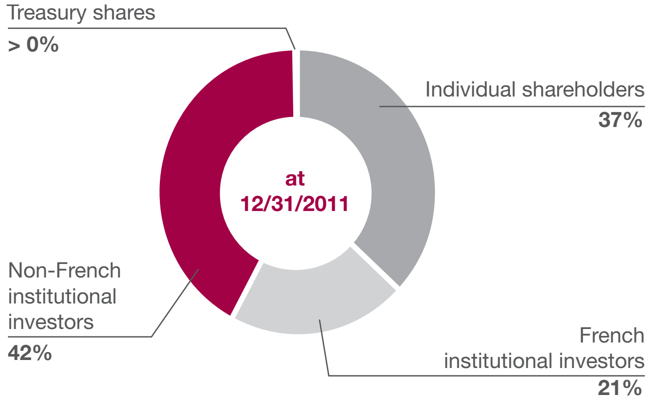
Stock market performance



AIR LIQUIDE SHARE

- > Listed on the Euronext Paris market since 1913
- > Main indices: CAC 40, Eurostoxx 50, FTSE Eurotop 100
- > Free float: >99% of the share capital
- > Security codes: AI-FR and ISIN FR0000120073

Shareholder breakdown



A strong share ownership culture

A differentiating feature of Air Liquide Group is the high proportion of loyal individual shareholders: together, over 410 000 individual shareholders hold some 37% of the share capital at the end of 2011.

This loyalty is attributable to a long history of steady earnings growth, resulting from the constant development of Air Liquide's markets and the solidity of its economic model. Created in 1902 thanks to private financing, Air Liquide is the fruit of technological innovation and an entrepreneurial vision. Since then, Air Liquide has implemented an active shareholder policy. This is reflected in the share price performance, major and sustained dividend distributions and the regular distribution of free shares and loyalty bonuses to holders of registered shares.

PER SHARE PERFORMANCE

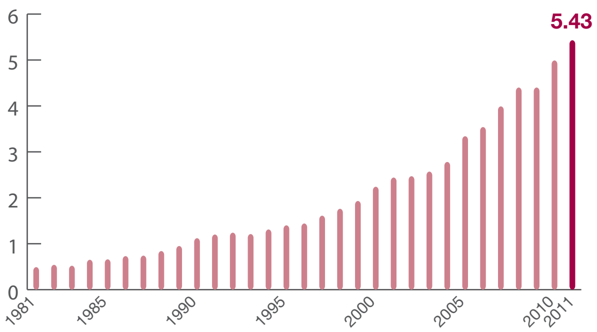
(in euros)	2007	2008	2009	2010	2011
Net earnings per share [a]	3.99	4.40	4.40	4.99	5.43
Net dividend per share [a]	1.91	2.11	2.11	2.35	2.50 [b]
Distribution rate	49.0%	49.3%	49.5%	48.7%	47.5%
Dividend yield	2.2%	3.4%	2.7%	2.5%	2.6%
Ex-dividend date	05/14/2008	05/13/2009	05/12/2010	05/11/2011	05/11/2012

(a) Adjusted for the two-for-one share split on June 13, 2007 and free share issues (2006, 2008 and 2010).

(b) To be proposed at the Annual General Meeting on May 9, 2012.

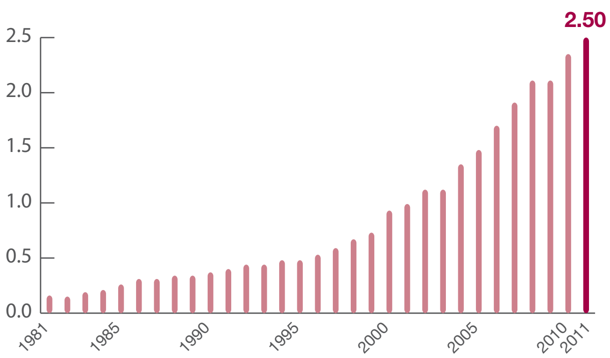
Net earnings per share—adjusted *(in euros)*

+8.4% average annual growth over 30 years



Dividend per share—adjusted *(in euros)*

+9.7% average annual growth over 30 years



Total Shareholder Return of an investment in Air Liquide shares

Total Shareholder Return (TSR) is the annualized rate of return for shareholders who purchased a share at the beginning of the period and sold it at the end of the period, including the contribution from both **the share price performance** and **dividends paid** (including loyalty bonus for registered shares), assuming that the dividend is immediately reinvested in shares, as well as **free share attributions**.

TSR, annual rates of return at December 31, 2011

For a capital invested…	Air Liquide Registered shares	Air Liquide Bearer shares	Dividend reinvested CAC 40 index [a]
• 5 years ago (since December 31, 2006)	+7.6%	+7.3%	-7.1%
• 10 years ago (since December 31, 2001)	+10.4%	+9.9%	-0.4%
• 20 years ago (since December 31, 1991)	+11.5%	+10.9%	+6.1%

(a) CAC 40 index with gross dividend reinvested.

HISTORY OF THE GROUP

1902

ORIGIN

Air Liquide came into existence after an encounter between two men: Georges Claude, the inventor, and Paul Delorme, the entrepreneur, and an innovation: the industrial production of oxygen from liquid air.

1906

INTERNATIONAL DEVELOPMENT

Gas by its very nature is difficult to transport and thus local production is required. This was one of the reasons Air Liquide set its sights internationally early on, building numerous production units abroad. Development was rapid in Europe (1906), Japan (1907), Canada (1911) and the United States (1916). Two major acquisitions served to significantly reinforce the Group's permanent expansion: the 1986 takeover of the Big Three in the United States and certain activities of Messer Griesheim in Germany, the United Kingdom and the United States in 2004. The Group thus affirmed its position as global leader, while reinforcing its presence in the world's major economies. Air Liquide is now present in 80 countries, its international dimension being a fundamental component to its strategy.

1913

SHAREHOLDERS

The critical role played by shareholders became evident in the first years of the Company's development. With the listing on the Paris Stock Exchange in 1913, a strong relationship was forged between Air Liquide and its individual and institutional shareholders. In 1987, Air Liquide broke new ground by creating the first Shareholders' Communication Committee.

Proof of this relationship of trust, individual shareholders held 37% of the Group's share capital at the end of 2011, representing a real exception in today's stock markets.

1930

DEVELOPMENT OF WELDING

From the introduction of the oxyacetylene torch to modern integrated gas welding solutions, Air Liquide has been instrumental in developing the technology that drove the emerging dockyard and railway industries forward and soon extended into all areas of industry.

1946

NEW ADVENTURES, DIVING

New adventures shared with Captain Cousteau led to the creation of Spirotechnique (today Aqualung International), which designs, manufactures and sells diving regulators and other equipment used for professional and leisure diving.

1952

THE CRYOGENIC REVOLUTION

Storing gas in liquid form in cryogenic tanks allowed vast quantities to be transported by road or rail within a radius of around 250 km from the production site. In 1954, the first liquid oxygen plant was commissioned in the North of France.

1960

PIPELINE NETWORK STRATEGY

By delivering gas to several customers through pipelines, Air Liquide adopted a network strategy for the first time. Linking its gas production units through a network of pipelines, the Group multiplied production capacity to meet soaring demand from the large industries: firstly, for oxygen in the steel industry and secondly, for nitrogen in the chemicals industry.

The Large Industries business model was launched with customers committing to long-term contracts of 15 years or more.

1962

SPACE INDUSTRY

Convinced of the industrial potential of cryogenics, Jean Delorme, Chairman and Chief Executive Officer, decided to create a research center near Grenoble dedicated to these technologies. The first applications were rapidly integrated in the space industry. For nearly 50 years, Air Liquide has been the partner of the Ariane space adventure. The Group's contribution has been as much in the production of the fluids essential for launch (oxygen, hydrogen, helium and nitrogen) and associated services, as in the design and production of the cryogenic tanks and equipment.

1970

A TRADITION OF INVENTIONS

The Claude-Delorme Research Center was created in the greater Paris region to enhance gas production techniques and their applications (combustion, welding, metalworking, chemicals, electronics, food, respiratory functions, and environmental treatment). It is evidence of the Group's desire to perfectly understand the industrial processes of its customers and develop new gas applications to better satisfy their requirements (in terms of quality, productivity and the environment). The Center also develops partnerships with universities and industrialists. The Group currently has eight research centers around the world: in France, Germany, the United States and Japan.

1976

A TECHNOLOGICAL BREAKTHROUGH

With the Sasol project in South Africa (transformation of coal into synthetic fuel), air gas separation units (ASUs) scaled up, dramatically increasing in size. Following this technological breakthrough, Air Liquide became the leader in large ASUs, and remains so today.

1985

A NEW MARKET, ELECTRONICS

The Group began to supply ultra high purity gases to the semiconductor industry in Japan. This involves carrier gases, mainly nitrogen, used to inert the fabs, and specialty gases that are used directly in the manufacturing of semiconductors. In 1987, Air Liquide inaugurated the Tsukuba (Japan) research center fully dedicated to Electronics.

1992

NEW CUSTOMER-ORIENTED ORGANIZATION

An organization by geographic area was rolled out throughout the world to promote proximity with customers. Taking the initiative in the field became a priority. In 1995, the organization was restructured by international market with the creation of global customer accounts in Electronics and Large Industries.

1995

EXTENDED OFFERING: HYDROGEN AND STEAM

In addition to oxygen and nitrogen, as part of its commitment to protecting the environment and promoting energy efficiency, Air Liquide extended its offering to hydrogen and steam. To manage the transition and bring added value from the start, the Large Industries industrial basin pipeline strategy was applied by combining customer needs to provide flexibility, new services and cost savings to the customer.

AIR FOR LIFE

Originally, an oxygen supplier to hospitals, Air Liquide became a specialist in the Health sector. The Group launched its Homecare activity and set up a network of dedicated specialist teams. Medical gases were classified as drugs and manufacturers were required to file market authorizations. The Group also developed in the Hygiene sector, an activity that naturally complemented the hospital services. Most recently, Air Liquide launched significant research programs in therapeutic gases, used for anesthesia, pain relief, and post-operative recovery.

2008

LAUNCH OF THE ALMA PROGRAM TO STEP UP GROWTH

Following the strategic consolidation in 2007 with the buyback of minority interests in joint ventures in Japan and South East Asia, the acquisition of the engineering firm Lurgi that provided new proprietary technologies and the set-up of four World Business Lines, the Group launched its ALMA project. Driven by the ambition to be the recognized industry leader, the Group announced mid-term objectives of average annual revenue growth of between 8% and 10%, operating efficiencies of 600 million euros over three years and a return on capital employed of between 11% and 12%.

2009

RESILIENCE OF THE BUSINESS MODEL

Within the context of an unprecedented economic crisis, Air Liquide adapted its ALMA program focusing on three priorities, **cash, costs and capex,** and confirmed the **resilience of its business model.** Therefore, operating efficiencies totaled 335 million euros, capital expenditure was limited to 1.4 billion euros and net profit was held constant.

2010

RESTORED GROWTH AND A NEW STRATEGIC ALMA 2015 PLAN

2010 was a year of transition marked by the gradual emergence from the crisis and a new economic context involving the significant growth of developing economies. In a still fragile environment, Air Liquide announced:

- a new ambition: to be the leader of its industry through performance and responsibility in the long term;
- the new ALMA 2015 project based on a performance and transformation strategy in order to capture growth opportunities wherever they may be;
- 2015 objectives of an annual **revenue growth** of between **8% and 10%** in a normal environment, continued **operating efficiencies** exceeding **200 million euros every year** and a gradual increase in **return on capital employed** to between **12% and 13% over the period;**
- its decision, for the first time, to commit to **corporate responsibility** objectives.

2011

NEW TERRITORIES: DEVELOPING ECONOMIES AND HYDROGEN ENERGY

The share of Gas and Services revenues in developing economies has grown from 15 to 21% in four years. The growth in these countries continues at +20% in 2011. The Group entered three new countries during the year: Turkey, Ukraine and Mexico.

As hydrogen becomes a real complement or an alternative to the electric car, Blue Hydrogen marks Air Liquide's commitment in favor of more environmentally friendly energy.

OVERVIEW OF ACTIVITIES AND RISK FACTORS

Overview of activities

The Group classifies its activities as follows: Gas and Services, Engineering and Construction and Other Activities. Additional information is available in the “2011 Performance” section of this report.

GAS AND SERVICES

Gas production requires local production in order to avoid prohibitive transport costs. Air Liquide gas production units are therefore located throughout the world and can supply several types of customers and industries, according to the volumes and services required. The operational management of Gas and Services activities is organized by geographical area (Europe, Americas, Asia-Pacific and the Middle East and Africa) and coordinated at World Business Line level to better adapt to the changes in the different customer markets:

- **Large Industries** manages major production units, serving customers in the steel, chemicals and refining industries with high gas consumption, requiring delivery through a pipeline.
- **Industrial Merchant** supplies a wide range of different gases to industries of all sizes requiring variable quantities, distributed in bulk (liquid form) or in cylinders for small quantities.
- **Healthcare** supplies medical gases, hygiene products, equipment and services to hospitals and patients in their homes.
- **Electronics** supplies gas and services for the production of semi-conductors, flat panels and photovoltaic panels.

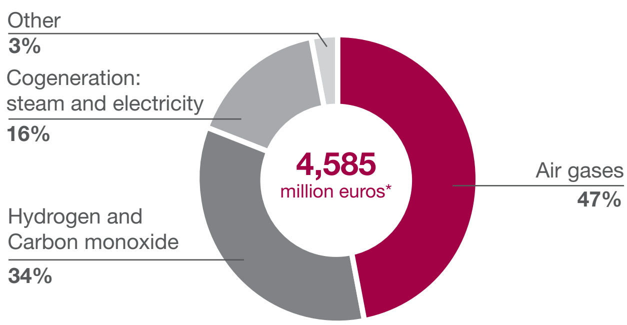
Depending on their end use, gases are distributed in different states and using various means: in gaseous form through a pipeline, in liquid form in cryogenic trailers, and in gaseous form in high pressure cylinders for small quantities or specialty gases. The Gas and Services activities represent 89% of the Group’s total revenue.

LARGE INDUSTRIES

The Large Industries business line proposes gas and energy solutions to its customers, essential for their production, to improve process efficiency and to help them better respect the environment. The world leader in this sector, Air Liquide boasts dedicated in-house engineering teams, differentiating proprietary technologies and rigorous processes for selecting and carrying out major projects which often include pipelines networks, reaching out over several hundreds of kilometers.

This business line provides oxygen, nitrogen, argon, hydrogen, carbon monoxide and steam to the metal, chemical, energy conversion and oil and gas sectors through a network of plants and pipelines, which include 295 large Air Separation Units (ASUs) producing nitrogen, oxygen and argon, 41 Steam Methane Reformers (SMRs) producing hydrogen and carbon monoxide and 17 co-generation plants producing energy and steam around the world.

2011 Large Industries revenue by activity



**** 36% of Gas and Services revenue***

Large Industries business line

Separation of air gases (ASU: Air Separation Unit)

An ASU compresses, liquefies and distills air in order to separate it into its different components:

- 78% nitrogen;
- 21% oxygen;
- 1% rare gases (argon, neon, krypton and xenon).

Only certain extremely large ASUs can also produce rare gases.

Hydrogen and carbon monoxide production (SMR: Steam Methane Reformer)

By steam reforming natural gases, an SMR produces hydrogen (used in desulfurizing fuel, in certain chemical processes, transforming heavy crudes into lighter fuels and as a clean energy vector) and carbon monoxide (used as a basis for numerous chemical products).

Cogeneration

Cogeneration consists of simultaneously and efficiently producing electricity and steam generally by consuming natural gas and water. The electricity is supplied to the local network while the steam is used in certain industrial processes.

In the **metals** industry**,** oxygen is used to produce steel by improving energy performance, and reduce emissions. The majority of new projects are currently located in developing economies.

The **chemicals** industry uses mainly oxygen, hydrogen and carbon monoxide in its manufacturing processes, and nitrogen for inerting.

The **refining** industry requires hydrogen to desulphurize fuels and break up heavy hydrocarbons. The demand for hydrogen is growing due to the combination of increasingly stringent environmental legislation and use of heavier hydrocarbons. Numerous firms in the **energy** or **chemicals** industries use oxygen to transform large quantities of coal and natural gas into fuel, liquid products (raw materials in the production of chemical products) and electricity.

To meet customer requirements, Air Liquide must supply large quantities of gas. Gas is supplied directly by pipeline from dedicated plants or through a pipeline network. Air Liquide has built its own pipeline networks progressively over the last 40 years. With a total length of more than 8,800 km, these networks stretch, for example, across Northern Europe, from Rotterdam through to Dunkirk, and across the US Gulf Coast from Lake Charles to Corpus Christi. There are several local networks of average size in other significant industrial basins in Germany, Italy, Singapore and now China and Korea.

The supply of gas is generally provided through around 15-year contract involving the indexation of input costs, mainly electricity and natural gas, and guaranteed payment levels through take-or-pay clauses. These clauses are included in return for the commitment given by the Group to guarantee long-term service continuity in the availability of gas, *via* a high-performing industrial solution.

Remember

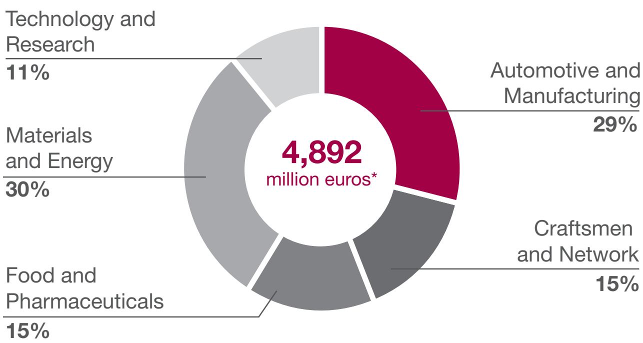
The **Large Industries** business line operates under long-term contracts, with the indexation of energy costs and take-or-pay clauses. These contracts offer considerable visibility of future revenue and protection in the event of a significant fall in volumes purchased by customers (below the take-or-pay level). The investment cycle is long and the high capital intensity of this business line requires a solid balance sheet. The signature of new contracts is a guarantee of future growth.

Air Liquide is developing a strategic network in the industrial basins in order to provide customers with greater supply reliability while optimizing operating costs.

INDUSTRIAL MERCHANT

The Industrial Merchant business line is the Group's leading business in terms of revenue. It assists a wide range of markets and customers—craftsmen, SMEs, international groups—offering comprehensive gas solutions for the implementation and optimization of their industrial processes. Supported by a global network of business experts and extensive geographical coverage, this business line offers customers innovative solutions encompassing industrial gases, application equipment and related services.

2011 Industrial Merchant revenue by end market



*** 38% of Gas and Services revenue***

The Industrial Merchant business line serves five primary markets:

- **Materials and Energy:** Oxygen is used to reduce energy consumption in glass and metal manufacturing processes and treat wastewater. Nitrogen is used to create inert atmospheres for the conservation of oxygen-sensitive products. Carbon dioxide is used in the treatment of drinking water, Helium for diving and magnetic resonance imaging.
- **Automotive and Manufacturing:** Argon and argon mixtures are used for metal parts welding in manufacturing industries, hydrogen and nitrogen for thermal treatment, specialty gases for waste gas analysis and helium for airbags. Oxygen and acetylene are used in metal heating and cutting operations. Air Liquide therefore enables customers to improve their manufacturing processes and preserve the working environment.
- **Food and Pharmaceuticals:** The Group's technologies help improve shelf-life and food and pharmaceutical manufacturing and cooling processes. The three major activities in this market are the supply of carbon dioxide for beverages, gas mixtures for modified atmosphere packaging and nitrogen for process inerting and cold production. Air Liquide ensures these products comply with prevailing market regulations and in particular the complete traceability of its gases.
- **Technology and Research:** Industrial gases are used in the assembly and encapsulation of electronic components in optoelectronics processes—particularly LED manufacturing and optic fiber and silicon cylinder drawing. Special gases required, in particular, for the calibration of analysis instruments are widely used in research centers and analytical laboratories. Specific, highly technical gases and equipment have been developed for these various applications.
- Finally, Air Liquide provides the **Craftsmen and Distributors** sector with a wide range of gases for use in plumbing, heating, ventilation, air conditioning, industrial maintenance and auto repair, with special-purpose packaging tailored to customer utilization requirements.

Such gases can be supplied to the customer's site in liquid form using dedicated cryogenic trailers, by means of on-site equipment, and, in gaseous form, in high pressure cylinders. Historically, production remains local, with deliveries rarely exceeding 250 km from the production site. To support this local presence, the Industrial Merchant business line mainly relies on the gas production capacities of the Large Industries business line and develops its own distribution logistics. Furthermore, Air Liquide leases out tanks and cylinders to ensure a reliable and optimized gas supply and quality equipment. Increasingly, the installation of telemeters and tracking systems enables distribution logistics to be optimized.

Remember

The **Industrial Merchant** business line is characterized by a wide range of customers, end markets and applications. Contract terms vary and are generally less than 5 years. A portion of revenue comes from the lease of tanks and cylinders. It is an extremely local distribution business, with geographical density of coverage being a key factor. Competition can vary significantly between areas.

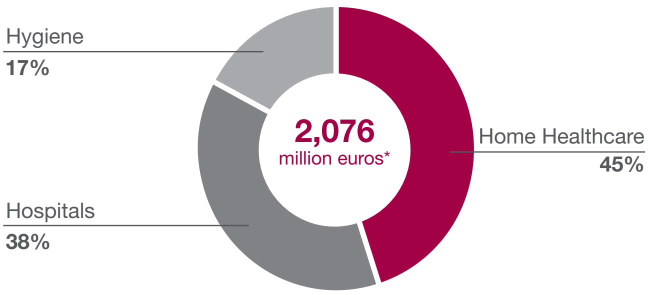
Business growth is generally a function of local industrial production growth. Innovation with regards to markets, products and applications is also a major growth driver.

HEALTHCARE

The Healthcare business line provides gases, services, equipment and hygiene products to more than 6,000 hospitals and 700,000 homecare patients around the world. Air Liquide also installs medical respiratory oxygen networks in hospitals.

Air Liquide is one of the world leaders in this business segment that is marked by stringent medical and regulatory requirements and multiple stakeholders (patients, doctors and payers).

2011 Healthcare revenue by activity



** 16% of Gas and Services revenue*

In Hospitals, Air Liquide provides medical gases, such as oxygen and nitrous oxide, for operating rooms, intensive care, emergency care and, more generally, medical wards. The Group also innovates and develops, for example, therapeutic gases used for anesthesia (LENOXe™), resuscitation in cases of pulmonary arterial hypertension (VasoKinox™), and pain relief (Kalinox™).

Air Liquide also supplies hospitals with a large range of medical hygiene products (for hands, skin, instruments, surfaces) to fight nosocomial or viral infections. Air Liquide thus contributes to patient safety, particularly in operating rooms and intensive care units. Hygiene products, particularly hydroalcoholic solutions, are also supplied to manufacturers, whose processes require impeccable cleanliness and hygiene.

In Homecare, Air Liquide has extended its services beyond oxygen therapy. Air Liquide looks after more than 700,000 chronic patients at home (chronic obstructive lung disease, sleep apnea, diabetes, etc.) by providing them with long-term medico-technical services and follow-up care. By closely monitoring patient prescriptions, Air Liquide is now a key player in patient/doctor relations and contributes to improving the health and quality of life of patients on a daily basis.

Over the last 20 years, Air Liquide has become a leading healthcare player in Europe (France, Germany, Italy, the United Kingdom, Spain, the Netherlands), Canada and Australia. The Group also has significant businesses in the United States (medical gases only), South America, Africa and Japan and has recently expanded in Eastern Europe, South Korea and China.

Remember

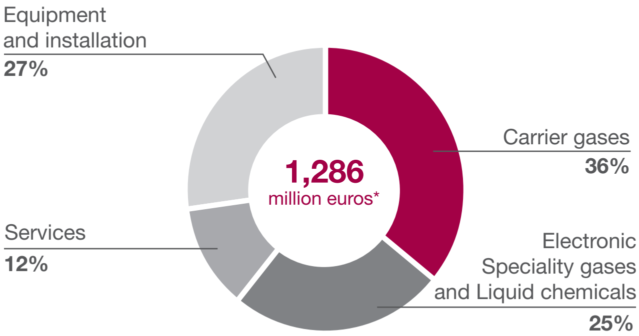
The **Healthcare** business line operates in a strict regulatory framework. It is organized around two major businesses: the production and distribution of medical gases to hospitals and the provision of homecare services to patients. Density, critical size and efficiency are essential to offset the pressure on prices exercised by healthcare systems, particularly in developed economies.

With the ageing population and the greater need for care services due to an increase in chronic illnesses and the development of healthcare systems in developing countries, the Healthcare sector represents a solid driver of growth for the Group.

ELECTRONICS

The Electronics business line supplies its customers with ultra-pure carrier gases, specialty gases and advanced precursors as well as molecule distribution equipment and on-site services, used in the manufacturing of semi-conductors, flat panels and photovoltaic cells. Air Liquide has developed considerable expertise in the photovoltaic cell sector and is the global leader in specialty gases for this market.

2011 Electronics revenue by product



*** 10% of Gas and Services revenue**

Air Liquide provides carrier gases (primarily ultra-pure nitrogen, oxygen and hydrogen) through on-site facilities in order to inert customer manufacturing tools. The need for a regular and constant supply of carrier gas results in long-term commitments and the building of production units nearby or on the customer's premises. The Group also distributes specialty gases and advanced precursors used in solar chip, panel and cell manufacturing. Air Liquide has, in particular, a silane production unit, in a joint venture with a Japanese chemicals company. This gas, as well as the so-called precursor gases, are of major importance as essential to all silicon-based manufacturing processes for products such as semi-conductors, photovoltaic solar cells and flat panels.

The Electronics business line also supplies equipment and installs ultra-pure gas and chemicals distribution piping and units to equip new customer facilities.

Finally, given its expertise and its desire to offer customers a comprehensive service, Air Liquide Electronics also provides just-in-time, high security on-site fluid management and quality control services.

The Electronics business model is therefore generally based on long-term carrier gas supply contracts, electronics market volume-driven growth for specialty gases and constant technological innovation to satisfy customer requirements by designing new precursor molecules. The combination of carrier gas, specialty gas, new molecule and equipment and installation activities enables Air Liquide to limit revenue volatility in this highly cyclical sector which nonetheless offers strong growth potential.

1

Remember

The Group's **Electronics** business line encompasses three different sectors:

- Carrier gases activity a business model is generally based on 10-year contracts with the indexation of energy costs and take-or-pay-type clauses. Growth is tied to the signature of new contracts and investment in small on-site production units.
- Specialty gases distribution activity is global. Demand varies in line with the consumption and production cycle for electronics goods. These gases are high purity products requiring high tech expertise.
- Finally, sales of equipment and installation which depend on Electronics sector investment cycle dynamics.

In the Electronics sector, where long-term grow is accompanied by short-cycles, the business mix with its long-term contracts, specific to Air Liquide, offers a real advantage.

INDUSTRIAL SYNERGIES

The four business lines comprising the Gas and Services activity are closely tied by a strong industrial approach privileging proximity. The diagram below illustrates the mutualization of assets, both production and distribution, between the different business lines, for a given geographical area. Leveraging this efficient industrial network, Air Liquide capitalizes on its proximity to its customers to anticipate their needs, understand market changes and offer innovative solutions.

In its search for improved performance, the Group favors synergies in a number of areas:

- Industry: Local investment in new assets, followed by mutualization of these assets between the different business lines;
- Technology and Engineering: sharing of global Group expertise, knowledge transfer, regional technological support;
- Research and Development: constant efforts to develop new applications;
- Human Resources: single managerial culture across a range of geographical cultures and businesses, aimed at selecting, training and developing the potential of the Group's men and women and favoring knowledge sharing.

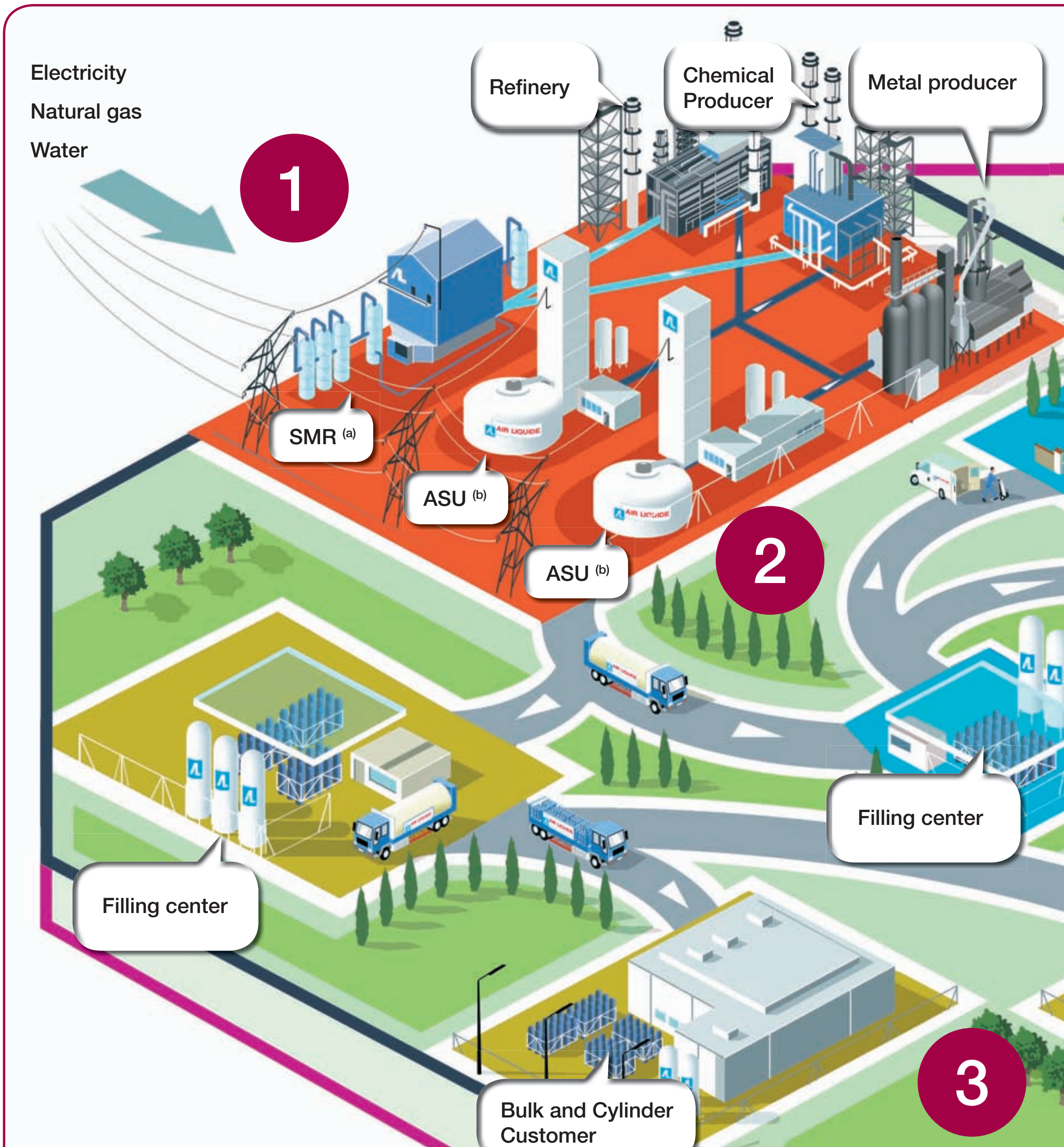
The combination of all these synergies represents a true "ecosystem" and allows Air Liquide Group to grow while creating long-term value.

Industrial Synergies

Development model

1

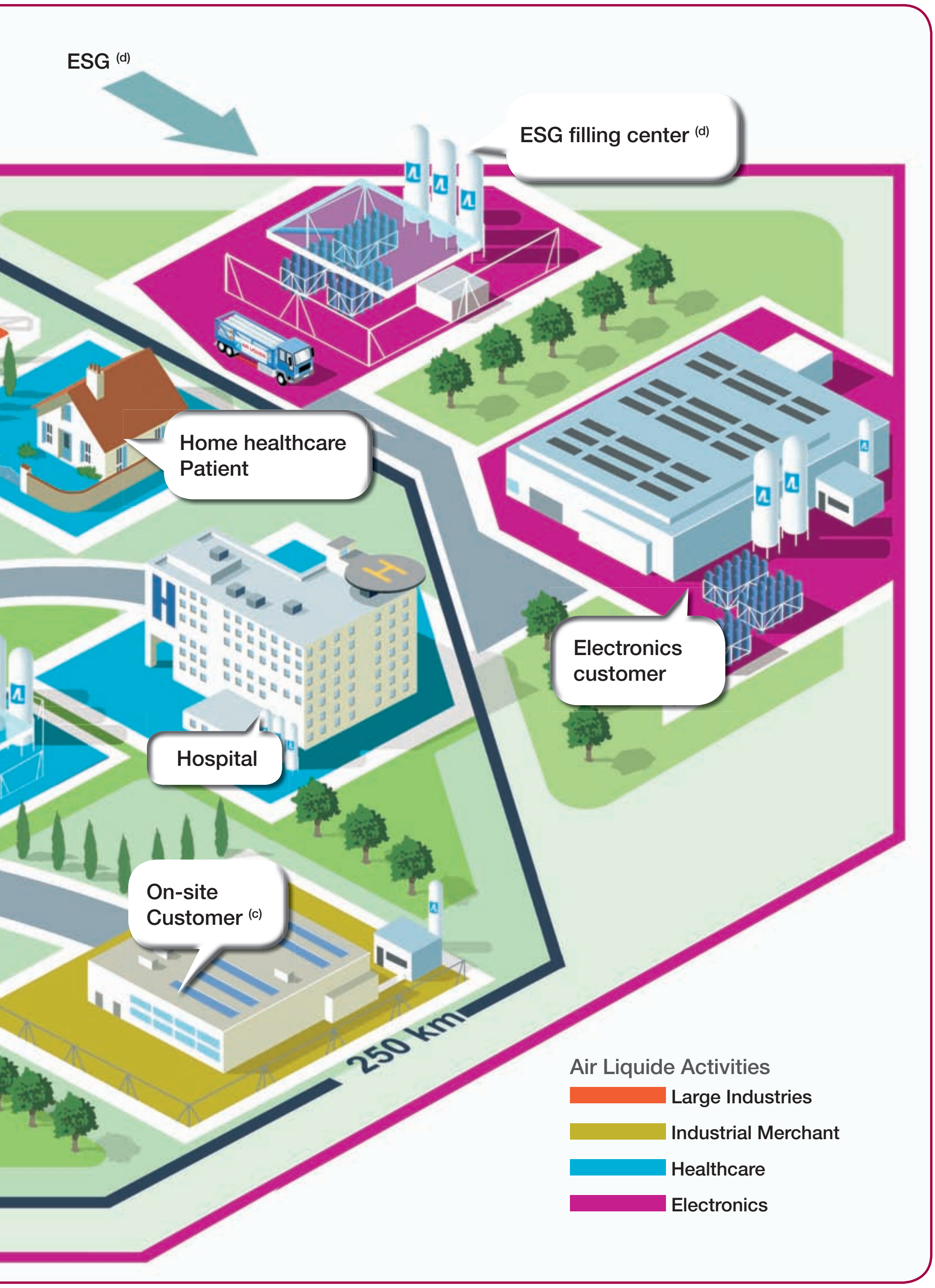
- Identification of the industrial basins and their potential
- Signature of various Large Industries contracts
- Mutualization of production assets (construction of a pipeline network) in order to strengthen guaranteed availability and optimize operating costs



(a) *Hydrogen and carbon monoxyde production unit (Steam Methane Reformer)*
(b) *Air gases production unit (Air Separation Unit)*
(c) *Small local production unit*
(d) *Electronic Specialty Gases*

2 Liquefaction of gas sourced from Large Industries to supply Industrial Merchant, Healthcare and Electronics

3 Acquisition of local distributors to accelerate roll-out in the area



ENGINEERING AND CONSTRUCTION

Certain technical terms are explained in the Glossary at the end of the Document.

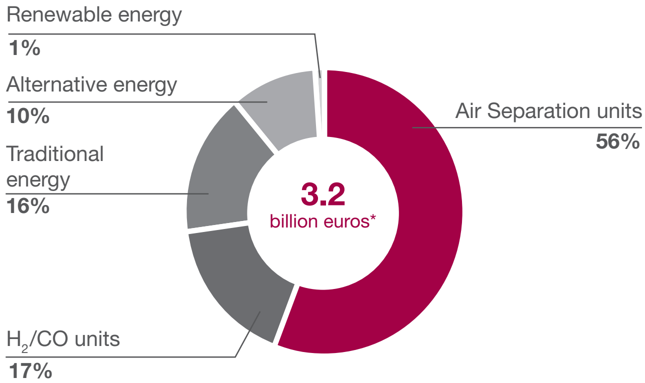
Air Liquide was founded upon innovation: a new industrial process for the separation of gases from air. To provide its customers with the gases required for their industrial production, Air Liquide engineers developed proprietary technologies. For over a century, the Group has therefore designed and produced units for its own use or for sale to customers who prefer to produce their gas requirements internally. Today, Air Liquide is still recognized for its ability to constantly improve ASU productivity based on its mastery of proprietary technologies.

Since the acquisition of Lurgi in 2007, the Group has expanded its range of expertise. It now possesses its own proprietary technologies, developed by Lurgi for over 50 years, to produce hydrogen and carbon monoxide through steam-methane reforming. This acquisition also widened the Group's offering into coal and natural gas conversion technologies to produce syngas, synthetic natural gas, methanol, propylene, liquid fuels and biofuels. Given the very large quantity of gases required in all these activities, this expanded Engineering and Construction know-how has helped the Group to be associated, upstream of gas production projects, in the development of its customers' processes and thus boosting its gas or equipment sales growth. Some of these processes, at varying stages of development, offer technical solutions to fight climate change by enabling the capture of a virtually pure CO_2 flow emitted by industrial sites.

To cover all the Group's primary markets, the Engineering and Construction business has extensive geographical coverage with 13 major engineering centers, including 6 manufacturing workshops, based in North America, Europe (France, Germany, Poland), Asia (China, India, Japan) and South Africa. The Engineering and Construction business strategy is on the one hand to allocate its resources to Group investment projects and, on the other hand, for third party activities, to favor engineering and equipment procurement projects less risky than construction projects. In this context, the contribution to consolidated revenue varies between 500 euros and 700 million euros.

The Engineering and Construction business line therefore provides the Group with a genuine competitive edge, enabling it to strengthen its relations with customers and continue to improve industrial processes and reduce the cost of assets for its own requirements.

Engineering and Construction orders in hand (a)



***including 1.6 billion euros from third-party orders**

OTHER ACTIVITIES

Over time, Air Liquide has developed other activities as a complement to the sale of gas and equipment.

Welding

Air Liquide is a leading player in the development of welding and cutting technologies, offering the most complete range of related equipment, consumables and services on the market, through internationally renowned brands.

With its Technical Center for Welding Applications, acknowledged as the largest private welding research center in the world, Air Liquide Welding pursues continuous innovation, constantly striving to improve the performance, productivity, safety and comfort of operators.

Specialty Chemicals and Diving

The Specialty Chemicals business develops and markets, under the Seppic brand name, innovative products (active ingredients, excipients, vaccine adjuvants) used in the fields of healthcare (vaccines and pharmaceuticals) and personal care (cosmetics and nutrition), following its withdrawal at the end of 2011 from industrial activities.

The Diving business markets, through the Aqualung trademark, deep-sea diving equipment to professionals and private individuals.

(a) Orders in hand represent the contractual value of all Group and third-party contracts managed by the Engineering and Construction entities, excluding projects under warranty, from the signature date.

GAS AND SERVICES COMPETITION

All the Gas and Services activities of the Group compete with local or international players. On a worldwide scale, the Industrial Gases sector comprises four global companies: Air Liquide, sector leader, the German Linde Group, and two American players, Air Products and Praxair. There are also a number of regional players, such as Taiyo Nippon Sanso (in Asia), Airgas (in the US) and Messer (in Eastern Europe). Several new competitors are emerging in developing countries such as Hangzhou Oxygen Plant Group Co, Ltd and Yindge in China and Cryogenmash in Russia. Numerous medium-sized players are also present in local markets.

In **Large Industries,** the customer can choose between self-production and over-the-fence supply. The level of self-production varies strongly depending upon the customer's geographical area, sector and culture. Nevertheless, self-production remains significant on a worldwide basis, estimated to account for 80% of hydrogen production and 65% of oxygen production. The potential to convert self-production into over-the-fence supply represents a major growth opportunity for the Large Industries business line. In advanced economies, the supply of oxygen is largely over-the-fence, while the supply of hydrogen for refining remains essentially in-house despite recent trends. In developing economies, while relatively new, over-the-fence supply is accelerating significantly. Air Liquide is in competition with the three other major global players and local emerging players, particularly in China.

Industrial Merchant is a local business, as transport costs limit a player's operating area to within 250 km of its production unit. This market, which is highly diversified due to the size and activity of its customers, thus includes numerous small and medium-sized local competitors, either ensuring gas production and distribution or simply playing the role of a gas distributor.

In **Electronics,** the market is more concentrated with three companies playing a major role: Air Liquide, Air Products and Taiyo Nippon Sanso.

Finally, in **Healthcare,** most of the gas industry players provide hospitals with oxygen, but few are present on the promising therapeutic gas market. In the higher growth segment of Homecare, the market remains fragmented between three global gas companies with limited presence, several healthcare specialists and a multitude of small, local organizations. This fragmentation provides acquisition opportunities for the Group. Finally, Air Liquide is the only industrial and medical gas producer to have developed a Hygiene activity. Air Liquide positions itself as a fully-fledged player in the Health sector, which represents a significant differentiating factor.

Risk Factors

The Group has identified its specific risk factors.

The Report from the Chairman of the Board on the Company's internal control procedures (page 114 of this Reference Document) describes the strategy adopted by the Group in 2009 in order to better formalize its risk management and thus improve risk control through regular risk monitoring and the implementation of mitigation measures. The main underlying internal control and risk management procedures in place are also presented.

SPECIFIC BUSINESS-RELATED RISKS

Various factors, specific to Air Liquide and more generally to the industrial gas business, limit the risks to which the Group is exposed. These include the diversity of customers, of industries served, of countries in which the Group operates, and the significant share of the business that is subject to specific contracts, as well as a strict authorization and project management process.

Technological risks

The Group's activities are not dependent on third party patents. The manufacturing processes have been developed by the Group's Research and Development and Engineering teams for over 100 years. Each year the Group registers more than 300 patents for all its activities, including almost 100 for manufacturing processes.

Engineering and Construction activity-related risks

Air Liquide enters into major contracts in order to design and build gas production plants for its customers and itself worldwide.

These Engineering and Construction projects extend over several years. Potential risks relating to design, purchasing, transport or construction may arise during the project, but are often more significant in the construction phase.

Delivery times and costs for critical equipment may have an impact on project schedules and profitability. On-site construction costs and deadlines may vary depending on the environment, and may give rise to project start-up setbacks and impact project profitability. Unexpected technical problems may also arise as a result of new innovative processes being implemented. Preliminary tests on pilot plants and semi-commercial units therefore help reduce such risks prior to commercial implementation.

Some projects are located in regions that may be a source of political risk. Constant monitoring of such projects over the long term limits such risk. The impact of all the risks described here above depends also on the contractual commitments undertaken with the customers.

Given the specific risks related to this activity, the Group set up the Engineering Risk Committee in 2007. This committee analyzes and validates the Group's commitments to new projects before signing commercial offers. In particular, it reviews the risks and approves related mitigation measures. The first mission of the Engineering of the Group is the realization of internal investment projects. Its selects turnkey projects based on strict criteria for third-party customers, thus reducing the Group's risk profile with regard to its Engineering and Construction activities.

Project-related risks

The Group may be exposed to project risks linked principally to project location, customer quality and competitiveness of the site as well as to design, cost estimation and construction of gas production plants. This risk is permanently managed through very strict internal processes set up for investment decisions by the Resources and Investment Committee and in which the Executive.

Committee Management is extensively involved. The investment decision-making process is explained in the Investment cycle and financing strategy section on page 41.

Business-related risks

A significant part of the Industrial Gases business is subject to specific customer contracts. Large Industries and a third of the Electronics business respectively rely on 15-year and 10-year take-or-pay secured contracts, ensuring a guaranteed minimum revenue. These contracts provide strong future cash flow predictability. In the Industrial Merchant business, one-to-five year contracts, including the lease of tanks and cylinders, ensure gas supply continuity. The primary business-related risk is therefore the risk of customer bankruptcy. The scale of this risk is itself significantly reduced due to the wide selectivity and diversity of Group customers. Customer risks are described in the Financial Risks—Counterparty and Liquidity Risk section on page 214.

Risks of business interruption following major climatic or political events are limited by the wide diversity of countries in which the Group operates and the necessary recourse to gases in critical situations. Gases are needed to secure industrial or chemical installations (inert gases), maintain local industrial activity (essential to industrial processes) and even sustain life (medical gases). They are therefore often protected or prioritized depending on the situation.

Supply-related risks

Given the geographical breadth of its business, the Group's supply contracts are diversified. The main raw materials are electricity and natural gas. The Group passes on cost variations to its customers *via* indexed invoicing integrated into medium and long-term contracts. With the local market permitting, the Group's affiliates secure these resources based on medium to long-term supply commitments and competitive bidding scenarios with the objective of achieving the most reliable and competitive energy costs available in any particular market. Commodity risk is described in Note 26.2 to the Consolidated financial statements on page 218.

INDUSTRIAL AND ENVIRONMENTAL RISKS

Industrial and environmental risks concern numerous sites and various industrial processes and distribution methods.

The Group's key priority is its safety policy, with a formal objective of "zero accident, on every site, in every region, in every unit." The safety results for the past 20 years illustrate the long-term effectiveness of Group policy in this area.

The Environmental Footprint, involving the Group's activities worldwide, was closely monitored: the sites under the European Seveso directive and equivalent sites worldwide, electrical and thermal energy consumption, water consumption, emissions into water and the atmosphere, waste and by-products, the distance covered by delivery trucks and progress made towards quality (ISO 9001) and environmental (ISO 14001) certifications. The Industrial Management System (IMS) designed to consolidate the management processes concerning safety, reliability, environmental preservation and industrial risk control for all the Group's industrial activities is widely deployed and audited.

The breakdown of data is presented in the Responsibility and Sustainable Development section of this Reference Document.

FINANCIAL RISKS

Risk management is a priority for the Group. With this aim in view, the Finance and Management Control Department redefined in 2010 its governance with regard to financial decision-making at two levels:

- A Strategic Finance Committee, involving members of the Executive Management and the Finance and Management Control Department, whose purpose is to verify the effective application of the Group's financial policy, approve proposals and suggestions that have been submitted and approve the rules governing the Group's financial policy that are subject to regular review. The Committee meets at least three times a year and upon request if necessary. It includes the Group Finance and Management Control Director, the Corporate Finance and M&A Director and the Group Treasury and Financing Director, under the authority of the Chairman and Chief Executive Officer.
- An Operating Finance Committee, internal to the Finance and Management Control Department, whose purpose is to decide on the Group's day-to-day financial management, propose reorganizational measures to the Strategic Finance Committee, and ensure their implementation once approved. The Committee meets every four to six weeks. It includes the Group Finance and Management Control Director, the Corporate Finance and M&A Director and the Group Treasury and Financing Director, who are assisted by a Committee secretary.

The Finance and Management Control Department manages the main financial risks centrally, based on the decisions of the Strategic Finance Committee to which it reports on a regular basis. The Finance and Management Control Department also analyzes country and customer risks and provides input on these risks at Investment Committee meetings

Foreign exchange risk

Since industrial and medical gases are not transported over long distances, most products are manufactured in the country where they are sold. Thus, the risk of currency fluctuations affecting the Group's activities is limited and transactional risk is marginal. Foreign exchange transaction risk is related to cash flows arising from royalties, technical support and dividends, and foreign currency commercial cash flows from operating entities. These commercial cash flows in foreign currencies are not material when compared to consolidated revenues on an annual basis. This foreign exchange transaction risk is managed through the hedging policy implemented by the Finance Department.

Furthermore, the Group provides a natural hedge and reduces its exposure to exchange rate fluctuations by raising debt in the currency of the cash flows generated to repay debt. In countries outside the euro, US dollar and yen zones, financing is raised in local currency or when contracts are indexed in euros or US dollars, in foreign currency (EUR or USD).

Foreign exchange translation risk (translation of local currency financial statements into euros) correspond to the sensitivity to the two main foreign currencies—the US dollar (USD) and the yen (JPY).

Note 26.2 to the Consolidated financial statements describes the foreign exchange transaction risk management process and the derivative instruments used, as well as the sensitivity to the foreign currencies.

Interest rate risk

The Group's objective is to reduce the impact of interest rate fluctuations on its interest expenses and, guided by the principle of prudence, to finance long-term assets with shareholders' equity and fixed-rate long-term debt. Since most of Air Liquide's activities are based on long-term contracts (10 to 15 years), a policy promoting interest rate risk hedging ensures control over financing costs when deciding on long-term investments.

Group policy is to maintain over a medium to long-term period a majority of total debt at fixed rates, mainly by using option hedges. This approach enables the Group to limit the impact of interest rate fluctuations on financial expenses.

Air Liquide interest rate risk management on its main currencies—euro, US dollar and yen—is centralized. These currencies represent 75% of total net debt. For other currencies, the Group Treasury and Financing Department advises the subsidiaries on hedging their foreign currency exposure in accordance with financial market regulations prevailing in each country. The Operating Finance Committee determines the fixed rate/floating rate ratio for each currency and approves the hedging instruments used.

Note 26.2 to the Consolidated financial statements describes the sensitivity of the Group's financial expenses to interest rate fluctuations and the interest rate repricing schedule for fixed-rate debt and interest rate hedging instruments.

Counterparty and liquidity risk

Potential counterparty risks for the Air Liquide Group involve customer accounts and bank counterparties.

The Group's subsidiaries serve a very large number of customers (more than one million worldwide) in a broad range of industries: chemicals, steel, refining, food, pharmaceuticals, metals, automobile, manufacturing, health, research laboratories, photovoltaic, etc. The Group's top customer represents around 2% of revenue, the Group's top 10 customers represent 13% and the top 50 customers represent less than 30% of revenue. The geographical risk is limited by the Group's long-term presence in 80 countries, spread across all continents. This diversity mitigates customer and market risks.

Bank counterparty risk primarily relates the outstanding amounts of financial instruments (deposits and derivatives) and to the lines of credit contracted with each bank. To ensure its development and independence, the Group must have sufficient and permanent sources of liquidity, meaning adequate financing resources available at any time and at the lowest cost with respect to banks and financial markets. The Group policy is to spread over time the maturity of long-term debt in order to avoid concentration of annual refinancing needs.

Note 26.2 to the Consolidated financial statements describes the counterparty and liquidity risk for the year ended December 31, 2011. Notes 4, 16.1 and 16.2 to the Consolidated financial statements describe the breakdown of trade and other operating receivables and allowances for doubtful receivables.

DIGITAL RISKS

The Group's activities, expertise and, more generally, its relations with all the players in its social and economic environment depend on increasingly dematerialized and digitalized operations, based on communications network and information systems that have become ever more complex through their human and technical or functional interdependence.

This digital dependency accentuates the risks involving data confidentiality, data processing integrity and information systems availability that may have important financial, operational or corporate image impacts for the Group.

The internal control and risk management procedures designed to protect data and information systems are described in the Report from the Chairman of the Board of Directors, page 118.

The emergence of more intense and targeted cyber-attacks against companies and new digital risks have led the Group to strengthen its prevention and control mechanisms, under a long-term plan, particularly in order to improve:

- active monitoring of internal and external threats and treatment of digital risks;
- regular follow-up and updating of the level of protection for digital information and applications that are critical for the Group.

LEGAL RISKS

The Group has a worldwide presence. Its companies operating industrial and medical gas production units must comply with the rules and regulations in force locally, particularly in the technical field.

Furthermore, in Healthcare, certain products may be subject to drug regulatory control.

As indicated in the Report from the Chairman of the Board of Directors on the internal control and risk management procedures implemented by the Company (page 114 of this Reference Document), the risks relating to contracts and competition law, as well as anticorruption issues, are specifically monitored.

To the Group's knowledge, there have been no governmental, judicial or arbitration proceedings, including any such proceedings which are pending or threatened of which we are aware which may have, or have had in the past twelve months, significant impacts on the financial position or profitability of the Company and/or Group.

Liabilities and contingent liabilities related to litigations are described in Notes 21 and 29 to de Consolidated financial statements.

INSURANCE MANAGEMENT

The Group has adequate insurance coverage, underwritten by first-rate insurers, for civil liability, property damage and business interruption.

Property damage and business interruption

Group property and business interruption are covered by property and casualty insurance policies underwritten in each country in which the Group operates. Most all of these policies are integrated into an international program.

These policies, which are generally of the "All Risks" form, cover fire, lightning, water damage, explosions, vandalism, impact, machinery breakdown, theft and, depending on the country and in limited amounts, natural disasters.

Business interruption is insured for most production sites under these same policies.

The coverage period for business interruption is 12 to 18 months.

Deductible amounts are proportional to the size of the sites.

The Group has retained a portion of property damage and business interruption risk through a captive reinsurance company in Luxembourg. This captive reinsurance company is fully integrated within the property damage and business interruption international program. This company covers losses of up to 5 million euros per loss over and above the deductibles to a maximum of 10 million euros per year. Beyond these amounts, risks are transferred to insurers. The captive reinsurance company is run by a captive manager approved by the Luxembourg Insurance Commission.

This reinsurance company is fully consolidated. Its balance sheet as of December 31, 2011 totaled 45.0 million euros.

Insurers conduct regular visits at the main industrial sites for risk prevention purposes.

Civil liability

In terms of civil liability, the Group maintains two separate coverages, one for the North American zone and another for the rest of the world. The North American zone is covered by insurance underwritten in the United States. For the other zones, the Group has subscribed an umbrella policy, underwritten in France, which covers both the Company and its subsidiaries outside of the

United States and Canada, beyond any local coverage provided for the subsidiaries.

These two policies cover liability of the Group companies for any damage they might cause to a third party in the course of doing business (operational risk) or arising from their products (product risk). Furthermore, with certain limitations, these policies cover pollution risk and product recall costs.

The coverage amounts underwritten exceed 500 million euros. Both policies are built on several overlapping insurance lines and each line has been underwritten for a given amount with several insurers sharing the risk. Beyond the first line, the upper lines pick up the excess risk from the lower lines.

The policy underwritten by the Company in France serves as an umbrella for subsidiaries outside of North America. Under this umbrella, each foreign subsidiary has its own policy covering damages to third parties incurred through its activities or products. The amount insured for each subsidiary in its policy depends on the amount of its revenue. The coverage under the Group's umbrella policy is supplemental to any local amounts.

The main exclusions are deliberate acts, war, nuclear incidents and repair of defective products.

2011 PERFORMANCE

2011 key figures

A solid full year performance was achieved in 2011.

In the first nine months, growth continued in advanced economies and was strong in developing economies. Due to the diversity of activities and the Group's extended geographical coverage, the Group's overall growth was only slightly affected by the tsunami in Japan, the Arab Spring and the flooding in Australia and Thailand. In the last quarter of the year, in an environment affected by the public sector debt crisis, the reversal of the Electronics investment cycle, and decline in the demand for steel in Western Europe, combined with the absence of major start-ups, heightened customer prudence and weighed on growth.

However, the Group's investment cycle momentum was sustained with numerous contracts signed throughout the year, and a record amount of investment opportunities at the end of December.

(in millions of euros)	**2010**	**2011**	**2011/2010 published change**	**2011/2010 comparable change**
Total revenue	13,488	14,457	+7.2%	+6.8%[(a)]
of which Gas and Services	*11,886*	*12,839*	*+8.0%*	*+7.5%*[(a)]
Operating income recurring	2,252	2,409	+7.0%	
Operating income recurring as % of revenue	16.7%	16.7%	=	+10bp [(b)]
Net profit (Group share)	1,404	1,535	+9.4%	
Net earnings per share *(in euros)*	4.99	5.43	+8.8%	
Adjusted dividend per share *(in euros)*	2.35	2.50 [(c)]		
Cash flow from operating activities before change in working capital requirement	2,661	2,728	+2.5%	
Net capital expenditure [(d)]	1,738	1,676		
Net debt	5,039	5,248		
Debt to equity ratio	55%	53%		
Return On Capital Employed—ROCE after tax [(e)]	12.1%	12.1%		

(a) Excluding natural gas, exchange rate and significant perimeter impacts.

(b) Excluding the natural gas impact.

(c) Subject to the approval of the May 9, 2012 Shareholders' Meeting.

(d) Including transactions with minority shareholders.

(e) Return On Capital Employed after tax: (net profit after tax before deduction of minority interests - net cost of debt after taxes)/weighted average of (shareholders' equity + minority interests + net indebtedness).

Summary

Revenue increased by +7.2%, amounting to 14,457 million euros. Gas and Services revenue totaled 12,839 million euros, up +7.5% on a comparable basis, excluding exchange rate, significant perimeter, and rising natural gas prices impacts. Group operating income remained high at 16.7%, up +10 basis points, excluding the natural gas impact. Net profit totaled 1,535 million euros, up +9.4%. The dividend per share to be submitted to the vote of the Shareholders' Meeting of May 9, 2012 is 2.50 euros, representing a pay-out ratio of 47.5%.

Net cash from operating activities before changes in working capital amounted to 2,728 million euros, up +2.5%. Investments, net of disposals, declined slightly to 1,676 million euros. Industrial investments increased by more than 20% over the period. Hence, net debt remained stable at 5,248 million euros, excluding exchange rate and scope impacts. The debt-to-equity ratio decreased compared to December 31, 2010 to 53%.

2011 highlights

In 2011, Air Liquide reported revenue growth of +7.2% and an operating margin of 16.7%. This sustained operating performance together with the high level of **investment decisions** at 2.0 billion euros has been achieved despite numerous natural disasters, political uprisings in Africa and Middle East and economic uncertainty surrounding public sector debt levels and the future of the euro zone. This performance clearly demonstrates the **robustness of the growth model** and confirms the importance of the **growth drivers.**

In 2011, Air Liquide pursued its investments and growth in **developing economies,** which now represent 21% of Gas and Services revenue. The Group strengthened its presence in Eastern Europe. In **Ukraine,** an initial air gas supply contract was signed with Metinvest, the Ukrainian leader in steel. In **Russia,** a new oxygen, nitrogen and argon supply contract for the new Severstal steel production unit helped consolidate the Group's positions. In **Turkey,** Air Liquide pursued its growth by acquiring three air gas production units in Petkim, thus confirming the real opportunity for site takeovers, and undertook to invest in a new production unit. Finally, in Latin America, the Group entered the **Mexican market** and pursued its investments in **Chile.** These contracts illustrate the growing trend of customer **outsourcing.**

In **Energy and the Environment,** 2011 was marked by the start-up or ramp-up of significant hydrogen production units in Rotterdam and Singapore. Based on Lurgi technology, the Group entered the **gasification** sector by signing a long-term syngas purification contract in China. This year, in the **Hydrogen Energy** sector, Air Liquide undertook to supply the hydrogen required to power a fleet of forklifts at the Coca-Cola distribution and packaging center in California. Plans were announced to cooperate with Plug Power to develop the hydrogen-powered forklift market in Europe based on state-of-the-art **fuel cell** technology. The Group made new breakthroughs in the enhanced oil recovery sector: in Canada, the decision was made to increase nitrogen capacity in order to satisfy the growing needs of the Canadian oil industry, and in Saudi Arabia Air Liquide signed a new supply contract with Saudi Aramco. This contract follows the signature in 2010 of the most significant contract in the Group's history with this partner and strengthens its position as industrial gas leader in the Middle East. Finally, the Group also developed and launched new product offers intended for the offshore oil market.

European leader in **Home healthcare,** Air Liquide pursued its **acquisition strategy.** The Healthcare business line increased its presence in France by acquiring ADEP Assistance, a significant French specialist in home respiratory care, and extended its therapy expertise through the acquisition of Licher in Germany, a company specializing in the treatment of Parkinson's disease.

In the **high technologies** market, numerous new contracts were signed in 2011 with leaders in the **photovoltaic** industry, mainly in China, Taiwan, Japan, India, Vietnam, Morocco, the United States and Germany. To better understand and anticipate the new needs of customers, Air Liquide invested in **a photovoltaic cell manufacturing R&D line.** The Group also entered the **nanopowder** market, a new high tech market with significant growth potential, by signing a long-term contract with Nanomakers, a French company specializing in the production of high grade silicon carbide nanopowders.

In a more difficult financial context, due to its **robust financial structure,** the Group was able to anticipate the renewal of its **syndicated credit line,** maturing in July 2012, for an amount of 1 billion euros, with a new maturity of 5-7 years. The Group continued to diversify its funding sources and in September issued **a renminbi-denominated bond** for a total amount of 319 million euros. This bond issue, which was awarded an A rating by Standard & Poor's, was mostly subscribed to by Asian investors and enabled the Group to finance its numerous investments in China at an optimum cost. Furthermore, in December, the Group issued yen-denominated bonds in a private placement under the EMTN program, maturing in 7 years, for 155 million euros equivalent (see breakdown on page 44).

The **12-month portfolio of opportunities** reached a record level of 4.2 billion euros as of December 31, 2011. **Investment decisions,** which totaled 2 billion euros in 2011, guarantee the growth in capacity in forthcoming years. Finally, the Group confirmed its growth momentum in developing economies with 9 unit start-ups out of a total of 16.

Finally, against a backdrop of rising inflation, particularly in Europe that was only partially offset by price increases Air Liquide managed to accelerate its **efficiency programs** and this year recorded further savings of 270 million euros, thus exceeding its annual target of 200 million euros. These new efficiencies contributed to the solid operating performance.

2011 income statement

REVENUE

Revenue *(in millions of euros)*	**2010**	**2011**	**2011/2010 published change**	**2011/2010 comparable change [a]**
Gas and Services	11,886	12,839	+8.0%	+7.5%
Engineering and Construction	751	705	-6.1%	-6.0%
Other activities	851	913	+7.3%	+7.6%
TOTAL REVENUE	**13,488**	**14,457**	**+7.2%**	**+6.8%**

(a) Excluding exchange rate, natural gas and significant perimeter impacts.

Unless otherwise stated, the changes in revenue outlined below are all based on comparable data (excluding exchange rate, natural gas and significant perimeter impacts).

Group revenue totaled **14,457 million euros,** up +7.2% compared to 2010.

On a comparable basis, revenue increased by **+6.8%,** compared to 2010, excluding negative -0.2% exchange rate and -0.4% significant perimeter impacts, following the sale of a non-strategic subsidiary in the European electronic equipment sector, and a positive +1.0% natural gas impact.

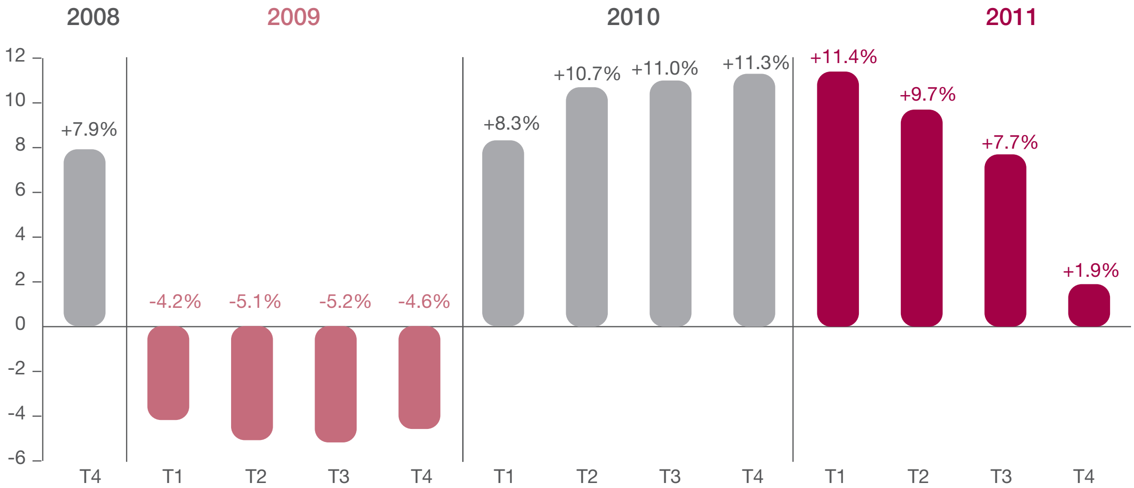
Revenue by quarter *(in millions of euros)*	**Q1 2011**	**Q2 2011**	**Q3 2011**	**Q4 2011**	**Change Q4 2011/Q4 2010 published**
Gas and Services	3,185	3,171	3,223	3,260	+3.5%
Engineering and Construction	134	156	158	258	+45.8%
Other activities	224	246	216	227	+4.3%
TOTAL REVENUE	**3,543**	**3,573**	**3,597**	**3,745**	**+5.7%**

Revenue continued to progress sequentially quarter on quarter, reaching 3.7 billion euros in the fourth quarter. Nevertheless, year on year published growth slowed down in the last period to +5.7%.

Gas and Services

Gas and Services revenue totaled **12,839 million euros,** up +8.0%. Negative exchange rate and significant perimeter contributions totaled -0.2% and -0.4%, respectively, and were more than offset by a natural gas price increase of +1.1%. On a comparable basis, the increase amounted to +7.5% compared to 2010, with a very steady performance in the first three quarters at +9.5%. Fourth quarter growth was +1.9%, compared to a very strong 4th quarter 2010, impacted by a global customer cautiousness, visible in particular, in the steel and electronics sectors. Maintenance outage at major client facilities and the absence of significant start-ups also affected volumes.

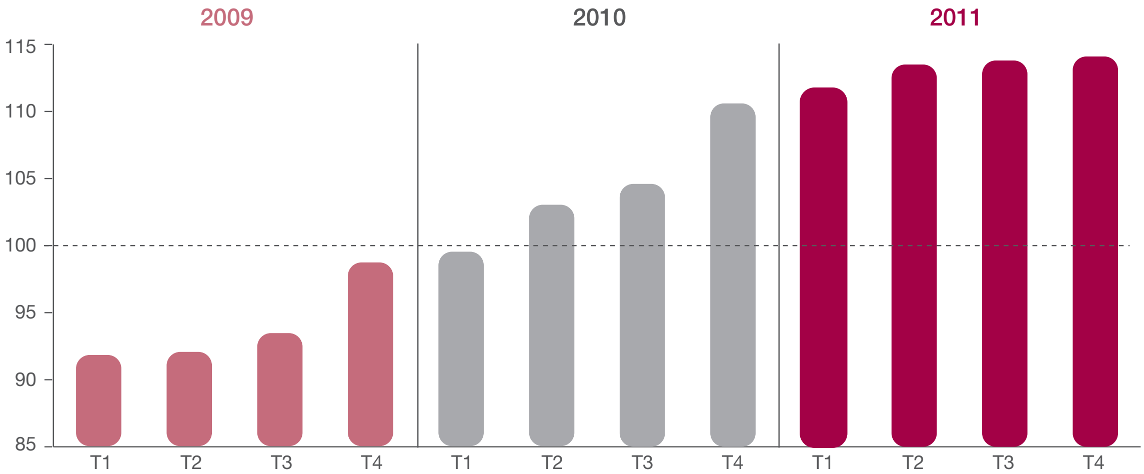
Comparable [(a)] Gas and Services sales growth



(a) Comparable: excluding exchange rate, natural gas and significant perimeter impacts.

Gas and Services monthly activity index

(2008 average base 100 [(a)])

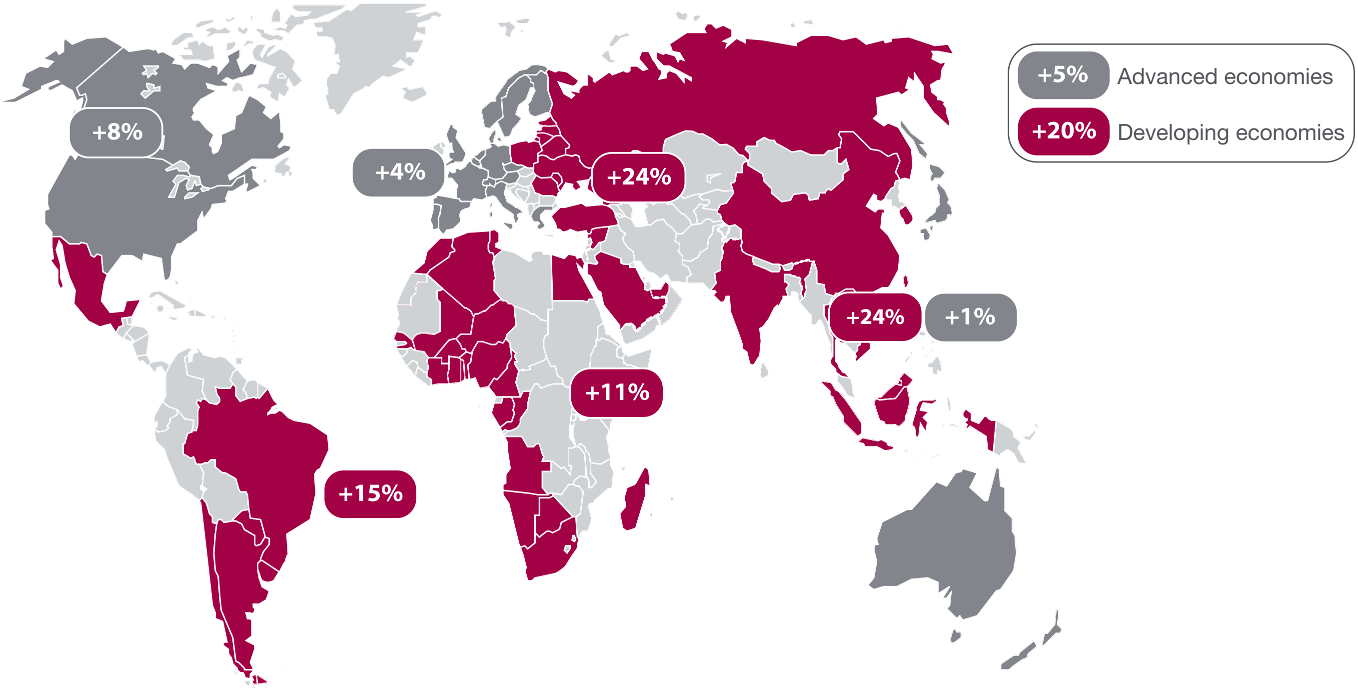


(a) Comparable revenue, adjusted for the number of days per month.

This annual performance was attributable to:

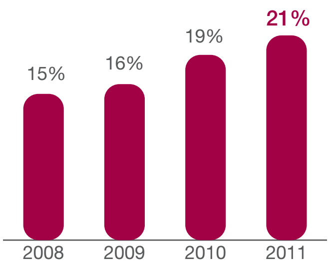
- a +20% increase in sales in developing economies due to solid growth in demand and a significant number of unit start-ups and ramp-ups,
- a +5% increase in sales in advanced economies where events in Japan, the euro zone and Australia weighed on demand.

Comparable Gas [(a)] and Services sales growth (2011/2010)



(a) Comparable: excluding exchange rate, natural gas and significant perimeter impacts.

Gas and Services sales share in developing economies



Start-ups, ramp-ups, site takeovers and minor acquisitions carried out during the year contributed +5% to Gas and Services sales.

Revenue *(in millions of euros)*	**2010**	**2011**	**2011/2010 published change**	**2011/2010 comparable change** [(a)]
Europe	6,201	6,585	+6.2%	+4.5%
Americas	2,748	2,859	+4.0%	+9.0%
Asia-Pacific	2,644	3,083	+16.6%	+12.5%
Middle East and Africa	293	312	+6.4%	+10.9%
GAS AND SERVICES	**11,886**	**12,839**	**+8.0%**	**+7.5%**
Industrial Merchant	4,753	4,892	+2.9%	+2.9%
Large Industries	4,019	4,585	+14.1%	+11.7%
Healthcare	1,937	2,076	+7.2%	+7.4%
Electronics	1,177	1,286	+9.3%	+11.9%

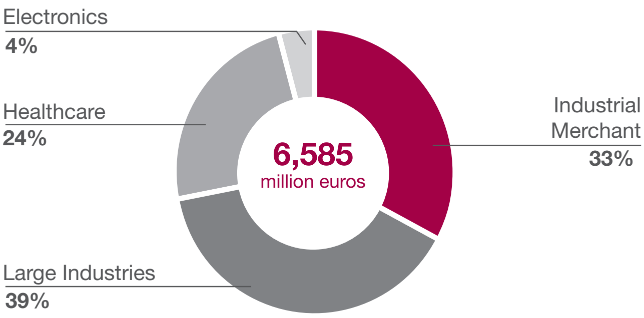
(a) Excluding exchange rate, natural gas and major scope impacts.

1

Europe

Europe revenue totaled **6,585 million euros,** up **+4.5%,** with strong growth in developing economies and more modest in advanced economies. The quarterly growth rate was curbed by a high comparison base due to the consolidation of the site takeovers in Germany from June 2010 and lower demand from the steel sector. The Healthcare growth rate remained stable. The development of Industrial Merchant was more contrasted between advanced Europe and developing Europe.

Europe Gas and Services 2011 Revenue



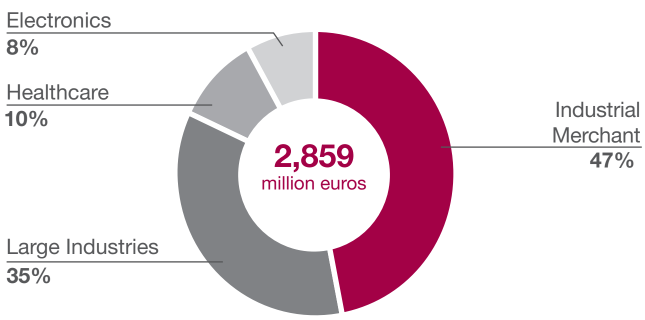
- **Large Industries** reported **+7.0%** growth, benefitting in the first half of 2011 from a high demand and the ongoing contribution of the site takeover in 2010 of Oxea, a syngas production unit in Germany. From the end of the third quarter, steel site closures, certain customer maintenance stoppages and the absence of new start-ups weighed on growth. Demand for hydrogen in refining and for oxygen in the Chemicals sector remained solid throughout the year. The delayed start-up of a new hydrogen unit in Rotterdam had only a slight impact in 2011. Business in developing Europe increased significantly, mainly due to the ramp-up of units in Poland and Bulgaria, as well as the contribution in December of a site takeover in Turkey.
- **Industrial Merchant** sales declined slightly **(-0.9%).** Excluding internal reclassifications, the level would have been stable. Developing economies continued to report double-digit growth. In advanced economies, sales growth was contrasted. In Spain, sales remained well below the 2008 level, and other markets recovered slowly. Bulk activity continued to improve slightly, whereas cylinder activity remained below the 2008 level. The price impact improved quarter-on-quarter and was slightly positive for the full year.
- **Healthcare** pursued its development, with **+6.3%** growth. Home Healthcare continued to record strong growth of +8.2%, driven by the sustained rise in demand and two acquisitions: ADEP, a French specialist in home respiratory care and Licher, a company specializing in the treatment of Parkinson's disease, based in Germany. The increase in medical gas volumes was curbed by the price pressures relating to public sector deficits. After two contrasting years, impacted by exceptional sales during the H1N1 crisis, the Hygiene activity regained its historical annual growth rate of more than +8%.

- **Electronics** revenue rose sharply by **+18.9%**, due to significant Equipment and Installation sales, relating to the construction of a new photovoltaic panel fab in Italy. Nevertheless, the Electronics sector's investment cycle was reversed at the end of the first half and growth slowed down from the third quarter. Sales of carrier and specialty gases continued to improve, benefitting from new contracts, particularly since the start-up of the new fab in Italy.

Americas

Gas and Services revenue in the Americas totaled **2,859 million euros** up **+9.0%**. This performance was due to solid activity levels in North America, and still dynamic growth in South America, particularly Argentina.

Americas Gas and Services 2011 Revenue

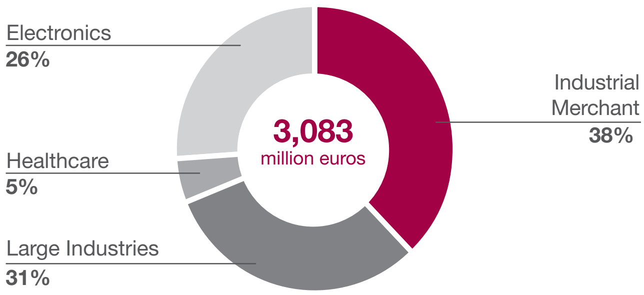


- **Large Industries** reported a robust **+8.5%** increase in sales, despite numerous client maintenance stoppages and sluggish metals activity in Canada. Demand in the Chemicals sector remained high due to the increased competitiveness of US sites, which benefit from an advantageous natural gas price. The demand in the metals sector appeared to recover at the year-end, as flat steel inventories for the automotive industry reached a low point. Cogeneration units reported sharp growth in sales due to rising electricity prices. Argentina reported significant increases in air gas and hydrogen sales.
- **Industrial Merchant** increased by **+6.6%** due to sustained demand in the United States and sales momentum in Canada and developing economies. Bulk sales for oil exploration and equipment sales increased sharply in Canada. Cylinder activity improved over the entire area, particularly in South America. Pricing campaigns were organized to take into account rising costs, particularly in energy and transport.
- **Healthcare** revenue rose by **+9.5%**, driven by sustained high growth in the Home healthcare sector in Latin America (Argentina, Brazil and Chile). The more moderate growth in North America resulted from the combination of solid medical gas demand growth in the United States and lower equipment sales in Canada.
- **Electronics** reported substantial **+28.1%** growth for the full year, due to the start-up of a new fab in the United States in the first quarter and the strong contribution from both carrier and specialty gases, in addition to the significant Equipment and Installation sales. However, equipment sales gradually slowed down as from the second half of 2011 and the fourth quarter was marked by a decline in client production operating rates, resulting in a sequential decrease in specialty gas sales.

Asia-Pacific

Asia-Pacific revenue grew by **+12.5%** to reach **3,083 million euros**. Performance remains contrasted between advanced economies, where sales were virtually stable at +1%, and developing economies, where sales growth was strong up +24%. 2011 was particularly marked by numerous natural disasters: the earthquake and tsunami in Japan, and flooding in Australia and Thailand. The Electronics business, representing 26% of revenue in Asia-Pacific, reported a marked slowdown at the end of the year, particularly in Japan, leading initially to a decline in Equipment and Installation sales, followed by a decline in specialty gas sales. Growth remained particularly high in China at +28.6%, despite slightly weaker demand, especially in Industrial Merchant, and the absence of any start-ups during the period.

Asia-Pacific Gas and Services 2011 Revenue



- **Large Industries** revenue growth was **+29.5%**. This sustained growth resulted from ongoing ramp-ups, particularly of a major hydrogen unit which started up in late 2010. A quarter on quarter slowdown was observed from the third quarter, as a result of a pause in the number of start-ups, especially in China, and client maintenance stoppages. A new growth phase is expected for 2012 with 9 start-ups expected in the region, including 8 in China.

- **Industrial Merchant** activity increased by **+5.3%** in 2011. Activity differed from country to country. Japan and Australia reported only slight growth, affected by natural disasters. The post-earthquake recovery expected in Japan at the end of the year remained moderate. In developing economies, sales growth was high but dipped in the last quarters. The growth in liquid product demand slowed down as from the second half of 2011, particularly in China, and more specifically in activities such as LED and back-end electronics.
- **Electronics** business growth totaled **+5.6%** for the year. In Japan, the sector's investment cycle finished at the end of the first quarter of 2011. Thus, starting from the second quarter, Equipment and Installation activity stabilized at more traditional levels. Fab production rates and specialty gas consumption also slowed down dramatically as from the third quarter. In other countries, growth remained positive, especially in China due to new specialty and carrier gas contracts.

Middle East and Africa

Middle East and Africa revenue totaled **312 million euros,** up **+10.9%.** In the Middle East, Large Industries reported significant growth due to the ramp-up of new entities and scope impacts. The construction of a major hydrogen unit in Yanbu began on schedule. In Africa, Industrial Merchant growth remained solid, particularly in South Africa, despite the contrasting situations between countries due to Arab Spring events and instability in the Ivory Coast.

Engineering and Construction

Engineering and Construction revenue totaled **705 million euros,** down **-6%** compared to 2010. Sales were steady in the first three quarters of 2011, and increased strongly in the fourth quarter, particularly due to hydrogen projects. In the last three months, project phases were completed and therefore revenues were recognized.

In 2011, order intake totaled 1.0 billion euros, close to the 2010 figure. The vast majority of projects involve air gas units for the metals and chemicals sectors. The most active areas were Asia followed by the Middle East.

Orders in hand totaled 3.2 billion euros as of December 31, 2011, reflecting the good progress achieved in projects in 2011. As the Group's projects have increased in size, the decision process may take more time. The level of negotiations remained high at the start of 2012.

These levels of sales, of order intake and of orders in hand illustrate the Group's E&C strategy where on the one hand, priority is given to internal projects and, on the other hand, to engineering and procurement third party projects. The decline in construction projects in favor of engineering and procurement projects has reduced revenue and the order intake amount but improved the business risk profile.

Other activities

Revenue *(in millions of euros)*	**2010**	**2011**	**2011/2010 published change**	**2011/2010 comparable change** [(a)]
Welding	429	469	+9.3%	+8.9%
Specialty chemicals and Diving	422	444	+5.3%	+6.3%
TOTAL	**851**	**913**	**+7.3%**	**+7.6%**

(a) Comparable: excluding exchange rate impact.

Other activities revenue totaled 913 million euros, up +7.6% compared to 2010.

The turnaround in the **Welding** activity continued with an increase in consumables and good year-end equipment and automation sales. However, 2011 sales were still lower than the 2008 levels. Consumable sales slowed down slightly in the last quarter of 2011.

Specialty Chemicals (Seppic) reported comparable sales growth of +7%, mainly driven by the vaccines activity. **Diving** (Aqualung) reported sustained +5.0% growth for 2011, due to the development of new innovative products.

OPERATING INCOME RECURRING

Group operating income recurring (OIR) totaled **2,409 million euros** in 2011, up **+7.0%** compared to 2010. Operating margin (OIR over revenue) was stable at the previous year's record level of 16.7%. Excluding the impact of natural gas price increases, the margin increased by **+10 basis points.**

This improvement was attributable to a further substantial increase in **efficiency by 270 million euros,** exceeding the annual objective fixed at more than 200 million euros, and positive pricing (excluding energy indexation), which helped offset the +3.0% cost (excluding indexed energy) inflation.

These efficiencies represented savings of 2.7% of the cost-base. Over half the gain was attributable to the reduction in energy consumption and the optimization of the logistics chain, and one third resulted from the roll-out of worldwide and regional purchasing platforms. The remainder corresponds to reorganizations and overhead optimization.

Operating income recurring before depreciation and amortization totaled **3,564 million euros,** up **+5.6%.** Depreciation and amortization amounted to 1,155 million euros, up +2.9%, reflecting the limited number of major start-ups compared to the previous year.

Explanation of the natural gas impact

Natural gas is an essential raw material for the production of hydrogen and the operation of cogeneration units. All Large Industries hydrogen and cogeneration contracts have clauses indexing sales to the price of natural gas. Hence, when the price of natural gas varies, the price of hydrogen or steam for the customer is automatically adjusted proportionately, according to the index.

When the price of natural gas increases, revenue and costs rise by the same euro amount, without impacting significantly Operating income recurring. This mechanism has a negative effect on the operating margin.

Conversely, when the price of natural gas decreases, revenue and costs decrease and Operating income recurring is maintained, which has a positive effect on the operating margin.

In both cases, natural gas price fluctuations do not change the intrinsic profitability of the activity.

Gas and Services

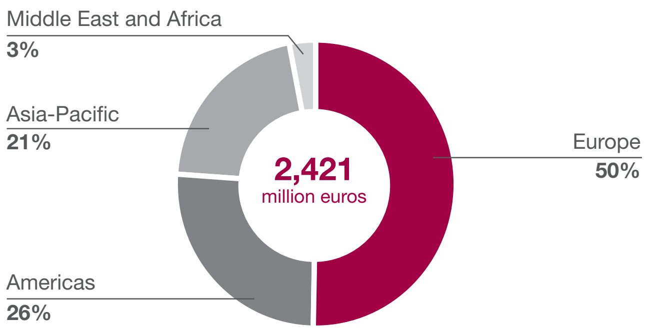
2011 was marked by significant cost inflation throughout the year, offset by efficiencies largely exceeding the annual target, and a positive price impact in all regions of the Industrial Merchant business line.

Gas and Services operating income recurring totaled **2,421 million euros,** up **+6.2%**. The operating income recurring over revenue amounted to **18.9%**, compared to 19.2% in 2010. Excluding the natural gas impact it remained high at **19.1%**.

Costs, energy costs in particular, are indexed in the Large Industries long-term contracts, and in some of the Industrial Merchant or Electronics contracts. For contracts where there is no automatic indexation, price increases are necessary in order to pass on higher energy, maintenance, transport or salary costs. Sustained efficiency gains of 253 million euros helped to offset the difference between cost inflation at +3.3% and higher prices effect of +0.6%. Industrial Merchant pricing effect at +1.5% for the year improved quarter after quarter but was somewhat offset by pricing pressure in Electronics and tariff reductions in Healthcare.

This small change in the Gas and Services margin is attributable to a persistent lag between cost and price inflation in Industrial Merchant, and by the product mix impact in Large Industries. Indeed, the steadier growth in the hydrogen and cogeneration activities, where capital intensity is less than that of oxygen, slightly diluted the operating margin, even though returns on investment remained the same. In Healthcare, despite pressure on tariffs, the margin increased due to productivity. The change in product mix for the Electronics activity, related to lower equipment and installation sales at the end of the year, as well as productivity efforts, helped margins to improve in this business.

Gas and Services 2011 operating income recurring by geography



Gas and Services operating margin

Operating margin (a)	2010	2011
Europe	19.1%	18.6%
Americas	21.5%	22.0%
Asia-Pacific	16.4%	16.3%
Middle East and Africa	25.0%	20.8%
TOTAL	**19.2%**	**18.9%**

(a) Operating income recurring/revenue.

European operating income recurring totaled **1,227 million euros,** up **+3.7%**. The operating margin, excluding the natural gas impact, is virtually stable at -10 basis points. Despite a gradual improvement in prices quarter by quarter, the time lag between the increase in prices and inflation continued in Industrial Merchant. Margins for the other business lines have improved.

Operating income recurring in the **Americas** amounted to **628 million euros,** up **+6.4%**. Excluding the natural gas impact, the operating margin rose by +20 basis points due to better Large Industries, Healthcare and Electronics margins.

In **Asia-Pacific**, operating income recurring amounted to **502 million euros**, an increase of **+15.5%**. Excluding the natural gas impact, the operating margin as a percentage of revenue rose by +10 basis points thanks to improved Industrial Merchant loading rates of new production capacities and the ramp-up of carrier gas contracts in Electronics. This improvement was slightly attenuated by the start-up of a major hydrogen unit, with lower capital intensity.

Operating income recurring for **Middle East and Africa** amounted to **65 million euros**, a decline of **-11.4%**. The operating margin remained above Group average, despite a drop of **-420 basis points**, due to lower volumes in the aftermath of the Arab Spring, and significant development efforts.

Engineering and Construction

Operating income recurring for Engineering and Construction was **75 million euros**. The operating margin reached 10.6%, up **+160 basis points** compared to 2010. This performance reflects a solid work-load and improved project risk management.

Other activities

The Group's Other Activities reported operating income recurring of **106 million euros**, up **+31.2%**, attributable to improved profitability, particularly in the Welding activities. The operating margin reached 11.6%, an improvement of +210 basis points.

Research and Development and corporate costs, included consolidation adjustments and amounted to **194 million euros**, up **+9.2%**. This increase reflects the Group's efforts to develop its capacity for innovation and to sustain its geographical expansion. Holding costs are under control.

NET PROFIT

Net profit (Group share) rose by **+9.4%**, **an increase that significantly exceeded sales growth.**

Other operating income and expenses posted a positive balance of **28 million euros in 2011**. This primarily comprises capital gains on the disposal of non-strategic subsidiaries in Industrial Specialty Chemicals and equipment for sub-contractors in the Electronics sector for 122 million euros. Other operating expenses include charges covering litigation-related risks, and certain one-off costs. These expenses include a best estimate of the risk associated with the fine imposed on Air Liquide in Japan by the local competition authorities, which the Group is appealing.

The **Net financial expenses, at -298 million euros, decreased slightly** compared to last year. **Net finance costs**, up +2.9%, reflected a very limited increase in average debt over the year offset by an average financing rate of 4.8% that was slightly below last year. Other financial income and expenses improved in comparison to the 2010 level, which had been impacted by negative fair value measurements of certain hedging instruments.

The **effective tax rate** was **27.0%**, due to the recognition of exceptional income taxable at reduced rates. In 2010, the tax rate was 26.4% for the same reasons.

Profit from associates amounted to **33 million euros**, an increase of 5 million euros compared to 2010. **Minority interests** were 60 million euros, up +9.7%.

Overall, **Net profit (Group share) amounted to 1,535 million euros** in 2011, up **+9.4%**.

Net earnings per share was 5.43 euros, up **+8.8%** compared to 2010. The average number of outstanding shares used for the net earnings per share calculation as of December 31, 2011 was 282,615,649.

Change in the number of shares

	2010	2011
Average number of outstanding shares [(a)]	281,491,673	282,615,649

(a) Used to calculate net earnings per share.

Number of shares as of December 31, 2010	284,095,093
Cancellation of treasury shares	(1,200,000)
Options exercised during the year	917,848
NUMBER OF SHARES AS OF DECEMBER 31, 2011	**283,812,941**

DIVIDEND

At the Shareholders Meeting of May 9, 2012, the payment of a dividend of 2.50 euros per share will be proposed to shareholders in respect of the full year 2011. This corresponds to a distribution rate of 47.5%.

The record date has been set for May 11, 2012 and the payment date for May 16, 2012.

2011 cash flow and balance sheet

(in millions of euros)	2010	2011
Cash flow from operating activities before changes in working capital	**2,661**	**2,728**
Changes in working capital requirement	(155)	(193)
Other	(86)	(109)
Net cash from operating activities	**2,420**	**2,426**
Dividends	(647)	(721)
Purchases of property, plant and equipment, intangible assets and long-term investments, net of disposals [a]	(1,738)	(1,676)
Increase in share capital	110	52
Purchase of treasury shares	3	(94)
Other	(295)	(196)
Change in net indebtedness	**(148)**	**(209)**
Net indebtedness as of December 31	(5,039)	(5,248)
Debt to equity ratio as of December 31	**55%**	**53%**

(a) Including minority interest transactions.

CASH FLOW FROM OPERATING ACTIVITIES

Cash flow from operating activities before changes in the working capital requirement (WCR) amounted to 2,728 million euros, up +2.5% compared to 2010. The performance differential between net profit and cash flow from operating activities is due, on one hand, to the presentation of purchases of property, plant and equipment, intangible assets and long-term investments net of gains on disposals in the cash flow statement and, on the other hand, to lower growth in depreciation and amortization charges given the relatively modest number of start-ups.

CHANGES IN WORKING CAPITAL REQUIREMENT

The working capital requirement increased by 193 million euros in 2011 excluding currency and perimeter impacts. This increase was partly attributable to the Engineering and Construction business cycle. The working capital to sales ratio, excluding taxes, was 7.0% slightly up relative to 6.5% in 2010. Excluding Engineering and Construction working capital was stable as a percentage of sales.

TOTAL CAPITAL EXPENDITURE

Reflecting a substantial 2.2 billion euros in 2010 investment decisions, total industrial capital expenditure rose strongly to stand at 1.8 billion euros. Acquisitions amounted to 103 million euros, including numerous modest acquisitions in Industrial Merchant and Healthcare. Disposals represented 182 million euros due to the sale of three non-strategic subsidiaries in Industrial Specialty Chemicals, equipment for sub-contractors in the Electronics sector and the cryogenic activities in Japan.

Total Group investment capital expenditure

(in millions of euros)	Industrial investment	Financial investment [a]	Total capex
2006	1,128	72	1,200
2007	1,359	1,308	2,667
2008	1,908	242	2,150
2009	1,411	109	1,520
2010	1,450	332	1,782
2011	**1,755**	**103**	**1,858**

(a) Including minority interest transactions.

Industrial investment

Industrial investment amounted to 1.8 billion euros in 2011, largely exceeding the amount of 2010. This includes the construction of numerous units in developing economies: China, Russia, Brazil, Singapore and the Middle East, and the launch of work on the hydrogen unit in Yanbu, Saudi Arabia. In the advanced economies, investment continued with, in particular, the reinforcement of Industrial Merchant capacities and the completion of hydrogen units in the United States and the Netherlands.

Gas and Services Industrial investment capex by geographical area

	Gas and Services				
(in millions of euros)	Europe	Americas	Asia-Pacific	Middle East and Africa	Total
2010	521	370	465	69	1,425
2011	**690**	**387**	**510**	**137**	**1,724**

Financial investment

Financial investment amounted to 100 million euros, excluding minority interest transactions. The item comprises the acquisition of two Home healthcare companies, one specializing in the treatment of respiratory failure in France and the other in Parkinson's disease in Germany. In addition, the rate of acquisitions in Industrial Merchant accelerated significantly at the year-end, with the acquisitions of local distributors to develop the cylinder activity based on new liquid facilities and thus optimize the production tool in Canada, China, Russia and Brazil.

NET INDEBTEDNESS

Net indebtedness as of December 31, 2011 totaled 5,248 million euros, up slightly compared to the 5,039 million euros posted at the end of 2010. Excluding foreign exchange and scope impacts of 195 million euros, net indebtedness was steady. The debt to equity ratio was 53%, an improvement compared to December 31, 2010. The Group's financial structure thus continues to improve.

ROCE

The return on capital employed after tax was stable at 12.1%, despite the negative impact of a weakening euro on capital employed at the year-end.

INVESTMENT CYCLE AND FINANCING STRATEGY

The Group's steady long-term growth is partly due to its ability to invest in new projects each year. Industrial gas investment projects are widespread throughout the world, their capital intensity is high and the related contracts are long term, particularly for Large Industries. Air Liquide has thus put in place a financing strategy tailored to the nature of its projects, based on the diversification of funding sources and the prudential management of the balance sheet equilibrium. This financing ability represents a major competitive edge.

Investments

The Group's investments reflect its growth strategy.

They can be classified into two categories: industrial investments, which bolster organic growth or guarantee the efficiency, maintenance or safety of installations, and financial investments, corresponding to acquisitions. The nature of the industrial investment differs from one world business line to the next: from gas production units for Large Industries, to filling centers, logistics structures, storage facilities and management systems for Industrial Merchant, Electronics and Healthcare. Capital intensity varies greatly from one business line to another.

The long-term development is a key characteristic of the industrial gases business. It is particularly evident in the investment cycle, where there is approximately a 5-year span between the study of a new construction project for a Large Industries customer and the first corresponding gas sales. **Monitoring this cycle is essential to anticipating the Group's future growth.** The following flow-chart sets out each stage in this process.

Capital intensity

Capital intensity is the **ratio of capital required to generate one euro of supplementary revenue**. This capital is either invested into industrial assets (production units, storage, logistics equipment, etc.), or used as working capital to finance the development of the activities.

Capital intensity on new projects varies significantly from one business line to another:

- **air gases** in Large Industries have a capital intensity of **between 2 and 3**. It varies with the trend in electricity prices;
- **hydrogen and cogeneration** in Large Industries have a lower capital intensity of **between 1 and 1.5**, due to a relatively high proportion of natural gas in the cost of sales. It varies with the trend in natural gas prices;
- **Industrial Merchant** capital intensity to launch the activity in a new market is **between 1.5 and 2**;
- **Electronics** and **Healthcare** have a capital intensity of **around 1**, depending on the product mix.

Whatever the capital intensity, any project must enable the Group to achieve its return on capital employed (ROCE) objective over the long term.

Because of the differences in capital intensity among the various Group activities, **operating margins will vary accordingly**.

The theoretical lifespan of a project in Large Industries

Stages

Negotiation: projects exceeding 5 million euros of investment are monitored within the long-term portfolio of potential opportunities and divided up into those which may receive an investment decision within 12 months and those for which the decision will be finalized in more than one year. They are then discussed and negotiated with the client. Several outcomes are possible: 1. The contract is signed, it is removed from the portfolio and therefore becomes an investment decision. 2. The project is abandoned by the client. 3. The client decides not to outsource its gas supply, or the project is awarded to a competitor. 4. The project is delayed beyond 12 months: it is removed from the 12-month portfolio but remains in the long-term portfolio.

Signature: the two parties reach an agreement. The signature of a long-term contract represents the Group's commitment to an investment decision.

Construction: capital expenditure begins with the construction of the unit by Air Liquide, which takes approximately 12-24 months and sometimes up to three years depending on the size of the project.

Sales–Commissioning: the unit starts up. Sales begin at the take-or-pay [b] level, guaranteeing minimum profitability from the beginning of the contract.

Sales–Ramp-up: over the course of the contract term, sales should increase above the take-or-pay [b], evel to the nominal amount defined in the contract: this is the ramp-up phase.

Between years four and five after the start-up, the production unit is already partially depreciated and the contract reaches an average after-tax Return On Capital Employed (ROCE) exceeding 12%, in line with Group objectives. In the following years, ROCE continues to increase.

(a) Applying a capital intensity of two, an investment of 100 million euros should generate 50 million euros of sales per annum, fully ramped-up.
(b) See Glossary.

PORTFOLIO OF OPPORTUNITIES

As at December 31, 2011, the 12-month portfolio of opportunities totaled 4.2 billion euros, an increase compared to the 3.9 billion euros at the end of 2010, despite the substantial number of investment decisions made throughout the year. This growth arises from new projects mostly located in advanced economies. The amount of projects in developing economies remained stable, masking constant project rotation and intense internal project review activity.

Accordingly, the percentage of projects in developing economies declined slightly to 65%, following the entry into the portfolio of projects based in advanced economies, mainly plant renewals in France, Germany, the United States, Canada and South Korea.

The outsourcing of industrial gas production continued, both in advanced economies, for example, when replacing former plants, and developing economies for new facilities. The 12-month portfolio of opportunities included 10 planned site takeovers, currently operated by clients.

Most of the portfolio concerns Large Industries, since Industrial Merchant, Healthcare and Electronics projects frequently amount to less than 5 million euros.

At the end of 2011, Large Industries opportunities relating to the chemicals sector virtually doubled, representing the vast majority of projects, followed by metals, with the formerly leading energy sector falling to last position. The significant 12-month portfolio resulted from the solid investment cycle and the robustness of the Group's growth drivers, i.e. energy, environment, high technologies, health and developing economies.

INVESTMENT DECISIONS

The Investment decision process is at the heart of the Group's growth strategy providing the backbone to all future investment plans concerning:

- internal and external growth projects;
- equipment renewals;
- investments contributing to efficiency and reliability;
- industrial safety improvement.

Strict discipline drives investment decisions, as they commit the Group over the long term. A dedicated process (see next page) involving top management is in place to ensure that selected projects comply with the Group's rules and sustain long-term growth with a required minimum return on capital employed of between 12% and 13%.

The return on capital employed (ROCE) for a major Large Industries long-term contract will change over the term of the contract. It is lower in the first four to five years, due to the ramp-up in client demand, compared to a straight-line depreciation over time. Return on capital increases rapidly thereafter (refer to "The theoretical lifespan of a project in Large Industries").

Investment decisions

(in billions of euros)	Industrial investment decisions	Financial investment decisions (acquisitions)	Total investment decisions
2007	2.1	0.9	3.0
2008	2.2	0.2	2.4
2009	1.0	0.1	1.1
2010	1.8	0.4	2.2
2011	**1.9**	**0.1**	**2.0**

Industrial and financial investment decisions, representing Group commitments to invest, totaled 2.0 billion euros. This amount is similar to that of the previous year and confirms the investment momentum in 2011. With two successive years at more than 2 billion euros, investment decisions are in line with ALMA 2015 objectives.

Investment decisions were spread out during 2011. Decisions regarding investments in developing economies continued to increase, reaching 61% at the end of 2011, compared to 54% in 2010. In 2011, the Group entered new markets, signing projects in Mexico, Ukraine and Turkey.

Industrial decisions increased compared to 2010, whereas acquisitions completed by year-end, although in greater number, represented a lower amount.

By geography, decisions were spread across all regions. Europe and Asia-Pacific each contributed to one third of decisions. In China, a particularly active market, Air Liquide signed a record amount of investment decisions primarily for air gas and gasification units.

Almost half of investment decisions concerned Large Industries projects and mainly correspond to air gas units. In Industrial Merchant, projects involved new liquid facilities or acquisitions of local medium-sized distributors in developing economies. Healthcare acquired two Home healthcare companies in 2011: ADEP in France and Licher in Germany. Investment decisions in Electronics remained stable and concern projects relating to the semi-conductor market.

Investment decision process

An investment decision amounting to over 2 million euros is subject to a careful evaluation process, undertaken at Group level by the Resources and Investment Committee. Each meeting is chaired by the Executive Committee member in charge of the World Business Line concerned and brings together the Director of the business and regions concerned by the investment, the Group Chief Financial Officer, the Operations Control Director, as well as the Group Human Resources Director (when HR subjects are examined).

Decisions are based on a rigorous assessment of individual projects, using the following criteria:

- **location of the contract:** the analysis will take into account whether the project is based in an industrial basin with high potential, whether it is connected to an existing pipeline network, or whether it is in an isolated location;
- **competitiveness of the site:** based on size, production process, cost of raw materials and access to markets;
- **client risk;**
- **contract clauses;**
- **type of product;**
- **quality of the technical solution;**
- **country risk:** evaluated on a case-by-case basis and can lead to specific financing policies and supplementary insurance cover.

CAPITAL EXPENDITURE

In 2011, capital expenditure totaled 1.9 billion euros, and comprised several medium-sized acquisitions, particularly in Home healthcare, for 100 million euros, and two site takeovers, in Mexico and Turkey. Asset disposals, in the amount of 182 million euros, involved non-strategic activities: equipment for Electronics suppliers and a specialty chemicals business supplying the industrial sector. Net capital expenditure thus totaled 1.7 billion euros. Gas and Services capital expenditure represented 14.2% of sales.

START-UPS

In 2011, 16 units were commissioned, slightly lower than forecast, due to the postponement of four projects that should start-up in the first half of 2012. Developing economies accounted for 56% of start-ups during the year. In 2011, 80% of start-ups involved oxygen units. For 2012, a record number of 29 start-ups is expected, as a result of the substantial investment decisions in 2010 and 2011 and those delayed from the fourth quarter of 2011.

Financing strategy

The Group's financing strategy is regularly reviewed to provide support to the Group's growth strategy and take into account changes in financial market conditions, while respecting a gearing ratio in line with a Standard & Poor's long term "A" rating.

In 2011, the prudential principles already in place have been maintained:

- a continued diversification of funding sources and spreading of short and long-term debt maturities in order to minimize refinancing risk;
- backing of commercial paper with confirmed lines of credit;
- hedging of interest rate risk to ensure that funding costs are in line with long-term investment decisions;
- funding of investments in the currency of operating cash flows generated, in order to create a natural foreign exchange hedge;
- further centralization of excess cash through Air Liquide Finance.

Notes 23 and 26 to the Consolidated financial statements for the year ended December 31, 2011 describe in detail the characteristics of the financial instruments used by the Group as well as the debt structure.

DIVERSIFYING FUNDING SOURCES

As of December 31, 2011 funding through capital markets accounts for two thirds of the Group's gross debt.

Air Liquide diversifies its funding sources by accessing various debt markets: commercial paper, bonds and banks. Air Liquide uses short-term commercial paper: in France through two French Commercial Paper programs up to a maximum of 3 billion euros, and in the United States, through a US Commercial Paper program (USCP), up to a maximum of 1.5 billion US dollars.

To avoid liquidity risk relating to the renewal of funding at maturity, and in accordance with the Group's internal policy, the Group wishes to limit its debt short-term maturities to 2.1 billion euros, amount which is covered by committed credit lines.

This amount includes a 1 billion euro syndicated credit facility with Group's core banks which has been renewed in advance in November for 5 years (up to 7), replacing the existing 2004 credit facility maturing in July 2012.

Air Liquide can issue long-term bonds through its Euro Medium Term Note (EMTN) program totaling 8 billion euros, the utilization of which is delegated to the Board of Directors. At the end of 2011, outstanding notes under this program amounted to 3,6 billion euros (nominal amount).

In September 2011, the Group conducted one Chinese renminbi « dim sum » bond issuance in Hong-Kong in two series (5 and 7 years) out of its EMTN program, amounting to 2.6 billion renminbi (319 million euros equivalent). The bond proceeds contribute to the financing of the development of Air Liquide's activities in China mainland, by diversifying the Group's funding sources at attractive market conditions. The Group also obtains funding through bank debt (loans and lines of credit) and private placements.

An 8-year-maturity Japanese yen denominated private placement of 155 million euros equivalent has been issued in December 2011 within the EMTN program.

The Note 23 to the Consolidated financial statements describes in detail the Group's indebtedness, in particular by instrument type and currency.

Net indebtedness by currency

	2010	2011
EUR (euro)	33%	22%
USD (US dollar)	25%	30%
JPY (Japanese yen)	24%	23%
CNY (Chinese renminbi)	9%	12%
Other currencies	9%	13%
TOTAL	**100%**	**100%**

Investments are essentially funded in the currency of the cash flows generated, thus creating a natural foreign exchange hedge. Air Liquide's debt is thus mainly in euro, US dollar, Japanese yen and Chinese renminbi, which reflects the weight of these currencies in the Group's cash flow.

Group net indebtedness converted into euros decreased against indebtedness in other currencies, in line with the significant rise of investments in developing economies.

CENTRALIZATION OF FUNDING AND EXCESS CASH

To benefit from economies of scale and facilitate capital markets funding (bonds and commercial paper), the Group uses a dedicated subsidiary, Air Liquide Finance. This subsidiary centralizes the Group's funding activities, particularly in Europe, North America, Japan and China. As of December 31, 2011, Air Liquide Finance granted, directly or indirectly, the equivalent of 4.7 billion euros in loans and received 2.8 billion euros in cash surpluses as deposits. These transactions were denominated in 14 currencies (primarily the euro, US dollar, Japanese yen, Chinese renminbi, British sterling pound, Swiss franc and Singapore dollar) and extended to approximately 200 subsidiaries.

Because of the currency offsetting positions adopted by Air Liquide Finance, resulting from the currency hedging of intra-group loans and borrowings, these intra-group funding operations do not generate foreign exchange risk for the Group. Furthermore, in certain specific cases (e.g.: regulatory constraints, high country risk, partnership), the Group may decide to limit its risk by setting up independent funding for these subsidiaries in the local banking market, and by calling on credit insurance firms.

Air Liquide Finance also monitors interest rate risk management for the Group.

DEBT MATURITY AND SCHEDULE

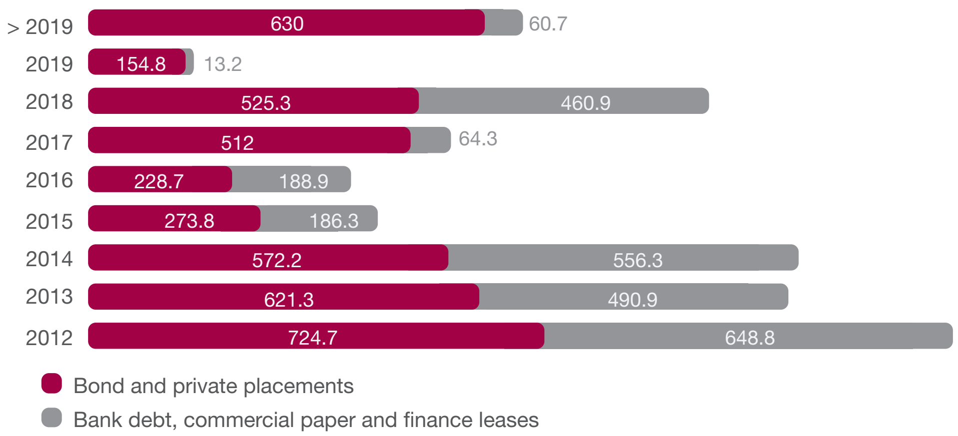
To minimize the refinancing risk related to debt repayment schedules, the Group diversifies funding sources and spreads maturity dates over several years. This refinancing risk is also reduced by the steady cash flow generation from operations.

In 2011, the Chinese renminbi bond and the Japanese yen private placement have enabled to further increase the average maturity of the Group's debt: the « dim sum » bond has two series of 5 and 7 years, and the private placement is 8 years long.

The following chart represents the debt maturity schedule. The single largest annual maturity represents approximately 20% of gross debt.

Debt maturity schedule

(in millions of euros)



The maturity date for outstanding commercial papers coincides with that of confirmed credit facilities supporting the programs.

The average debt maturity stood at 4.6 years in 2011, compared to 4.4 years in 2010, reflecting the spreading of debt maturities. The slight increase in this maturity comes from the Chinese renminbi and Japanese yen 2011 issuances.

Debt maturity schedule is given in Note 23 to the Consolidated financial statements.

CHANGE IN NET INDEBTEDNESS

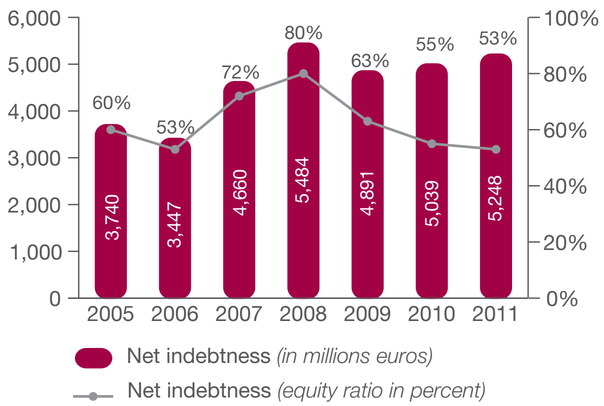
Net indebtedness stood at 5,248 million euros as of December 31, 2011 compared to 5,039 million euros as of December 31, 2010, an increase of 209 million euros.

This increase primarily reflects the consolidation of new entities (in particular in the Middle-East zone) and the adverse evolution of foreign currency fluctuations. The investments performed by the Group in 2011 and the dividends paid to shareholders have been funded by strong cash flow generation from operating entities.

The Statement of changes in net debt is given on page 141.

Net indebtedness as of December 31, 2011

(in millions of euros)



The net indebtedness to equity ratio has been reduced to 53% at 2011 year-end (compared to 55% end of 2010). The continued improvement of this ratio confirms the strength of the Group's balance sheet. The equivalent ratio calculated using the US method: net indebtedness / (net indebtedness + shareholder's equity) reached 35% at the end of 2011 compared to 36% at the end of 2010. The financial expenses coverage ratio (operating income recurring + share of profit of associates)/net finance costs stood at 10.5 in 2011 compared to 10 in 2010.

The average cost of net indebtedness stood at 4.8% in 2011, a slight decrease compared to 2010 (4.9%). Cost of net indebtedness is calculated by dividing net finance costs for the fiscal year (260.9 million euros in 2011, excluding capitalized interest) by the year's average outstanding net indebtedness. The latter is calculated using a monthly average.

The average cost of gross indebtedness remained steady in 2011, due to the hedging of a significant portion of the debt at a fixed rate in recent years, pursuant to the principles of the Group's financial policy.

The decrease in the average cost of net indebtedness in 2011 primarily stems from the decrease in the cost of debt denominated in US dollar, and the better return on euro cash and cash equivalents.

The breakdown of indebtedness is presented in Note 23 to the Consolidated financial statements.

BANK GUARANTEES

In connection with its Engineering and Construction activity, the subsidiaries of the Group grant bank guarantees to customers, most often from the tendering period until the end of the guarantee period. They may be setup either to guarantee advance payment received, or sometimes, for large projects, as a performance guarantee. The projects for which these guarantees are granted, are regularly reviewed by Management and, accordingly, when guarantee payments become probable, the necessary provisions are recorded in the Consolidated financial statements.

CREDIT RATINGS

The Air Liquide long-term credit rating from Standard & Poor's remained unchanged at « A/stable » since 2007. The short-term credit ratings « A-1/stable » from Standard & Poor's and « P-1/stable » from Moody's also remained unchanged in 2011 (since 10 years). The main indicators analyzed by the rating agencies are the net indebtedness/equity ratio and the cash flow from operations before change in working capital/adjusted net indebtedness ratio, notable to take into account pension liabilities.

INNOVATION

Innovation, a key value of the Group, is one of the ALMA 2015 program strategic drivers that support our ambition–"To be the leader of our industry through performance and responsibility over the long term". Through innovation, Air Liquide can open new markets, advance its business by designing new solutions for its customers, and fully play its role towards society.

The innovation cycle

The Air Liquide technological innovation strategy aims at addressing the complete innovation cycle from idea generation to full market maturity.

- The generation of new idea is a continuous process led by Research & Development (R&D) teams in close connection with all the stakeholders of the innovation ecosystem: Air Liquide entities as well as external partners such as academics, start-ups, SMEs, industry leaders and customers. New idea generation and evaluation is supported by the societal trends analysis over the long term.
- The next step—transformation of the idea into a new solution—means gathering all the appropriate competences (marketing, technical, operational) for an efficient development execution.
- In case of disruptive technologies with long-term perspective involving external collaborations, a demonstration stage is critical to have new industrial solutions emerging on the market. Two current application cases notably include technologies for carbon capture and hydrogen energy among other initiatives.
- Maximizing the value obtained from our innovations requires a high reactivity and a short time-to-market. Air Liquide develops competitive solutions based on cost-efficient industrialization and successful market introduction.
- The renovation stage in the innovation cycle relies on the capacity to revamp existing offers based on customer segmentation and extended offers.

Air Liquide manages a broad portfolio of innovation programs that are currently at different stages of this cycle to secure mid- and long-term growth.

An international network

Innovation programs rely on several entities worldwide within the Group. These entities focus on:

- technology: Research & Development (8 centers in Europe, the United States, Japan), Technologies of the Future and Advanced Technologies (7 sites), Engineering & Construction (7 technical development centers);
- marketing: world business lines and application expert networks (9 Altec technical centers);
- operational entities (countries).

The number of patents registered reflects the Group's innovation capacity and teams' dynamism. In 2011, 332 patents have been filed (+10% compared to 2010), linked to new inventions, illustrating Air Liquide's strength in the area of cutting edge technologies development.

The Group has fully maintained its innovation expenses -252 million euros in 2011, representing 1.74% of the sales.

Employees and experts' talent and skills are at the heart of innovation. The recognition of technical expertise is a key element of talent development. In 2003, Air Liquide launched the Technical Career Ladder (TCL), a promotion and recognition program for the technical field and for the Group's employees expertise. Since the TCL creation, 1,500 experts were appointed, thus playing a key role in expertise, knowledge and technical excellence sharing. In 2011, 97 new international experts, including one "Fellow", were named in technological and operating Group entities, located in very different geographies (Europe, North America, China, South Africa, Brazil, etc.). Air Liquide was also awarded with the 2011 *Trophée du capital humain* and received the "Sharing of Knowledge" award for its implementation of the Technical Career Ladder.

Some initiatives launched in 2011

ENERGY “CONTRIBUTING TO TRANSFORM THE ENERGY SECTOR”

Global economy currently functions with limited crude oil resources. Against this backdrop, Air Liquide is developing innovative solutions to improve productivity and efficiency of customer production units for fuels and chemical products. Propylene is a major petrochemical commodity, currently almost entirely produced from crude oil. As the demand for this product is on the rise, the most promising production process is the gasification of alternative feedstock such as natural gas, coal or biomass, followed by their transformation into synthesis methanol and then into propylene.

In 2011, Air Liquide’ Engineering & Construction division signed a contract with the Shenhua Ningxia Coal Industry Group (SNCG) in China, one of the world’s largest coal producers, to build a 500,000 tpa Methanol-to-Propylene (MTP) plant, following the successful commissioning of the first industrial scale MTP® unit built with the same client. After two years of commercial operation, the results were compared with the extensive experimental database obtained from pilot facilities based in the Frankfurt R&D center (FRTC). This information will enable to improve and finalize the design of the future commercial MTP® concept.

The MTP® technology offers very promising perspectives to fight global reliance on crude oil. Today, thanks to its cost-efficient and state-of-the-art technology, Air Liquide is well positioned to play a major role and provide solutions to energy challenges.

ENVIRONMENT “PRESERVING OUR ATMOSPHERE”

Growth in global energy demand and increased environmental awareness gradually led to major changes in the energy industry. Air Liquide supports these changes by providing new solutions, particularly in the areas of alternative and renewable energy. Hydrogen emerges as one of the most promising leads in this area.

Air Liquide organized in October 2011 the first exclusive demonstration tests in France of Hydrogen Electric Vehicles in cooperation with major world car manufacturers. These tests performed with a dozen Hydrogen Electric Vehicles (HEVs) on a Motor racing circuit were the opportunity for participants to discuss the integration of theses vehicles into sustainable mobility in France as well as their contribution to industry competitiveness.

This safe, efficient technology provides an additional solution to meet energy and environmental challenges in the transportation sector.

HIGH-TECH “LEADING PROGRESS”

With its innovation programs, Air Liquide contributes to the photovoltaic industry expansion, a sector for which the Group is the leading supplier. Air Liquide focuses its innovation programs on developing clean energies. In 2011, Group R&D invested in a photovoltaic cell pilot manufacturing line. Thanks to this investment, Air Liquide will develop and assess new ideas and concepts designed to improve the performance and reduce the manufacturing costs of crystalline silicon-based solar cells, helping to bring solar energy closer to grid parity.

Crystalline silicon remains the dominant technology among the various photovoltaic cell technologies, representing 85% of global production in terms of power output. Even though it is the industry’s most mature technology, crystalline silicon-based solar panels have recently made outstanding progress in energy conversion efficiency, and show strong potential for further improvement.

The new pilot line will allow Air Liquide to fully demonstrate the production chain and optimize new materials and processes adapted to each customer’s needs. It is based in the R&D center located near Saclay, West of Paris (France), and will be run by a team of experienced scientists in photovoltaics technologies.

HEALTH “ENSURING ACCESS TO HEALTHCARE FOR THE GREATEST NUMBER OF PEOPLE”

Air Liquide has built a portfolio of gaseous drugs, either already on the market or still under development, used daily in operating rooms, intensive care units and emergency rooms. The Group keeps on developing this portfolio relying on dedicated clinical studies mainly for xenon and helium / oxygen. 9 clinical studies were in progress in 2011.

On a more exploratory level, Air Liquide research has been rewarded in 2011 by the Michael J. Fox Foundation (MJFF) for its preclinical study on the effect of xenon inhalation in reducing L-Dopa-induced dyskinesia, the gold standard treatment for Parkinson’s disease. The study will be conducted by the English research institute MOTAC Neuroscience Ltd. and will produce preliminary results that could lead to a clinical study. Parkinson’s disease is a very common neurodegenerative disease—the second after Alzheimer.

STRATEGY AND OUTLOOK

Strategy

For many years, Air Liquide's development strategy has been founded on creating long-term value. The Group is committed to delivering sustainable growth in results and maintaining its strong pay-out policy year after year.

Compound Annual Growth Rate (CAGR) over 30 years

- Revenue: +7.0%
- Cash flow from operating activities before changes in WCR: +8.5%
- Net profit: +9.6%
- Net profit per share: +8.4%
- Dividend per share: +9.7%

This long-term performance is based on constant growth of the industrial gas market, a solid economic model and a managerial culture founded on consistency.

SOLID GROWTH DRIVERS

The industrial gas industry has enjoyed steady growth over the last 100 years tied to increasing needs, the emergence of new applications supported by innovation and technological research and increased outsourcing by customers of gas production. Historically, the demand for industrial gas has risen faster than industrial production. Despite economic turbulence, this trend should continue thanks to five growth drivers: Developing economies, Energy, the Environment, Healthcare and High Tech.

- **Opportunities offered by developing economies** that are investing heavily in their industrial infrastructures. This is driving oxygen demand whose production is increasingly outsourced. Industrial development in general in these countries has increased demand for gas in a variety of applications.

  Air Liquide Gas and Services revenue growth in developing economies was +20% in 2011.

  The percentage of Gas and Services revenue realized in developing economies continues to increase, reaching 21% in 2011 compared to 19% one year previously, thanks to a record number of start-ups in these regions. Henceforth, 65% of the Group's investment opportunities are located in developing economies, together with 60% of investment decisions.

- **Energy concerns and Environmental protection:** Industrial gases help customers improve their energy efficiency and are also used directly in the production of certain alternative energies. As an example, the biomass or coal gasification process and the development of renewable energies such as photovoltaics consume substantial volumes of gas. Further down the road, more potential for industrial gas consumption will come from the development of hydrogen fuel cell technology to supplement or replace fossil fuels for motor transportation and electricity supply in remote places. The majority of solutions to reduce CO_2 in the atmosphere require the supply of industrial gases and Air Liquide has the necessary proprietary technologies to offer innovative solutions to its clients. Three major trends are clearly visible:
  - **Development of hydrogen sales:** Increasingly restrictive regulations on sulfur content in refined petroleum fuels, coupled with the use of heavier (and thus more sulfurated) raw materials by refiners has significantly boosted demand for hydrogen. In addition, the need to replace aging hydrogen production facilities and pipeline networks in key basins make refiners more willing to outsource this supply. Over the last 10 years, hydrogen volumes produced by the Group increased by close to +15% annually on average. Sales totaled more than 1.7 billion euros in 2011, representing 37% of Large Industries sales.
  - The **use of oxygen** in certain industrial processes improves combustion yield, thereby reducing energy consumption and, as such, CO_2 emissions. The combustion with pure oxygen, instead of air, of coal or other carbon-based fuels, produces highly concentrated CO_2 emissions that are ready for capture, storage or direct use in other applications.
  - Certain countries with substantial coal reserves, wishing to ensure their energy independence with regard to hydrocarbons, use **gasification processes** to create synthetic fuels or chemical products. These processes consume extremely high quantities of oxygen and are environmentally friendly when a CO_2 recovery unit is installed, as the CO_2 emissions obtained are highly concentrated.

Energy challenges, combined with the desire to protect the environment, will therefore generate extremely high demand for oxygen and hydrogen and other special gases, for example, for photovoltaic applications. The Group estimates the potential market for these processes at 30 billion euros in 2020.

- Growth is constant in the **Healthcare** market, primarily led by an aging population, changes in lifestyle and the arrival of health insurance in developing economies. In addition, health system budget restraints are encouraging the development of homecare solutions that reduce the cost to the community. Air Liquide is strategically positioned in this sector, particularly in Europe, where it is leader, with an expanding range of therapies. Our medical gases are used to ventilate, oxygenate or anesthetize patients, manage pain and treat acute respiratory distress syndromes. Our research teams innovate through the ongoing development of these gases for new medical applications.
- There has been significant development in the **high technology** market, driven by numerous consumer product innovations and, more generally, by the increasing complexity of our industries. Hence, the demand for high purity industrial gases has risen substantially to meet the needs of semiconductor, flat panel or solar panel manufacturers, particularly in Asia. In addition, the Group's expertise in gases, and more specifically in very low temperatures, allows it to contribute to major technological projects aiming to enhance knowledge in many fields such as theoretical physics, space or energy (nuclear fusion, superconductivity).

Air Liquide is extremely well placed to benefit from these growth opportunities. In addition to its position as the world leader in oxygen, the Group currently has proprietary technologies in hydrogen and strengthened expertise in engineering, particularly since the acquisition of Lurgi in 2007, a dominant position in the solar panel sector and a highly promising R&D portfolio, with 60% of projects focused on improving the environment and preserving life.

A SOLID ECONOMIC MODEL

In 2009, Air Liquide confirmed the **resilience of its business model.** In a context of economic crisis of an exceptional scale, Air Liquide, the global leader in its sector, reported a slight decline in sales and stable net profit, thanks to the variety of applications, diverse geographical coverage, solid contracts and record efficiency gains.

Together, the Large Industries business line, benefiting from long-term contracts with take-or-pay clauses, and the Healthcare business line, enjoying steady growth independently of the economic cycle, guarantee the solidity of the business model. They account for 52% of Gas and Services revenue. Over 21% of Gas and Services revenue now comes from developing economies. The diversity of customer industries and the geographical presence of the Group in over 80 countries are further support the Group's growth potential.

The Group's debt is tightly controlled. The balance sheet strength facilitates the financing of its development projects, site takeovers and acquisitions in the Industrial Merchant and Healthcare business lines.

ALMA 2015, THE GROUP'S CORPORATE GROWTH PROGRAM

The Group launched its new ALMA 2015 program at the end of December, 2010. It is based on the reaffirmed wish to lead the industry through performance and responsibility over the long-term, including a reinforced commitment to corporate social responsibility.

Based on growth estimates for the industrial gas market of between +7% and +8% by 2015, the Group has set new and ambitious **performance objectives:**

- revenue growth of between +8% and +10%, in a normalized environment, requiring capital expenditure of 12 billion euros for the 2011-2015 period;
- continued delivery of operational efficiencies for over 200 million euros annually,
- improved ROCE of between 12% and 13% by 2015.

Under the **ALMA 2015 program,** Air Liquide places **performance and responsibility at the heart of its ambition.** The Group launched a review to define objectives for the 2011-2015 period concerning **Key Responsibility Indicators.** This review resulted in the introduction of a number of precise Responsibility objectives at the end of 2011. These now represent an integral part of the Group's strategy in the same way as Performance objectives.

The **corporate social responsibility** approach seeks to serve the interests of all stakeholders: shareholders, employees, customers, patients and communities where the Group is present. It is founded on three fields of action: improve the environmental footprint, enhance business practices and governance and innovate relentlessly.

The following commitments underpin this approach:

- deliver long-term performance thanks to a steady increase of investment value, ensure respect and consideration in the relationship with shareholders;
- deliver value to customers and patients through safe, reliable and cost-effective solutions; proactively dialogue with customers and patients;
- be a great place to develop one's potential, providing employees with a safe, performing and respectful work environment;
- act as a good citizen in the countries where the Group operates, by participating in the development of local economies, the protection of life and the environment, and through a proactive dialogue with communities;
- contribute to continuously improve the environmental footprint of the Group operations, products, customers, suppliers and communities.
- maintain a well designed organization and effective decision processes, committed to ethical behavior, appropriate risk management and proactive compliance with internal and external regulations;
- innovate relentlessly in order to bring sustainable and cost-effective solutions to society, leveraging partnerships with customers, suppliers, academics and communities.

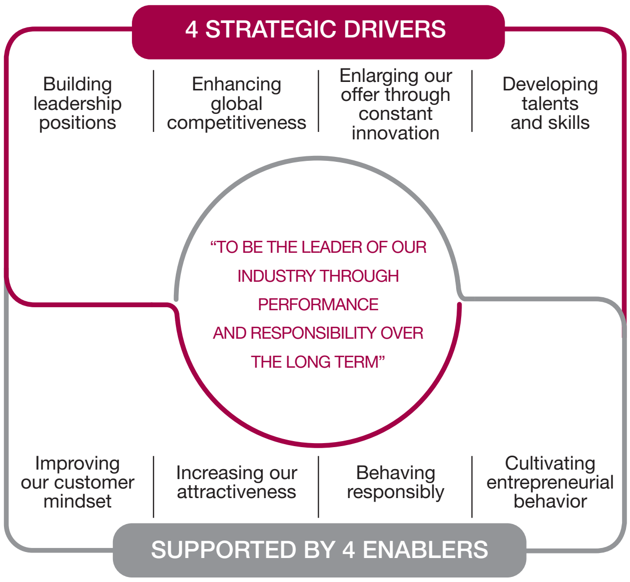
To meet these objectives, the Group will continue to rely on the four previously determined strategic initiatives:

- establish **leading** positions in developing economies and technologies and new markets;
- strengthen its operational **competitiveness** through efficiency and investment optimization;
- expand its offering through constant product and process **innovation;**
- develop the **talents** and **expertise** in order to support growth.

Four enablers have been introduced to further the Group's ability to pursue its strategic initiatives in a dynamic and responsible manner:

- improve the **customer mindset;**
- increase the **Group's attractiveness;**
- behave **responsibly** towards all stakeholders;
- cultivate an entrepreneurial culture.

ALMA 2015 is implemented *via* a series of projects in all countries and regions and in each world business line in order to deliver a high-level of performance, responsibly over time.



Outlook

In 2011, Air Liquide continued its growth and the implementation of its business model, notably in Developing economies where sales have increased more than +20% over the previous year.

This momentum, together with our on-going efficiency programs on a global scale, helped to further improve operating results, demonstrating the Group's ability to adapt to diverse environments and to generate growth while controlling expenses.

In 2011, investment decisions reached 2 billion euros, over 60% of which in Developing economies. In addition, the signature of new contracts and permanent innovation broaden our businesses and provide the Group with the capacity to strengthen its position in growth markets. Therefore the Group is confident in its medium-term development within the framework of the ALMA 2015 program.

In this context, and barring a major economic downturn, Air Liquide continues to aim for growth in net profit in 2012.

2011 Corporate Social Responsibility and Sustainable Development Report

2

INTRODUCTION	52
SHAREHOLDERS	53
Responsibility and proximity	53
The Shareholders’ Charter	53
CUSTOMERS AND PATIENTS	57
A responsible company vis-à-vis its customers	57
A responsible company vis-à-vis its patients	58
EMPLOYEES	60
Safety: the first priority	60
A social enterprise	61
COMMUNITIES	68
Corporate philanthropy and the Air Liquide Foundation	68
IMPROVE THE ENVIRONMENTAL FOOTPRINT	71
Revenue linked to life and the environment	71
The environmental footprint of the Group	72
Industrial Management System and certifications	85
ENHANCE BUSINESS PRACTICES AND GOVERNANCE	86
A corporate citizen	86
Responsible procurement in the Group	88
INNOVATE RELENTLESSLY	90
Recognition of the spirit of innovation	90
Innovation and sustainable development	91
REPORTING METHODOLOGY	95
STATUTORY AUDITORS’ REPORT	97
APPENDIX	99

INTRODUCTION

In the framework of the **ALMA 2015** corporate program, Air Liquide has set itself the ambition of **"being the leader of its industry through performance and responsibility over the long term".** The Group has therefore placed **performance and responsibility at the heart of its strategy, with a focus on progress over the long term.**

Responsibility relates the way in which employees or the Group take into account the interests of all stakeholders to direct their actions and attain their results.

In the framework of this Responsibility approach, Air Liquide has therefore broadened its Sustainable Development approach by defining **commitments toward the four stakeholders of the Group:**

- shareholders;
- customers and patients;
- employees;
- communities,

and **three fields of action:**

- improve the environmental footprint;
- enhance business practices and governance;
- innovate relentlessly.

Each of these **commitments** corresponds to a part of this report. A certain number of the **responsibility objectives for 2015** and their corresponding **key indicators** are presented in it. Other objectives and key indicators will be gradually communicated.

This new approach results from reflection in-house with all the activities and areas concerned in the Company. It was presented to the Air Liquide Board of Directors at the end of 2011.

More broadly, the Corporate Social Responsibility and Sustainable Development Report, an integral part of the Air Liquide Responsibility approach, relies on **reporting** on over 170 indicators, presented in the following pages, to measure the Group's sustainable development performance. These indicators are **collected worldwide.**

Just like financial reporting, extra-financial reporting has been **reviewed each year since 2003 by the Statutory Auditors.** You will find, at the end of the Corporate Social Responsibility and Sustainable Development Report, the report of the Statutory Auditors who, each year, conduct a mission of verification on a selection of indicators not only on the corporate level but also in 2011 at 16 industrial sites or Human Resources Departments of subsidiaries.

Air Liquide was **one of the first CAC 40 companies to have this review done by the Statutory Auditors** and to include the Corporate Social Responsibility and Sustainable Development Report **in the Reference Document.** This review is not a legal obligation today. It is voluntary and reflects Air Liquide's commitment to give more value to these indicators.

SHAREHOLDERS

Commitment

Deliver long-term performance thanks to a steady increase of investment value, ensure respect and consideration in the relationship with shareholders.

Key Responsibility Indicator

Total Shareholder Return (TSR) [(a)].

In 2011, the increase in the Total Shareholder Return (TSR) was 11.5% per year over 20 years for a registered shareholder.

Responsibility and proximity

The respect and consideration of its shareholders are part of Air Liquide's Responsibility and Sustainable Development approach. The Group has instituted a relationship of confidence with its shareholders by associating them with its continuous growth and successful business model through a strong and steady distribution policy maintained over time.

Becoming an Air Liquide shareholder means backing a responsible actor that makes protecting life and the environment a priority and that demonstrates its commitment to human, social and societal issues.

The Shareholders' Charter

Air Liquide has formalized these privileged and long-term relationships with its shareholders in the "Shareholders' Charter", which is based on four commitments:

1. Consideration and respect for all shareholders;
2. Remuneration and increased value of their investments in the long term;
3. Listening to and informing shareholders;
4. Service provided to the shareholders, notably thanks to a dedicated service within the Company.

1. CONSIDERATION AND RESPECT FOR ALL SHAREHOLDERS

Financial performance is not enough to sum up the relationship between Air Liquide and its shareholders. Air Liquide maintains a dialogue of proximity with its shareholders to best meet their needs. To make sure that these expectations and their evolution are identified and understood, Air Liquide endeavors to get to know its shareholders in their diversity because they are genuine partners over the long term who have been with the Group since its creation and continue to accompany its growth.

Stable and balanced share ownership

It is important for Air Liquide to preserve the balance between individual shareholders and institutional investors. The Group's strategy, focused on the long term, and the soundness of its business model, offer shareholders a sustainable and regular return on their investment.

410,000 individual shareholders hold 37% of the capital. French and non-French institutional investors represent respectively 21% and 42% of the capital.

At the end of 2011, the share of capital held by the employees and former employees of the Group was estimated at 2.2% of which 1.6% (in the meaning of Article L. 225-102 of the French Commercial Code) corresponded to shares subscribed by the employees during employee-reserved capital increase operations or held through mutual fund.

(a) Total Shareholder Return (TSR) is the annualized return rate for a shareholder who buys his share at the beginning of a period and sells it at the end of the period. This calculation takes into account the change in the share price, dividends paid, including loyalty bonuses, considering that they are also reinvested in shares, as well as free share attributions.

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Individual shareholders	40%	40%	39%	38%	38%	37%	38%	38%	36%	37%
French institutional investors	21%	23%	24%	25%	24%	30%	26%	26%	23%	21%
Non-French institutional investors	37%	35%	36%	36%	37%	32%	35%	36%	40%	42%
Treasury shares	2%	2%	1%	1%	1%	1%	1%	> 0%	< 1%	> 0%
Registered capital	27%	28%	30%	31%	32%	37% [(a)]	33%	32%	34%	35%
Capital eligible for the loyalty bonus	24%	24%	24%	25%	26%	26%	26%	25%	25%	28%

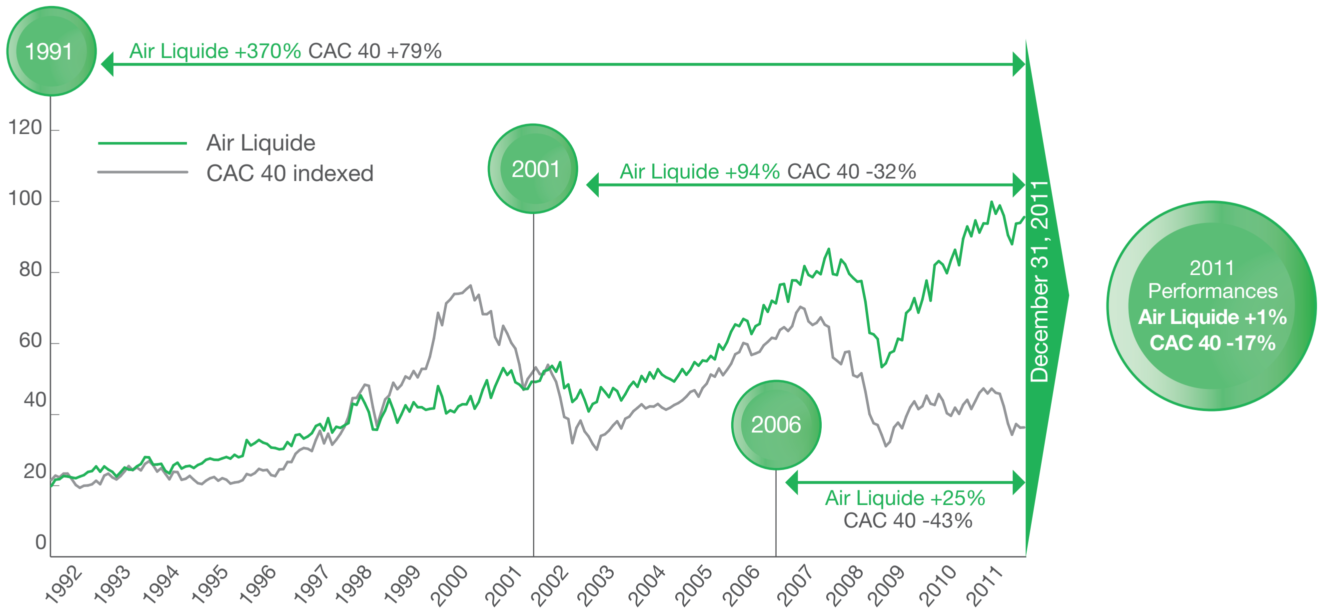
(a) In 2007, the share of capital owned by institutional investors holding direct registered shares increased notably due to one important institutional investor that sold its shares in 2008.

2. REMUNERATION AND INCREASED VALUE OF THE SHAREHOLDERS' INVESTMENTS IN THE LONG TERM_

Air Liquide, a continuous growth

The share's value is based on the rise in its stock market price over the long term and the distribution of dividends. Since its creation in 1902, Air Liquide has always shared the fruits of its growth and rewards its shareholders' confidence through a remuneration and loyalty policy that is based on regular dividend distribution, free share attribution and the loyalty bonus. Air Liquide strongly promotes the permanent increase in the shareholder's initial investment.

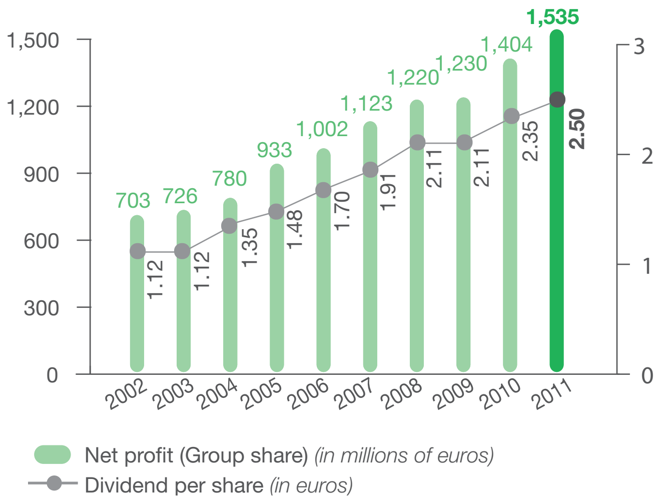
Evolution in the stock market price and the dividend



Since it was first listed on the French Stock Market in 1913, Air Liquide has always shown a profit. Air Liquide creates value by developing its activities and optimizing its performances over the long run. Over the last 20 years, Air Liquide's revenue has shown an average annual growth of 5.6%. This growth has been profitable: the Group's earnings have followed a similar trend, with an average annual growth of the net profit per share of 7.9%. Over the same period, the dividend has had an average annual growth of 9.6%.

During the last 10 years, nearly 50% of earnings have been distributed to shareholders.

Net profit and dividend



Return on an investment in Air Liquide shares for the shareholder

To further increase the investment value of Air Liquide shares, subscribing to registered shares permits shareholders who choose this option to benefit from a privileged relationship with Air Liquide and a loyalty bonus: +10% on the amount of the dividends received and +10% on the number of free shares granted. This loyalty bonus is granted to shareholders who have held direct registered or intermediary registered shares for two calendar years and who still hold them on the date of dividend payment and the attribution of free shares.

Total Shareholder Return (TSR) is the annualized rate of return for shareholders who purchased a share at the beginning of the period and sold it at the end of the period, including the contribution from both the share price performance and dividends paid (including loyalty bonus), assuming that the dividend is immediately reinvested in shares, as well as free share attributions.

Average annual growth of the portfolio as of December 31, 2011

For a capital invested	Air Liquide— Registered shareholder [(a)]	Air Liquide— Bearer shareholder [(a)]	CAC 40 index— Dividend reinvested [(b)]
• over 5 years (December 31, 2006)	+7.6%	+7.3%	-7.1%
• over 10 years (December 31, 2001)	+10.4%	+9.9%	-0.4%
• over 20 years (December 31, 1991)	+11.5%	+10.9%	+6.1%

(a) The TSR on shares for the registered shareholder is higher than the TSR on shares for the bearer shareholder because the registered shareholder benefits from loyalty bonuses.

(b) CAC 40 index with gross dividends reinvested.

During the last 10 years, the return rate for an Air Liquide shareholder has been on average +10.4% per year, with gross dividends reinvested in shares, attributions of free shares and loyalty bonuses to registered shareholders.

	2002	2003	2004 IFRS	2005	2006	2007	2008	2009	2010	2011
Net profit per share *(in euros)* [(a)]	2.47	2.57	2.78	3.34	3.54	3.99	4.40	4.40	4.99	5.43
Dividend per share *(in euros)* [(a)]	1.12	1.12	1.35	1.48	1.70	1.91	2.11	2.11	2.35	2.50 [(b)]

(a) Based on the average annual number of shares (excluding treasury shares) and adjusted to account for increases in capital performed via capitalization of reserves or additional paid-in capital, cash subscription and the two-for-one share split on June 13, 2007.

(b) Subject to the approval of the May 9, 2012 Shareholders' Meeting.

3. LISTENING TO AND INFORMING SHAREHOLDERS

Air Liquide provides its shareholders, through various communication supports, with coherent and transparent information on the Group's activities, strategy, performances and perspectives.

Pedagogy is one of the major concerns that takes priority in the design of information supports like the Annual Report, the Shareholder's Guide and the Invitation to Shareholders' Meeting, which didactically presents the resolutions the shareholders will vote on.

In addition, Air Liquide welcomes its shareholders in a dedicated venue, the Shareholders Lounge, at the Group's head office in Paris, so that they can obtain complete information on the Company's activities, the life of the share, and for those who hold direct registered shares, how to carry out operations on their accounts.

Since 2011, the Shareholders Lounge has also been proposing simple, didactic and interactive temporary exhibitions: an additional occasion for shareholders who wish to find out more about the Group's activities and initiatives and to strengthen the link of proximity.

4. SERVICE PROVIDED TO THE SHAREHOLDERS, NOTABLY THANKS TO A DEDICATED SERVICE WITHIN THE COMPANY

Specifically organized to provide answers to shareholders with direct registered shares, the Shareholder Services, composed of 26 people, offers its expertise in share account management: how to open an account, how to place orders on the stock market, how to determine taxation of securities and how to transmit a portfolio.

Air Liquide directly manages the accounts of its shareholders with direct registered shares. They pay no handling fees, and broker fees are reduced to 0.18% excluding tax of the gross amount of the transaction.

More information on Air Liquide and its shareholders is available in the Shareholder's Guide, which can be consulted on the website www.airliquide.com under the Shareholders section.

CUSTOMERS AND PATIENTS

Commitment

Deliver value to its customers and patients through safe, reliable and cost-effective solutions; proactively dialogue with customers and patients.

2015 objective

Increase customer and patient satisfaction by relying on regular surveys with them. By 2015, these surveys and the related action plans should concern units representing 85% of the Group's sales.

Key Responsibility Indicator

Percentage of the Group's sales concerning the units where a customer satisfaction survey has been conducted.

In 2011, the percentage of Group sales related to units where a customer satisfaction survey was conducted was 39% [a].

The relationship with large industrial customers and very diverse sectors, as well as that with patients, is at the heart of the Group teams' preoccupations and guides the Company's growth. The quality of this relationship with customers and patients involves each unit and each person in the Group. It is based on the definition of specific commitments that the Group and its teams undertake to respect in their daily actions, with a spirit of rigor, a sense of service and that of innovation.

A responsible company vis-à-vis its customers

The Air Liquide Group's different activities have a **very diverse customer profile.** There are **over a million customers,** from sectors ranging from steel mills to the food, electronics and pharmaceutical industries, as well as craftsmen. In more than a century of activity, their expectations have changed on a regular basis, have diversified and their requirements are ever more demanding. **Air Liquide works with customers at the heart of their respective businesses,** and therefore is in direct contact not only with their sales departments, but also with their industrial, logistics and research and development teams.

The Group is a **partner contributing to its customers' performance and directed to their service** by focusing on each customer's specific needs. The key to this relationship is **listening to the customer,** which creates a **close collaboration,** an **in-depth analysis of needs** and the **optimization of the services proposed.** Air Liquide pays particular attention to its customers' opinions on its products and services and regularly carries out **satisfaction surveys** that, after analysis, make it possible to tailor its offering as closely as possible to its customers' needs and to offer adapted and innovative solutions.

The **Group's decentralized structure** permits each unit in each geographic zone to meet the specific needs of local customers, creating **a close relationship of confidence** with each of them. More than just a product, the customers require **flexibility, rapidity, service, availability and a real partnership over the long term.**

The **reliability of Air Liquide's products** is a key element. Formal recognition of Air Liquide's commitment in this area is demonstrated by the ISO 9000 certification, a standard focused on service to the customer, which concerns over 76% of the Group's revenue. The customers' preoccupations are also increasingly focused on quality factors, apart from cost and productivity requirements. They know that **safety** has long been a priority for Air Liquide, which shares this safety culture with its customers, including through specific training programs for them. A close collaboration also makes it possible to **propose more respect for the environment to customers.** 42% [b] of the Group's revenue is dedicated to applications linked to sustainable development issues, that is, preserving life and the environment.

(a) Estimate.
(b) Percentage calculated on the basis of the Group's 2010 revenue.

CUSTOMER SATISFACTION SURVEYS

Customer satisfaction is one of Air Liquide's major priorities. In a context of increased competition, a change in its customers' expectations and a growing diversity of its customer portfolio, reaching the growth objectives that the Group has set itself for 2015 requires creating loyalty in current customers by ensuring their satisfaction and conquering new ones through the relevance and attractiveness of Air Liquide's offerings. Air Liquide wants to better understand its customers' priorities, perception and satisfaction criteria so that its product and service offerings effectively meet their needs and expectations.

In the framework of the **ALMA 2015 strategic corporate program,** the aim of the **"improving our customer approach" initiative** is to develop the customer mindset according to the following tracks:

- focusing efforts on solutions that contribute value to the customers apart from the products' technical component;
- promoting the development of the relationship with the customers in the long run;
- incorporating the customer's opinion in the Group's internal decision-making processes;
- introducing customer indicators into the Group's general indicators, key elements in management's decision-making.

In this initiative, the key project **"action-oriented customer satisfaction survey",** called "Survey for Action", is a tool intended to improve customer satisfaction. The "Surveys for Action" on customer satisfaction will be gradually rolled out in all the Group's Gas and Services subsidiaries. The main points of these surveys are:

- their simplicity of use,
- their Group "standardization" while respecting the specificities of the customers' different activities,
- their capacity to measure both customer satisfaction and loyalty,
- their strong focus on concrete actions designed to improve customer satisfaction.

In 2011, the "Survey for Action" project was tested in **three pilot subsidiaries, in Brazil, Italy and China.** 5,100 completed questionnaires were collected and have delivered their first findings. The results are positive with a majority of the customers "satisfied" or "very satisfied". They particularly appreciate the quality of Air Liquide products, the strict respect of safety rules, the behavior of the teams in contact with customers and their efficiency, notably in an emergency situation. The "Survey for Action" has also made local teams more aware of taking the customers' perception into account. The next step is setting up an action plan for the customers queried who are still unsatisfied.

At the end of this pilot phase, a **deployment kit** was prepared to extend the "Survey for Action" to other Group entities in 2012. In addition, on the basis of the customer interviews carried out as well as visits to unsatisfied or very satisfied customers, the entities concerned are **drawing up action plans for improvement.**

In 2011, the percentage of the Group's sales concerning the entities where customer satisfaction surveys were conducted was about 39%. This percentage, which is the Key Responsibility Indicator of this stakeholder—customers—, will be followed up annually from now on with greater precision.

A DIALOGUE WITH CUSTOMERS ON THE RESPONSIBILITY AND SUSTAINABLE DEVELOPMENT APPROACH

Air Liquide also answers its customers' questions on responsibility and sustainable development. The Group can in this way contribute to its customers' own responsibility and sustainable development approach. In 2010 and 2011, about 50 customers queried the Group on its Responsibility and Sustainable Development approach, notably through increasingly detailed questionnaires. The Group's Sustainable Development Department contributed its support to local units to respond to this new type of request from its customers. The data on the carbon content of Air Liquide products presented in the Environment part of this Report specifically meets customer expectations on this issue.

A responsible company vis-à-vis its patients

Attention to the individual, proximity and human relationships are particularly vital aspects with the growing presence of teams from Air Liquide's Homecare activity at the patients' home. Alongside the Group's activity in the hospital milieu, this homecare activity has taken on greater importance due to demographic evolution and budget constraints in the developed countries.

THE HUMAN AND SOCIAL DIMENSION OF AIR LIQUIDE'S HOMECARE ACTIVITY

Air Liquide's Homecare activity now concerns over 700,000 patients worldwide. It has a very strong human dimension because it focuses on improving the patients' quality of life while helping them to better follow their treatment and assisting them in increasing their autonomy when homecare has begun.

Air Liquide's employees go to the home of patients suffering from chronic pathologies. They are very involved and show great devotion to their tasks on a daily basis. The patient is therefore at the heart of this activity.

The Homecare activity is at the heart of the healthcare system. Air Liquide is a link between the hospital, doctors, nurses, medical insurance organizations and pharmacists. Air Liquide supplies products and medical equipment necessary to start treatment at the patient's home following the medical prescription, and trains the patient in the proper use of medical equipment. Air Liquide also makes a major contribution to the care chain by ensuring the patients' follow-up at home over the long run. It is an activity that demands a high level of quality of service and that is clearly long term, with all the caregivers to improve the patient's quality of life.

The Group's Homecare activity is an integral part of Air Liquide's **Responsibility and Sustainable Development approach,** in line with its preoccupations with the preservation of life, improvements in the quality of life, proximity, the deeply human dimension of this service, relationships built over time and a strong involvement in the social fabric.

EXAMPLES OF THE AIR LIQUIDE HOMECARE ACTIVITIES PARTNERSHIPS AND COMMITMENTS IN 2011

Partnership with the European Federation of Allergy and Airway Diseases Patients

The European leader of homecare, Air Liquide has taken in charge some 600,000 patients in Europe suffering from sleep apnea or insufficient respiration, notably those with severe chronic obstructive pulmonary disease (COPD), under long-term oxygen therapy.

In 2011, the Group's Worldwide Healthcare Activity Branch formed a partnership with the EFA (European Federation of Allergy and Airways Diseases Patients Associations). This Brussels-based organization brings together the national associations of patients (22 countries represented) with respiratory ailments. In the framework of this partnership, Air Liquide supports the actions on information and raising awareness initiated by the EFA in public opinion and the European authorities. COPD is an under-diagnosed pathology and a major public health issue. The World Health Organization forecast that in 2015, COPD would go from being the fourth to the third cause of mortality in the world. In Europe, the total cost of COPD is estimated at 45 billion euros.

Air Liquide has confirmed its commitment to patient safety in anesthesiology

Air Liquide, the world leader in medical gases, notably used in anesthesia and intensive care, places the safety of patients and professionals at the heart of its concerns. The **quality** and **safety of gases and medical devices** as well as the **Group's related services** illustrate Air Liquide's commitment to patient safety. In this respect, Air Liquide is one of the first companies in the healthcare sector to have signed the Helsinki Declaration on Patient Safety in Anesthesiology during the 2011 congress of the European Federation of Anesthesiology held in Amsterdam. The Helsinki Declaration plans to reduce complications following anesthesia for major surgery, by highlighting good clinical practices, the key role of the anesthesiologist in treatment safety and the importance of cooperation between companies in the healthcare sector and the medical community.

EMPLOYEES

Commitment

Be a great place to develop one's potential providing employees with a safe, performing and respectful work environment.

2015 objective

Continue to improve the safety of the Group's employees with a goal of reducing each year until 2015 the frequency rate of lost time accidents.

Key Responsibility Indicator

Frequency rate of lost time accidents of the Group's employees.

In 2011, the frequency rate of lost time accidents of the Group's employees was 1.7 *.

A complementary Key Responsibility Indicator was defined in 2011 and will be gradually rolled out. It will measure annually the progress of the development, diversity and loyalty of the Group's employees through a composite index integrating certain indicators presented in this Report.

* *Indicator verified by the Statutory Auditors.*

46,200 men and women in 80 countries compose multicultural teams with a host of skills. Air Liquide is involved in promoting diversity, facilitating and accelerating knowledge transfer, motivating and involving its employees and encouraging a social and human commitment, notably through the Air Liquide Foundation. Safety remains a top priority for the Group's management and employees.

Safety: the first priority

Continuously and durably improving the health and safety in the workplace of its employees and subcontractors is one of Air Liquide's major challenges, which is expressed by the keyword "zero accidents" on each site, in each region, in each unit. Employees are mobilized through active communication on this objective. In addition, safety objectives are part of the variable remuneration of the Group's senior managers.

In 2011, the Group's frequency rate of lost time accidents was 1.7, which, with 2009, was the lowest that the Group has had. These results show the capacity of the Group's teams to mobilize around safety.

The average number of days of lost time per accident, understood as the average number of calendar days of lost time per accident for Air Liquide employees, apart from deaths, was 19 days in 2011, compared to 16 days in 2010. This indicator takes into account the average seriousness of accidents with lost time.

The Group's focuses for safety in 2012 stress the understanding and prevention of major risks linked to the Group's activities.

Safety indicators for the Group as a whole

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Number of lost time accidents of Group employees	194	136	135	131	153	147	137	131	153	144 (a)
Accident frequency of Group employees (b)	3.2	2.3	2.3	2.1	2.3	2.1	1.8	1.7	1.9	1.7 *
Number of accidents of subcontractors and temporary workers (c)							154	148	155	118 (d)

(a) Fatal accidents: one in 2011, one in 2010, none in 2009 and 2008.

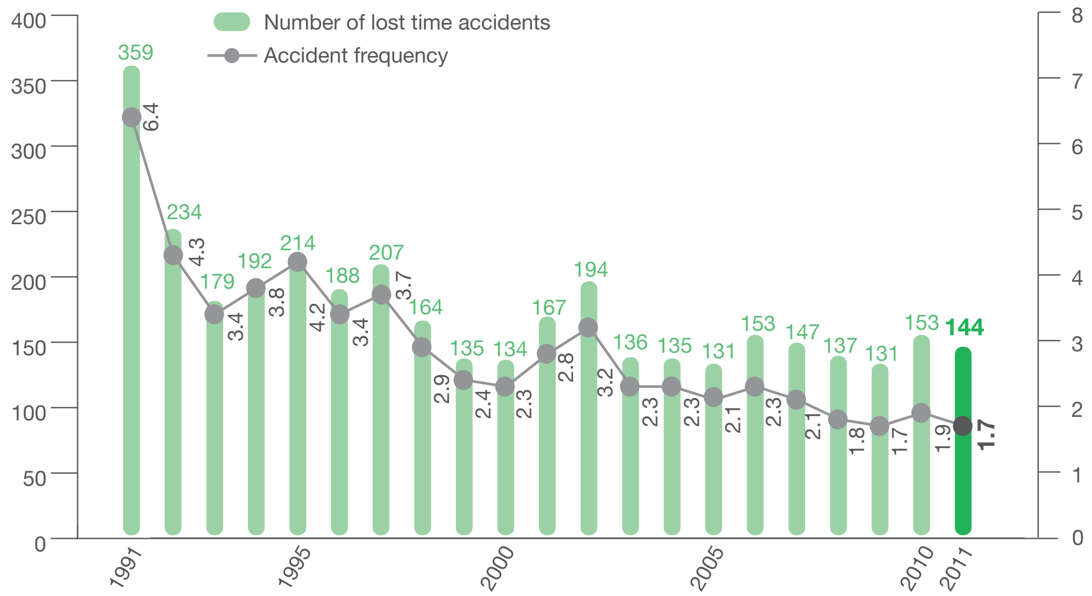
(b) Number of accidents involving lost time, of at least 1 day, per million hours worked by Group employees. Accidents defined as recommended by the International Labor Office.

(c) Personnel working in the framework of a contract with Air Liquide or on a Group site, or on a customer site or as a delivery vehicle driver.

(d) Including four fatal accidents, among them three traffic accidents.

* *Indicator verified by the Statutory Auditors.*

Number of lost time accidents and accident frequency since 1991



A social enterprise

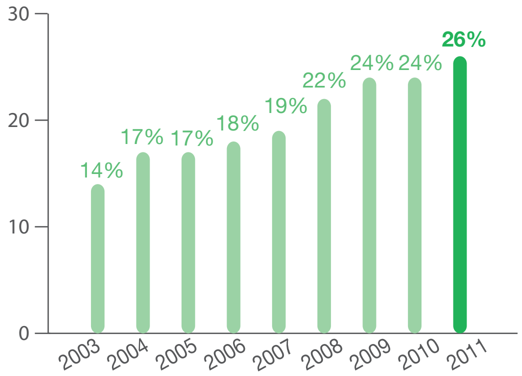
DIVERSITY / PARITY

Air Liquide is strongly committed to **fighting all forms of discrimination.** Diversity is a priority of the Air Liquide's Human Resources policy and considers it a source of dynamism, creativity and performance. The diversity of its employees makes it possible to better understand different viewpoints, renew mindset and broaden recruitment visions in order to attract the best talent. Air Liquide operates on diverse and complex markets. Diversity helps adapt to this complexity while increasing performance.

The Group's objectives are to continue to increase this diversity among its employees by notably seeking a better division of responsibilities between men and women while promoting the many cultures represented at Air Liquide. The five poles of the Group's Human Resources policy concerning diversity are: diversity of nationality, gender, educational background, age and the handicap. The international character of the Group's senior managers—28 different nationalities represented in 2011—is a considerable asset from this viewpoint and continues to be a strong growth track. In the Human Resources Division, a manager with his team is in charge of steering the Group's diversity projects. Another person is responsible for highlighting the knowledge and competencies of seniors in the Group.

Equality between men and women is an essential point in the expression of this diversity. For the last several years, Air Liquide has set up orientations by the implementation of a global action plan. For example, between 2003 and 2011, the percentage of women who were hired for Managers and Professionals positions rose from 14% to 26%, an increase of over 80%. This 26% figure for women Managers and Professionals in the Group corresponds to the global percentage of women in the Group (26%) and illustrates the good representation of women in Air Liquide's management. In addition, women now represent 39% of employees considered high potential. 17 executive management positions in the subsidiaries are held by women in the Group; the number of women in this type of position has increased sixfold since 2007. Moreover, three women are now members of the Group's Board of Directors, with the appointment in 2011 of Siân Herbert-Jones as a Director.

Percentage of women among Managers and Professionals since 2003



These results are the fruit of a concrete, rigorous and global Human Resources strategy based on four focuses:

1. **Recruiting:**

   Strengthening the place of women in the Group, in particular through hires of Managers and Professionals.

2. **Developing careers and increasing responsibilities for women in the Company:**
   - for every management position that becomes available, Human Resources examines the application of at least one woman among the applicants;
   - regular Human Resources reviews dedicated to women with high potential are conducted by the Group's Executive Committee;
   - a meeting before and after maternity leave has been organized in a certain number of units in France.

3. **Communicating with and involving all the managers:**

   In the framework of Air Liquide's policy on promoting parity, the hiring and career development of women, and strengthening their place and responsibilities in the Company, a program on aware-raising and exchanges on "men/women" differences and the benefits that parity induces has been organized in the Group since 2007, aimed at managers. More than 700 managers in the Group have followed this program, in Europe and Asia. The objective is to continue rolling out these awareness programs throughout the Group. In 2011, a deployment kit was prepared by the Group's Human Resources teams for the different Air Liquide units. They can use these communication tools and supports such as films or a video message from the Group's Chairman and CEO to implement these actions locally with their teams.

   In addition, each year, Air Liquide joins forces with the International Women's Day celebrated on March 8. Apart from the Group's many local initiatives, Air Liquide organized in 2011 the event "Women and Men at the Top", which brought together all the country and unit managers in Europe. The objective was to raise awareness on the challenges and benefits of parity.

4. **Better balancing professional and private life:**

   The **CESU** (Universal Service Employment Check), whose aim is to facilitate childcare in the home, has been implemented for certain units in France since 2007 for men and women in the Group who have young children.

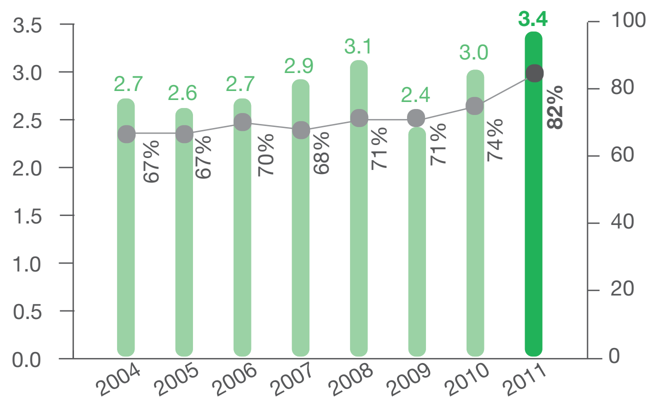
   The **Diversity Charter** that Air Liquide signed in France is available on this organization's website and is an illustration of the Group's commitment to diversity.

   Air Liquide's general ambition is to have employees who are representative of the environment in which they work.

TRAINING

Air Liquide is committed to training its employees on a regular basis. Training is an integral part of the Company's growth. It allows employees to work safely as well as improving their performance, contribution and employability. In 2011, 82% of the Group's employees had at least one training session during the year, compared to 74% in 2010. The average number of training days per employee and per year reached more than 3 days in 2011.

Average number of trainings sessions per employee and per year / percentage of employees having had at least one training session during the year since 2004



The Group has invested in better professional qualifications and training programs for young people to facilitate their integration into the business world. As a result, more than 400 young people have benefited from work-study contracts in France, combining theoretical learning in their university or school and a practical internship at Air Liquide.

In 2009, Air Liquide founded its Corporate University, which has considerably developed since, to meet the employees' challenges and needs in training including the Group's values. Based on a decentralized model that permits a very large number of employees to be trained, with modern pedagogic techniques like e-learning, it has a dual objective:

- formalizing and rolling out the training processes and disseminating good practices that go hand in hand with the Group's training dynamic. In 2011, a new tool was created to more efficiently deploy the training modules and to have better follow-up of the training activities;
- proposing about 20 specific programs, ranging from integrating new employees to developing leadership capacities, as well as "business" training programs given by the different business lines. The Group's values, principles of action and key challenges are systematically included in the different modules: safety, innovation, ethics, etc. In 2011, the managerial training program was also broadened to other management levels, including, for example, supervisors of production sites.

Moreover, a new e-learning module, "Discover", was rolled out in 2011 for new arrivals: the Group's history and key messages, safety, principles of action, core businesses, markets and key figures. This module is already available in six languages (French, English, Spanish, Italian, Russian and Chinese). Others are planned for 2012. 2,000 people were trained in 2011 in the Group through this module in different geographies where the Group is represented. **Air Liquide received the E-learning Excellence Award from the CEGOS training organization in 2011.**

Training in ethics and in particular in anti-corruption was also strengthened in 2011. A dedicated module launched in 2011 is planned first for sales, procurement and legal teams as well as for the Executive Committee and senior managers in the Group's units. 400 employees were trained in 2011 in the Group's different geographies, mostly in Asia (China, India, South Korea…) and Europe (Russian, Ukraine, Greece, Bulgaria…). This dedicated module was developed with an external specialized consultant and the involvement of the Group's Ethics Officer. It will be reinforced in 2012 by e-learning.

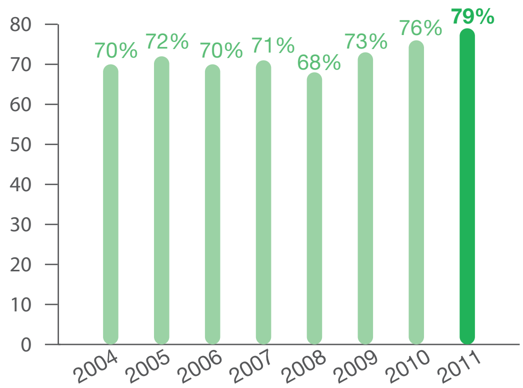
Since its creation in 2009, **the Air Liquide University has already trained over 7,000 Group employees.**

FOLLOW-UP OF EMPLOYEE PERFORMANCE

It is through the commitment and contribution of its employees that Air Liquide gives more value to its customers and share-holders. This performance is followed and measured during interviews that each employee has every year with his or her immediate supervisor but also during career development interviews that permit each employee to talk about more long-term prospects with the local Human Resources Department. The Group's Human Resources departments particularly encourage these meetings as they are the keystone of the Company's Human Resources policy.

In 2011, 79% of the employees had a performance evaluation interview with their immediate supervisor, which is the highest rate in the last nine years. In addition, 18% of the employees had a career interview with their entity's Human Resources Department.

Percentage of employees having had an annual interview with their immediate superior during the year since 2004



REMUNERATION

Employee remuneration is based on local market conditions, internal equity, applicable legislation and their performance. It is generally made up of a base salary plus complementary compensation elements. In 2011, 53% of the employees received an individual variable share in their remuneration. For some of the employees, this individual variable share includes sustainable development objectives: they focus on subjects such as safety, energy efficiency or diversity.

In addition, remuneration can also include benefits such as profit-sharing and medical expenses. In 2011, 98% of the employees benefited from some sort of social coverage through the Group.

HEALTH IN THE WORKPLACE

Air Liquide is particularly concerned with improving its employees' working conditions. This is notably demonstrated through preventive actions after risk analyses at work stations and the implementation of specific rules of the Group's Industrial Management System (IMS). In addition, studies on work station ergonomics are conducted in the framework of the preventive approach. In Italy, for example, an ergonomic study was carried out on the transportation of cylinders in forklifts in a gas filling center. This study led to the improvement of material handling and comfort of use of lifts as well as to a better prevention of professional illnesses such as muscular-skeletal disorders (MSD). What is more, Air Liquide Canada has a program called JHA (Job Hazard Analysis) to make sure that the physical requirements of work stations fit the employees' capacities.

As for pandemics, there is a specific crisis management procedure integrating local legal obligations and the Group's recommendations. This procedure was implemented during the influenza A(H1N1) epidemic in 2009.

In addition, part of Air Liquide's activities is focused on disinfection, through the Group's subsidiaries that are specialized in this area, Schulke and Anios, that make their products available to the Group's units.

Concerning AIDS, local initiatives, notably in the South African and Senegalese subsidiaries, help raise the awareness of employees on this subject.

Finally, there are training programs in Air Liquide's training catalogue to promote the Group's rules and good practices on health, safety and risk management at work stations.

WELL-BEING

After a large number of measures taken these last few years to increase well-being at work (continuous improvement of the environment at the work station, organization of work, training and personal development, social relations, etc.), Air Liquide made three decisions in 2011 for France to promote the personal life/professional life balance of its employees, whatever their age or position.

First, in 2012, places in inter-company crèches will be proposed to employees in several subsidiaries in the Paris and Grenoble regions under the same financial conditions as the municipal crèches.

During 2012, in France, an e-portal, a tool for accessing practical, administrative and legal information, will be made available to employees and their families to facilitate their daily life. It can be used from the office or home via a personal access code.

Last, an agreement with the Mondial Assistance company will permit employees to call, from their office or home, experts (doctors, legal specialists, social workers, orientation counselors) who can answer their questions with complete confidentiality on areas as varied as the family, housing, well-being and healthcare, unforeseen events, budget management, taxation and retirement.

In addition, employees can be put in touch with childcare providers, tutors or household help.

HANDICAP

For Air Liquide, diversity and equal opportunity also mean better insertion of handicapped employees into its teams, but also through subcontracting to firms in the protected sector [a], particularly in France. In 2011, handicapped employees represented 1.3% of the Group's personnel.

In France, all the operations concerning the handicapped are coordinated by the Air Liquide Mission Handicap according to the terms of a company agreement signed with social partners in 2010. At the end of 2010, the percentage of handicapped workers for all the French subsidiaries was 4%. Through this company agreement, Air Liquide has an employment policy with objectives in recruitment, integration into the Company, training, job maintenance, awareness-raising and subcontracting from the protected sector.

To carry out these operations favoring the handicapped in the field, Air Liquide's Mission Handicap calls on 14 employees who are "handicap advisors" divided among the main French subsidiaries. They are accompanied by multidisciplinary working groups that meet three times a year to work on different subjects connected to handicaps.

Among the new operations implemented in 2011, collaboration with companies in the protected sector was strengthened in France. A Protected Sector Steering Committee was created to develop procurement from different firms in the protected sector. In addition, a framework contract of reference was signed by the Group with a printer in this sector, as well as in the industrial cleaning of garments. Awareness-raising operations were conducted with the Group's communication, shareholders and procurement departments to encourage them to consult protected sector firms on invitations to tender.

(a) Sector from the economic activity employing in priority handicapped workers.

Mission Handicap regularly conducts awareness-raising operations in-house. So, each year in November, on the occasion of the national week for the employment of the handicapped in France, Air Liquide mobilizes all its employees through awareness-raising operations. In 2011, Air Liquide devoted a full month to these communication operations that permit employees to acquire a better understanding of handicaps and to look at differences in a new way.

SOCIAL DIALOGUE

The European Works Council has 28 employee representatives from 15 countries [a]. The composition of the Council evolves with the Group's acquisitions, the expansion of the European Union and according to the rules established by the Council's constitutional agreement. The Council meets once a year chaired by a member of the Executive Committee. The main themes discussed during this meeting are: safety, the Group's current activities, the annual financial statements and Air Liquide's strategy.

The Group is particularly concerned about encouraging and respecting social dialogue, and today 77% of Air Liquide's employees have access to a representation, dialogue or consultation structure.

PARTICIPATION OF EMPLOYEES IN THE CAPITAL OF AIR LIQUIDE S.A.

The Group has had the wish to have its employees worldwide more broadly participate in the capital of Air Liquide S.A. So, since 1986, 11 capital increase operations have been especially reserved for the Group's employees so that they can take advantage of preferential conditions.

At the end of 2011, the share of capital held by the Group's current and former employees was estimated at 2.2% of which 1.6% (in the meaning of Article L. 225-102 of the French Code of Commerce) corresponded to the shares subscribed by the employees in the framework of capital increases that are reserved for them or that are held in the framework of collective management.

EMPLOYEE AWARENESS-RAISING ON SUSTAINABLE DEVELOPMENT

Many initiatives are created at Air Liquide to raise employee awareness on sustainable development issues and encourage them to promote them in their daily activities. The "Better and Cleaner" Olympiads between research centers, the "Better and Cleaner" initiative of the Group's head office and "Carfree Day" are a few examples.

The "Better and Cleaner" Olympiads, launched at the end of 2009 between all of Air Liquide's research centers, had strong participation throughout 2011. The purpose of this challenge is to raise awareness at the research centers on environmental questions by bringing them together around a common project whose goal is to reduce the consumption of utilities and greenhouse gas emissions. This competition should make it possible to decrease the carbon footprint of each unit, while finding the best environmental practices developed by researchers worldwide. The best overall performance and the greatest improvement compared to the preceding year are both rewarded. Three local initiatives that were remarkable because of their contribution to a decrease in environmental impact, to sustainable development or to social benefits were also selected.

The "Better and Cleaner" initiative of the research centers was extended with the launch in 2011 of the "Better and Cleaner Head Office" project, at the Group's head office in Paris. The project was created by employees who wanted to get involved in sustainable development on a daily basis at Air Liquide. The objective was to decrease the environmental impact of the head office and to optimize resources, taking the environment into account in everyday professional life, and to raise employee awareness of sustainable development issues.

In addition, in the framework of the "World Carfree Day" on September 22, 2011, Air Liquide rolled out actions at many units around the world to improve awareness of global warming and give bicycles, walking and public transportation priority over cars. For example, Air Liquide Oman initiated a carpooling campaign that was a great success, launching a call to companies, schools and universities to share this initiative. All the Group's geographic zones and activities were represented, showing everyone's commitment on these environmental themes.

(a) Austria, Belgium, Denmark, France, Germany, Great Britain, Greece, Italy, the Netherlands, Poland, Portugal, Romania, Slovakia, Spain, Sweden.

Human resources indicators concerning the Group as a whole

Employees [a]	2007	2008	2009	2010	2011
Group employees	40,300	43,000	42,300	43,600	46,200 *
• Women	9,630	10,300	10,300	11,100	12,100
in %	24%	24%	24%	25%	26%
• Men	30,670	32,700	32,000	32,500	34,100
in %	76%	76%	76%	75%	74%
Joining the Group [b]		19.2%	10.5%	15.1%	20.4%
Leaving the Group [c]		12.5%	12.2%	11.9%	14.3%
% of employees having resigned during the year [d]	5.0%	5.0%	3.2%	4.0%	5.3%

(a) Employees under contract, excluding temporary employees.

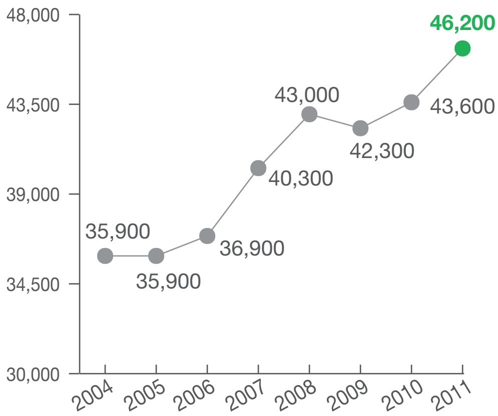
(b) Hiring or integration due to acquisitions. The percentage is based on the number of employees as of December 31 of the preceding year.

(c) Retirement, resignations, lay-offs, departures due to disposals… The percentage is calculated based on the number of employees as of December 31 of the preceding year.

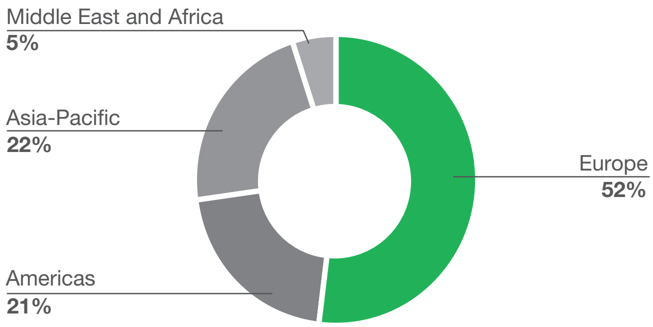
(d) Since 2009, calculated on the number of employees as of December 31 of the preceding year.

* *Indicator verified by the Statutory Auditors.*

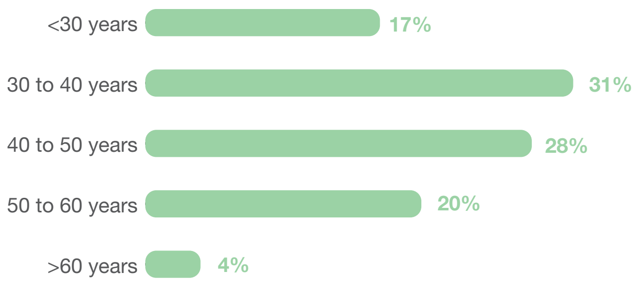
Evolution of employees since 2004



Distribution of employees by zone



Distribution of employees by age



Parity and diversity	2007	2008	2009	2010	2011
Parity					
% women among Managers and Professionals	19%	22%	24%	24%	26% *
% women among Managers and Professionals hired during the year	30%	29%	29%	29%	29% *
% women among employees considered high potential	32%	32%	36%	40%	39%
Number of nationalities					
Among expatriates	40	48	46	53	48
Among senior managers	22	22	25	27	28
Among employees considered high potential	44	42	47	46	46
Number of nationalities among senior managers / Number of countries where the Group is present					35%

* *Indicator verified by the Statutory Auditors.*

	2007	2008	2009	2010	2011
Training					
% total payroll allocated to training	About 3%	About 3%	About 2%	About 2%	About 2%
Average number of days of training per employee and per year [(a)]	2.9 days	3.1 days	2.4 days	3.0 days	3.4 days * [(b)]
% employees who attended a training program at least once during the year	68%	71%	71%	74%	82%
Remuneration					
% employees with an individual variable share as part of their remuneration	49%	51%	50%	51%	53%
Performance review					
% employees who have had a performance review meeting with their direct supervisor during the year	71%	68%	73%	76%	79% * [(c)]
% employees who have had a career development meeting with the HR Department during the year	20%	16%	14%	15%	18% [(c)]
Ethics					
% employees belonging to a unit with a local Code of conduct		55%	67%	71%	90%
Employee loyalty					
Average seniority in the Group	11 years	10 years	11 years	10 years	10 years
Retention rate of managers and professionals over a year					94.5%
Social performance					
% handicapped employees [(d)]	1.2%	1.2%	1.2%	1.2%	1.3%
% employees having access to a representation / dialogue / consultation structure	83%	81%	82%	79%	77%
% employees belonging to a unit at which an internal satisfaction survey was conducted within the last three years [(e)]	64%	58%	37%	43%	48%
% employees with benefits coverage through the Group [(f)]	98%	98%	97%	98%	98%
Employee shareholders					
% capital held by Group employees [(h)]	1.1%	1.0%	1.4%	1.6%	1.6%
% Group employees that are shareholders of L'Air Liquide S.A.	About 50%	> 40%	> 60%	> 60%	> 50%

(a) Calculated in average number of employees during the year.
(b) 25.5 hours a year according to the new calculation method in hours (base: 1 day = 7 hr. 30 min).
(c) Since 2010, calculated on the basis of employees with "long-term contracts".
(d) For the countries where regulations allow this data to be made available.
(e) Indicator for units of over 300 employees.
(f) Includes notably retirement benefits.
(g) In the meaning of article L. 225-102 of the French Commercial Code.
* *Indicator verified by the Statutory Auditors.*

Apart from all these indicators, the Group is working on their enrichment, in particular given the possibilities of changes in French legislation with the "Grenelle 2" law.

COMMUNITIES

Commitment

Act as a good citizen in the countries where the Group operates, by participating in the development of local economies, the protection of life and the environment and through a proactive dialogue with communities.

2015 objective

Put the expertise of the Group's teams at the service of communities by carrying out at least one philanthropic project per country by 2015. In this framework, the Group commits to supporting, over the long term, the Air Liquide Foundation so that it can help reach this objective through the projects.

Key Responsibility Indicator

Number of countries having carried out at least one philanthropic project directly or through the Air Liquide Foundation by 2015.

In 2011, the Air Liquide Foundation supported projects in 19 countries.

Each Air Liquide unit is located in communities respect for which is at the heart of the concerns of the Group's employees. They are aware that each decision, each action commits them vis-à-vis customers and partners but also vis-à-vis those individuals or firms that are affected by the Group's activities. The consideration of these communities' needs is necessary to guarantee the sustainability of the environment where the Group carries out its action.

Corporate philanthropy and the Air Liquide Foundation

Social and human commitment is an ongoing concern for Air Liquide. Since its very beginning, the Group has carried out philanthropic actions, especially in the preservation of life and the environment.

Whether they are directly carried out by the Group's subsidiaries or initiated by the Air Liquide Foundation, these corporate philanthropy actions represented nearly **2 million euros in 2011.**

For example, Air Liquide's subsidiary in **Canada** and its employees gave nearly 100,000 euros to an organization that fights against all forms of poverty in the country and over 15,000 euros to an organization that helps leukemia patients. In the **United States,** the Group's subsidiaries and their employees collected 300,000 euros for charitable organizations working in the education and healthcare fields. In **Thailand,** Air Liquide and its employees also mobilized to assist people affected by the flooding in August 2011. Over 60,000 euros were collected to restore homes and provide food aid to the victims.

Following the tsunami that struck **Japan** in March 2011, the Group and the Air Liquide Foundation mobilized to aid the populations affected by this disaster. This solidarity movement raised over 400,000 euros, half from the donations of Group employees in 33 countries.

The calling of the Air Liquide Foundation, created in 2008, is to encourage and develop these initiatives. It has a worldwide scope and supports projects in the 80 countries where the Group operates. With a budget of nearly **3 million euros over five years,** the Foundation has three missions:

- **the Environment:** support for **scientific research** on the **preservation of our planet's atmosphere;**
- **Healthcare:** support for **scientific research** on improving the human respiratory function;
- **Micro-Initiatives on local development:** the Foundation supports **proximity** actions (education, access to treatment, energy and water, micro-entrepreneurship, handicaps, etc.) in the regions of the world where the Group is present. **Each Micro-Initiative is followed by a sponsor, an Air Liquide employee who is a volunteer.** The Group's employees who wish to get involved can sponsor a project that arouses their interest and personally get involved in the field. Today, over 120 Group employees are involved alongside the Foundation.

Headed by Benoît Potier and composed of senior managers of the Group, a personnel representative and outside experts, the **Foundation's Board of Directors** meets twice a year to determine corporate philanthropy focuses and to examine scientific research projects. It is assisted in its functions by a **Project Selection Committee,** which about four times a year studies the projects submitted to it. This Committee is composed of seven members including a representative of the Shareholders Communication Committee.

Projects can be submitted on line, in French or in English, on the Foundation's site, www.fondationairliquide.com.

In 2011, the Air Liquide foundation supported 38 new projects, including six scientific research projects in the environment and healthcare fields and 32 Micro-Initiatives. In 2011, these projects were located in **19 different countries.**

Among the **environmental research** projects, the Foundation has supported the Research Institute for Development over a two-year period for its work on the carbon budget of the mangrove in La Foa, a commune in **New Caledonia.** In **Germany,** it is working with the Bergakademie of Freiberg on a study on greenhouse gas emissions from the soil. Better knowledge of the factors influencing these emissions will make it possible to create a series of measure to limit them. The Foundation has also renewed its support for the Carnegie Institution for Science, a research organization in the **United States,** which is carrying out a study to evaluate trace gas exchanges between the atmosphere and the biosphere. Understanding the phenomena causing variations in concentrations of these molecules will permit the current climate simulation models to be refined.

In **medical research,** the Air Liquide Foundation is once again supporting the Fondation Premup, in Paris, for its work on understanding the mechanisms responsible for pulmonary alveolar development anomalies in premature infants. It is also taking part in a sleep study initiated by the Henri Mondor University Hospital in Créteil on adults suffering from sickle-cell anemia, a hereditary disease that alters hemoglobin.

In **Micro-Initiatives,** the Foundation financed the renovation of electrical equipment in a free hospital in Halligudi, in the state of Karnataka in **India.** In **Vietnam,** it is helping to set up a water purification system in Tan Do, a village near Hanoi. In **Indonesia,** it supported a housing reconstruction program for refugees who were victims of the eruption of the Merapi volcano in 2010. In **Thailand,** it contributed to the development of a specific coverage operation for Burmese refugees with tuberculosis.

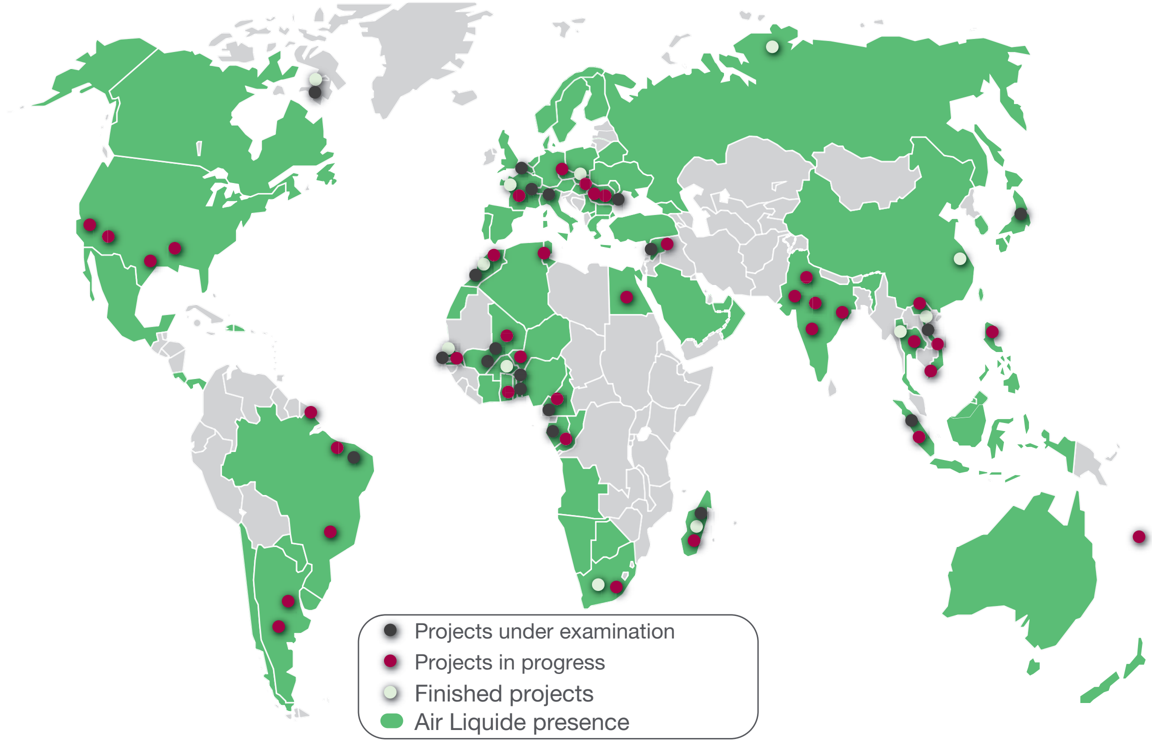
In **Argentina,** in Neuquèn province, the Air Liquide Foundation's support helped create reading spaces in seven schools permitting over 2,000 children to improve their reading and writing level. In **Brazil,** it backed the computer equipment project in a reception center for adolescents in Santo Amoro, a suburb of São Paulo. In the **United States,** it participated in the rollout of a literacy program that will benefit a thousand children from modest backgrounds in Louisiana.

In **Cameroon,** the Foundation contributed to renovating the water distribution system of a bush hospital south of Yaoundé. In **Senegal,** it took part in a school reconstruction project in the village of Siwo in the Siné Saloum region. In **Madagascar,** it financed the construction of a social crèche in Antananarivo. In **Togo,** it supported a project to supply drinking water to several villages 250 km north of Lomé. In **Egypt,** it permitted the renovation of part of a primary school in Luxor.

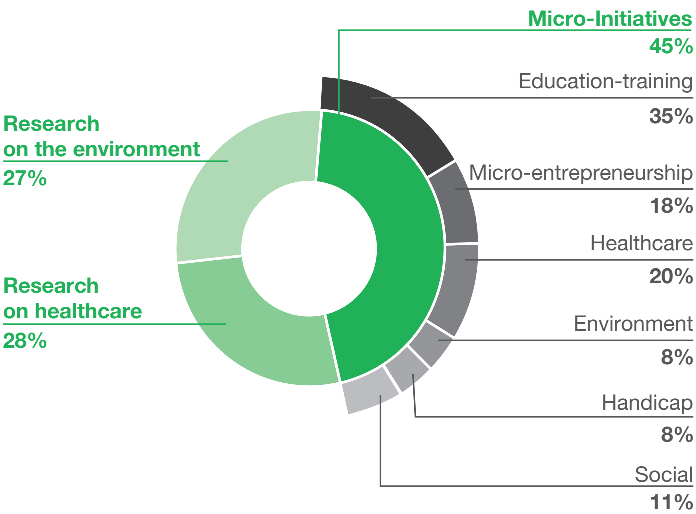
In **France,** the Foundation contributed its support to a program providing educational support at home for autistic children. In professional insertion, it helped in the creation of a multimedia studio for young job-seekers. The aim of this initiative is to train young people in presentation and communication techniques as well as introducing them to the journalism professions.

The Air Liquide Foundation received a trophy for corporate philanthropy for the environment and sustainable development awarded by the Ministry of the Environment and Sustainable Development. This trophy honored the Air Liquide Foundation's support in 2011 of the Institute of Research for Development (IRD) concerning research on the carbon dynamic in the mangrove.

Breakdown of the Air Liquide Foundation projects worldwide in 2011



Breakdown of the Air Liquide Foundation's actions per mission since its creation in 2008



IMPROVE THE ENVIRONMENTAL FOOTPRINT

Commitment

Contribute to continuously improve the environmental footprint of the Group operations, products, customers, suppliers and communities.

2015 objective

Improve by at least 2% from 2011 to 2015 the energy efficiency of each of its activities: air separation units, hydrogen units and product deliveries.

Key Responsibility Indicators

- **Energy efficiency of air separation units**
- **Energy efficiency of hydrogen units**
- **Efficiency of liquefied gas deliveries (Industrial Merchant activity)**

Between 2007 and 2011, energy efficiency improved 1% for air separation units, 1.5% for hydrogen units and 2.9% for liquefied gas deliveries in the Industrial Merchant activity.

Created from an invention that considerably reduced the energy used to separate air gases, Air Liquide has always been involved in preserving the environment and natural resources. The Group has initiated an approach to steadily reduce the environmental footprint of its activities and contributes to improving that of its partners and customers. The objective of improving by at least 2% from 2010 to 2015 the energy efficiency of its air separation units, its hydrogen units and the efficiency of liquefied gas deliveries **corresponds to over 300,000 tons a year of direct and indirect CO_2 emissions avoided** [a].

Revenue linked to life and the environment

Over 40 applications of industrial and medical gases preserve life and the environment at the Group's customers: these applications **represent 42% of sales** [b]**.**

Starting in 2003, Air Liquide consolidated these "blue" [c] sales every other year and in 2010, the Group decided to communicate on this indicator every year. "Blue sales" are calculated **for each of the Group's activity branches: Healthcare, Industrial Merchant, Large Industries, Electronics, Engineering and Construction and Specialty Chemicals.**

A few examples of applications that preserve the environment:

- filling under modified atmosphere to protect foods and reduce chemical additives;
- inerting nitrogen to avoid the emission of volatile organic compounds (VOC);
- fusing glass by using pure oxygen, which considerably reduces emissions of nitrogen oxides, gases that cause acid rain;
- treating water in purification stations;
- using rare gases like krypton to improve the insulation of double-glazed windows;
- using hydrogen in refineries to remove sulfur from hydrocarbons, reducing the emissions of sulfur oxide, which also contribute to acid rain;
- using oxygen in blast furnaces to reduce the consumption of coke whose production is very polluting.

(a) *Estimate on the basis of CO_2 emissions in 2011.*
(b) *Percentage calculated on the basis of the Group's 2010 revenue.*
(c) *Air Liquide describes this specific revenue as "blue" to evoke the color of the sky since air is the main raw material in the Group's production units and it is the blue of the atmosphere that we must preserve.*

The percentage of Air Liquide's "blue revenue" noticeably increased between 2005 and 2010, going from 33% to 42% of the Group's total revenue. This growth illustrates the development of the applications linked to preserving life and the environment in Air Liquide's global revenue. In addition, **over 60% of the Group's Research and Development budget is earmarked for work on preserving life and the environment** and is a "blue revenue" growth driver for the future.

Evolution in the percentage of applications that preserve life and the environment in the Group's revenue for the years 2005, 2007, 2009 and 2010

The environmental footprint of the Group

ENVIRONMENTAL INDICATORS CONCERNING THE GROUP AS A WHOLE

In its **production** activities, the main trends concerning environmental data in 2011 are the following:

- Volumes of air gas products rose considerably compared to 2010. As a result, electrical energy consumption, which is mainly used in air separation units increased, as did indirect CO_2 emissions, which are connected to it. The energy consumption per m^3 of air gas produced, that is, the energy efficiency of these units, is **the best level reached** since 1998.
- **Thermal energy consumption and direct CO_2 emissions increased** mainly due to a sustained rise in volumes of hydrogen production notably due to the startup of new units in Singapore and the Netherlands. **The energy efficiency of hydrogen units slightly declined** because these two units were in the ramping up phase in 2011 and still not producing at full capacity and therefore not at their optimum efficiency level.

In order to distinguish the differentiated growth dynamics between advanced economies and developing economies, Air Liquide decided, in 2010, to segment its direct and indirect CO_2 emissions between these economies.

Presented here are the environmental elements most representative of the Group's businesses. They cover a total of 517 Air Liquide production units or sites and concern:

- large air separation units;
- hydrogen and carbon monoxide units;
- cogeneration units;
- acetylene units;
- nitrous oxide units;
- carbon dioxide liquefaction and purification units;
- units in the Hygiene and Specialty Chemicals sectors;
- units for Welding equipment and products;
- Engineering and Construction units;
- Research and Development centers and technical centers.

The indicators concerning the environmental impact of the **transport** of products of the Group's Industrial Merchant activity as well as those on the main **waste and byproducts** are also presented.

The most relevant environmental indicators for the total of the 10 types of production units and transportation (517 units) on a worldwide scope

	2007	2008	2009	2010	2011
Evolution of energy consumption per m³ of air gas produced [(a)]	100.0	101.3	103.3	99.0	99.0 *
Evolution of energy consumption per m³ of hydrogen produced [(b)]	100.0	98.8	98.7	98.3	98.5 *
Evolution of the efficiency of industrial liquefied gas (oxygen, nitrogen, argon, carbon monoxide) deliveries by truck [(c)]	100.0	99.2	97.4	96.3	97.1
Total annual electricity consumption *(in GWh)*	23,232	23,223	21,139	24,924	26,661 *
Total annual thermal energy consumption *(in LHV Terajoules)* [(d)]	160,033	177,395	183,381	204,434	213,198 * [(e)]
Total annual water consumption *(in millions of m³)*	57.4	59.7	59.9	66.1	67.2 * [(f)]
Annual amount of CO_2 emissions avoided by cogeneration and on-site units *(in thousands of tonnes)* [(g)]	-637	-625	-819	-870	-863
Total direct greenhouse gas (GHG) emissions *(in thousands of tonnes CO_2 eq.)* [(h)]	8,100	9,014	9,386	10,181	10,549 *
Total indirect GHG emissions *(in thousands of tonnes CO_2)* [(i)]	7,995	7,952	7,447	9,294	9,994 *
Total direct and indirect GHG emissions *(in thousands of tonnes CO_2 eq.)*	16,095	16,966	16,833	19,475	20,543 *

(a) Gases produced (oxygen, nitrogen, argon) calculated in m³ of equivalent gaseous oxygen.

(b) Hydrogen and carbon monoxide.

(c) In kilometers per tonne delivered.

(d) LHV: Lower Heat Value, which includes the fact that energy from water vaporizing in fuel is not recovered.

(e) Or approximately 59,200 GWh LHV.

(f) Representing less than 0.5 one-thousandth of the industrial water consumption of the economies under review.

(g) Value revised during the 2011 reporting.

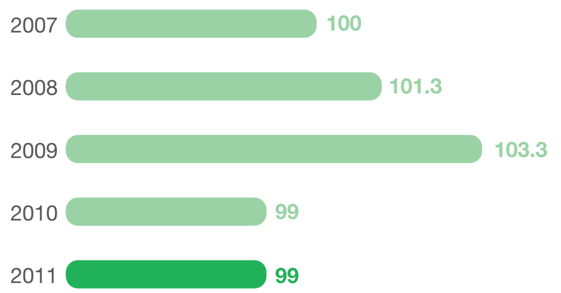
(h) Includes CO_2 emissions and nitrous oxide emissions.

(i) Total indirect GHG emissions generated by the production of electricity purchased outside the Group. The indirect emissions only concern CO_2 emissions. Calculation takes into account the primary energy source each country uses to produce electricity (source: International Energy Agency).

** Indicator verified by the Statutory Auditors.*

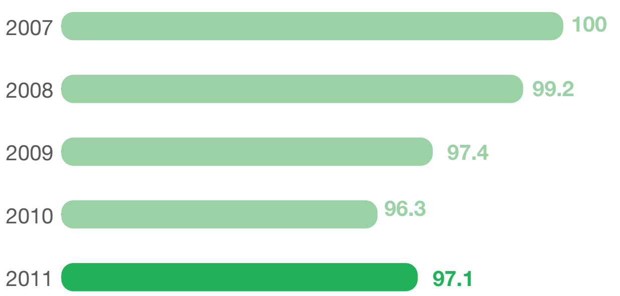
ENERGY EFFICIENCIES, THE ORIGIN OF THE ELECTRICITY USED AND DIRECT AND INDIRECT EMISSIONS_

Evolution of energy consumption per m³ of gas produced, air separation units, since 2007



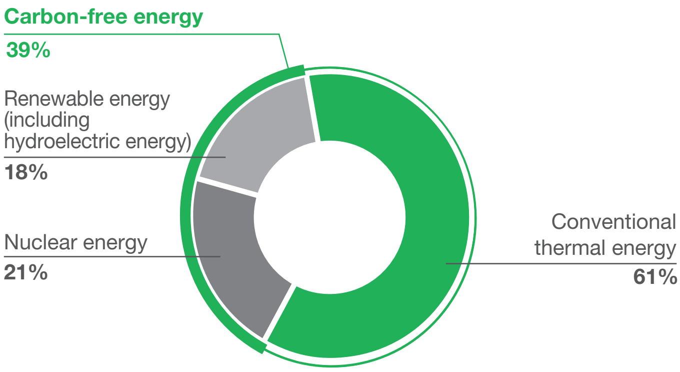
Evolution of energy consumption per m³ of gas produced, in hydrogen and carbon monoxide units since 2007

Evolution of the efficiency of liquefied gas delivered since 2007 (oxygen, nitrogen, argon, carbon dioxide)

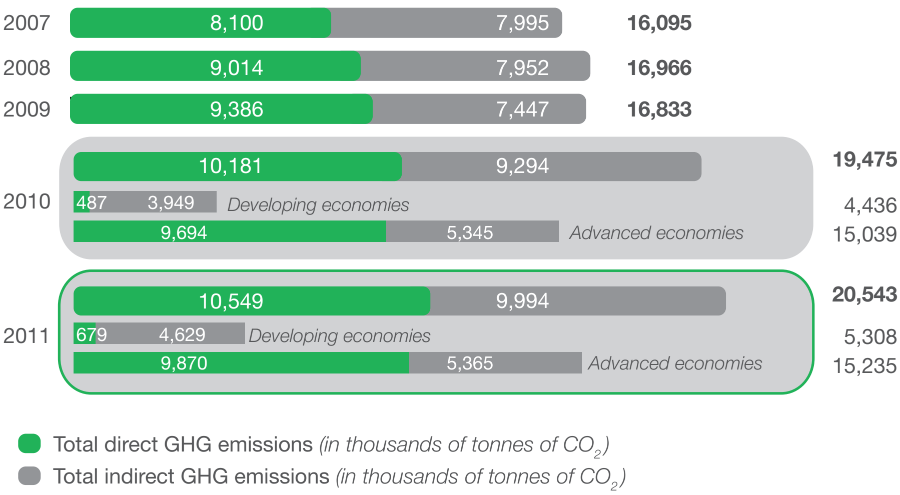


Origin of electricity used in 2011 [(a)]

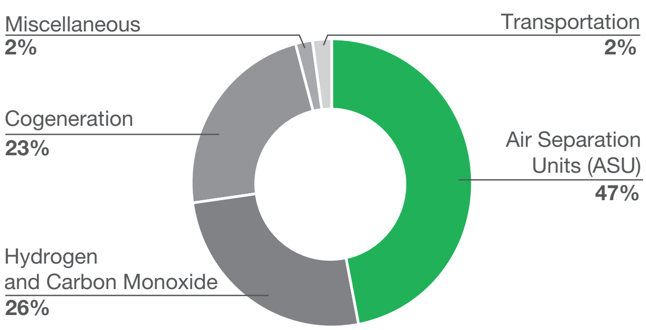
Taking into account the different natures of primary energy of the countries where the Group is present, it is possible to present the breakdown of the origin of the electricity used worldwide.



Direct and indirect greenhouse gas emissions of the Group



Breakdown of direct and indirect greenhouse gas emissions of the Group



In this Report, the advanced economies are defined in accordance with the financial reporting: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Great Britain, Greece, Italy, Japan, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United States.

The developing economies refer to the other countries in which Air Liquide operates.

(a) The calculation takes into account the different natures of primary energy that each country uses to produce electricity (source: International Energy Agency).

DETAILS ON INDICATORS FOR EACH OF THE 10 UNIT TYPES, TRANSPORTATION AND WASTE AND BYPRODUCTS

1. Air separation units

Worldwide, Air Liquide operates **298 large air separation units.** These units produce oxygen, nitrogen and argon, with some sites producing rare gases like krypton and xenon.

Environment: These **factories "without chimneys"** do not use any combustion processes. Since **they discharge almost no CO_2**, sulfur oxide (SOx) or nitrogen oxide (NOx) emissions, they are particularly environmentally friendly. They consume electricity almost exclusively: worldwide, they use about **2,900 MW** each instant, the equivalent of the production of two nuclear power plant units. Their cooling systems require back-up water.

Air separation units	**2007**	**2008**	**2009**	**2010**	**2011**
Number of production units	250	257	265	287	298
Annual electricity consumption *(in GWh)* (a)	22,296	22,235	20,141	23,774	25,398
Evolution of energy consumption per m³ of gas produced (b)	**100.0**	**101.3**	**103.3**	**99.0**	**99.0 ***
Annual back-up water consumption *(in millions of m³)* (c)	36.2	34.6	33.2	36.7	37.7
Evolution of back-up water consumption per m³ of gas produced (c)	**100.0**	**97.6**	**104.1**	**102.0**	**97.2**

(a) Also including small volumes of purchased steam.

(b) Gases produced (oxygen, nitrogen, argon) calculated in m³ of equivalent gaseous oxygen.

(c) Excluding the energy consumption of units with an open and closed cycle water cooling system.

* *Indicator verified by the Statutory Auditors.*

2. Hydrogen and carbon monoxide production units

Worldwide, Air Liquide operates **41 large hydrogen and carbon monoxide production units.** These units also produce steam for certain customers. They primarily use natural gas as a raw material and certain amounts of water required for the reaction that produces hydrogen. Carbon monoxide is an indispensable raw material in the chemical industry for producing plastic materials.

Environment: The **desulfurization of hydrocarbons** to produce sulfur-free fuels is one of the main applications for hydrogen. In 2011, the hydrogen Air Liquide supplied to refineries throughout the world resulted in **avoiding about 760,000 tonnes of sulfur oxide emissions being discharged into the atmosphere,** which is more than twice as high as all the sulfur oxide emissions from a country like France. These units emit CO_2 and nitrogen oxides (NOx) but produce practically no sulfur oxide (SOx). They also consume electricity and their cooling systems require back-up water.

Hydrogen and carbon monoxide units	**2007**	**2008**	**2009**	**2010**	**2011**
Number of production units	38	38	36	39	41
Annual thermal energy consumption *(in LHV Terajoules)* (a)	94,880	102,717	95,306	119,205	128,075
Annual electricity consumption *(in GWh)*	512	518	478	620	700
Evolution of energy consumption per m³ of gas produced (b)	**100.0**	**98.8**	**98.7**	**98.3**	**98.5 ***
Emissions into the air: CO_2 *(in thousands of tonnes)*	3,795	4,226	3,923	4,875	5,202
Annual consumption of process and back-up water *(in millions of m³)*	9.8	10.6	10.2	13.0	11.8
Emissions into the air: NOx (nitrogen oxide) *(in tonnes)*	950	860	750	850	800
Emissions into the air: SOx (sulfur oxide) *(in tonnes)*	< 250	< 250	< 250	< 250	< 250

(a) LHV: Lower Heat Value, which includes the fact that energy from water vaporizing in fuel is not recovered.

(b) Hydrogen and carbon monoxide.

* *Indicator verified by the Statutory Auditors.*

3. Cogeneration units

Worldwide, Air Liquide operates **17 cogeneration units.** These units produce steam and electricity simultaneously. They consume natural gas and water, most of which is converted into steam for customers. The steam can be condensed by these customers and then reused in the cogeneration unit. In most cases, the electricity produced is supplied to the local electricity distribution network.

Environment: Combustion of natural gas produces CO_2 and leads to nitrogen oxide (NOx) emissions, but practically no sulfur oxide (SOx) emissions. The cogeneration units are more energy efficient concerning CO_2 emissions than separate production units for electricity and steam. They therefore help reduce CO_2 emissions in the industrial basins they supply. In 2011, the Group's cogeneration units **avoided 793,000 tonnes of CO_2 emissions being discharged into the atmosphere,** so they were about **14% more efficient** than the separate production of electricity and steam.

Cogeneration units	2007	2008	2009	2010	2011
Number of production units worldwide	16	18	18	17	17
Annual natural gas consumption (or thermal energy) *(in LHV Terajoules)* [a]	64,685	74,168	87,642	84,763	84,654
Annual amount of CO_2 emissions into the atmosphere prevented through cogeneration units [b] [c] *(in thousands of tonnes)*	**-574**	**-562**	**-761**	**-804**	**-793**
Emissions into the air: CO_2 *(in thousands of tonnes)*	3,629	4,161	4,917	4,755	4,749
Annual water consumption *(in millions of m³)*	7.9	11.5	13.5	13.1	14.6
Emissions into the air: NOx (nitrogen oxide) *(in tonnes)*	2,300	2,700	3,160	2,650	2,910
Emissions into the air: SOx (sulfur oxide) *(in tonnes)*	< 50	< 50	< 50	< 50	< 50

(a) LHV: Lower Heat Value, which includes the fact that energy from water vaporizing in fuel is not recovered.

(b) Calculation takes into account the primary energy source that each country uses to produce electricity (source: International Energy Agency).

(c) Values revised during the 2011 reporting.

4. Acetylene production units

Worldwide, Air Liquide operates **54 acetylene production units** (a gas used mainly in welding and metal cutting). 52 of them produce this gas through the decomposition of a solid—calcium carbide—using water. Two units fill cylinders with this gas, which is supplied by another industrial company.

Environment: This process produces lime, which is generally recycled (at over 90%) in industrial and agricultural applications (cf. paragraph on waste and byproducts).

Acetylene units	2007	2008	2009	2010	2011
Annual electricity consumption *(in GWh)*	11	10	10	10	11
Annual water consumption *(in millions of m³)*	0.4	0.4	0.3	0.3	0.2
Annual calcium carbide consumption *(in thousands of tonnes)*	38	41	34	32	31
Estimate of emissions of volatile organic compounds (VOC) into the air *(in tonnes)* [a]	170	140	150	140	130

(a) Losses of acetylene and acetone into the atmosphere.

5. Nitrous oxide production units

Worldwide, Air Liquide operates **nine** nitrous oxide production units. Nitrous oxide is used primarily as an anesthetic gas in the healthcare sector and as a sweetening agent in the food industry. It is produced from ammonium nitrate in solid form or as a solution in water. The Group's policy on reducing greenhouse gases emitted into the atmosphere has seen results, with a decrease of almost 50% of these emissions in five years.

Nitrogen oxide units	**2007**	**2008**	**2009**	**2010**	**2011**
Annual electricity consumption *(in GWh)*	6	6	5	6	6
Annual water consumption *(in millions of m^3)*	0.1	0.1	0.1	0.1	0.1
Annual ammonium nitrate consumption *(in thousands of tonnes)*	22	20	19	21	21
Emissions of nitrous oxide into the air *(in tonnes)*	780	550	410	430	340 [(a)]

(a) Which corresponds to the equivalent of 105,000 tonnes of CO_2.

6. Carbon dioxide liquefaction and purification units

Worldwide, Air Liquide operates **65 carbon dioxide liquefaction and purification units.** Carbon dioxide has many industrial applications but is used mainly in the food industry to deep-freeze foods or to produce carbonated beverages.

Environment: Carbon dioxide is most often a byproduct of chemical units operated by other manufacturers. In some cases, it is found naturally in underground deposits. It is purified and liquefied in Air Liquide units, which consume electricity and cooling water. In this way, carbon dioxide is reused for other industrial applications instead of being directly emitted into the atmosphere.

Carbon dioxide liquefaction and purification units	**2007**	**2008**	**2009**	**2010**	**2011**
Annual electricity consumption *(in GWh)*	340	375	411	420	450
Annual water consumption *(in millions of m^3)*	1.2	1.3	1.7	1.8	1.8

7. Hygiene and specialty chemicals production units

Hygiene and specialty chemicals production units are located at **eight sites** in France, Belgium, Germany and China and belong to the subsidiaries Seppic (specialty chemicals) and Anios and Schülke (disinfection). These units consume natural gas, electricity and water. Combustion of natural gas produces small quantities of CO_2.

Air Liquide contributes to the patients' health at the hospital with disinfectant and antiseptic products and related services. The Group's experts work closely with hospitals to help them reduce the risk of nosocomial infections and contamination.

Hygiene and specialty chemicals units	2007	2008	2009	2010	2011
Annual electricity consumption *(in GWh)*	20	22	21	22	24
Annual thermal energy consumption *(in LHV Terajoules)* [a]	245	274	234	272	266
Air emissions: CO_2 *(in thousands of tonnes)*	9	10	9	10	10
Air emissions of volatile organic compounds (VOC) *(in tonnes)*	320	250	150	190	190
Annual water consumption *(in millions of m^3)*	0.5	0.6	0.4	0.5	0.5
Discharge to water: oxidizable matter *(in tonnes)*	< 1,000	< 1,000	< 800	< 1,000	< 1,000
Discharge to water: suspended solids *(in tonnes)*	< 100	< 100	< 100	< 100	< 100

(a) Including thermal energy corresponding to steam purchases.

LHV: Lower Heat Value, which includes the fact that energy from water vaporizing in fuel is not recovered.

SPECIALTY CHEMICALS ACTIVITY

Seppic is a recognized supplier of specialty ingredients for the healthcare and beauty markets whose expertise serves its customers by offering them innovative product ranges made from plant-based raw materials.

Quality, safety and the environment are constant focuses in the management of its industrial sites certified by the international standards ISO 9000, 14000 and 18000.

Concerned with improving the environmental impact of its operations, Seppic drew up, in 2011, a global carbon budget of all the activities it generates, from obtaining its raw materials to making its products available to its customers worldwide. This study will serve as a basis for a long-term improvement plan for its environmental performances.

This approach is part of a strategic framework for responsibility and sustainable development that will, among others, lead Seppic to initiate, in 2012, a systematic eco-design approach and a life-cycle analysis (LCA) of its products, in this way meeting its customers' expectations for greener and safer products.

8. Welding equipment and products production units

The **welding equipment and products production units** are mainly located on **13 sites** in the world. They are welding equipment assembly (electric welding units, torches, regulators) or welding consumables (electrodes, solid and flux-cored welding wire) production units.

Welding equipment and products production units	2007	2008	2009	2010	2011
Annual electricity consumption *(in GWh)*	67	68	49	52	54
Annual thermal energy consumption *(in LHV Terajoules)* [a]	223	218	166	160	177
Emissions of CO_2 into the air *(in thousands of tonnes)*	13	12	9	9	10
Annual water consumption *(in millions of m^3)*	1.2	0.5	0.4	0.5	0.4
Annual consumption of raw materials *(in thousands of tonnes)* [b]	150	170	116	130	136

(a) LHV: Lower Heat Value, which includes the fact that energy from water vaporizing in fuel is not recovered.

(b) Metals and materials for the production of welding products.

9. Engineering and Construction units

The **Engineering and Construction units** taken into account in this reporting are located at **six sites,** in France, China, Japan and India. They are mainly units for the construction of air separation columns and cryogenic tanks.

Environment: Lurgi, in the Group, enabled the Air Liquide to have portfolio of engineering technologies, in particular in production processes for hydrogen and syngas, biofuels (bioethanol, biodiesel) and methanol. In addition, Lurgi is one of the world leaders in sulfur recovery processes.

Engineering and Construction units	2007	2008	2009	2010	2011
Annual electricity consumption *(in GWh)*	11	10	11	11	10
Annual water consumption *(in millions of m^3)*	0.1	0.1	0.1	0.1	0.1
Annual consumption of raw materials *(in thousands of tonnes)* [a]	7.2	7.7	4.5	4.5	4.0

(a) Mainly metals.

10. Principal Research and Development centers and technical centers

The **principal Research and Development centers and technical centers** [a] are located at **six sites** in France, Germany, the USA and Japan. Although these centers' environmental impact is very low compared to other Group units, it was nevertheless decided to present their environmental impact.

Environment: **Over 60% of the Research and Development budget** is directly earmarked for **protecting life** and **environmental issues:** saving energy, producing in a cleaner way, developing energies of the future.

Research and Development centers and Technical Centers	2008	2009	2010	2011
Annual electricity consumption *(in GWh)*	8	13	9	8
Annual thermal energy consumption *(in LHV Terajoules)* [b]	18	33	34	26
Emissions of CO_2 into the air *(in thousands of tonnes)*	1	2	2	2
Annual water consumption *(in millions of m^3)*	0.02	0.02	0.01	0.01

(a) Apart from the research centers of the Hygiene and Specialty Chemicals activity, which are included in paragraph 7.

(b) LHV: Lower Heat Value, which includes the fact that energy from water vaporizing in fuel is not recovered.

11. Transportation

In 2011, trucks delivering Air Liquide liquid gases or gas cylinders traveled **428 million kilometers** throughout the world and emitted about **471,000 tonnes of CO_2**. On-site nitrogen, oxygen and hydrogen units reduced truck deliveries, a source of CO_2 emissions. These on-site units were able to **save the 70 million extra kilometers** traveled by trucks and therefore the emission of **70,000 tonnes of CO_2**.

Environment: Supplying large customers via pipeline from the Group's production units also considerably limits truck transportation. These pipeline systems, which are environmentally friendly and safe, total over **8,800 kilometers worldwide.** For air gases and hydrogen, which represent most of the volumes the Group delivers, **86% of deliveries are made *via* pipeline or through on-site units. As a result, only 14% of all air gases or hydrogen are delivered by trucks.**

	2007	2008	2009	2010	2011
Kilometers traveled by all vehicles delivering gas in liquid or cylinder form *(in millions of km)*	377	395	363	361	428
Estimate of CO_2 emissions generated by these vehicles in the Industrial Merchant activity *(in thousands of tonnes)*	413	433	399	396	471
Evolution of the efficiency of deliveries for liquefied gases (oxygen, nitrogen, argon, carbon dioxide) [(a)]	**100.0**	**99.2**	**97.4**	**96.3**	**97.1**
Estimate of truck transport kilometers avoided through on-site customer units *(in millions of km)*	-59	-58	-54	-61	-70
Estimate of CO_2 emissions avoided by these on-site units *(in thousands of tonnes)*	-63	-63	-58	-66	-70
Percentage of deliveries of air gases and hydrogen via pipeline or on-site	84%	84%	85%	86%	86%

(a) In kilometers per tonne delivered for the Industrial Merchant activity.

2

12. Waste and byproducts

Although the quantity of waste and byproducts produced in the Group's industrial and medical gases activity is small, with a concern for the exhaustiveness of the reporting, Air Liquide nonetheless decided to publish the following estimated figures.

The main waste and byproducts produced by the Group's production units are lime from the acetylene production units (byproduct), metal waste, oils, paints and solvents.

Environment: The average recycling ratio of waste [(a)] is over 90%.

Waste and byproducts	2008	2009	2010	2011
Waste and byproducts that are not dangerous				
• Annual quantity of lime produced (extracted dry equivalent) by the acetylene production units *(in tonnes)*	47,000	39,400	36,900	36,800
% recycled	> 90%	> 90%	> 90%	> 90%
• Metal waste *(in tonnes)* [(b)]	9,500	6,000	9,200	8,200
% recycled	> 99%	99%	> 99%	> 99%
• Oils *(in tonnes)*	700	600	750	750
% recycled	88%	89%	90%	84% [(c)]
TOTAL NON-DANGEROUS WASTE AND BYPRODUCTS *(estimate in tonnes)*	**57,200**	**46,000**	**46,850**	**45,750**
Dangerous waste				
• Paints and solvents *(in tonnes)*	200	200	200	150
% recycled	8%	30%	45%	54% [(d)]
TOTAL WASTE AND BYPRODUCTS *(estimate in tonnes)*	**57,400**	**46,200**	**47,050**	**45,900**

(a) Calculation is based on the weight of the waste.

(b) Metal waste that is not dangerous.

(c) In addition, 15% is incinerated.

(d) In addition, 34% is incinerated.

SECONDARY ENVIRONMENTAL INDICATORS

As a complement of the main environmental indicators presented at the beginning of the environment chapter, there are other environmental indicators for the Group but that are of lesser importance and relevance for Air Liquide's business. Among them and with a concern for transparency and exhaustiveness in reporting, Air Liquide presents below the synthesis table of emissions into the atmosphere of nitrogen oxide (NOx), sulfur oxide (SOx), volatile organic compounds (VOC) as well as discharge to water of oxidizable matter and suspended solids.

	2007	2008	2009	2010	2011
Total emissions into the air: NOx (nitrogen oxide) *(in tonnes)*	3,250	3,560	3,910	3,500	3,710
Total emissions into the air: SOx (sulfur oxide) *(in tonnes)*	< 300	< 300	< 300	< 300	< 300
Total volatile organic compounds (VOC) emitted into the atmosphere *(estimate, in tonnes)*	490	390	300	330	320
Total discharge to water: oxidizable matter *(in tonnes)*	< 1,650	< 1,500	< 1,400	< 1,600	< 1,700
Total discharge to water: suspended solids *(in tonnes)*	< 1,200	< 1,400	< 1,400	< 1 400	< 1,500

BIODIVERSITY

As for biodiversity, the impact of Air Liquide's activities is limited because the Group's production units are generally located on small sites in industrial zones.

Moreover, **Air Liquide supports biodiversity through its Foundation,** which finances projects favoring biodiversity throughout the world. This approach is part of the framework of corporate philanthropy for Micro-Initiatives focused on local development.

Two projects are a good illustration of this commitment. The first is an **environmental research project on the mangrove in New Caledonia** with the Research Institute for Development and the University of New Caledonia: "The mangrove: a sink of atmospheric CO_2?" The mangrove is a coastal forest, an interface between land and sea. Its very diversified flora shelters innumerable animals, a genuine source of wealth for the local populations. This **ecosystem rich in biodiversity is threatened:** the mangrove is disappearing at a rate of 1 to 2% a year. The recent, rapid and continuous increase in the concentration of CO_2 in the atmosphere and its effect on climate change on a worldwide scale has attracted the attention of many researchers on the quantification of CO_2 emissions in the atmosphere as well as on the identification of ecosystems capable of fixing then storing carbon. The focus of the research project is the mangrove's role in the carbon cycle, which is essential because of its high capacity to transform carbon into organic matter. The project's objective over two years is to study the carbon budget in depth in the mangrove and to determine its capacity to capture CO_2.

The goal of the second Air Liquide Foundation project illustrating support for the preservation of biodiversity is to develop and structure an apiculture activity to benefit the Apodi community in the state of Rio Grande do Norte in Brazil whose local vegetation is very sensitive to desertification. The Agronomes et Vétérinaires Sans Frontières (AVSF) association works on developing agriculture and livestock farming in peasant communities threatened by poverty, hunger and exclusion. By making their expertise available, the association provides them with technical and financial aid, trains them in the sustainable management of natural resources and in the development of livestock farming. It also permits them to have access to fair trade. The Air Liquide Foundation has joined forces with the AVSF to develop apiculture in this region. Profitable very rapidly, this activity enables local natural resources to be developed and helps **preserve biodiversity through pollination by bees.**

"CARBON CONTENT" OF AIR LIQUIDE'S MAIN PRODUCTS

Taking into account the characteristics of electricity supplied to Air Liquide, the Group has built a model [(a)] calculating the "carbon content" of its main products in certain countries where the Group is located. These figures include both direct and indirect [(b)] emissions, those connected to production, cylinder filling and also transportation. These data are increasingly requested by the Group's customers to integrate the carbon content of industrial gases into the global life-cycle analysis of their products.

"Carbon content" of Air Liquide's main products in 2011 (gCO_2/Nm^3 [(c)])

		France	Germany	Italy	Spain	Sweden	United States	Canada	Japan	China
Oxygen	Oxygen in pipelines [(d)]	69	277	249	249	30	170	138	313	433
	Liquid oxygen	147	499	460	456	94	322	270	578	760
	Oxygen in cylinders [(e)]	452	828	757	761	299	550	616	898	1,101
Nitrogen	Nitrogen in pipelines [(d)]	23	91	82	82	10	56	45	103	143
	Liquid nitrogen	105	329	308	304	76	218	186	386	496
	Nitrogen in cylinders [(e)]	408	651	598	601	280	441	528	667	823
Argon	Argon in cylinders [(e)]	553	1,237	1,124	1,128	344	801	820	1,330	1,739
CO_2	Liquid CO_2 [(f)]	59	115	122	116	37	71	65	[(g)]	[(g)]

(a) The methodology and calculations for the model of these figures were validated in 2008 by Ecofys, a consulting firm specialized in sustainable development. These calculations take into account in each country the different energy sources used to produce electricity (source: International Energy Agency). In the USA, the calculation of indirect emissions for air gases takes into account the data from the main electricity production units that supply Air Liquide.

(b) Concerning the CO_2 emissions from electricity production consumed by Air Liquide.

(c) $Nm^3 = m^3$ of gas at atmospheric pressure at 0°C.

(d) At 40 bar, pressure standard for these pipelines.

(e) At 200 bar, pressure standard for cylinders.

(f) Exceptionally, the data on liquid CO_2 are expressed in gCO_2/kg.

(g) Product not distributed by Air Liquide in this country.

The average carbon content of **the hydrogen supplied by the Group's units in Europe** was **783 gCO_2/Nm^3**. With a concern for simplification, this calculation was made solely on the units producing hydrogen but not carbon monoxide (CO) or syngas, and the CO_2 emissions related to the steam production of these units were deducted by considering a factor of 176 tCO_2/ktonnes.

PRINCIPAL EUROPEAN DIRECTIVES AND REGULATIONS APPLICABLE TO AIR LIQUIDE IN THE ENVIRONMENTAL FIELD

SEVESO 2 DIRECTIVE

This European directive focuses on preventing major industrial risks. It applies to any facility where dangerous substances exceed certain quantities. These facilities are divided into two categories according to this quantity: Seveso 2 "high threshold" and "low threshold". In Europe, mainly because of their stocks of oxygen, 91 "low threshold" and 26 "high threshold" Air Liquide sites are involved. Seveso regulations apply only to Europe but if the Seveso "high threshold" criteria were applied worldwide, 21 other Group sites could be included.

CO_2 DIRECTIVE IN EUROPE

The objective of the European directive, which establishes a quota system for greenhouse gas emissions in Europe, is to decrease these emissions, respecting the Kyoto Protocol. Implementation for CO_2 in the industrial sector began on January 1, 2005. As air separation units emit practically no CO_2, this directive only applied, for the 2005-2007 period, to Air Liquide's five cogeneration sites and two hydrogen production sites in France, the Netherlands and Spain. Air Liquide's quotas (about 1.2 million tonnes of CO_2 per year) for this period covered the emissions observed.

For the second period (2008 to 2012), the directive will only apply to seven cogeneration sites in France, Germany, the Netherlands and Spain and a single hydrogen production site in Belgium. Air Liquide's quotas (about 3.3 million tonnes of CO_2 per year) should cover the anticipated emissions [a].

For the third period (2013-2020), in addition to the sites mentioned, the directive will propose to encompass the Group's other large hydrogen production sites in Europe. The allocation plan for emission allowances was spelled out in detail by the European Union on the basis of the revision of the ETS (Emissions Trading Scheme) directive in December 2008, and the quota volumes per site are in the process of being calculated.

EUROPEAN REACH REGULATION

REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) is a European Union regulation (therefore directly applicable in the Union's member states) that governs the registration, evaluation and authorization of chemical products produced in or imported to the Union.

Air Liquide's main products such as oxygen, nitrogen, rare gases, CO_2, hydrogen and helium are excluded from the scope of REACH. Nevertheless, four products (carbon monoxide, acetylene, methanol [b] and lime [c]) and a few specialty gases in the Electronics business such as silane fall under this regulation. In addition, about one quarter of the revenue of the Specialty Chemicals business is concerned by REACH.

This regulation went into effect on June 1, 2007, and the registration and authorization procedures are be spread out over about 12 years. In accordance with REACH's calendar, Air Liquide registered the four products mentioned above on November 30, 2010, corresponding to annual quantities produced in or imported to Europe of 1,000 or more tonnes. The other products, for annual quantities from 100 to 999 tonnes, must be registered by June 1, 2013.

In total, less than 6% of the Group's revenue is concerned by REACH.

(a) The amount of the allocated quotas is calculated following the same consolidation rules as the environment and energy indicator reporting.
(b) Methanol is the raw material used to produce hydrogen in one of the Group's units.
(c) Lime is a byproduct of the acetylene activity (cf. paragraph of the Report on the acetylene units).

Industrial Management System and certifications

In 2004, the Group launched a new Industrial Management System (IMS) to strengthen safety, reliability, the preservation of the environment and industrial risk management. **This system is now rolled out in nearly all the Group's operations (over 99% of the Group's revenue).** An indicator makes it possible to track the percentage of revenue covered by the Group's IMS internal audits. **Between 2007 and 2011, 92 units were audited, representing 94% of the Group's activities** in terms of revenue. In five years, almost the entire Group was audited for the implementation of its Industrial Management System (IMS).

The Group considers that the IMS industrial management system that it specifically created is the best adapted to its activity. Nevertheless, notably to meet the request of certain customers, other initiatives in the Group are a matter of a quality approach such as the ISO certifications.

The **ISO 9001** quality certifications cover about 76% of the Group's revenue. Likewise, the **ISO 14001** certifications, an international reference in environmental management, **cover about 27% of the Group's revenue.**

A few years ago, the Group undertook a certification approach concerning healthcare and safety in the workplace called "**OHSAS 18001** certification", which now covers 15% of the Group's revenue.

Likewise, **environmental incidents,** like **accidents involving personnel safety,** are reported by Air Liquide subsidiaries worldwide. They are analyzed in depth depending on their nature so that prevention measures can be strengthened.

The worldwide **"Responsible Care"** Charter is an initiative of the International Council of Chemical Associations. It formalizes the commitment of the signatories to improve the global performances of the chemical industry in health, safety and protection of the environment. Many Air Liquide subsidiaries had already signed this charter locally. Air Liquide signed it in 2010 on the Group level, confirming many principles that the Company already very largely follows.

	Scope	2007	2008	2009	2010	2011
Estimate of revenue of the Group's units covered by an ISO 9001 quality certification	World	73%	75%	74%	71%	76%
Estimate of Group entity's revenue covered by an ISO 14001 environmental certification	World	24%	24%	25%	25%	27%
Estimate of Group entity's revenue covered by an OHSAS 18001 occupational health and safety management system	World			14%	12%	15%

ENHANCE BUSINESS PRACTICES AND GOVERNANCE

Commitment

Maintain a well-designed organization and effective decision processes, committed to ethical behavior, appropriate risk management and proactive compliance with internal and external regulations.

2015 objective

- **Maintain, on an operational level in the Group, the risk management process**
- **Incorporate ethics and/or respect for competition law into training sessions for those whose activity justifies it.**

Key Responsibility Indicators will be established to measure progress on this subject.

The Group endeavors to take into account the interests of its different stakeholders through its decision-making processes as well as in carrying out each of its actions. This approach, inspired by the Group's executive management, guides the action of each unit and employee to ensure the Company's responsible growth.

A corporate citizen

PRINCIPLES OF ACTION

In 2006, the Group formalized its Principles of Action, driving the Group strategy and development, in a document that explains its approach to all its key stakeholders. Available in 16 languages, this document was distributed to all the Group's units and can be consulted on the website www.airliquide.com in French and English.

SOCIAL AND ENVIRONMENTAL RESPONSIBILITY POLICY

As a complement to the Principles of Action, the Group's policies were completed and regrouped in 2009 in a global reference guide called the BLUEBOOK. This reference guide is accessible to all the Group's employees and concerns the internal information systems that they usually use. These policies are in the form of procedures, codes and reference guides.

In the BLUEBOOK, the Social and Environmental Responsibility policy defines the commitments made by the Group in the framework of its activities to promote the respect for and safety of men and women, the protection of the environment, ethics and participation in the economic and social development of the regions in which it operates. In particular, it is specified that **Air Liquide respects human rights and the dignity of its employees, subcontractors, temporary workers and suppliers.** In this framework, **the Group's entities exclude any form of discrimination, notably harassment, the use of forced labor or child labor.**

This Social and Environmental Responsibility policy has implemented a coherent Responsibility and Sustainable Development approach on every level of the Company and defines the orientations on this subject for the subsidiaries and departments. It is available on the website www.airliquide.com in French and English.

EMPLOYEE CODES OF CONDUCT

The Group's subsidiaries are encouraged to implement a local Code of conduct. This decentralized approach combines respect for local customs and regulations and Air Liquide's ethical commitment. It also helps the subsidiaries to embrace the Group's ethical principles by writing their own Codes of conduct themselves in their working language. As a result, at the end of 2011, 90% of the Group's employees belonged to subsidiaries that have a local Code of conduct, compared to 71% at the end of 2010.

The implementation of these Codes of conduct is supported by the Group Guidelines, which are a reference guide to Air Liquide's Social and Environmental Responsibility policy. These Group Guidelines are based on 10 fundamental principles:

- respect for laws and regulations;
- respect for human beings: health and safety conditions in the workplace, prevention of discriminatory actions, respect for third parties;
- respect for the environment;
- respect for competition law;
- respect for rules on insider trading;
- prevention of conflicts of interest: ties with a competitor, customer or supplier, respect for rules on corruption;
- protection of Air Liquide's activities: protection of information, property and resources;
- transparency and integrity of information;
- internal controls and audits;
- implementation of Codes of conduct.

Details on these 10 fundamental principles are available on the Group's website.

These Codes of conduct demonstrate the Group's commitment to respect the regulations concerning its economic activity but also ethical principles such as social rights and the fight against discrimination and harassment.

In addition, since 2007, a Group Ethics Officer has been responsible for providing advice and assistance to the units in applying their Codes of conduct. He also handles all the questions submitted by employees on implementing these Codes of conduct.

RESPECT FOR COMPETITION LAW

Instructions and Codes on the central level were established as to proper behavior concerning respect for competition law, especially in Europe and the United States. The most important rules on competition law are also included in the employees' local Codes of conduct. For some of the Group's activities, Healthcare in particular, specific Codes of conduct have been developed on competition law as well.

Finally, awareness-raising meetings on compliance with competition law are regularly held throughout the Group.

ANTI-CORRUPTION CODE OF CONDUCT

In 2009, the Group formalized an anti-corruption Code of conduct that was made available to all the subsidiaries. This Code, which is linked to the Social and Environmental Responsibility policy of the BLUEBOOK, provides a reminder of the laws on the fight against corruption and deals with relations with intermediaries, particular cases such as mergers, acquisitions and partnerships, types of payments requiring particular attention, as well as administrative and accounting traceability requirements.

To strengthen the rollout of this anti-corruption Code of conduct throughout the Group, Air Liquide launched a training program in 2010 dedicated to disseminating knowledge of the anti-corruption Code of conduct and its good practices to the Group's employees. This training course is now an integral part of the Air Liquide University program and is specifically aimed at sales and procurement teams as well as managers. It has been gradually rolled out throughout the Group.

Responsible procurement in the Group

The Company is not only responsible from the economic viewpoint. It also has an environmental, social, societal and ethical role. Air Liquide's responsible procurement approach is in line with this logic. It is an integral part of the Group's Responsibility and Sustainable Development approach.

The Group's responsible procurement policy makes use of several tools:

- First, the **buyers' Code of conduct,** which is a code that is integrated into the Group's procurement policy (one out of the 12 policies of the BLUEBOOK, presented in the Social and Environmental Policy paragraph of this Report) spells out the ethical principles of responsibility and sustainable development on which procurement is based. This BLUEBOOK procurement procedure was updated in 2011. Translated into 13 languages, this code specifies that suppliers must be transparently and fairly evaluated and that they are bound to respect Air Liquide's responsibility and sustainable development commitments.
- In addition, sustainable development clauses are being gradually included in certain Group **framework contracts.** These clauses allow for the possibility of conducting external audits at the suppliers and subcontractors concerned. They also include compulsory reporting elements from the supplier, in particular on safety and energy and water consumption. In 2011, these responsibility and sustainable development clauses were systematically including in the new contracts with the Group's critical suppliers.
- Since 2009, the responsible procurement policy has been strengthened by the distribution of a **responsibility and sustainable development questionnaire,** now accessible to all the Group's buyers who are required to present it to the new major suppliers. Certain answers are considered eliminatory: for instance, the absence of a commitment on health and safety, of regular inspections of high-risk tools, of respect for local legislation on minimum wage and of the measurement of energy consumption.

Air Liquide is developing, with all its subsidiaries, this evaluation approach concerning its suppliers, with the support of a partner specialized in responsible procurement. After a first campaign that started in 2009 and was rolled-out in 2010 with 50 suppliers, a second evaluation campaign covering nearly 200 suppliers was rolled out in 2011. The evaluation includes the following themes: the environment, social issues, the ethics of business and these suppliers' own procurement policy. In 2011, this supplier evaluation policy was formalized in the collection of Group policies called the BLUEBOOK.

Risk mapping on procurement has been carried out and followed up since 2010 to target critical suppliers and determine specific at these suppliers.

In addition, training sessions on responsible procurement for the Group's buyers were held in 2011.

The total amount of **subcontracting** for the Air Liquide Group was 1,446 million euros in 2011. Subcontracted activities are mainly those that are not core businesses of the Group, that require specific resources or that can be called on to handle production overload.

Since 2008, Air Liquide has published the number of accidents of its subcontractors and temporary workers. In 2011, there were 118 lost time accidents of this type.

A recognized responsibility and sustainable development approach

STOREBRAND

This Norwegian major investment fund has positioned Air Liquide among the best companies for its environmental and social performances.

ETHIBEL SUSTAINABILITY INDEX

Ethibel, a European extra-financial rating agency that is part of the VIGEO group, selected Air Liquide as one of the leaders in sustainable development for the sixth consecutive year, including it in its “Ethibel Excellence” index.

MSCI

Air Liquide was awarded an “A” and was named the best company in the industrial gas sector by MSCI (Morgan Stanley Capital International), one of the main international extra-financial rating agencies.

CARBON DISCLOSURE PROJECT

The Carbon Disclosure Project (CDP), a not-for-profit organization based in the United-Kingdom that evaluates companies on their carbon performance and transparency on this issue, ranked Air Liquide 10th among 47 companies in the materials sector.

INNOVATE RELENTLESSLY

Commitment

Innovate relentlessly in order to bring sustainable and cost-effective solutions to society, leveraging partnerships with customers, suppliers, academics and communities.

An objective will be determined in 2012 to illustrate the Group's strong involvement in this area.

This objective will be linked to a Key Responsibility Indicator that will reflect the Group's vitality in innovation with its customers. It will especially take into account the share of sales generated by the products or solutions introduced on the market over the last 10 years.

Air Liquide was founded in 1902 on an innovation, a new technology for liquefying and separating air gases, particularly efficient in terms of energy performance. Oxygen, nitrogen, hydrogen, rare gases… the molecules Air Liquide produces have not changed since the Group's creation. It is innovation that has made the difference and that is responsible for new applications.

Innovating enables Air Liquide to open new markets, expand its business by creating new solutions for its customers and fully play its role vis-à-vis society. Anticipating its markets' challenges and innovating permit the Group to progress and ensure competitiveness, in a way that increasingly respects life and the environment.

Innovation remains an essential value for the Company and is an integral part of Air Liquide's culture. It is one of the fundamental components of the Group's Responsibility and Sustainable Development approach.

Recognition of the spirit of innovation

Air Liquide files about 300 patents a year. Certain patented innovations significantly contribute to the Group's development. The Inventors Recognition Program rewards inventors who are responsible for successfully marketing patents. The recognition of technical expertise in the Group is also shown through the Technical Career Ladder (TCL), which has designated 1,500 experts since it was launched in 2003. In 2011, the TCL appointed 97 new international experts. Technical expertise, the spirit of innovation and the creative talent of Air Liquide's men and women are key factors in the Company's growth. At the Human Capital Trophy in 2011, awarded by the Michael Page International company and Le Monde French newspaper, Air Liquide was honored and received the "Sharing Knowledge" prize for creating the Technical Career Ladder.

In a world where innovation is rapidly accelerating, where scientific knowledge is more and more widely disseminated, the response to major global issues (healthcare, the environment, resource availability, mobility, urbanization, etc.) is found by pooling the efforts of all the actors in the innovation ecosystem.

More than ever, the dynamic management of interactions with this innovation ecosystem—called "open innovation"—has become an essential component of innovation. Air Liquide's open innovation program makes it possible to dynamize the innovation portfolio through a proactive, systematic and simultaneous exploration of technological opportunities and market evolutions. This is shown by the development of new collaborations with academic partners as well as the launch of co-development programs with small and medium-size enterprises and young innovative firms or the creation of initiatives to accelerate the innovation projects developed by operational units in contact with customers. In 2011, 60% of our research and development projects were carried out in cooperation with public-private partnerships.

Innovation and sustainable development

The traditional fossil resources like coal, oil and natural gas are gradually being exhausted while energy needs are constantly increasing. It is therefore indispensable to use energy more efficiently and to development cleaner and renewable alternative energies. Moreover, greenhouse gas emissions damage our environment and have a harmful impact on climate change. **Air Liquide develops, with its partners, solutions that help limit these emissions and produce the energies of tomorrow.**

Over 60% of the Group's Research and Development budget is earmarked for work connected to life, the environment and sustainable development, focused on the following tracks:

- **Environment:**
  - energy efficiency;
  - hydrogen, clean energy carrier;
  - carbon capture and storage;
  - use of industrial gases in the photovoltaic industry;
  - second-generation biofuels.
- **Healthcare and hydrogen:**
  - new medical gases to relieve pain and for anesthesia;
  - avoiding nosocomial illnesses;
  - homecare for patients suffering from chronic ailments.

Among the Group's different innovation tracks, three subjects on the environment are more specifically developed and illustrated below.

1. HYDROGEN, CLEAN ENERGY CARRIER

The growth in the worldwide demand for energy as well as increased environmental awareness has gradually led to a radical transformation in the world of energy. Air Liquide is accompanying this mutation by proposing new solutions, notably in alternative or renewable energies. Hydrogen as a clean energy carrier is one of the solutions for meeting these challenges.

Air Liquide is capitalizing on the Group's technologies and know-how to develop and roll out competitive solutions for the hydrogen energy market.

In this field, **Air Liquide is already marketing solutions** such as:

- supplying stationary silent energy with zero emissions at the point of use for facilities far from the electricity distribution network, like mobile phone relay antennas;
- supplying captive fleets with their hydrogen filling infrastructure to increase productivity while decreasing emissions at the point of use. The main applications are for captive fleets of logistics warehouse forklifts and baggage transport vehicle fleets in airports.

These different experiences in hydrogen energy and fuel cell applications confirm this technology's development potential and its competitiveness. Among all the hydrogen energy markets, that of forklifts using a fuel cell is now showing the strongest growth. In 2010 and 2011, Air Liquide signed several **contracts** with customers to supply hydrogen to forklifts. A contract was signed in June 2010 with **Walmart** in Canada, and in February 2011 with **Coca-Cola** in California. At the end of 2011, through its subsidiary Axane, Air Liquide and **Plug Power,** the world leader in hydrogen fuel cells for forklifts, announced their intention to cooperate to ensure this market's development, industrialization and marketing in Europe. In Whistler in **Canada,** Air Liquide signed a 10-year contract to develop **the largest hydrogen bus fleet in the world.**

As for mobility, **Fuel Cell Electric Vehicles** (FCEV) and fuel cell technology, although they cannot claim to meet all mobility needs, are particularly efficient for long-distance itineraries that now represent 75% of CO_2 emissions in the transportation sector. Hydrogen is a particularly efficient energy carrier. Even with the current natural gas-based hydrogen production, that is the raw material of the large hydrogen production units of Air Liquide, this gas is a particularly efficient energy carrier, because the assessment of "from well to wheel" shows a **decrease of about 20 to 30% in greenhouse gas emissions compared to the most efficient traditional vehicles** that run on hydrocarbons. Furthermore, hydrogen can fill a vehicle's tank in less than five minutes and **offers an autonomy of 500 kilometers**, and soon 700 kilometers, entirely comparable to the autonomy of vehicles powered by gasoline or diesel fuel.

Blue Hydrogen, an Air Liquide initiative promoting carbon-free hydrogen production

Hydrogen can be produced from various energy sources, keeping in mind that today 95% of all hydrogen produced comes from natural gas. It can also, however, be produced from renewable energy sources. With Blue Hydrogen, Air Liquide is resolutely focusing on a gradually decarbonation of its **hydrogen production dedicated to energy applications.** Concretely, Air Liquide has committed to producing by 2020, **without any CO_2 emissions,** at least 50% of the hydrogen required for these applications by combining:

- the use of renewable energies, the electrolysis of water and the reforming of biogas;
- the use of capture and storage techniques for CO_2 emitted during hydrogen production from natural gas in its units.

Horizon Hydrogène Énergie (H2E) program

The Horizon Hydrogène Énergie (H2E) program, initiated and coordinated by Air Liquide, was launched in 2008.

This **program relies on both the Group's expertise and that of the project's partners (large-scale manufacturers, small and medium-size firms and public research laboratories):**

- a **7-year** program;
- a consortium of 19 **partners, coordinated by Air Liquide;**
- a **global research and development** investment of **190 million euros,** including a 67-million contribution from OSEO, the French agency for innovation support.

With the aim of creating a sustainable and competitive hydrogen energy sector with the H2E program, Air Liquide is developing a complete offering on the hydrogen energy chain:

- hydrogen production **without CO_2 emissions;**
- hydrogen distribution logistics;
- hydrogen distribution **service stations** with 55 stations already installed worldwide;
- hydrogen fuel cells developed by the Group's subsidiary **Axane;**
- complete supply of hydrogen and distribution systems for captive fleets.

With a budget of €940 million for the 2008-2013 period, the European technological platform **Fuel Cells & Hydrogen Joint Undertaking** is an **innovative form of a public-private partnership,** jointly run by the European Commission and industrial companies in Europe active in this sector. Since July 2011, Air Liquide has headed this platform dedicated to the research and marketing of hydrogen fuel cell technologies.

These projects foreshadow the future development of the hydrogen car market. **Hydrogen is one of the solutions for meeting sustainable mobility challenges: reduction of greenhouse gases, zero local pollution and less dependence on fossil fuels, in this way helping to preserve the environment.**

2. CARBON CAPTURE AND STORAGE OR CCS

The Group's teams are taking part in developing CO_2 storage and capture processes. This means creating technologies, in particular, oxycombustion, to efficiently capture CO_2 to store it in the subsoil. Oxycombustion enables the CO_2 in fumes from combustion to be highly concentrated and therefore to make its underground storage less expensive. These technologies are tested in pilot projects to produce electricity from natural gas or coal, or to limit emissions produced in the steel industry. Three projects are currently underway. In partnership with the Total group, a CCS project is in operation in **Lacq in France** with CO_2 storage in a former natural gas field. In **Australia,** a CCS project with the **Callide Oxyfuel Services** company in Queensland concerns an installation that is three times as large as the one in Lacq for an electric power plant using coal. Last, in the framework of the **ULCOS project,** Air Liquide is part of a **consortium of 48 European companies** that has launched a research and development program to reduce CO_2 emissions by more than 50% in steel production. Other projects are currently being developed in the United States.

3. PHOTOVOLTAICS

Photovoltaics, an energy of the future

Based on the photovoltaic effect, or the conversion of different components of sunlight into electricity, solar energy took off at the beginning of the 2000s, in a context of a growing worldwide demand for electricity. Photovoltaic technologies are therefore increasingly becoming an essential solution to meet the energy needs of tomorrow. They use an abundant and inexhaustible resource—solar energy. They also fit into a global energy context of dependence on limited quantities of fossil fuels, the fight against climate change and the questions raised on nuclear power.

Air Liquide, a key partner in the photovoltaics industry

Industrial gases are used at every stage of the manufacturing process for photovoltaic cells. Present in over 20 countries with 3,500 dedicated employees, Air Liquide Electronics World Business Line's offering covers all the gas needs of its customers in the photovoltaics industry. The historic partner of this industry, the Group has worked with its customers both on their technological development contributing to research and development by broadening its product offering, but also by investing production and filling centers in China, Taiwan, Southeast Asia and the Middle East. Air Liquide is therefore positioned as the **world leader** in this rapidly expanding sector.

- **50% of solar cell manufacturers** in the world are Air Liquide customers.
- Most of Air Liquide's sales in this activity are to the **20 leading companies** in the sector.
- Many **research and development** programs are focused on adapting the Air Liquide offering to changes in photovoltaic technologies. In 2011, Air Liquide invested in a research and development pilot line for manufacturing photovoltaic cells in its main research center in France.

Photovoltaic energies, the carbon footprint champion

From the environmental viewpoint, the different electricity production techniques are often compared on the basis of their carbon footprint per unit of electricity produced. The comparison of the carbon footprints of the different electricity production techniques uses life-cycle analysis (LCA), the evaluation of the environmental impact resulting from the manufacturing, use and end of life of the products concerned. The life-cycle analysis of photovoltaic electricity production has a **carbon footprint that is 10 to 20 times lower that that of fossil-based energies.** The carbon content of photovoltaic electricity is comparable to that of hydraulic, nuclear or wind turbine electricity production, without certain drawbacks of these technologies.

Air Liquide's impact on photovoltaics' carbon footprint

In the framework of its Responsibility and Sustainable Development approach, and as a key supplier to the photovoltaics industry, Air Liquide decided to evaluate the percentage linked to industrial gases in the total carbon footprint of the electricity produced by photovoltaic cells. **The percentage of the carbon footprint linked to industrial gases is very low,** around 1% for the dominant technology, crystalline silicon, whereas in the thin-film technology, which uses cadmium telluride, industrial gases represent about 15% of the carbon footprint [(a)] because a larger quantity of industrial gases is used in this technology.

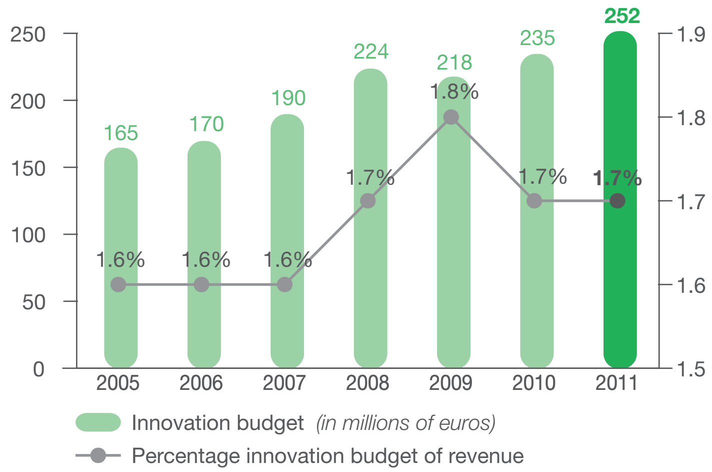
Indicators concerning the Group as a whole

	2011
Number of researchers	1,000 researchers of 35 nationalities
Number of research centers	8
Industrial partnerships	Over 100
Academic collaborations with universities and research institutes	Over 120

Innovation budget	**2007**	**2008**	**2009**	**2010**	**2011**
Innovation budget *(in millions of euros)*	190	224	218	235	252
Revenue of the Group *(in millions of euros)*	11,801	13,103	11,976	13,488	14,457
% innovation budget of revenue	**1.6%**	**1.7%**	**1.8%**	**1.7%**	**1.7%**

(a) In the case of a system manufactured in Germany and installed in southern Europe.

Evolution of the innovation budget and the percentage of this innovation budget vis-à-vis the Group's revenue



Patents	2007	2008	2009	2010	2011
Number of inventions patented	2,847	2,640	2,508	2,830	3,109
New inventions patented during the year	263	257	280	301	332
Patents filed directly in the Group's four main zones of operation [(a)]	152	129	156	145	144

(a) Europe, United States, Japan, China.

REPORTING METHODOLOGY

Protocol and definitions

In the absence of a relevant and recognized benchmark for industrial gas activities, Air Liquide has created its own protocol to define its reporting methods for human resources, safety and environmental indicators. This protocol includes all the definitions, measurement procedures and collection methods for this information. In line with the Group's commitment to continuous improvement, Air Liquide is gradually making adjustments to its responsible and sustainable development indicators protocol to reflect changes in the Group.

This protocol is based on the general principles defined by the Group with regard to scope, responsibilities, controls and limits, and establishes definitions, responsibilities, tools and data-tracing methods for each indicator. This document is regularly updated. Moreover, this protocol takes into account all the Group's formalized procedures in the framework of the IMS (Industrial Management System).

Scope and consolidation methods

Human resources and environmental indicators are consolidated worldwide for all companies globally and proportionally integrated within the financial consolidation scope pro rata according to the integration percentage.

Safety indicators are consolidated worldwide for all companies in which Air Liquide has operational control or is responsible for safety management.

Apart from these general rules, there are certain specific ones:

- information on the impact of transportation (kilometers traveled by delivery truck, CO_2 emitted) is calculated on the basis of data collected in the main countries where the Group is established around the world;
- information on kilometers saved and CO_2 emissions avoided through on-site air gas production units concerns the subsidiaries globally integrated within the financial consolidation scope;
- environmental and energy indicators for the main types of production units operated by the Group cover about 99% of the Group's revenue in Gas and Services, and 98% of the Group's total revenue;
- production units, concerning environmental and energy indicators, are included in the reporting system as of their industrial service start-up;
- electricity consumption, and the indirect CO_2 emissions related to it, is only taken into account when Air Liquide pays for this electricity. Energy consumption of on-site units, as well as water consumption specific to the sale of treated water (which is not part of the Group's core business) are excluded from the data consolidation scope;
- the segmentation between advanced economies and developing economies for direct and indirect greenhouse gas emissions is established by the Finance Division.

Reporting and responsibilities

The human resources, safety and environmental indicators are produced by several data-collection systems in the Group, each under the responsibility of a specific department:

- human resources indicators included in the Group's general accounting consolidation tool are under the responsibility of the Human Resources Department;
- the energy consumption and CO_2 emissions indicators from the main air separation units, cogeneration, hydrogen and carbon monoxide units are tracked by the Large Industry business line using a dedicated intranet tool;
- as a complement, the collection of environmental and safety data is carried out by the Safety and Industrial Management System Department using a dedicated intranet tool, and includes accident reporting:
  - for all entities the data of the Group's accident reporting,
  - for the units mentioned above, other environmental indicators (atmospheric emissions, water consumption, discharge to water, etc.),
  - for the smaller units (acetylene, nitrous oxide, carbon dioxide units and hygiene and specialty chemical products units), the welding units and the Engineering and Construction units, the Research and Development centers and the technical centers all indicators (energy use, atmospheric emissions, water consumption, discharge to water, etc.);

- indicators on kilometers traveled are the responsibility of the Industrial Merchant business line;
- the estimate of the percentage of the Group's revenue where the Industrial Management System (IMS), the ISO standards 9001 and 14001 and the OHSAS 18001 are being rolled out are indicators under the responsibility of the Safety and Industrial System Department;
- finally, indicators for the "carbon content" of the Group's main products are established by the Industrial Merchant Division and the Energy Services Group Department from energy and transportation indicators.

Controls

Each department in charge of collecting data is responsible for the indicators provided. Control occurs at the time of consolidation (review of changes, intersite comparisons).

Safety and energy indicators are tracked monthly. In addition, audits of environmental data are carried out by the Safety and Industrial System Department on a sample of sites representative of the various types of units monitored. Where the data reported is incoherent or missing, an estimated value may be used by default.

Methodological limits

The methodologies used for certain human resources, safety and environmental indicators can have certain limits:

- the absence of nationally or internationally recognized definitions, in particular for indicators on Managers and Professionals and social performance indicators;
- how representative the measurements taken and necessary estimates are, in particular, concerning indicators on CO_2 emissions avoided, water consumption, kilometers avoided per on-site units and training.

STATUTORY AUDITORS' LIMITED ASSURANCE REPORT ON A SELECTION OF HUMAN RESOURCES, SAFETY AND ENVIRONMENT INDICATORS

This is a free translation into English of the original report issued in French and is solely provided for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with French law and professional auditing standards applicable in France.

Further to L'Air Liquide's request and in our capacity as Statutory Auditors of L'Air Liquide, we have performed a review in order to express a limited assurance on a selection of Human Resources, Safety and Environment indicators for the financial year 2011. These specific Indicators, published and identified by the "*" symbol (the "Indicators") in the Corporate Social Responsibility and Sustainable Development Report included in the Reference Document (the "Corporate Social Responsibility and Sustainable Development Report"), have been prepared in accordance with the Group's sustainable development reporting procedures applicable in 2011 (the "Reporting Criteria").

Air Liquide's management was responsible for preparing the Indicators as shown in the "Reporting and responsibilities" section of the Corporate Social Responsibility and Sustainable Development Report. The Reporting Criteria, a summary of which is included in the "Reporting methodology" section of the Corporate Social Responsibility and Sustainable Development Report, comprises procedures and methodological sheets defined by the Group. It is Air Liquide's Sustainable Development Department's responsibility to establish the Reporting Criteria and to ensure its accessibility.

It is our responsibility to express a conclusion on these Indicators on the basis of our review. Our assurance engagement has been planned and performed in accordance with the ISAE 3000 international standard of IFAC [a]. Our independence is defined by legal and regulatory texts as well as our professional code of ethics. A higher level of assurance would have required more extensive work.

NATURE AND SCOPE OF OUR REVIEW

We conducted the following review to be able to express our conclusion:

- We have assessed the Reporting Criteria with respect to its accuracy, its completeness, its neutrality, its understandability and its relevance.
- At the Group level, we have conducted the following tasks:
  - within the appropriate Departments (Sustainable Development Department, Human Resources Department, Safety and Industrial System Department, Large Industries business line), we have interviewed the persons in charge of collecting the data upon which the Indicators are calculated;
  - we have assessed the application of the Reporting Criteria, implemented analytical procedures and, on a sampling basis, we have verified the calculation and consolidation of the Indicators.
- We have selected a sample of six entities [b] for Human Resources Indicators, seven entities [c] for Safety Indicators and ten production units or networks [d] for Environment Indicators. This selection was made on the basis of their activity, their contribution to the Indicators, their location, and the results of the review performed during prior financial years. At these entities and units level, we have verified the understanding and application of the Reporting Criteria and probed the data in order to verify calculations and compare inputs with supporting documents.
- We have reviewed the presentation of the Indicators of the Corporate Social Responsibility and Sustainable Development Report.

(a) ISAE 3000: "Assurance Engagement other than reviews of historical data", International Federation of Accountants, International Audit and Assurance Board, December 2003.
(b) Air Liquide Egypt, Air Liquide Welding, Air Liquide Far Eastern, Air Liquide Engineering India, Air Liquide España and ANIOS.
(c) Air Liquide Egypt, Air Liquide España, Air Liquide Welding, Air Liquide Deutschland, Air Liquide France Industrie-Large Industries , Singapore Oxygen Air Liquide and Shuaiba Oxygen.
(d) The air gases networks of the Gulf Coast in the USA and in Germany, the air separation units of ALSGIG (China) and Shuaiba (Kuweit), the hydrogen production units of J10 Hermes (Singapore), of Oberhausen (Germany) and Bayport (USA), the cogeneration units of Lavéra Energies (France) and Bayport (USA) and the filling center of Oberhausen (Germany).

On average, the selected entities and units account for 20% of the consolidated value of Environment Indicators [e], 11% of the consolidated value of Human Resources Indicators [f], and 10% of the consolidated worked hours upon which Safety Indicators are calculated.

To conduct the aforementioned scope of work, we called on members of our teams specialized in sustainable development. Taking into account the review performed during the previous nine financial years in various activities and countries, we consider that our work provide a sufficient basis for the conclusion expressed below.

INFORMATION ABOUT THE REPORTING CRITERIA

The Group presents the main methodologies used for data reporting in the "Reporting methodology" section of the Corporate Social Responsibility and Sustainable Development Report, as well as in the comments and footnotes associated with the Indicators published in tables within the Corporate Social Responsibility and Sustainable Development Report.

The different reporting perimeters for the Indicators related to Human Resources, Safety and the Environment are detailed in the "Scope and consolidation methods" part of the Corporate Social Responsibility and Sustainable Development Report.

Air Liquide's commitments on Human Resources, Safety and the Environment have been restated in the framework of ALMA 2015 Responsibility approach. In 2011, objectives have been set for some indicators related to Safety or to the energy efficiency of the main units (air separation unit and hydrogen production unit).

The Reporting Criteria calls for the following remarks from our part:

- compared with the review of the previous financial year, we have noticed the following improvements as part of the continuous effort of the Group to strengthen the reliability of its reporting:
  - for Environment Indicators, some complementary internal controls have been implemented on the water consumption, in particular by the Safety and Industrial System Department. The definition of "water consumption" could however been modified to integrate some unit's specificities (*e.g.* condensate return for cogeneration);
- we have also identified the following areas for improvement:
  - for Safety Indicators, the definition of "worked hours" should be clarified to ensure a more consistent implementation between audited business units, in particular integrating more frequently overtime and the realization of a reconciliation with Human Resources data,
  - for Human Resources Indicators, the controls undertaken by business units which consolidate multiple subsidiaries should be strengthened. Besides, calculation methodology for the annual interview indicator should be clarified to integrate only interviews realized and not interviews planned.

CONCLUSION

Based on our review, nothing has come to our attention that causes us to believe that the Indicators were not established, in all material aspects, in accordance with the Reporting Criteria.

Courbevoie and Paris-La Défense, March 1, 2011

The Statutory Auditors

MAZARS		ERNST & YOUNG et Autres	
Lionel Gotlib	Daniel Escudeiro	Jean-Yves Jégourel	Emmanuelle Mossé

(e) *On average 24% of the produced air volumes from the air separation units, 18% of the produced volumes from hydrogen production units, 13% of water consumption, 21% of electricity consumption, 24% of thermal energy consumption and 22 % of direct CO_2 emissions.*

(f) *On average 11% of headcount, 9% of women among engineers and managers, 7% of women hired during the year among engineers and managers, 11% of training time, 8% of employees who had an annual performance review with their supervisor, 6% of recently graduates among engineers and managers, 7% of leave before 3 years and 10% of employees covered by a code of conduct.*

APPENDIX

Correspondence between Air Liquide's responsible and sustainable development indicators and the indicators of the "Global Reporting Initiative" (GRI) [(a)]

Air Liquide indicators	GRI indicators
Human Resources	
Group employees	LA1
Distribution of employees by geographic zone	LA1
Turnover of employees (leaving the Group)	LA2
% of women	LA13
% of women among Managers and Professionals	LA13
Average number of days of training per employee and per year	LA10
% of employees who have had a performance review meeting with their direct supervisor during the year	LA12
Diversity (number of nationalities)	LA13
% employees with benefits coverage through the Group	LA3
Safety	
Number of lost time accidents of Group employees	LA7
Accident frequency of Group employees	LA7
Number of lost time accidents of subcontractors and temporary workers	LA7
Energy and environment	
Total annual electricity consumption	EN3/EN4
Total annual thermal energy consumption	EN3/EN4
Evolution of energy consumption per m^3 of air gas produced (ASU)	EN6
Evolution of energy consumption per m^3 of hydrogen produced (HyCO)	EN6
Total annual water consumption	EN8
Total direct greenhouse gas emissions	EN16
Total indirect greenhouse gas emissions	EN16
Total direct and indirect greenhouse gas emissions	EN16
Consumption of materials (calcium carbide, ammonium nitrate, materials for welding)	EN1
Emissions into the atmosphere (NOx)	EN20
Emissions into the atmosphere (SOx)	EN20
Emissions into the atmosphere (VOC)	EN20
Discharge to water (oxidizable matter, suspended solids)	EN21
Total mass of waste by type and waste treatment	EN22
Transportation	
Estimate of CO_2 emissions by truck delivery	EN29
Estimate of CO_2 emissions avoided through on-site units.	EN29

(a) Global Reporting Initiative (GRI): network-based organization that sets out principles and indicators that can be used to measure and report economic, environmental and social performances.

Corporate Governance 3

MANAGEMENT AND CONTROL 102

Board of Directors 102

Executive Management and Executive Committee 103

REPORT FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS 104

Composition, preparation and organization of the work of the Board of Directors 104

Internal control and Risk Management procedures instituted by the Company 114

REPORT ON REMUNERATION OF THE EXECUTIVE OFFICERS AND DIRECTORS OF L'AIR LIQUIDE S.A. 120

Short-term benefits 120

Stock options 124

Long-term commitments 127

Commitments relating to termination of duties 128

Unemployment insurance for Company managers and corporate officers 131

STATUTORY AUDITORS' REPORT 133

TRANSACTIONS INVOLVING COMPANY SHARES PERFORMED BY CORPORATE OFFICERS AND MEMBERS OF EXECUTIVE MANAGEMENT 134

SHARE SUBSCRIPTION OPTION PLANS AND CONDITIONAL GRANT OF SHARES TO EMPLOYEES (CGSE) 135

Allotment policy 135

Share subscription option plans 136

Conditional Grant of Shares to Employees 139

EMPLOYEE SAVINGS AND SHARE OWNERSHIP 142

Profit-sharing 142

Employee share ownership 142

INFORMATION CONCERNING MEMBERS OF THE BOARD OF DIRECTORS AND EXECUTIVE MANAGEMENT 143

STATUTORY AUDITORS' OFFICES AND REMUNERATIONS 152

Statutory Auditors' offices 152

Statutory Auditors' remunerations 153

MANAGEMENT AND CONTROL

Board of Directors [a]

Benoît Potier Chairman and Chief Executive Officer Expiration date of term: 2014	**Béatrice Majnoni d'Intignano** Director Expiration date of term: 2014
Thierry Desmarest Director Expiration date of term: 2013	**Thierry Peugeot** Director Expiration date of term: 2013
Alain Joly Director Expiration date of term: 2013	**Paul Skinner** Director Expiration date of term: 2014
Professor Rolf Krebs Director Expiration date of term: 2012 [a]	**Jean-Claude Buono** Director Expiration date of term: 2012 [a]
Gérard de La Martinière Director Expiration date of term: 2015	**Karen Katen** Director Expiration date of term: 2012 [a]
Cornelis van Lede Director Expiration date of term: 2015	**Jean-Paul Agon** Director Expiration date of term: 2014
Siän Herbert-Jones Director Expiration date of term: 2015	

(a) Term of office expires at the Annual General Meeting of May 9, 2012.

RENEWAL OF TERM PROPOSED TO THE ANNUAL GENERAL MEETING OF MAY 9, 2012

Karen Katen, Director.

APPOINTMENT PROPOSED TO THE ANNUAL GENERAL MEETING OF MAY 9, 2012

Pierre Dufour, Director.

CENTRAL WORKS COUNCIL DELEGATES [a]

- Marc Tisseront;
- Frédéric Rousseau.

(a) As of December 31, 2011.

Executive Management and Executive Committee

Benoît Potier Chairman and Chief Executive Officer Born in 1957—French	**Guy Salzgeber** Vice-President, Northern and Central Europe Born in 1958—French
Pierre Dufour Senior Executive Vice-President Born in 1955—Canadian	**Augustin de Roubin** Vice-President, Southern and Eastern Europe (including France) Also supervising Welding and Diving activities Born in 1953—French
Jean-Pierre Duprieu Executive Vice-President [a] Born in 1952—French	**Michael J. Graff** Vice-President, Americas Also supervising Safety and Industrial Systems Born in 1955—American
François Darchis Senior Vice-President Engineering and Construction, Research and Technology Also supervising the Industrial Merchant, Electronics and Healthcare World Business Lines Born in 1956—French	**Mok Kwong Weng** Vice-President, North-East Asia Born in 1953—Singaporean
Jean-Marc de Royere Senior Vice-President Asia-Pacific Born in 1965—French	**François Abrial [a]** Vice-President, Human Resources Born in 1962—French
Fabienne Lecorvaisier Group Vice-President, Finance and Operations Control Born in 1962—French	**Pascal Vinet [a]** Vice-President, Healthcare activities Born in 1962—French
Ron LaBarre [b] Group Vice-President, Large Industries World Business Line Born in 1950—American	

(a) Since February 2011.

(b) Until November 2011, date of retirement.

REPORT FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS

(approved by the Board of Directors on February 16, 2012)

Composition, preparation and organization of the work of the Board of Directors

As of December 31, 2011, the Board of Directors was comprised of thirteen members appointed by the Annual Shareholders' Meeting, including five foreign members (German, British, Dutch and American) and three female members. A Director's term of office is four years. Renewals are staggered. In May 2012, at the close of the Shareholders' Meeting, subject to the approval of the proposed resolutions, the Board of Directors will comprise twelve members, including five foreign members: British, Dutch, American and Canadian. Since May 2006, the Board of Directors has elected to assign the role of Chief Executive Officer to the Chairman.

The continued holding of both functions by the same person is essentially justified by the wish to promote a close relationship between Executive Officers and shareholders, in keeping with Company tradition. The combined duties are carried out in compliance with the rules of good governance to which Air Liquide has always adhered and some of which, dating back to the period during which the Company had Management and Supervisory Boards, have been maintained: high prevalence of independent Directors within the Board of Directors and three specialized Board Committees each chaired by an independent member; breakdown of appointments and remuneration issues between two separate Committees, it being specified that the Chairman and Chief Executive Officer may not be present for any discussions relating to him personally; strengthening of the role of the Appointments Committee with regard to governance which changed its name to Appointments and Governance Committee as from 2010; a high degree of transparency in the Board's operation, particularly for decisions relating to remuneration which are published on the Company's website after meetings; steady balance in the relations between Executive Management and the Board, mainly due to the limitations on Executive Management's powers, with the Board's approval being required for major transactions.

CODE OF CORPORATE GOVERNANCE

The Board of Directors confirmed that, in keeping with the Group's previous practices, the AFEP/MEDEF Code of corporate governance for listed companies is the code to which the Company voluntarily refers. This code, as last updated in April 2010, is available on the site http://www.medef.com ("Publications" section, under "Economy").

At their meetings in January, the Appointments and Governance Committee and Remuneration Committee reviewed each of the provisions of the AFEP/MEDEF Code of corporate governance with regard to the Company's current practices and acknowledged that the Company complied with virtually all the provisions.

Pursuant to Article L. 225-37 of the French Commercial Code, where applicable, those provisions of the aforementioned code that were not taken into consideration and the reasons for this are stated in this report and the Report on the remuneration of members of the Executive Officers and Directors. A summary of the code's applicable provisions is presented in table format on page 132.

The principles governing the professional ethics of Directors, the composition, the role and the rules of operation of the Board and its Committees are for the most part defined in the internal regulations.

PROFESSIONAL ETHICS OF DIRECTORS—RIGHTS AND OBLIGATIONS OF DIRECTORS

- The internal regulations summarize the **main obligations** imposed on Directors.

  The Directors represent all the shareholders and shall act in all circumstances in the Company's best interests.

  Each Director undertakes to meet the obligations imposed upon him by the articles of association and the various legal, regulatory or internal Company provisions and, more specifically, the internal rules relating to the prevention of insider trading or the obligations to report transactions in the Company's shares.

  Each Director undertakes to notify the Board of any or potential conflict of interest with the Company and to refrain from voting in the corresponding deliberation. Each Director is bound by an obligation of secrecy.

  Each Director shall endeavor to take part in all meetings of the Board and the Committees of which the Director is a member, and attend the Shareholders' Meetings.

  Each Director shall keep him/herself informed and devote the time and attention required to perform his/her duties.

Under the Company's Articles of Association, each Director must hold at least 500 registered shares in the Company.

- Furthermore, **an internal memo on the prevention of insider trading** sent to the Directors at the beginning of the year outlines in greater detail the applicable legal and regulatory obligations; it also sets the restrictions for dealing in Company shares by defining abstention periods during which members may not trade in those shares.
- Directors are also informed of the provisions relating to **obligations to report any transactions** involving the Company's shares.

All the provisions governing Directors' rights and obligations are included in the manual for members of the Board of Directors updated annually, the last version having been adopted in June 2011.

COMPOSITION OF THE BOARD OF DIRECTORS

The internal regulations stipulate that:

"Members are chosen for their skills, their integrity, their independence of mind and their determination to take into account the interests of all shareholders."

"The composition of the Board of Directors shall reflect diversity and complementarity of experience, nationalities and cultures, including a significant number of executive managers or former executive managers; the Board of Directors shall look for persons possessing skills in the following areas: marketing, services, industry, finance, health, research and technology."»

The internal regulations include **guidelines,** although not written in stone, **for the Board's composition,** particularly in terms of number (normally between 10 and 12), the balance between (former) executives and external members, the duration of the terms of office (four years, staggering of renewals of terms of office, limiting the proportion of members with more than 12 years of office to one third), age or the proportion of independent members, thus aiming to comply with best practices in terms of corporate governance. Finally, the internal regulations specify that the objective of increasing the number of women on the Board of Directors will be pursued in accordance with the legal principle to institute a balance of male and female Board members. Since 2010, the internal regulations have been published in their entirety on the Company's website.

INDEPENDENCE OF BOARD MEMBERS

Based on the full definition of independence set out in the AFEP/MEDEF Code of corporate governance, the internal regulations define the criteria applied within the Company to assess the **independence** of Board members.

"A member of the Board of Directors is independent when he/she has no relationship of any kind with the Company, its Group or its management which may interfere with his/her freedom to exercise his/her judgment.

In this frame of mind, the criteria which may provide guidance to the Board in order to classify a member as independent will be as follows:

- he/she is not and has never been an employee or member of the Executive Management of the Company;
- he/she does not hold office as Chairman, Chief Executive Officer, Chairman or member of the Management Board of a company in which the Chairman of the Board of Directors, the Chief Executive Officer or a Senior Executive Vice-President of Air Liquide is a Director or member of the Supervisory Board;
- he/she must not have any business relations with the Air Liquide Group which represent a significant part of the business activities (i) of the Company of which the Director is a member of the Executive Management or (ii) of Air Liquide;
- he/she does not have any close family links with the Chief Executive Officer or a Senior Executive Vice-President;
- he/she must not have been an auditor of the Company during the previous five years.".

The criteria used are mainly based on the aforementioned AFEP/MEDEF Code of corporate governance. However, the Board did not consider that terms of office exceeding 12 years would disqualify a Board member from being independent, as the experience acquired is an asset in a Group characterized by long-term investment cycles. Conversely, it considered that former employees or officers of the Company may not be considered as independent even if the termination of their duties took place more than five years earlier.

An assessment of the independence of the members is included on the agenda for Board meetings once a year. To support its analysis, the Board uses a chart summarizing the purchases and sales implemented during the previous year between companies of the Air Liquide Group and companies of the Group within which an Air Liquide Director (or proposed Director) also exercises a term of office or executive role. Such figures are weighted against the total purchases and sales of each group to measure their significance. For fiscal year 2011, such chart shows that the sales of the Air Liquide Group to any of the groups concerned or the purchases of the Air Liquide Group from any of these groups never exceed 0.5% of the overall sales or purchases of the Air Liquide Group or any of the groups concerned.

Following such analysis, the Board determined that, as of December 31, 2011, the following members are independent: Béatrice Majnoni d'Intignano, Thierry Desmarest, Cornelis van Lede, Gérard de La Martinière, Rolf Krebs, Thierry Peugeot, Karen Katen, Paul Skinner, Jean-Paul Agon and Siân Herbert-Jones. Thus, ten of the thirteen members of the Board of Directors are independent as of December 31, 2011. At the close of the Shareholders' Meeting of May 9, 2012 called to make a decision on the renewal of the term of office of Karen Katen and on the appointment of Pierre Dufour, nine out of the twelve members of the Board of Directors will be independent.

ROLE OF THE BOARD OF DIRECTORS

The Board of Directors **determines the major orientations** of the Company's activities. Accordingly, it examines and approves the Group's **major strategic orientations.**

It ensures the implementation of these orientations by Executive Management.

Subject to the powers expressly attributed to Shareholders' Meetings by law and in accordance with the corporate purpose, the Board deals with any issues concerning the smooth running of the Company and manages corporate business pursuant to its decisions.

The internal regulations stipulate that the **specific powers** legally attributed to the Board of Directors include in particular the choice of Executive Officers, the determination of the terms and conditions governing the remuneration and performance of their duties, the convening of Shareholders' Meetings, the determination of the agenda and draft resolutions, the preparation of the financial statements and Annual Management Report as well as the drafting of its operating procedures (formation of Committees, distribution of Directors' fees, etc.). The Board also exercises the **powers granted to it by the Shareholders' Meeting,** particularly with regard to the granting of stock options or the Conditional Grant of Shares to Employees, issues of marketable securities, or share buyback or employee savings programs.

RELATIONSHIP WITH EXECUTIVE MANAGEMENT

The internal regulations specify the rules **limiting the powers of Executive Management,** by defining the thresholds, some of which were revised by the Board of Directors on May 4, 2011 for updating and harmonization purposes, above which certain key decisions require prior authorization by the Board of Directors, in accordance with Article 13 of the Articles of Association:

- sureties, endorsements and guarantees for an individual amount in excess of 100 (previously 80) million euros or for an annual cumulative amount above 500 (previously 250) million euros;
- external sales or contributions (to non-controlled companies) of equity investments or lines of business, mergers, demergers or partial business transfers, completed for an individual amount in excess of 250 (previously 150) million euros or for an annual cumulative amount, for each of these categories of transactions, in excess of 400 (previously 300) million euros; external sales or contributions of real estate assets for an individual amount in excess of 80 million euros or for an annual cumulative amount in excess of 150 million euros;
- creation of pledges or security for an individual amount in excess of 80 million euros or for an annual cumulative amount in excess of 150 million euros;
- commitments to invest, acquire investments which will be listed under "Fixed Assets" on the balance sheet, to subscribe to share capital increases for an individual amount in excess of 250 million euros or for an annual cumulative amount in excess of 400 million euros; the Board of Directors is informed, if possible *ex ante* and in any case *ex post*, of operations of the same nature, relating to items that cannot be listed under "Fixed Assets" on the balance sheet for an individual amount in excess of 250 million euros;
- financing operations concerning the Group for an amount likely to substantially alter the Group's financial structure;
- operations likely to substantially alter the Group's strategy.

Furthermore, the Board shall be given prior information in the event of a fundamental modification of the Group's information system leading to an investment exceeding an amount of 250 million euros.

FUNCTIONING OF THE BOARD OF DIRECTORS

Informing the Directors: The internal regulations define the methods for informing the Directors. They specify, in particular, that prior to Board meetings, a file of meeting documentation dealing with key items on the agenda is sent out to Board members. The Chairman and Chief Executive Officer, assisted, if need be, by Executive Management members presents to the Board of Directors a quarterly report on the Company's management, in the same way as the Management Board reported previously to the Supervisory Board, the draft annual and interim financial statements and the various issues requiring the Board's authorization or approval.

Conduct of meetings: The internal regulations define the frequency of meetings and the rules of convening meetings and participation by video-conference or telecommunications.

Formation of Committees: The internal regulations define the purpose and operating procedures of the three Committees set up (see below).

Training measures: The internal regulations stipulate that training relating to the Company's businesses is offered to Directors, particularly through site visits or meetings with senior management executives. More particularly, information on the Group's accounting, financial and operational specificities is offered to members of the Audit and Accounts Committee.

APPRAISAL OF THE BOARD OF DIRECTORS

The internal regulations stipulate that:

"The Board will ensure that an evaluation is carried out periodically of its composition, its organization and its functioning as well as those of its Committees. An update will be made by the Board on this topic once a year and a formal evaluation will be carried out under the authority of the Chairman of the Board of Directors every three years."

An evaluation of the functioning of the Board of Directors is carried out every year, alternating between a full appraisal questionnaire leading to a summary showing the replies and the adoption of recommendations for action one year and a questionnaire aimed at making an assessment of the actions implemented in the light of the recommendations made the next year. Following on from the formal appraisals carried out most recently in 2007 and 2009, the functioning of the Board of Directors and its Committees was fully evaluated in 2011. An individual assessment questionnaire with a specific section allowing committee members to specifically comment on each committee's operations was submitted to each member at the year-end. At the time of the assessment, each Director, may, if he or she so wishes, meet with the Chairman of the Board of Directors. The summary of responses presented by the Chairman of the Appointments Committee to the February 2012 Board revealed an overall very positive assessment of the Board's operation, with again particular emphasis on the freedom of expression within the Board. Among the wishes expressed during this appraisal is the strengthening of the Board's **composition** in terms of competencies (financial) and diversity (increase in the number of female Board members, representation of emerging countries). With regard to the Board's **scope of involvement,** it was agreed to intensify the changes in direction undertaken in 2011 to highlight in detail the growth strategy of the industry's various players as well as the Company's social and environmental responsibility strategy, and continue to discuss the share ownership policy on a regular basis. With regard to **informing the Directors,** Board meetings in 2012 will be organized in such a way as to promote their awareness of the Group's major technological challenges.

Recommendations for action were discussed and subsequently approved by the Board during its February 2012 meeting.

Due to the collective nature of the Board, Air Liquide is attached to, the assessment questionnaire concentrates on an appraisal of the overall contribution of members to the Board's operation; for this same reason, the internal regulations do not provide for the meeting of external Board members without the presence of internal Directors. The Appointments and Governance Committee is however given the task of assisting the Chairman and Chief Executive Officer, at his request, in his dealings with independent Directors, and acting as an instrument of dialogue aimed at preventing potential situations of conflict on the Board.

THE BOARD'S WORK IN 2011

In 2011, the Board of Directors met five times with an effective attendance rate or attendance rate by telephone of 100% of its members. A full-day meeting on the monitoring of the main strategies was held in October.

The Board's activities related to the following issues:

Monitoring of the Group's day-to-day management, particularly by:

- reviewing the **quarterly activity reports** presented by Executive Management; the annual and interim parent company and consolidated **financial statements** in the presence of the Statutory Auditors used to determine the **dividend distribution policy** and authorize the allotment of one free share for ten existing shares in 2012;
- reviewing, at each meeting, in a very disrupted international economic and financial context, of the Group's **financial position,** and more specifically: financing (bond issue in renminbis and private placement in Yens), and liquidity and debt management strategies;
- reviewing the **minutes** of **Committee** meetings;
- making **decisions,** in particular with respect to the investments necessary for the Group's medium-term development and corresponding financing capacities, the EMTN program, the stock option and Conditional Grant of Shares to Employees plans or the development of employee savings schemes;
- reviewing at each meeting the **report on acquisitions, disposals and major projects in progress;**
- reviewing **corporate documents:** responding to wishes from the Central Works Council, and reviewing the report on employee-related matters and forward-planning documents;
- preparing the **Annual Shareholders' Meeting** (agenda, draft resolutions, Annual Management Report and other reports contained in the Reference Document prepared or approved by the Board of Directors, responses to shareholders' written questions).

Monitoring of the Group's main strategies on significant issues

As part of the presentations made by Executive Management and certain senior executives, the Board of Directors closely considered the following in 2011:

(i) **questions relating to strategy** and particularly competitive analysis (October), crisis lessons and strategic objectives (October), acquisition strategy (October); and development of major projects;

(ii) **governance issues** concerning in particular organizational changes regarding governance of industrial operations in France (February and May); the rules of corporate governance (February 2011 and 2012), and the composition of the Board and committees, with in particular the efforts to increase the number of female members of the Board of Directors (February, May, October); share ownership strategy (February 2012);

(iii) **questions relating to the Group's social and environmental responsibility,** particularly the sustainable development policy, and the definition of social objectives and relevant indicators for the Group in these areas (December); safety policy and management of major industrial risks (December); and

(iv) **human resources issues,** and particularly the implementation of the profit-sharing bonus pursuant to the Law of July 28, 2011 (July); the annual deliberation of the Company's policy on professional and wage equality pursuant to the Law of January 27, 2011 (July).

Functioning of the corporate governing bodies

With respect to the functioning of the corporate governing bodies, as well as complying with the AFEP/MEDEF Code of corporate governance, the Company strives to reflect the international environment in which the Group carry out its business.

Concerning Executive Management:

The Executive Management team consists of Pierre Dufour as Senior Executive Vice-President and Jean-Pierre Duprieu, Senior Vice-President, who assist the Chairman and Chief Executive Officer, Benoît Potier.

Renewal of the Senior Executive Vice-President term of office

On the proposal of Benoît Potier, Chairman and Chief Executive Officer, and in accordance with the recommendation of the Appointments and Governance Committee, the Board of Directors in its meeting of May 4, 2011 decided to renew the term of office of Pierre Dufour as Senior Executive Vice-President for a period of 3 years expiring at the close of the Shareholders' Meeting of 2014 held to approve the 2013 financial statements (see below the relating amendments in the report on remuneration on page 120).

Employment contract/corporate office of the Chairman and Chief Executive Officer

In accordance with the AFEP/MEDEF Code of corporate governance, which recommends that Chairmen and Chief Executive Officers of listed companies do not combine an employment contract with their corporate office, Benoît Potier put an end to his employment contract as of May 5, 2010.

Remuneration

The Board determined the remuneration policy applicable to the Executive Officers which is set out in detail in the Report on remuneration set out below.

Shareholding obligation

The rules with regard to the holding of shares set by the Board of Directors are described in detail in the Report on remuneration set out below.

Concerning the Board of Directors itself:

Composition

Appointment—Renewal of terms of office:

- At the Shareholders' Meeting of May 4, 2011, the Board of Directors proposed to renew the terms of office as Director of Gérard de La Martinière and Cornelis van Lede and appoint Siân Herbert-Jones as a new Director. The terms of office of Gérard de La Martinière as Chairman of the Audit and Accounts Committee and Cornelis van Lede as Chairman of the Remuneration Committee and member of the Appointments and Governance Committee were renewed at the close of the Shareholders' Meeting.
- The terms of office of Professor Krebs, Mrs. Karen Katen and Mr. Jean-Claude Buono expiring at the Shareholders' Meeting of May 9, 2012, the Board duly took note of the decision of Professor Krebs and Mr. Jean-Claude Buono not to seek the renewal of their terms of office as Director. It proposed to renew the term of office of Mrs. Karen Katen as Director and appoint Mr. Pierre Dufour as a Director for 4 years. It extended its warmest thanks to Professor Krebs and Mr. Jean-Claude Buono for their significant personal contribution to the work of the Air Liquide Board of Directors in recent years.

Directors' fees

The Board decided to maintain, in its substance, for 2011 the formula for distributing Directors' fees among its members within the budget authorized most recently by the Annual Shareholders' Meeting of May 4, 2011 for a maximum amount of 800,000 euros per fiscal year. The formula includes a fixed component together with a variable remuneration based on lump-sum amounts per meeting and a specific compensation for non-resident members. However it decided to allocate a separate remuneration of 1,500 euros by meeting for each attendance at the Appointments and Governance Committee and the Remuneration Committee. Since January 1, 2010, Benoît Potier no longer receives Directors' fees with respect to his term of office as Director.

Appraisal

- In 2011, the Board carried out an evaluation of its functioning within the scope of a new survey;
- The Board assessed the independence of each of its members.

Several days prior to each of the Board's meetings, a file of meeting documentation dealing with key items on the agenda is sent out to Board members. Every meeting includes a detailed presentation by the members of Executive Management on all items included on the agenda. On specific issues such as crisis lessons and strategic objectives in October 2011, social and environmental responsibility and major industrial risk management policy in December 2011, members of the Executive Committee or senior managers were asked to provide their input. In addition, the Statutory Auditors are involved in meetings where financial statements are reviewed. Presentations give rise to questions and discussions follow before resolutions are put to the vote. Detailed written minutes are then sent to members for review and comment before being approved by the Board of Directors at the next meeting.

THE COMMITTEES

The Board of Directors has set up three Committees:

The Audit and Accounts Committee

As of December 31, 2010, the Audit and Accounts Committee had four members: Gérard de La Martinière, Chairman of the Committee, Paul Skinner, Béatrice Majnoni d'Intignano and Rolf Krebs. All the members, including the Chairman, are independent.

The Committee members combine experience in business management with economic and financial expertise (see professional careers in the bibliographical memos on Directors on page 143). A former finance inspector, former secretary general of the COB and former member of the Management Board and Vice-President of Finance, Audit and Strategy of the AXA Group, Gérard de La Martinière provides the Committee with his extensive financial expertise and knowledge of stock market regulations.

Composition and purpose as defined in the internal regulations

The Audit and Accounts Committee must be comprised of three to five members of the Board of Directors and at least two-thirds of its members must be independent.

Tasks

"The purpose of the Committee is to prepare the decisions to be taken by the Board of Directors by examining the following issues and reporting on them to the Board:

By receiving reports:

Jointly and separately, in order to compare and combine different points of view, from:

- the Finance & Operations Control and Legal Departments;
- the Audit and Control Department;
- the external auditors.

Concerning the following points:

- existing organization and procedures in the Group;
- their actual functioning;
- how the financial statements and the accounts are drawn up.

In order to reach:

by comparing and combining the points of view collected and using their business judgment based on professional experience, a **reasonable judgment** concerning:

1. accounts and accounting principles used (their conformity in relation to the reference standards, a fair and complete reflection of the Group's situation, transparency, readability, consistency over time);
2. existence and functioning of control organizations and control procedures adapted to the Group, making it reasonably possible to identify and manage the risks incurred and to report on them;
3. organization of the internal audit function, the plans for assignments and actions in the internal audit field, the findings of these assignments and actions and the recommendations and ensuing measures taken;
4. choice and renewal of the external auditors, review of the tendering process, opinion on the selection of external auditors and the rotation of audit partners, review of proposed fees, information on the overall fees paid indicating the amount of fees paid for non-audit services.

The Committee:

1. collects the observations of Executive Management on these various issues. It hears the Chief Executive Officer or Senior Executive Vice-Presidents at the Committee's request or at the request of the persons concerned;
2. reports to the Board of Directors on its work, informing it of any problems that may be encountered, observations made to Executive Management and progress made in relation to these observations."

The Committee meets at least three times a year, and always before the Board meetings held to review the annual or interim financial statements.

An initial verbal report is given to the Board by the Committee Chairman. Written minutes of the meeting, approved by the Committee members, are transmitted to the Directors. The Committee may ask to convene Group's employees. It may meet the Statutory Auditors or members of the Internal Control Department in person. It may call on external experts for assistance.

The Audit and Accounts Committee's work in 2011

The Audit and Accounts Committee met four times with an effective attendance rate or attendance rate by telephone of 100%. A full-day meeting was held in June at the Company's registered office.

- The Committee **reviewed** the parent company and consolidated annual and interim financial statements and took due note of the Company's financial situation, cash flow position and commitments. During the Chief Financial Officer's presentation, the Committee more particularly analyzed provisions, other operating income and expenses, cash flow, taxation, risk exposure and off-balance sheet items. It reviewed the draft analyst presentations and press releases relating to the financial statements.
- In addition, the Committee heard the **presentations of the Statutory Auditors** underlining the key results and the accounting options adopted and took note of their conclusions.
- At the beginning of the year, the Committee reviewed the amount of the Statutory Auditors' fees in respect of the prior year.
- The committee reviewed more specifically in a difficult financial context the Group's financing policy, debt, liquidity management, and risks in connection with the difficulties of the euro zone.
- The Committee also heard regular reports on the main assignments carried out by the **Internal Control Department,** the follow-up of any corrective actions taken and the Internal Control Department's main assignments for the forthcoming year. Within this framework, the Committee reviewed the main points of the Group's **Ethics Plan** (report on the ethics actions for the year in progress; areas of focus for the following year). The Committee also regularly monitored the process for **deployment of the risk management procedure** within the Group. It reviewed the Group's risk map and the changes made to it. More specifically, a presentation is made to it on an annual basis of a summary of weaknesses and actions for improvement in the area of internal control and risk management. The Committee took due note of the section in this report on internal control and risk management procedures and recommended its approval by the Board of Directors.
- In accordance with longstanding practice in the Group, the Committee is tasked with carrying out the monitoring of the **management** of all the **risks** identified by the Group, even if particular attention is paid to accounting or financial risks; a methodology for the monitoring of each type of risks identified by the Group (including, in particular, the identification of the management and control bodies and procedures) and an appropriate time scale (annual review or regular review at less frequent intervals depending on the type of risks) were defined. At the end of fiscal year 2011, 75% of risks that should be regularly reviewed were covered in the past two fiscal years by the Audit Committee.
- In addition, **specific presentations** were made to the Committee on the following matters: financing reporting, particularly its preparation, checkpoints and the reporting process in place (February); the calculation methodology relating to efficiency programs (February, July); derivatives (July); prevention and treatment of risk of fraud in the management of business practices (December); in connection with the monitoring of the internal control and risk management procedures in accordance with the aforementioned adopted methodology, the following were presented: the major crisis management process set up in the Group, for the crises in Japan, North Africa and the Middle East (June); energy purchases, major industrial risk management process, risks relating to Human Resources, and supply risks (June and December); management of acquisitions and monitoring of goodwill (December); following of actions aiming at raising awareness with regard to compliance with antitrust rules (December); tax disputes/risks (December).

Several days prior to each meeting, a file of meeting documentation is sent out to Committee members. Each Committee meeting is preceded by a preparatory meeting attended by the Committee Chairman assisted by the Committee secretary, the Chief Financial Officer, the Vice-President Group Audit, the Group Internal Audit Director if necessary, the Group Risk Management Director and the Group executives who will make presentations to the Committee. During the meeting, presentations given with the presence of a member of Executive Management, either by the Chief Financial Officer, the Internal Audit Department, the management executive specializing in the area under discussion or the Statutory Auditors during the accounts review meetings are followed by discussions. A verbal report, then written minutes of each meeting, are prepared for the Board of Directors.

The Committee Chairman regularly meets alone with the Chief Internal Auditor and the Statutory Auditors outside the presence of members of Executive Management. He receives the internal audit report summaries. In addition, after accounts presentation meetings, Committee members meet alone with the Statutory Auditors without the presence of company representatives.

Considering the presence within the Committee of Directors from abroad, the two Committee meetings with regard to review of the financial statements were held the morning before Board of Directors' meetings; in these circumstances, the financial statements cannot be reviewed by the Committee at least two days prior to the Board's review as recommended in the AFEP/ MEDEF Code of corporate governance. However, Committee members are in a position to review the financial statements well in advance through other means (preparatory meeting with the Committee's Chairman more than one week prior to the meeting as provided for above; dispatch of files to Committee members several days in advance).

The Appointments and Governance Committee

As of December 31, 2011, the Appointments and Governance Committee had three members: Thierry Desmarest, Chairman of the Committee, Alain Joly and Cornelis van Lede. Of the three Committee members, two are independent. The Chairman is independent.

Composition and purpose as defined in the Company's internal regulations

The Appointments and Governance Committee must be comprised of three to five members of the Board of Directors and the majority of its members must be independent. The Chairman and Chief Executive Officer attends Committee meetings and is closely involved in its discussions. However, he may not be present for any discussions of the Committee relating to him personally. The Committee meets at least three times a year. The conclusions of Committee meetings are presented by the Committee Chairman for discussion and decision-making at the next Board of Directors' meeting.

Tasks

Pursuant to the internal regulations, the purpose of the Appointments and Governance Committee is to:

"1. Concerning the Board of Directors:

- make proposals to the Board of Directors for renewal and appointment of Directors. This Committee looks for new members on the basis of its evaluation of the needs and developments expressed by the Board of Directors, and taking into consideration, in particular, the principle of attempting to achieve balanced representation of men and women on the Board of Directors;
- make proposals to the Board of Directors for the creation and composition of Board Committees;
- periodically evaluate the structure, size and composition of the Board of Directors and submit to it recommendations regarding any potential change;
- the Committee periodically reviews the criteria applied by the Board to classify a Director as independent; once a year, it examines, on a case-by-case basis, the situation of each Director or each candidate for the duties of Director in light of the criteria applied and makes proposals to the Board of Directors.

2. Concerning the Chairman and Chief Executive Officer or the Chief Executive Officer, as the case may be:

- examine, as necessary and, in particular at the time of expiration of the term of office concerned, the renewal of the term of office of the Chairman and Chief Executive Officer, or the terms of office of both the Chairman and of the Chief Executive Officer. It also examines, if necessary, the question of whether or not it is appropriate to continue to combine these duties (or to separate them);
- examine the changes in these duties and provide for solutions for their renewal, where applicable;
- examine the succession plan for members of the executive management applicable in particular in the case of an unforeseen vacancy;
- examine periodically developments with regard to the Senior Executive Vice-Presidents, hear the Chairman and Chief Executive Officer (or the Chief Executive Officer) on the needs and the potential proposals for their replacement;
- more generally, ensure that it is kept informed by the Chairman and Chief Executive Officer (or the Chief Executive Officer) of planned changes in Executive Management resources (and, in particular, the Executive Committee).

3. Concerning governance:

- monitor the changes in the rules of corporate governance, in particular within the scope of the code to which the Company refers and inform the Board of Directors of its conclusions; follow up on the application of the rules of corporate governance defined by the Board of Directors and make sure of the information given to the shareholders on this topic;
- prepare the evaluation of the way the Board operates provided for by the internal regulations;
- examine issues of ethics that the Audit and Accounts Committee, the Board of Directors or its Chairman may decide to refer to it;
- ensure the proper functioning of the governance bodies and in particular the transmission of information requested by independent Directors;
- assist, at their request, the Chairman and the Chief Executive Officer in their dealings with independent Directors, and be the instrument of dialogue aimed at preventing potential situations of conflict on the Board.

The Committee can request the assistance of outside experts if necessary. The Company shall provide the Committee in such a case with the corresponding funding."

With regard to governance, the committee is therefore requested to collectively fulfill the tasks which may be incumbent on lead Directors in certain foreign countries, by being the instrument of dialogue to assist the Chairman and Chief Executive Officer in his dealings with the independent Directors.

The Appointments and Governance Committee's work in 2011

The Appointments and Governance Committee met three times in 2011 with an effective attendance rate or attendance rate by telephone of 100%.

Concerning the Board of Directors

The Committee reviewed the possible future changes in the composition of the Board of Directors. It recommended proposing the renewal of the term of office as Director of Karen Katen and the appointment as Director of Pierre Dufour, Group Senior Executive Vice-President.

Taking into account the recommendation included in the AFEP/MEDEF Code of Corporate Governance in April 2010, and the provisions introduced by the Law of January 27, 2011 aimed at increasing the number of women on the Boards of Directors of listed companies, the Committee recommended the inclusion in the internal regulations of the legal principle of instituting a balance of male and female members on the Board. It continued to coordinate the procedure for the search for and assessment of possible candidates and recommended a timetable making it possible to give priority to the quality of the candidates who will be proposed (January, April, September). Mrs. Sîan Herbert-Jones was appointed as Director in May 2011 in accordance with this procedure.

Concerning Executive Management

The Committee recommended renewing the term of office of Pierre Dufour as Senior Executive Vice-President for a period of 3 years expiring at the Shareholders' Meeting of 2014 held to approve the 2013 financial statements.

The Committee looked at the composition of the Executive Committee and its prospects for changes as well as the pool of high-potential young talents (January).

Concerning governance

The Committee reviewed the Group's practices with regard to the AMF recommendations published on November 3, 2010 in its Guide to preventing insider misconduct by executives of listed companies and submitted its recommendations to the Board of Directors (January 2011).

The Committee recommended the amendment of the internal regulations regarding certain points: (i) revision of certain thresholds above which certain key decisions require prior authorization by the Board of Directors; (ii) harmonization of rules governing the number of members for the three Committees (April).

The Committee participated in the process of assessment of the Board' operation: updating of the questionnaire; review of the summary of responses and recommendations; report by the Committee Chairman to the Board of Directors (September 2011, January 2012).

The Committee also reviewed the personal situation of each member of the Board with regard to the independence criteria defined in the internal regulations. In this context, it reviewed, in particular, the chart summarizing the purchases and sales implemented during the previous year between companies of the Air Liquide Group and companies of the group within which an Air Liquide Director (or candidate proposed for such duties) also holds a term of office. It issued its recommendations to the Board (January).

Finally, at the beginning of the fiscal year, the Committee reviewed the practices adopted by the Company with regard to (i) the AFEP/MEDEF Code of corporate governance and (ii) the recommendations of the AMF's Annual Report on corporate governance. It issued its recommendations. It reviewed the draft of this report and recommended its approval by the Board of Directors (January 2012).

The Remuneration Committee

As of December 31, 2011, the Remuneration Committee had three members: Cornelis van Lede, Chairman of the Committee, Alain Joly and Thierry Desmarest. Of the three Committee members, two are independent. The Chairman is independent.

Composition and purpose as defined in the internal regulations

The Remuneration Committee must be comprised of three to five members of the Board of Directors and the majority of its members must be independent. The Chairman and Chief Executive Officer may not be present for any deliberations of the Committee relating to him personally. The Committee meets at least three times a year. The conclusions of Committee meetings are presented by the Committee Chairman for discussion and decision-making at the next Board of Directors' meeting.

Tasks

Pursuant to the internal regulations, the purpose of the Remuneration Committee is to:

"• examine the performance and all the components of remuneration including stock options, or other forms of deferred remuneration, pension plans and, in general, the conditions of employment of the Chairman and Chief Executive Officer or both the Chairman and the Chief Executive Officer as well as the Senior Executive Vice-Presidents and make the corresponding recommendations to the Board of Directors;

- propose, where applicable, the remuneration of the Vice-Chairman or Vice-Chairmen;
- examine the remuneration and retirement policy applied to Executive Management and in particular the Executive Committee;
- examine the proposals by Executive Management concerning the granting of stock options and other incentive systems related to the share price to other Group employees and propose their granting to the Board of Directors;
- examine and propose to the Board of Directors the allocation of Directors' fees among Board members.

The Committee can request the assistance of outside experts if necessary. The Company shall provide the Committee in such a case with the corresponding funding."

The Remuneration Committee's work in 2011

The Remuneration Committee met three times in 2011 with an effective attendance rate or attendance rate by telephone of 100%.

The Committee submitted proposals to the Board of Directors for the setting of the variable remuneration of Executive Management members for fiscal year 2011, based on developments in the financial results and individual performance appraisals. It made proposals regarding the fixed remuneration and the formulas used to calculate the variable remuneration of Executive Management members applicable for fiscal year 2012 (for further details on all these points, see the report on remuneration on page 120). The Chairman and Chief Executive Officer is not present for any discussions of the Committee relating to him personally. At Board meetings, the Committee Chairman reports on the work of the Remuneration Committee, without the presence of the Senior Executive Senior Vice-President.

The Committee reviewed the draft report relating to the remuneration of the Executive Officers and Directors prior to its publication in this Reference Document (January).

The Committee verified the enforcement of the employee profit-sharing scheme in accordance with the December 2008 law governing revenue from employment (September) and analyzed the regularity of employee share subscription plans.

The Committee reviewed the components of the medium/long-term incentive policy and issued recommendations for changes (April). In accordance with the new schedule for the allocation of the options to take into account the change in the schedule of Board meetings as from fiscal year 2011, the Committee recommended at its September meeting the set-up in 2011, on the basis of the authorizations renewed by the Annual Shareholders' Meeting in May 2010, (i) of a new plan for the Conditional Grant of Shares to Employees (ACAS plan), proposing performance criteria governing the definitive allocation of the shares, and (ii) a new share subscription plan (see corresponding section in the report on remunerations—page 124).

At the beginning of the fiscal year, the Committee reviewed the practices adopted by the Company with regard to (i) the AFEP/MEDEF Code of corporate governance relating to remuneration and (ii) the recommendations of the AMF's Annual Report on the remuneration of Executive Officers of listed companies and prepared its recommendations (January).

The Committee made recommendations regarding the amount of Directors' fees to be allocated in respect of the 2011 fiscal year within the scope of the overall budget authorized by the Shareholders' Meeting (September).

EMPLOYEE PARTICIPATION AT THE SHAREHOLDERS' MEETING

In accordance with Article L. 225-37 of the French Commercial Code, the specific terms and conditions relating to the participation of shareholders at the Shareholders' Meeting are set out in Articles 5 to 10 and 18 and 19 of the Company's Articles of Association (set out on pages 290 to 296 of this Reference Document).

FACTORS LIKELY TO HAVE AN IMPACT IN THE EVENT OF A TAKEOVER BID

In accordance with Article L. 225-37 of the French Commercial Code, the factors likely to have an impact in the event of a takeover bid are set out and explained pursuant to Article L. 225-100-3 of the French Commercial Code on page 300 of this Reference Document.

Internal control and Risk Management procedures instituted by the Company

The Group Control Director was requested by the Chairman and Chief Executive Officer to compile the elements of this report which was prepared with contributions from several departments (particularly Finance and Operations Control, Group Control, Legal and Safety and Industrial System).

This report was transmitted to the Statutory Auditors and presented to Executive Management, which judged it compliant with existing Group measures. It was approved by the Board of Directors, upon the recommendation of the Audit and Accounts Committee.

The report is based on the "Internal Control and Risk Management Systems Reference Framework", developed under the supervision of the AMF.

In 2011, the Group pursued the actions undertaken in 2010, with more than 60 material Group entities reviewing the appropriateness of their internal control system in relation to the reference framework. These entities also implemented actions aimed to improve the scope and traceability of operating controls (primarily for the assets cycle, purchasing and the management of information system access) and project monitoring. These actions were the subject of audits coordinated between the Group Control Department and the statutory auditors to verify their proper implementation. They were monitored by the Group Control Department and the Finance and Operations Control Department, which reported their findings to Executive Management.

Generally, the Group's internal control system should contribute to the management of its activities, the efficiency of its operations and the efficient use of its resources.

As with other assurance systems, it cannot provide an absolute guarantee that the Group's objectives have been met.

In 2011, the Group continued its measures to improve the quality of its internal control system, with in particular:

- the enhancement of the BLUEBOOK in several areas (internal audit, finance, communication, human resources, purchasing, Corporate Social Responsibility);
- systematic awareness initiatives for new entity CEOs regarding governance, ethics, risk management and internal control as part of training organized by Air Liquide University;
- the extension of the anti-corruption program, initiated in 2010 in the Engineering and Construction business line, to the Group's gas activities. This program is based on a specific code and procedures supplemented by training;
- the mapping of exposure to the information systems hacking risk and the first improvement measures in connection with a long-term program. The program is intended to better protect sensitive information and boost system security;
- deployment of the risk management process in three phases (mapping, management levels, mitigation plans) in 48 new entities to cover more than 90% of Group revenue by the end of 2011.

INTERNAL CONTROL OBJECTIVES

In addition to the Principles of Action, which reaffirm the Group values for each major zone (shareholders, customers, employees, etc.), the Group's policies are grouped together since 2009 in an overall Reference Document, the BLUEBOOK, which is available to employees on the intranet. They constitute a set of internal control and risk management procedures, which should be implemented by each entity included in the Group's consolidated financial statements.

The BLUEBOOK is the cornerstone of the Group's internal control system.

The internal control system aims to ensure that:

- the Group's activities and the conduct of its members:
  - comply with laws and regulations, internal standards and applicable best practices,
  - comply with the objectives defined by the Company, especially in terms of risk prevention and management policies,
  - contribute to safeguarding the Group's assets;
- all financial and accounting information communicated either internally or externally gives a true and fair view of the situation and activity of the Group and complies with prevailing accounting standards.

ORGANIZATION

The Group is organized based on a highly consistent Group strategy, of which the main driving force is the internal growth of its activities.

This strategy is relayed through management which centers on medium-term objectives that are categorized by business activity, as well as through a steering process based on annual budgetary objectives, which are further categorized down to the individual plan level.

The organization breaks down into:

- **entities** which ensure the operational management of their activities in the countries where the Group is located;
- **geographical zones** which supervise and monitor the performance of the entities under their responsibility and ensure that strategies are properly implemented and the main financial indicators maintained.
- **World Business Lines** that:
  - present medium-term strategic objectives for their related activities to Executive Management,
  - are responsible for Marketing, the Industrial Policy and the appropriateness of skills in their field of activity,
  - chair the Resources and Investment Committee (RIC) meetings, which decide on the necessary investments and resources presented by the zones.

This organization also includes Holding and Group Departments which notably comprise the three key control departments that report independently to Executive Management:

- the **Finance and Operations Control Department,** which is responsible for:
  - the reliability of accounting and financial information;
  - the Group financial risk management;
  - the Management Control through the drafting and monitoring of Group objectives on the basis of financial data prepared by the accounting teams and the analyses conducted by the financial teams of the various entities;
- the **Group Control Department,** which:
  - provides expertise and assistance to entities in the roll-out of their risk management approach (see below) and builds a Group synthesis,
  - verifies the effective application of internal control and risk management procedures in the context of audits carried out according to a defined program presented to the Group's Audit and Accounts Committee. This program, developed based on the risk analysis, is regularly monitored by the Audit and Accounts Committee itself. Audit reports are systematically supplemented by corrective action plans, which are supervised by a member of the Executive Committee. These reports, as well as subsequent follow-up reports, are the subject of various communications and periodic discussions with the Statutory Auditors,
  - helps Group entities ensure compliance with the Group's ethical values particularly training and awareness-raising actions and the treatment of fraud and deviations;
- the **Legal Department,** which identifies legal risks, issues internal guidelines and codes, and then oversees their proper implementation. It also monitors the main litigation cases and manages insurance.

Finally, this organization relies on a framework of authorizations and delegations granted by Executive Management:

- to members of the Executive Committee and certain departments and services in order to define their powers related to commitments and payments for commercial operations (sales or purchases);
- to certain executives in charge of sites in France, in order to ensure the prevention and control of industrial risks in terms of health and safety;
- to certain financial executives, in order to ensure the security of transactions and financial flows.

The managers of the various Group subsidiaries exercise their duties under the control of the Board of Directors and in accordance with laws and regulations applicable in the countries where they operate.

RISK MANAGEMENT

To ensure the continued development of its activities, the Group must actively pursue an approach to prevent and manage the risks (especially industrial and financial risks) to which it is exposed.

In terms of the Group's business activities, industrial risk management must essentially focus on prioritizing safety and security while maintaining permanent focus on the reliability of installations.

Financial risk management requires strict control over investments, combined with prudent and rigorous practices regarding the accounting and financial aspects of the activities.

The Group risk management approach, which has been formalized since 2009, aims to ensure:

- the regular identification of the different forms of risk (industrial, financial and other) encountered by the Group during the pursuit of business activity, which are assessed according to both potential damage and probability of occurrence;
- the assessment of the risk management level based on a common scale with respect to the quality of policies, organizations, processes and controls in place;
- the progress of the main corrective action plans undertaken to mitigate the risks, by focusing the monitoring on a limited number of priorities.

The Risk Management Department created in 2010 within the Group Control Department leads this approach using:

- resources dedicated by the zones and World Business Lines to roll out the approach in their respective areas of responsibility and provide a zone or World Business Lines summary;
- the work of members of the Risk Committee that it coordinates. This Committee (created in 2009) brings together the main Group support functions, which provide their expertise [(a)] to the zones and World Business Lines. Presided by Executive Management, it meets twice a year to report on the progress of initiatives, particularly in terms of priorities, and prepare a Group risk management synthesis.

(a) Legal, Finance and Operations Control, Communication, Safety and Industrial System, Human Resources and Group Control.

Finally, the Audit and Accounts Committee reviews Group risk management based on presentations covering:

- the progress of the approach (on an annual basis);
- each major risk management system based on a multi-year program structured according to the challenges;
- internal audit summaries of these risk management systems.

The methods, tools and timetables used to assess internal control and risk management systems were standardized in 2011 in order to streamline the process.

CONTROL ACTIVITIES

Control activities aim to ensure that internal control procedures are properly implemented and respected and notably rely on strict control of Group investments, with:

- a centralized, in-depth review (above certain thresholds) of investment requests and the medium and long-term contractual commitments which may arise there from;
- control of investment decisions through the specific follow-up of the authorizations granted;
- a comparative profitability analysis, for certain significant investments **prior and subsequent to completion** and the obligation for subsidiaries to report all budget overruns and implement corrective action plans aimed at ensuring the profitability of the investment concerned.

The main internal control and risk management procedures drafted and communicated by the Company in the BLUEBOOK aim to:

1. Ensure the safety and security of employees, products and installations, as well as the reliability of operations with a respect for the rules and regulations for accident prevention.

The Company has an Industrial Management System (IMS), which operates based on:

- empowerment of the management bodies governing the Group's various entities for the effective implementation of this system;
- the issue of key management and organizational procedures that aim to ensure:
  - regulatory compliance,
  - design management,
  - industrial risk management,
  - hygiene, health and environmental management,
  - training and certification of personnel,
  - management of operating and maintenance procedures,
  - management of industrial purchases,
  - change management,
  - analysis and treatment of incidents and accidents,
  - system effectiveness control based on management audits and reviews;
- shared technical standards within Group entities.

The IMS document base is updated and supplemented on an ongoing basis.

The **Safety and Industrial System Department** and the **Industrial Departments of the relevant World Business Lines** supervise and control the effective implementation of the IMS, by notably relying on:

- continually increasing team awareness by providing specifically related training, and the distribution of a monthly security report available to all employees on the Group Intranet;
- the presentation of various indicators designed to monitor performance in terms of the safety and reliability of operations, as well as the deployment of certain Group key standards;
- the process audits conducted by the Safety and Industrial System Department to verify the implementation conditions and compliance of operations with IMS requirements;
- technical audits carried out by the Industrial Departments to ensure the compliance of operations with Group security and technical rules.

The changes in the safety performance of operations and their level of compliance with IMS requirements are regularly monitored by the Executive Committee.

2. Ensure control of energy purchases, particularly with respect to availability and matching with Group commitments to customers.

The energy management policy defines rules governing energy purchases and the related decision-making processes. The Enrisk Group Committee reviews the purchasing strategies of the entities, validates the most significant commitments and ensures the relevant policies are properly applied. Once monthly, this Committee meets with a member of the Executive Committee of the relevant Industrial Department, the Finance and Operations Control Department and the Energy Services Group Department.

3. Ensure the protection of Group IT data and assets.

The existing procedures were reviewed and updated in a Group IT policy, which defines the fundamental IT regulations in terms of:

- organization;
- expression of business needs;
- management of technologies;
- management of infrastructures and client solutions;
- protection of information;
- conduct of users.

This policy is vehicled in procedures and codes, particularly the procedure for the Protection of Information which defines:

- the fundamental management rules to be implemented in each Group entity;
- the key principles to be observed by all users, documented in a specific code.

4. Ensure the development of the Group's expertise and talents.

The Human Resources policy defines the main rules, together with the roles and responsibilities of the different parties in their implementation, in particular with respect to:

- acquisition of the requested skills;
- accompanying employees in their personal development;
- measuring and recognizing performance and contributions.

5. Ensure that laws, regulations and internal management rules are respected within the Group, notably in the legal and intellectual property areas.

- In the legal area the Group legal policy, which encompasses:
  - a Group procedure relating to Powers (limitations and delegations) for use by Group entities,
  - a Group procedure on subsidiaries governance (Boards of Directors),
  - an Insurance Guide for all Group entities,
  - Group instructions and codes on how to behave in order to comply with competition laws (mainly in Europe and the United States), followed by awareness meetings held in several European and Asian entities in 2011,
  - a Group code recapping the rules of ethical behavior to prevent the risk of corruption, and related procedures, followed by training sessions initiated in 2010 in the engineering and construction activity and extended in 2011 to the Gas and Services activity.
  - a memorandum, specifying the rules to be observed to prevent insider trading,
  - various contract guides (for Large Industries, Engineering and Construction, Industrial Merchant, Electronics and Financing) and codes of good practices (for Healthcare);
- In the intellectual property area, with a Group policy and procedures aimed at:
  - ensuring Air Liquide's compliance with valid patents held by third parties notably in the field of cryogenic production, and to protect the Group's own intellectual property,
  - protecting Group inventions based on their identification (on an official filing basis) and favoring the recognition of their inventors.

6. Manage and minimize financial risk.

The Company has defined financial policies, which forbid speculative transactions notably on derivatives, and that are subject to regular review. These policies were brought together in a Group financial policy. These procedures set-out the principles and procedures for the management of financial risk to which the activity is exposed, notably in relation to:

- liquidity risks: the Company has defined rules aimed at ensuring an appropriate level of "confirmation" and diversification (by nature and maturity) for all sources of external financing;
- counterparty risks: the Company has defined rules aimed at ensuring that there is sufficient diversification and financial solidity of counterparties at Group level (commitment limits minimum rating);
- interest rate risk: the Company has defined methods managed on a centralized basis for the hedging of interest rates related to debt that is carried in major currencies (principally, Euro, USD, JPY) with:
  - a selection of authorized tools,
  - the hedging decision processes,
  - the methods of executing transactions.

  For other foreign currency debts, rules have been defined in order to ensure that the decentralized transactions initiated to hedge interest rate risk are consistent with Group objectives.
- exchange rate risk: the Company has defined methods for hedging exchange rate risk, whether this is carried by the holding companies or the operating entities, in terms of authorized hedging instruments, the decision process and the execution of transactions.

These measures are completed by treasury management rules adapted to local circumstances, which are aimed at ensuring secure transactions and to forecast treasury inflows/outflows with an objective of optimizing the management of liquidity (forecasting of cash in/cash out).

The application of this financial policy is controlled by the Finance and Operations Control Department. Certain transactions are executed on a centralized basis (financing and management of related interest rate risk, hedging of foreign exchange risk), which is completed by consolidated reports provided by various Group entities on a monthly or quarterly basis, depending on types of risk.

In 2010, the Finance and Operations Control Department adapted the rules and organization of the Finance Committee, in order to treat separately questions relating to financing strategies and operational issues relating to the implementation of the financial policy.

7. Ensure the reliability of financial and accounting information.

In order to guarantee the quality and reliability of financial and accounting information produced, the Group primarily relies on a set of accounting principles and standards as well as a consistent accounting and management reporting system for data which feeds both the Group consolidation process and the business analysis that is under the responsibility of independent departments, which report to the Finance and Operations Control Department.

Since 2009, the Group's accounting manual is included in the financial policy. This manual defines the accounting rules and principles as well as the consolidation methods applicable within the Group and states the formats applicable within the Group for reporting financial and accounting information. This manual is regularly updated by the Finance and Operations Control Department with the amendments to IFRS or their interpretations.

Management and Accounting Reports are each prepared under the responsibility of independent but interactive departments that follow identical methods and principles:

- this independence allows for the enhancement of information and analysis through the use of complementary indicators and data in particular those which are specifically related to each activity;
- the fact that these bodies are interactive provides for better control concerning the reliability of information through the systematic and regular reconciliation of data.

The reports primarily include:

- monthly management reporting, known as the "Monthly Flash Report" that provides information on revenue and the main financial indicators: income statement, funds from operations (cash flow), net indebtedness and amount of investments authorized and committed;
- quarterly reporting, known as the "Management Control Report." It provides details of the primary items of the income statement, balance sheet and statement of cash flows.
- a quarterly "variance analysis" report to assess the various components of the change in operating income recurring.

These three documents are compiled by each management entity according to a predefined yearly timetable.

They are systematically accompanied by comments on activities drawn up by the Director and the controller within the entity, and are consolidated at Group level with a breakdown for each geographical zone and activity;

- quarterly reporting for accounting consolidation is compiled by each subsidiary which, in addition, must provide (on a semi-annual basis) information on off-balance sheet commitments that may include:
  - energy purchases,
  - financial guarantees and deposits,
  - all other contractual commitments, and, in particular, information on operating leases.

Accounting consolidation and monthly reporting is sent to the Central Consolidation Department. This department prepares the consolidated data and works in conjunction with the Operations Control Department, whose duty is to analyze and comment on the results, identify and explain any differences with respect to forecasts, and to update the forecasts.

Within the monthly Executive Operations Meetings, a rolling forecast for the current year is systematically presented by the Finance and Operations Control Department, in order to identify, when applicable, any differences with respect to yearly targets and take the necessary steps.

Through regular controls, the Finance and Operations Control Department ensures the effective application of accounting methods and principles in the various Group entities. The most complex accounting standards, particularly those relating to employee benefits (IAS 19) and derivative financial instruments (IAS 32/39, IFRS 7) are subject to tighter controls or treated directly by the Finance and Operations Control Department.

It also relies on audits carried out by the Group Control Department with which it has regular contact.

The quality and reliability of financial and accounting information also depends on information systems which are becoming increasingly integrated (such as ERP), and a Group consolidation software package renewed in 2007.

A project was launched to further harmonize the Group's financial systems and models, based on the definition of an accounting and financial framework tailored to the various World Business Lines.

MONITORING OF CONTROL MEASURES

The Board of Directors exercises its control over Group Management based on the various quarterly reports it receives from Executive Management and the work of the Audit and Accounts Committee, according to the methods and principles described above (reports, debriefings, etc).

Executive Management exercises its control over risk management, particularly through monthly meetings with the Chairman and Chief Executive Officer, the Senior Executive Vice-President(s) aided by the Finance and Operations Control Director and the Legal Director who also acts as secretary. It also relies on existing reports and:

- Executive Committee Meetings, with, in particular, debriefings from the Safety and Industrial System Department regarding Group performance in terms of security and the progress of actions underway;
- Risk Committee Meetings;
- Resources and Investment Committee Meetings;
- Work carried out by the Finance and Operations Control Department, and the Group Control Department which report directly to Executive Management;
- Finance Committee Meetings that determine the Group's financial policy.

These control measures are enhanced by the involvement of entity departments and the Executive Committee in the implementation and follow-up of actions needed to improve and strengthen the quality of internal controls.

The Risk Committee

This Committee (created in 2009) brings together the Group's major support functions: Legal, Finance and Operations Control, Communication, Safety and Industrial Systems, Human Resources and Group Control.

Its purpose is to assess the geographical zones and business lines that must implement and coordinate the risk management approach in their respective areas of responsibility.

Presided by Executive Management, it meets twice a year to report on the progress of initiatives, particularly in terms of priorities, and prepare a Group risk management synthesis.

The Finance Committees

In 2010 the Finance Committee is split into two separate Committees, one dealing with financing strategies and the other with more operational issues.

The Strategic Finance Committee

The purpose of this Committee is to verify the effective application of the Group's financial policy, approve financial management proposals and suggestions that have been submitted and approve the rules governing the Group's financial policy, that are subjected to regular review.

It brings together the Group Finance and Operations Control Director, the Corporate Finance and M&A Director and the Group Treasury and Financing Director, who meet under the authority of the Chairman and Chief Executive Officer.

The Committee meets at least three times a year and upon request, if necessary.

The Operational Finance Committee

The purpose of this Committee is to make day-to-day decisions concerning the financial management of the Group, to propose structuring transactions to the Strategic Finance Committee and to ensure their implementation after approval.

It brings together the Group Finance and Operations Control Director, the Corporate Finance and M&A Director and the Group Treasury and Financing Director, assisted by a Committee secretary.

The Committee meets every four to six weeks, and the minutes of these meetings are sent to the Chairman and Chief Executive Officer.

The Resources and Investment Committees

The purpose of these Committees is to assess and approve requests for investments that have been submitted, as well as medium and long-term contractual commitments and Human Resource requirements that may arise there from.

They meet once or twice a month for each World Business Line (Large Industries, Industrial Merchant, Electronics and Healthcare), and several times a year for technological activities (Research and Development, High Tech, Engineering and Construction, Information Technologies).

In 2011, the agenda of these committees was expanded to include the Welding/Diving activities.

Each Committee Meeting is chaired by the Executive Committee member responsible for the relevant World Business Lines, and brings together Directors of the World Business Lines and of the zones concerned by the investments and representatives of the Group Finance and Operations Control Department.

The Committee's decisions are reviewed at Executive Management Meetings.

REPORT ON REMUNERATION OF THE EXECUTIVE OFFICERS AND DIRECTORS OF L'AIR LIQUIDE S.A.

The information reported in this document takes into account the provisions of the AFEP/MEDEF Code of corporate governance for listed companies (April 2010) and the Recommendation issued by the French financial markets authority, the AMF, on disclosures in Reference Documents concerning corporate officers' remuneration, issued on December 22, 2008.

The Board determines the remuneration policy applicable to Executive Officers. This policy, which is based on the relevance and stability of performance criteria, in order to develop a long-term vision securing the best interests of the Company and shareholders, includes:

- a **short-term component** systematically compared with the practices of other similar companies, comprising a fixed portion and a variable portion. The criteria governing the fixed and variable portions are set out below;
- a **long-term incentive** by granting share subscription options that are fully subject to performance requirements since 2009 and a shareholding obligation since the plan of May 9, 2007;
- **other conditions governing the terms of office** of Executive Officers.

Benoît Potier, in his capacity as Chairman and Chief Executive Officer, and Pierre Dufour, in his capacity as Senior Executive Vice-President and employee, benefit from the **pension plans** applicable to senior managers and executives that break down into two parts: defined contribution plans and a defined benefit plan. The details relating to these pension plans as amended from January 1, 2010 onwards are set out below. Benoît Potier, in his capacity as Chairman and Chief Executive Officer, and Pierre Dufour, in his capacity as Senior Executive Vice-President and employee, benefit from the **death and disability benefits plan** applicable to senior managers. Benoît Potier and Pierre Dufour also benefit from **commitments to receive termination indemnities** in certain cases where their duties would be terminated on the Company's initiative and subject to performance conditions in accordance with the "TEPA" Law of August 21, 2007.

Benoît Potier, whose employment contract was terminated on May 5, 2010, is entitled to the **unemployment insurance for company managers and corporate officers.** He is also entitled, if applicable, to an **indemnity to compensate for the loss of pension rights,** subject to performance conditions, under a transitional plan that would end in 2012 when Benoît Potier reaches the age of 55, authorized by the Board of Directors most recently on February 12, 2010 and approved by the Annual Shareholders' Meeting of May 5, 2010, pursuant to the regulated agreements and commitments procedure.

A full description of short- and long-term commitments as well as commitments relating to the termination of duties is set out in detail below. When such commitments are subject to the regulated agreements and commitments procedure, they are also described in the Special Report of the Statutory Auditors on page 277.

To determine all the various components of remuneration of the Executive Officers, as proposed by the Remuneration Committee, the Board of Directors strives to take into account the principles of comprehensiveness, balance, benchmarking, consistency, readability and measurement as recommended by the AFEP/MEDEF Code of corporate governance and relies specifically on several external reviews, the interest of shareholders who expect steady performance and the motivation of the officers concerned.

In accordance with the aforementioned Code, the remuneration components of the Executive Officers are made public after the Board's meeting during which they are approved. For a summary of the Code's application, refer to the table on page 132.

Short-term benefits

EXECUTIVE MANAGEMENT

Amounts paid during fiscal years 2009, 2010 and 2011

Table 1 below presents a summary of all remuneration components paid to Executive Officers with regard to fiscal years 2009, 2010 and 2011. They are then more fully described in the other tables below.

Table 1—Summary of remuneration and stock options granted to each Executive Officer

(in thousands of euros)	2009	2010	2011
Benoît Potier			
Remuneration payable in respect of the fiscal year (see breakdown in Table 2)	2,201	2,660	2,700
Value of stock options granted during the fiscal year (see breakdown in Table 4)	1,005	1,302	1,610
TOTAL	**3,206**	**3,962**	**4,310**
Klaus Schmieder [(a)]			
Remuneration payable in respect of the fiscal year (see breakdown in Table 2)	1,257	-	-
Value of stock options granted during the fiscal year (see breakdown in Table 4)	-	-	-
TOTAL	**1,257**	**-**	**-**
Pierre Dufour			
Remuneration payable in respect of the fiscal year (see breakdown in Table 2)	1,044	1,336	1,357
Value of stock options granted during the fiscal year (see breakdown in Table 4)	457	739	915
TOTAL	**1,501**	**2,075**	**2,272**

(a) *Klaus Schmieder claimed his pension entitlements as of December 31, 2009. No stock options were allocated to Klaus Schmieder during the year in which he retired.*

Total gross annual remuneration before tax paid to each Executive Officer of L'Air Liquide S.A. by the Company (and all Group companies), with respect to his corporate office for the Chairman and Chief Executive Officer and both for his duties as employee, and those as corporate officer for the Senior Executive Vice-President, including the benefits in kind, amounted to the figures presented in Table 2:

Table 2—Summary of remuneration paid to each Executive Officer

	2009		2010		2011	
(in thousands of euros)	Amounts due	Amounts paid	Amounts due	Amounts paid	Amounts due	Amounts paid
Benoît Potier—Chairman and Chief Executive Officer [(a) (b)]						
• fixed remuneration	1,020	1,024	1,060	1,097	1,060	1,060
including Director's fees	*37*	*41*	*0*	*37*	*0*	*0*
• variable remuneration	1,171	1,492	1,590	1,171	1,630	1,590
• benefits in kind	10	10	10	10	10	10
TOTAL	**2,201**	**2,526**	**2,660**	**2,278**	**2,700**	**2,660**
Klaus Schmieder—Senior Executive Vice-President						
• fixed remuneration	600	600	-	-	-	-
• variable remuneration	563	674	-	-	-	-
• benefits in kind	23	23	-	-	-	-
• retirement indemnity	71	71	-	-	-	-
TOTAL	**1,257**	**1,368**	**-**	**-**	**-**	**-**
Pierre Dufour—Senior Executive Vice-President [(b) (c)]						
• fixed remuneration	530	530	600	600	620	620
• variable remuneration	498	622	720	498	720	720
• benefits in kind	16	16	16	16	17	17
TOTAL	**1,044**	**1,168**	**1,336**	**1,114**	**1,357**	**1,357**

(a) *In accordance with the recommendations of the AFEP/MEDEF Code of corporate governance, Benoît Potier resigned from his employment contract at the time of the renewal of his terms of office as Director and Chairman and Chief Executive Officer in May 2010. Benoît Potier receives all his remuneration in his capacity as a corporate officer. His fixed remuneration included Directors' fees until the end of 2009.*

(b) *During 2011, the Company paid amounts to third parties on behalf of Benoît Potier and Pierre Dufour with respect to supplementary defined contribution pension plans amended as of January 1, 2010 (186,948 euros and 186,948 euros respectively) and the supplementary death and disability benefits plan (63,953 euros and 28,447 euros respectively) for a total of 466,296 euros. These plans are described below.*

(c) *For Pierre Dufour, the reported amount includes the remuneration payable under his employment contract.*

The Senior Executive Vice-President was appointed at the end of 2007. The adjustment of his fixed remuneration was spread over several years. This was justified by the new responsibilities assumed as of January 1, 2010 and by the wish to limit the loss resulting from the amendment to the Executive Officer pension plan on the same date.

With respect to 2012, the Board of Directors decided at its meeting on February 16, 2012 to set the fixed portions and the maximum percentage of variable remuneration as compared to fixed remuneration as follows:

As of July 1, 2012 the **fixed portions** will be set as follows:

(in thousands of euros)	**Benoît Potier**	**Pierre Dufour**
Fixed portion [(a)]	1,100	635

(a) For Pierre Dufour, the reported amount includes the remuneration payable under his employment contract.

corresponding to an average increase for 2012 of 1.9% for Benoît Potier as compared with 2010, the date of the last increase in his fixed remuneration, and +1.2% for Pierre Dufour as compared with 2011.

The weight of the financial and personal criteria in the weighting **formula** for the various components of the **variable portion** is slightly re-balanced and the maximum percentage of variable remuneration as compared to the fixed remuneration is set as follows, as from July 1, 2012:

	Benoît Potier	**Pierre Dufour**
Maximum variable remuneration *(as a % of the fixed remuneration)*	170% (unchanged)	130%

Criteria

- **Fixed remuneration** is determined based on the level of responsibility and experience in the management function, as well as with reference to current market practices.
- The entire **variable part** of the remuneration, due in respect of a fiscal year, is paid in the following fiscal year, after approval of the financial statements by the Annual Shareholders' Meeting. The criteria, which consist of two financial criteria and personal objectives, are adopted by the Board of Directors at the beginning of the fiscal year in line with the Group's strategic priorities and the results are assessed, after the fiscal year-end, on the basis of the consolidated financial statements for the fiscal year approved by the Annual Shareholders' Meeting and the evaluation of the performance of each Executive Officer by the Board of Directors.

  In 2010, 2011 and 2012, variable remuneration is assessed on the basis of two financial objectives: (i) growth in net Earnings per Share (excluding significant exceptional items and foreign exchange impact) and (ii) Return on capital employed (ROCE) after tax, which has the majority weighting.

  The desired level of achievement of these quantitative criteria is precisely set by the Board of Directors every year and is based:

  - on an objective of an increase in EPS set on a consistent basis with regard to historical performances,
  - on a significant outperformance as compared to the weighted average cost of capital for ROCE.

  It is not made public for reasons of confidentiality.

  Variable remuneration is also based on personal objectives:

  In 2010, the objectives shared by the two Executive Officers comprised objectives with regard to structural efficiency (maintaining the same level of margins, in particular through control over costs), maintaining control over changes in debt and a mid-term growth strategy based on the new momentum in relation with the ALMA project (in terms of investments, acquisitions and human resources).

  In 2011, the objectives shared by the two Executive Officers were primarily related to investments making it possible to nurture growth under the ALMA 2015 program and to Corporate Social Responsibility objectives (identification of significant indicators for the Group).

  For 2011, the variable portion could reach a maximum of 170% of the fixed portion for the Chairman and Chief Executive Officer and 120% of the fixed portion for the Senior Executive Vice-President. During its meeting on February 16, 2012, the Board evaluated the performance of the Executive Officers. **The result obtained in 2011** and the assessment of the Executive Officers' performance, which was deemed good with respect to the solid performance of the Company in a difficult worldwide context, particularly during the 2nd half of the year, led the Board to set the annual gross remuneration (fixed and variable) for Benoît Potier and Pierre Dufour with respect to 2011 indicated in Table 2, corresponding to an increase of 1.5% as compared with 2010.

  The 2012 personal objectives will be specifically related to cost management, pursuit of the growth investment strategy and innovation policy, the continuing improvement of Social and Environmental Responsibility objectives, particularly in terms of safety, and the development of Human Resources.
- The **benefits-in-kind** paid to the benefit of the Executive Officers in 2011 include, for each of the two Executive Officers, the use of a company car and contributions to supplementary pension plans and supplementary death and disability plans, as well as:
  - for Benoît Potier, contributions to the unemployment insurance for company managers and corporate officers;
  - for Pierre Dufour, the provision of accommodation.

BOARD OF DIRECTORS

Amounts paid in 2010 and 2011

Table 3 below summarizes the Directors' fees (in the absence of payment of any other exceptional remuneration) received by non-executive corporate officers in 2010 and 2011 and the amounts of Directors' fees payable in 2012 in respect of fiscal year 2011:

Table 3—Directors' fees and other exceptional remuneration received by non-executive corporate officers

(in thousands of euros)	Amounts paid in 2010 in respect of 2009	Amounts paid in 2011 in respect of 2010	Amounts paid in 2012 in respect of 2011
Alain Joly [(c)]	52	54	49
Thierry Desmarest [(d)]	50	57	59
Rolf Krebs	59	74	71
Gérard de La Martinière [(a)]	73	79	76
Béatrice Majnoni d'Intignano	53	59	56
Cornelis van Lede [(d)]	68	82	75
Lindsay Owen-Jones [(b)]	27	-	-
Thierry Peugeot	37	43	40
Paul Skinner	57	66	71
Jean-Claude Buono [(c)]	37	43	40
Karen Katen	42	55	50
Jean-Paul Agon [(e)]	-	28	40
Sîan Herbert-Jones [(f)]	-	-	29
TOTAL	**555**	**640**	**656**

Directors' fees received by Executive Officers

Benoît Potier [(g)]	37	-	-
TOTAL AMOUNT OF DIRECTORS' FEES	**592**	**640**	**656**

(a) The indicated amounts include additional remuneration of 20,000 euros with respect to the Chairmanship of the Audit and Accounts Committee.

(b) Term of office terminated on May 7, 2009. The indicated amount includes additional remuneration of 10,000 euros with respect to the Chairmanship of the Appointments Committee and of the Remuneration Committee.

(c) Moreover, in 2011, the following gross amounts were paid to Alain Joly and Jean-Claude Buono pursuant to the retirement plan presented below in the section "Former Executive Officers—Pension benefit obligations" (in thousands of euros): Alain Joly: 1,157 and Jean-Claude Buono: 345.

(d) The amounts indicated include, on a pro rata basis to the number of meetings chaired, a supplementary amount of 10,000 euros with respect to the Chairmanship of the Appointments and Governance Committee for Mr. Desmarest as of 2010 (4,000 euros in 2009, for his Chairmanship of the Committee from May to December 2009) and 10,000 euros with respect to the Chairmanship of the Remuneration Committee for Mr. van Lede as of 2010 (5,000 in 2009, for his Chairmanship of the Committee from May to December 2009).

(e) Term of office that began on May 5, 2010.

(f) Term of office that began on May 4, 2011.

(g) Since January 1, 2010, Benoît Potier no longer receives Directors' fees with respect to his term of office as Director.

At its meeting on February 16, 2012, the Board confirmed that neither Benoît Potier nor Pierre Dufour would receive Directors' fees with respect to their duties as Directors as long as they exercise an executive mandate.

Criteria

Total Directors' fees for allocation to members of the Board of Directors were set at 800,000 euros per fiscal year at the Annual Shareholders' Meeting of May 4, 2011.

The allocation formula adopted by the Board of Directors comprises a fixed remuneration and a variable remuneration based on lump-sum amounts per meeting, thereby taking account of the effective participation of each Director in the work of the Board and its Committees. For fiscal year 2011, the amounts calculated break down as follows:

Fixed remuneration (for a fiscal year)

- Each member receives fixed annual remuneration of 20,000 euros for fiscal year 2011.
- The Chairman of the Audit and Accounts Committee receives supplementary fixed annual remuneration of 20,000 euros.
- The Chairmen of the Appointments and Governance Committee and the Remuneration Committee each receive a supplementary fixed annual remuneration of 10,000 euros.

Variable remuneration

Attendance to the various meetings is remunerated as follows:

• 1 meeting of the Board of Directors	4,000 euros
• 1 meeting of the Audit and Accounts Committee	4,000 euros
• 1 meeting of the Appointments and Governance committees	1,500 euros
• 1 meeting of the Remuneration Committee	1,500 euros
• 1 trip for a non-resident:	
– in Europe	2,500 euros
– Intercontinental	3,000 euros

Participation by telephone is remunerated at one-half of the lump-sum amounts set for each meeting.

Travel expenses incurred by non-French residents are reimbursed by the Company.

Stock options

STOCK OPTIONS GRANTED TO EXECUTIVE OFFICERS

Grant policy: review

Stock options granted by the Board of Directors to both Executive Officers and employees are a long-term incentive, aligned with the interests of shareholders to create long-term value.

The granting of stock options is examined with regard to the total annual remuneration of the Executive Officer, taking into account several external market surveys and respecting the interests of shareholders. The allocation, examined by the Remuneration Committee at the same time as the allocation plan for Group employees and decided by the Board of Directors, is conducted as part of annual plans, approved at pre-defined periods, in the form of share subscription options granted without a discount. Due to the changes made to the schedule of Board meetings as of 2011 (suppression of the June meeting replaced by an additional meeting in the second half-year), the stock option plans are henceforth examined by the Board in the autumn (and no longer in June).

The plan regulations are the same for all option beneficiaries within the Group, it being specified that, since 2009, the Executive Officers have been subject to the additional conditions set out below.

Pursuant to the decision made by the Board of Directors (most recently on October 14, 2011), the total number of options allotted each year to Executive Officers may not grant entitlement to a total number of shares exceeding:

- for all Executive Officers, 0.1% of the share capital within the total allocation amount of 2% last authorized for three years by the Annual Shareholders' Meeting of May 5, 2010;
- for each individual Executive Officer, a multiple determined on the basis of the fixed portion of his remuneration. This represents approximately the amount of the Executive Officer's maximum gross annual remuneration (fixed and variable portions), the options being valued under the applicable IFRS.

In addition, the Board of Directors, more recently at its meeting on October 14, 2011, stated that during the "negative window" periods surrounding the publication of the financial statements as determined by the Company, Executive Officers may not exercise the stock options that have been allocated to them. These abstention periods begin 21 days before the date of publication of the results and end at the close of a period of three days after this date.

At its February 12, 2010 meeting, the Board ensured that in accordance with the AFEP/MEDEF Code of corporate governance and consistent Company practice, no active Executive Officer benefiting from stock options had made use of hedges and duly noted the commitment of Benoît Potier and Pierre Dufour not to make use of such instruments during their terms of office.

It is specified that pursuant to the 17th resolution of the Annual Shareholders' Meeting of May 5, 2010, Executive Officers are not entitled to benefit from the plan for the Conditional Grant of Shares to Employees (CGSE Plan).

Performance conditions as of 2009

At its meeting on February 13, 2009, and pursuant to the AFEP/MEDEF Code of corporate governance, the Board of Directors decided that, as of 2009, stock options granted to Executive Officers would be subject to performance conditions in their entirety and would represent a certain percentage of the total amount of the allocation voted by the Extraordinary Shareholders' Meeting and of the Executive Officers' remuneration, in accordance with the terms defined by the Board of Directors at the time of grant and made public via a release posted on the Company's website.

At the time of the Board of Directors' option allocation on October 14, 2011, it was thus decided that the number of stock options that could be exercised by each Executive Officer out of the total number of stock options allocated to him under the 2011 plan would be based on:

- partly on the rate of achievement of an objective, set by the Board, of Group growth in undiluted earnings per share excluding foreign exchange impact and exceptional items (Recurring EPS) for fiscal year 2013, as compared to Recurring EPS for the 2010 fiscal year; and
- partly on an objective of shareholder return, set by the Board, defined as the compound annual growth rate for an investment in Air Liquide shares with respect to fiscal years 2011, 2012 and 2013.

Any other beneficiary of a number of stock options exceeding the threshold of 1,500 is subject to the same performance conditions, in the amount of 50% of the stock options allocated over and above such threshold. This provision applies to all Executive Committee members.

On the basis of the financial statements adopted for the 2011 financial year submitted for the approval of the Annual Shareholders meeting of May 9, 2012, the Board of Directors recorded that the performance conditions defined at the time of implementation of the share subscription option plan of June 15, 2009 were met. Accordingly, all the stock options awarded to Benoît Potier, Pierre Dufour and Executive Committee members under the 2009 share subscription option plan may be exercised.

Fiscal year 2011

In 2011, it was confirmed that the Group was compliant with the French law of December 3, 2008, under which all employees in France must be associated with the Company's performance.

Pursuant to the authorization granted by the Annual Shareholders' Meeting of May 5, 2010 and on the recommendation of the Remuneration Committee, the Board of Directors granted share subscription options for 2011 at its meeting held on October 14, 2011.

The 2011 Plan has a term of 10 years. The options granted can only be exercised if certain performance conditions are met by the Company (see previous section). A condition regarding continued service within the Group at the time of exercise of the options has also been defined.

Table 4 presents information on share subscription options granted to each of the Executive Officers in connection with the 2011 Plan. These grants were made by the Company and no grants were made by any other Group company.

Table 4—Share subscription options granted during the 2011 fiscal year to each Executive Officer

	Plan grant date	Option type	Option value (pursuant to IFRS 2) *(in thousands of euros)*	Number of options granted in 2011	Strike price *(in euros)*	Exercise period
Benoît Potier	10/14/2011	Share subscription options	1,610	88,000	87	10/14/2015 to 10/13/2021
Pierre Dufour	10/14/2011	Share subscription options	915	50,000	87	10/14/2015 to 10/13/2021

The adjusted fair value of stock options granted in 2011 to employees and Executive Officers and determined according to IFRS 2 (as presented in note 20 Shareholders' equity on page 195) amounts to:

- 20.50 euros for the options not subject to performance conditions and options subject to performance conditions linked to the Group's results;
- 14.21 euros for the options subject to performance conditions linked to the change in the share price.

The options granted to the Executive Officers in 2011 represent 0.049 % of the number of shares making up the share capital.

In accordance with French law, at the time of the grant of the 2011 stock option plan, the Board of Directors defined the rules governing the holding of shares resulting from the exercise of options, applicable to Executive Officers (see the details set out below).

Table 5 presents the total number of stock options exercised by Executive Officers in 2011.

Table 5—Share subscription options exercised during the 2011 fiscal year by each Executive Officer

	Plan grant date	Number of stock options exercised during the fiscal year	Exercise price *(in euros)*
Benoît Potier	03/21/2005	103,452	53.36
Benoît Potier	03/20/2006	63,000	64.97

Total adjusted stock options granted to Executive Officers and not exercised as of December 31, 2011

	Total adjusted stock options not exercised	Average price *(in euros)*
Benoît Potier	524,338	75.71
Pierre Dufour [(a)]	181,516	77.95

(a) Stock options granted in respect of his corporate office since his appointment in November 2007.

Tables 6 and 7—Performance shares granted to each Executive Officer

Not applicable to L'Air Liquide S.A.

SHAREHOLDING OBLIGATION

- In accordance with Article L. 225-185 of the French Commercial Code, the Board of Directors decided that for each allocation of stock options to an Executive Officer, starting with the May 9, 2007 plan and as from the exercise date of the granted options, the Executive Officer should hold a defined minimum quantity of registered shares arising from each exercise of stock options under each plan until the termination of his duties.

  This quantity will be calculated at the option exercise date based on the stock market price of the shares on this date (opening quoted price) and shall represent a minimum amount equal to 50% of the capital gain on acquisition less social security contributions and taxes (calculated at the maximum theoretical tax rate) on each exercise.

  However, this percentage may be revised downwards without falling below 10%, provided that the quantity of shares arising from the exercise of stock options held by an Executive Officer, covering all plans from May 9, 2007 onwards and calculated at the stock market price (opening quoted price), shall represent at the date of each exercise a minimum amount at least equal to 50% of the total capital gains on acquisition less social security contributions and taxes (calculated at the maximum theoretical tax rate) on all plans as from May 9, 2007 (including the exercise of stock options concerned).

  This rule is regularly reviewed by the Board at the date of each stock option plan.

  This rule was reiterated by the Board of Directors in October 2011 when share subscription options were granted to the Executive Officers.

- In addition, in February 2008, the Board decided to impose on Executive Officers an obligation to hold a number of shares equivalent to double the annual gross fixed remuneration for the Chairman and Chief Executive Officer and equal to the annual gross fixed remuneration for the Senior Executive Vice-President. The number of shares includes the quantity of shares arising from the exercise of the stock options that Executive Officers must hold pursuant to the decisions of the Board of Directors adopted in accordance with Article L. 225-185 of the French Commercial Code, without however restricting the enforcement of such decisions. Executive Officers have a period of four years in order to satisfy this obligation. The number of shares required to be held is assessed on January 1 and July 1 of each year and for the first time on January 1, 2012. Recommendations encouraging the holding of a minimum number of shares of the Company equivalent to 0.5 times their annual gross fixed remuneration have also been issued to Executive Committee members since 2009. The application of this rule by Executive Officers as of January 1, 2012 was the subject of an initial evaluation by the Board of Directors on February 16, 2012. The Board noted that the valuation of the shares held at January 1, 2012 by the Chairman and Chief Executive Officer and the Senior Executive Vice-President was respectively much higher than the required amounts and concluded that the stock ownership obligation is largely respected by each of the Executive Officers.

Long-term commitments

FORMER EXECUTIVE OFFICERS

Pension benefit obligations

The Board has agreed that the Company will pay former Chairmen and Chief Executive Officers and Senior Executive Vice-Presidents who, as a result of their age or length of service, were entitled to the pension benefits applicable to all employees covered by the Company's collective agreement of December 12, 1978, as amended, additional benefits, over and above those payable under the normal pension plans, of a fixed amount determined by the Board which is in excess of the capped amount based on the rules of the Company's collective agreement.

These amounts were set on retirement of the parties concerned by the Board of Directors' meeting of November 14, 2001 for Alain Joly, taking into account changes in common practice regarding pension benefits for executive managers then in effect, and by the Board of Directors' meeting of May 10, 2006 for Jean-Claude Buono. All other conditions of this agreement (described in greater detail on page 197), in particular, changes in amounts and the limits potentially applicable by the Company to its retired employees and the conditions for reverting such pension benefits to the surviving spouse, are applicable to the above-mentioned Executive Officers. This plan, open to retired former employees and to employees aged 45 or older or with more than 20 years' length of service as of January 1, 1996, was closed on February 1, 1996.

In 2011, the amounts indicated in footnote (c) to Table 3 were paid to Alain Joly and Jean-Claude Buono under the aforementioned pension plans.

MEMBERS OF THE EXECUTIVE MANAGEMENT

Pension benefit obligations

The Board of Directors has authorized that Benoît Potier in his capacity as Chairman and Chief Executive Officer and Pierre Dufour, in his capacity as Senior Executive Vice-President, who did not meet the age or length of service conditions allowing them to benefit from the above-mentioned collective agreement of December 12, 1978, shall benefit from the supplementary pension plans set up, as of January 1, 2001 for all senior managers and executives meeting certain eligibility conditions. These plans, last amended as of January 1, 2010, allow senior managers and executives to constitute (i) for the portion of the remuneration up to 24 times the annual Social security ceiling under defined contribution plans managed by a third party and (ii) for the portion of the remuneration exceeding 24 times the annual Social security ceiling under a defined benefit plan, an additional annuity as well as an annuity paid to the surviving spouse, subject to certain conditions, particularly with regard to age. Benoît Potier, as a corporate officer, and Pierre Dufour, with respect to his duties both as an employee and corporate officer, fall within this category.

- For the portion managed as part of defined contribution plans, the Company pays an outside fund manager a contribution representing, by tranche, a fixed percentage of the beneficiary's remuneration. Amounts paid as well as the corresponding investment income will be used to pay an additional pension benefit in the form of a life annuity, supplemented by an annuity paid to the surviving spouse, subject to the beneficiary being able to claim his pension entitlements under the standard old age pension plan applicable to all French retired employees. Should the term of office or employment contract be terminated, the contributions will cease to be paid.
- Pension benefits corresponding to the defined benefit plan are equal to 1% for each year of service based on the average of the three best years of the last five years' total annual remuneration exceeding 24 times the annual Social security ceiling. For the calculation, the average of the total variable portions taken into account cannot exceed 100% of the average of the total fixed portions used for this calculation. Where applicable, an annuity equal to 60% of the above-mentioned benefits will be paid to the surviving spouse, if certain age conditions are satisfied. The defined benefit plan only applies if the beneficiary is still with the Company at the time of his retirement. In the event the term of office or employment contract is terminated at the Company's initiative, the beneficiary may nevertheless maintain his rights if he has reached at least 55 years of age with a length of service of at least five years and ceases all professional activity. Moreover, in accordance with the AFEP/ MEDEF Code of corporate governance, a minimum length of service of three years is required for the defined benefit portion and included in the plan regulations to apply to all potentially eligible Executive Officers and senior managers.

As for all senior managers benefiting from the defined benefit plan, total pension benefits, under all pension plans, are capped in all cases at 45% of the average of the three best years of the last five years' total annual remuneration, it being understood that for this calculation, the variable portion taken into account cannot exceed 100% of the fixed remuneration. Should this ceiling be reached, the amount paid under the defined benefit plan will be reduced accordingly.

The individual application of these plans, as last amended as of January 1, 2010, to Benoît Potier and Pierre Dufour was made by the Board of Directors' meeting of February 12, 2010 in accordance with the regulated agreements and commitments procedure. It was made public on the Company's website on February 17, 2010, and was approved by the Annual Shareholders' Meeting of May 5, 2010 in a specific resolution for each Executive Officer.

For the 2011 fiscal year, the amount paid by the Company to the fund manager for the supplementary defined contribution plans in favor of Benoît Potier and Pierre Dufour is disclosed in the footnotes to Table 2.

Death, disability and related benefits plan

An additional death, disability and related benefits plan has been subscribed with an insurance company to enable senior managers, whose remuneration exceeds eight times the annual Social security ceiling and satisfying certain age and length of service conditions, to receive a capital sum in the event of death or permanent and absolute invalidity. This capital sum is equal to four times the portion of gross annual remuneration exceeding eight times the annual Social security ceiling. The contributions corresponding to this plan are paid in full by the Company and added back to the remuneration of beneficiaries as benefits in kind. Benoît Potier, in his capacity as Chairman and Chief Executive Officer and Pierre Dufour in his capacity as Senior Executive Vice-President and employee, benefit from this plan.

For the 2011 fiscal year, the amount paid by the Company to the insurance company in favor of Benoît Potier and Pierre Dufour is disclosed in the footnotes to Table 2.

The individual application of this plan, as last amended as of January 1, 2010, to Benoît Potier and Pierre Dufour was authorized by the Board of Directors' meeting of February 12, 2010 in accordance with the regulated agreements and commitments procedure and approved by the Annual Shareholders' Meeting of May 5, 2010 in a specific resolution for each Executive Officer. It was also made public on the Company's website as of February 17, 2010.

Commitments relating to termination of duties

TERMINATION INDEMNITIES

Benoît Potier

Termination indemnity

In accordance with the "TEPA" law and the AFEP/MEDEF Code of corporate governance, most recently at its meeting on February 12, 2010, the Board of Directors set the terms of the agreement applicable to Benoît Potier as from the renewal of his terms of office as Chairman and Chief Executive Officer in May 2010, along the following main points:

(i) only the forced departure of Benoît Potier from his offices as Chairman and Chief Executive Officer (removal from office, non-renewal, request for resignation) related to a change of strategy or a change in control may give rise to an indemnity;

(ii) the amount of the indemnity in any of these cases is set at 24 months' gross fixed and variable remuneration;

(iii) the amount of the indemnity due decreases gradually as Benoît Potier, as Chairman and Chief Executive Officer, approaches the age limit defined in the Company's Articles of Association (63 years of age); in the event of a forced departure in the 24 months preceding this date, the amount of the indemnity due will be capped at the number of months of gross remuneration separating the date of forced departure from the date when he reaches the age limit. In any case, no indemnity shall be paid should the beneficiary claim his pension entitlements on the date of his forced departure;

(iv) the right to payment of the indemnity is subject to the achievement of performance conditions, the proportion of the indemnity due decreasing according to the rate of achievement of such conditions according to the formula described below (see section on "Performance conditions –Termination indemnities" below).

The decision made by the Board of Directors at its meeting on February 12, 2010 pursuant to the regulated agreements and commitments procedure provided for under the "TEPA" law was published in full on the Company's website. The commitment was approved by the Annual Shareholders' Meeting of May 5, 2010 in a specific resolution concerning Benoît Potier.

Indemnity to compensate for the loss of pension rights

The Company had undertaken to grant all employee beneficiaries of the defined benefit pension plan mentioned on page 127 with a minimum age of 55 years and 20 years' length of service, in the event of early termination of their employment contract at the Company's initiative, except in cases of serious misconduct or gross negligence, benefits equivalent to those obtained under the plan in the form of a compensatory indemnity.

(a) Concerning Benoît Potier, whose employment contract was then suspended, and who had acquired this right to an annuity as part of the aforementioned plan in the event of removal from his corporate office or dismissal before the age of 55, the Board of Directors, in order to compensate for the loss of this right, decided to authorize the Company to undertake to pay Benoît Potier, in the event of termination of his term of office before the age of 55 at the Company's initiative, except for serious misconduct or gross negligence, and where he has acquired at least 20 years of seniority, an indemnity to compensate for the loss of pension rights, paid in installments and calculated in accordance with the provisions of the defined benefit pension plan mentioned on page 127;

(b) Pursuant to the new provisions of Article L. 225-42-1 of the French Commercial Code introduced by the "TEPA" Law of August 21, 2007, the Board of Directors decided that in order to receive the above indemnity, the beneficiary would have to comply with certain performance conditions assessed in relation to the Company's performance. This commitment was approved by the Annual Shareholders' Meeting of May 7, 2008, in a specific resolution concerning Benoît Potier;

(c) The Board of Directors' meeting of February 12, 2010 decided that the aforementioned commitment would be amended, as of the date of renewal of the terms of office of

Benoît Potier in May 2010, in order to use, for the assessment of the performance criteria on which the application of this commitment is contingent, the same decreasing formula as that applicable to the termination indemnity (see section on "Performance conditions—Indemnity to compensate for loss of pension rights in respect of corporate office" below). The commitment thus amended by the Board of Directors on February 12, 2010 pursuant to the regulated agreements and commitments procedure provided for by the "TEPA" law was published in full on the Company's website on February 17, 2010. It was approved by the Annual Shareholders' Meeting of May 5, 2010, in a specific resolution concerning Benoît Potier. It is specified that this commitment will automatically become null and void in September 2012 when Benoît Potier reaches the age of 55;

(d) In agreement with Benoît Potier, the Board of Directors did not consider it appropriate to put an end to this entitlement to an indemnity to compensate for loss of pension rights. This decision is justified by the fact that the entitlement had been granted to Benoît Potier, appointed as Chairman of the Management Board in November 2001, in consideration of his highly specific situation, namely that of a young man rising to the highest management functions after devoting his entire career to the Company. From the beginning, this benefit had been granted by the Board and approved by the Annual Shareholders' Meeting pursuant to the regulated agreements procedure. Because of the regulatory change, the Board set up a transitional plan (maintaining this entitlement in the form of the commitment to pay an indemnity subject to performance conditions), which was reiterated on the renewal of the terms of office of Benoît Potier, but which remains temporary since it expires in 2012 on Benoît Potier's 55th birthday.

Pierre Dufour

Termination indemnity

In accordance with the "TEPA" law and the AFEP/MEDEF Code of corporate governance, the Board of Directors, most recently at its meeting on May 4, 2011, following the Annual Shareholders' Meeting during which it renewed the term of office of Pierre Dufour as Senior Executive Vice-President for a term of three years, set the terms of the agreement applicable to Pierre Dufour as Senior Executive Vice-President, regarding the following three points:

(i) only the forced departure of Pierre Dufour from his office as Senior Executive Vice-President (removal from office, non-renewal, request for resignation) related to a change of strategy or a change in control may give rise to an indemnity;

(ii) the amount of the indemnity in any of these cases (taking into account the statutory indemnities or the indemnities provided for by the collective bargaining agreement due, where applicable, in respect of termination of the employment contract and any non-competition indemnity due in respect of this termination) is set at 24 months' gross fixed and variable remuneration;

(iii) no indemnity will be paid if the beneficiary is entitled to claim in the short term his full pension entitlements on the date of a forced departure;

(iv) the right to payment of the indemnity is subject to achievement of the performance conditions, with the proportion of the indemnity due decreasing according to the rate of achievement of such conditions, based on the formula described below (see section on "Performance conditions—Termination indemnities" below).

The decision made by the Board of Directors at its meeting on May 4, 2011 pursuant to the regulated agreements and commitments procedure provided for under the "TEPA" law was published in full on the Company's website. The commitment and the related special auditors' report are submitted to the approval of the Annual Shareholders' Meeting of May 9, 2012 in a specific resolution concerning Pierre Dufour.

PERFORMANCE CONDITIONS

Termination indemnities

The Board of Directors decided that payment of the termination indemnities due to Benoît Potier and Pierre Dufour mentioned above (excluding however for Pierre Dufour the statutory indemnity or the indemnity provided for in the collective bargaining agreement, as well as any non-competition indemnity which could be due in respect of termination of his employment contract) is subject to compliance, duly acknowledged by the Board of Directors at the time of or subsequent to the termination of their duties, with conditions relating to the beneficiary's performance assessed in relation to the Company's performance, to date defined as follows:

entitlement to the indemnity referred to above shall depend on, and the amount of the indemnity paid shall be adjusted on the basis of, the average of the annual variance between the Return on capital employed after tax (ROCE) and the Weighted Average Cost of Capital (WACC) (assessed using accounting net equity) calculated (based on the certified consolidated financial statements approved by the Shareholders' Meeting) with respect to the last three fiscal years prior to the fiscal year in which the departure occurs. For the purposes of this calculation, the variance between the ROCE and the WACC will be measured for each fiscal year and the average of the three annual variances over the three fiscal years prior to the fiscal year during which the departure occurs shall be calculated.

The following formulas will be applied:

Average variance (ROCE—WACC)	Proportion of the indemnity due
≥ 200 bp [(a)]	100%
≥ 100 bp and < 200 bp	66%
≥ 50 bp and < 100 bp	50%
≥ 0 bp and < 50 bp	33%
< 0	0

(a) bp: basis point.

These conditions will be reviewed by the Board of Directors and, where applicable, amended to take account particularly of changes in the corporate environment each time the beneficiary's term of office is renewed and, where applicable, during his term of office.

Indemnity to compensate for the loss of pension rights in respect of the corporate office

Benoît Potier's entitlement to receive compensation for the loss of pension rights, as described above, will depend on, and the amount of the indemnity paid will be adjusted according to, the average of the annual variance between the Return on capital employed after tax (ROCE) and the Weighted Average Cost of Capital (WACC) (assessed using accounting net equity) calculated (based on the certified consolidated financial statements approved by the Shareholders' Meeting), for the last seven fiscal years preceding the fiscal year during which the departure occurs. For purposes of the calculation, the variance between the ROCE and the WACC will be measured for each fiscal year and the average of the seven annual variances for the last seven fiscal years preceding the fiscal year during which the departure accurs shall be calculated.

The following formula will be applied:

Average variance (ROCE—WACC)	Proportion of the indemnity due
≥ 200 bp [(a)]	100%
≥ 100 bp et < 200 bp	66%
≥ 50 bp et < 100 bp	50%
≥ 0 bp et < 50 bp	33%
< 0	0

(a) bp: basis point.

These conditions will be reviewed by the Board of Directors and, where applicable, amended to take account particularly of changes in the corporate environment each time that Benoît Potier's term of office is renewed, or where applicable, during his term of office. In any case, the commitment to compensate for the loss of pension rights will become null and void in 2012 when Benoît Potier reaches 55 years of age.

Unemployment insurance for Company managers and corporate officers

Pursuant to a decision of the May 2006 Board of Directors' meeting, Benoît Potier benefits, in his capacity as a corporate officer, from the unemployment insurance for Company managers and corporate officers subscribed by the Company. Contributions paid by the Company are added back to Benoît Potier's remuneration as benefits in kind.

This decision was approved by the Annual Shareholders' Meeting of May 9, 2007, pursuant to the regulated agreements procedure.

At its meeting in May 2010, the Board of Directors confirmed that Benoît Potier would continue to benefit from this insurance within the scope of the renewal of his terms of office.

Table 8 (see page 137) and table 9 (see page 138)

Table 10

The table below summarizes commitments relating to the termination of duties of the Executive Officers as set out above.

Executive Officers	Employment contract	Supplementary pension plan (see details above)	Indemnities or benefits due or that may be due on termination or a change of duties (see details above)	Non-competition indemnity
Benoît Potier Chairman and Chief Executive Officer Term of office start date: 2006 Date of renewal of term of office: 2010 Term of office end date: 2014	**NO**	**YES** Pension plan for senior managers and executives: • partly a defined contribution plan • partly a defined benefit plan	**YES** • Termination indemnity – case: forced departure related to a change of strategy or a change in control – maximum amount: 24 months of gross fixed and variable remuneration – subject to performance conditions – reduction as he approaches the age limit pursuant to the Articles of association, exclusion should the beneficiary claim his pension entitlements on the date of a forced departure • Indemnity to compensate for loss of pension rights, subject to performance conditions, in the event his term of office is terminated at the Company's initiative, before the age of 55	**NO**
Pierre Dufour Senior Executive Vice-President Term of office start date: 2007 Date of renewal of term of office: 2011 Term of office end date: 2014	**YES**	**YES** Pension plan for senior managers and executives: • partly a defined contribution plan • partly a defined benefit plan	**YES** • Termination indemnity – case: forced departure related to a change of strategy or a change in control – maximum amount (including any non-competition indemnity payable relating to termination of his employment contract): 24 months of gross fixed and variable remuneration – subject to performance conditions – exclusion if the beneficiary is entitled to claim in the short term his full pension entitlements on the date of a forced departure.	**YES** In respect of the employment contract: 16 months of remuneration as an employee, indemnity included in the overall maximum limit of 24 months' fixed and variable remuneration

APPLICATION OF THE AFEP/MEDEF CORPORATE GOVERNANCE CODE: SUMMARY TABLE

L'Air Liquide applies the AFEP/MEDEF code with the exception of the following recommendations:

Recommendations	L'Air Liquide practice and justification
Independence criteria of Directors (point 8 of the code). Independent Director qualification criteria to be examined: • Not to have been a Director of the Company for over 12 years; • Not to have been an employee or executive Director of the Company or a company it has consolidated over the five preceding years.	The Board did not consider that terms of office exceeding 12 years would disqualify a Board member from being independent, as the experience acquired is an asset in a group characterized by long-term investment cycles (see page 105). Conversely, it considered that former employees or officers of the Company may not be considered as independent even if the termination of their duties took place more than five years earlier (see page 105).
Evaluation of the Board of Directors (point 9 of the code). The evaluation of the Board of Directors should seek to measure the actual contribution of each Director to the Board's work through his or her competence and involvement in discussions. It is recommended that the Directors who are external to the Company meet periodically without the "in-house" Directors.	Due to the collective nature of the Board, Air Liquide is attached to, the assessment questionnaire concentrates on an appraisal of the overall contribution of members to the Board's operation; for this same reason, there is no meeting of external Board members without the presence of internal Directors. The Appointments and Governance Committee was however given the task of assisting the Chairman and Chief Executive Officer, at his request, in his dealings with independent Directors (see page 107).
Audit committee (point 14 of the code) The time available for reviewing the accounts should be sufficient (no less than two days before review by the Board).	Considering the presence within the Audit Committee of Directors from abroad, the Committee meetings covering the review of the financial statements were held the morning before Board of Directors' meetings. However, Committee members are in a position to review the financial statements well in advance through other means (preparatory meeting with the Committee's Chairman more than one week prior to the meeting; dispatch of files to Committee members several days in advance) (see pages 110 and 111).
Remuneration Committee (point 16 of the code) During the presentation of the report on the proceedings of the compensation committee, the Board must deliberate on compensation issues without the presence of executive Directors.	During meeting of the Remuneration Committee, the Chairman and Chief Executive Officer is not present for any discussions of the Committee relating to him personally. At Board meetings, the Committee Chairman reports on the work of the Remuneration Committee, without the presence of the Senior Executive Vice-President (see page 113).
Compensation of executive Directors (point 20 of the code) In principle, fixed compensation may only be reviewed at relatively long intervals, e.g. every three years.	The Senior Executive Vice-President was appointed at the end of 2007. The adjustment of his fixed remuneration was spread over several years. This was justified by the new responsibilities assumed as of January 1, 2010 and by the wish to limit the loss resulting from the amendment to the Executive Officer pension plan on the same date (see page 122).
In any event, the termination payment should not exceed two years of compensation (fixed and variable).	The Chairman and Chief Executive Officer also benefits from an indemnity to compensate for loss of pension rights, in the event of a forced departure, subject to performance conditions. Because of the regulatory change, the Board set up a transitional plan (maintenance of an entitlement, in the form of a commitment to pay an indemnity subject to performance conditions, granted to Benoît Potier when he was appointed Chairman of the Management Board in November 2001). This plan expires in 2012 on Benoît Potier's 55th birthday (see page 129).

STATUTORY AUDITORS' REPORT

Prepared in accordance with article L. 225-235 of the French Commercial Code *(Code de commerce),* on the report prepared by the Chairman of the Board of Directors of L'Air Liquide S.A.

This is a free translation into English of a report issued in the French language and is provided solely for the convenience of English speaking users. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

To the Shareholders,

In our capacity as Statutory Auditors of L'Air Liquide S.A., and in accordance with Article L. 225-235 of the French Commercial Code *(Code de commerce),* we hereby report to you on the report prepared by the Chairman of the Board of Directors of your Company in accordance with article L. 225-37 of the French Commercial Code *(Code de commerce)* for the year ended December 31, 2011.

It is the Chairman's responsibility to prepare, and submit to the Board of Directors for approval, a report on internal control and risk management procedures implemented by the Company and to provide the other information required by articles L. 225-37 of the French Commercial Code *(Code de commerce)* relating to matters such as corporate governance.

It is our responsibility:

- to report to you on the information contained in the Chairman's report in respect of the internal control procedures relating to the preparation and processing of financial and accounting information; and
- confirm that the report also includes the other information required by article L. 225-37 of the French Commercial Code *(Code de commerce),* it being specified that it is not our responsibility to verify the fairness of this other information.

We conducted our work in accordance with professional standards applicable in France.

INFORMATION ON INTERNAL CONTROL AND RISK MANAGEMENT PROCEDURES RELATING TO THE PREPARATION AND PROCESSING OF ACCOUNTING AND FINANCIAL INFORMATION

The professional standards require that we perform the necessary procedures to assess the fairness of the information provided in the Chairman's report in respect of the internal control and risk management procedures relating to the preparation and processing of the accounting and financial information. These procedures consist mainly in:

- obtaining an understanding of the internal control and risk management procedures relating to the preparation and processing of the accounting and financial information on which the information presented in the Chairman's report is based, and of the existing documentation;
- obtaining an understanding of the work involved in the preparation of this information and of the existing documentation;
- determining if any material weaknesses in the internal control procedures relating to the preparation and processing of financial and accounting information that we would have noted in the course of our work are properly disclosed in the Chairman's report.

On the basis of our work, we have no matters to report on the information relating to the Company's internal control and risk management procedures relating to the preparation and processing of the accounting and financial information contained in the report prepared by the Chairman of the Board of Directors in accordance with article L. 225-37 of the French Commercial Code *(Code de commerce).*

OTHER INFORMATION

We confirm that the report prepared by the Chairman of the Board of Directors also contains the other information required by article L. 225-37 of the French Commercial Code *(Code de commerce).*

Courbevoie and Paris-La Défense, March 1, 2012

The Statutory Auditors

ERNST & YOUNG et Autres — MAZARS

Jean-Yves Jégourel — Emmanuelle Mossé — Lionel Gotlib — Daniel Escudeiro

TRANSACTIONS INVOLVING COMPANY SHARES PERFORMED BY CORPORATE OFFICERS AND MEMBERS OF EXECUTIVE MANAGEMENT

In 2011, the following transactions involving Company shares were performed by corporate officers and members of Executive Management:

	Nature of the transaction	Date of transaction	Average price *(in euros)*
Jean-Claude Buono	Sale of 1,000 shares of L'Air Liquide S.A.	January 4, 2011	96.33
Jean-Claude Buono	Sale of 500 shares of L'Air Liquide S.A.	February 22, 2011	93.07
Jean-Claude Buono	Exercise of 28,000 shares subscription options of L'Air Liquide S.A.	March 10, 2011	48.86
Jean-Claude Buono	Sale of 28,000 shares of L'Air Liquide S.A.	March 11, 2011	91.77
Benoît Potier	Exercise of 103,452 shares subscription options of L'Air Liquide S.A.	March 14, 2011	53.36
Jean-Claude Buono	Exercise of 20,366 shares subscription options of L'Air Liquide S.A.	March 17, 2011	48.86
Jean-Pierre Duprieu	Exercise of 18,100 shares subscription options of L'Air Liquide S.A.	March 30, 2011	64.97
Natural person related to Jean-Pierre Duprieu	Sale of 2,600 shares of L'Air Liquide S.A.	April 5, 2011	95.51
Natural person related to Jean-Pierre Duprieu	Sale of 2,600 shares of L'Air Liquide S.A.	April 5, 2011	95.48
Jean-Claude Buono	Sale of 700 shares of L'Air Liquide S.A.	May 17, 2011	93.95
Benoît Potier	Exercise of 63,000 shares subscription options of L'Air Liquide S.A.	June 27, 2011	64.97
Natural person related to Benoît Potier	Sale of 15,000 shares of L'Air Liquide S.A.	July 5, 2011	98.36
Natural person related to Benoît Potier	Sale of 15,000 shares of L'Air Liquide S.A.	July 5, 2011	98.36
Natural person related to Benoît Potier	Sale of 15,000 shares of L'Air Liquide S.A.	July 5, 2011	98.36
Pierre Dufour	Purchase of 400 shares of L'Air Liquide S.A.	August 8, 2011	87.50
Natural person related to Pierre Dufour	Purchase of 200 shares of L'Air Liquide S.A.	August 9, 2011	84.36
Jean-Claude Buono	Sale of 1,000 shares of L'Air Liquide S.A.	September 9, 2011	89.07
Pierre Dufour	Purchase of 300 shares of L'Air Liquide S.A.	September 26, 2011	86.32
Jean-Claude Buono	Sale of 700 shares of L'Air Liquide S.A.	December 15, 2011	89.80

SHARE SUBSCRIPTION OPTION PLANS AND CONDITIONAL GRANT OF SHARES TO EMPLOYEES (CGSE)

Allotment policy

Each year, the Company sets up in principle:

- a share subscription option plan for its corporate officers and employees; and
- since 2008, plans for Conditional Grants of Shares to Employees (CGSE).

These allotments are decided by the Board of Directors pursuant to the authorizations granted by Shareholders' Meetings and for the last time by the Combined Shareholders' Meeting of May 5, 2010.

The introduction of CGSE Plans since 2008 has enabled the Company to offer a medium-term compensation scheme with features that are complementary to the long-term share subscription option plan and to increase the number of beneficiaries.

The current share subscription option and conditional share grant system is therefore intended for three groups of beneficiaries:

- the Company's corporate officers and members of the Executive Committee, who to date can only receive options not eligible for the CGSE Plans (pursuant to the resolution voted by the 2007 Extraordinary Shareholders' Meeting, renewed in 2010, for the Company's corporate officers and the recommendation of the Remuneration Committee for the members of the Executive Committee);
- Group managers who have a high level of responsibility or make specific contributions to the Group and benefit from a double allotment of both options and conditional shares (the conditional share grant partially replaces the options at a ratio of 4 options for 1 share), and contributors whose distinguished conduct in unusual situations has been rewarded with an exceptional option allotment;
- other employees corresponding to middle managers and a category of new employee beneficiaries, who receive conditional shares only.

The criteria used to draw up the lists of employee beneficiaries reflect the business segments and geographical areas in which the Group conducts its business, as well as the specific contribution, potential, or individual or cooperative effort in exceptional situations of the relevant persons. The list of employee beneficiaries is also prepared in such a way as to ensure a certain turnover and an increase in the number of beneficiaries.

The stock options granted to corporate officers can only be exercised, in their entirety, if certain performance requirements are met by the Company (for details of performance requirements, see page 125). As of 2010, any allocation to a beneficiary exceeding the threshold of 1,500 options, in the amount of 50% of the options allocated exceeding the threshold, is subject to the same performance requirements. A Group continued service requirement at the time the options are exercised is also stipulated.

Furthermore, the number of shares definitively vested by conditional share beneficiaries depends on the achievement of a performance target and a continued service requirement.

The total outstandings as of December 31, 2011 for CGSE and share subscription options allotted and the total CGSE and share subscription options authorized as of this date represented a number of shares amounting to less than 2% of the share capital at this same date.

The number of allotment plan beneficiaries is growing steadily. The changes in overall volume of option allotments and CGSE plans over the last five years break down as follows:

	2007	2008	2009	2010	2011
Total number of options/equivalent options (a) allotted	862,300	977,944	977,036	1,107,640	1,102,312
% of share capital (a)	0.35%	0.38%	0.37%	0.39%	0.39%
Number of beneficiaries	535	660	908	965	1,200
% des effectifs	1.45%	1.65%	2.1%	2.4%	2.67%

(a) Based on a ratio of 4 options for 1 share for the CGSE plans.

Share subscription option plans

(Information to be regarded as the Special Report of the Board of Directors within the meaning of Article L. 225-184 of the French Commercial Code)

DESCRIPTION

Pursuant to the decisions of the Board of Directors, the Supervisory Board and the Management Board, following the authorizations of the Shareholders' Meeting and on the recommendation of the Remuneration Committee, the Company has adopted share subscription option plans for certain employees (including corporate officers) at the Group level worldwide.

The purpose of these options is to motivate top-performing Company managers and reward contributors who have distinguished themselves for the quality of their conduct in exceptional situations, by associating them with the long-term interests of shareholders.

Stock options are granted for a minimum unit amount equal to or greater than the average market price during the twenty trading days prior to the date they are granted. The maximum exercise period is seven years for options granted between June 14, 2002 and April 8, 2004 inclusive, eight years for options granted between November 30, 2004 and June 28, 2010 inclusive, and 10 years for the October 14, 2011 option plan.

Stock options can only be exercised after a four-year minimum term from the date they were granted. The Board of Directors has the option of closing this lock-in period in the event of a takeover bid on the Company's shares and the Company's merger or absorption.

The total number of stock options, granted by the Board of Directors, the Supervisory Board, and the Management Board under the plans authorized by Shareholders' Meetings, but not exercised as of December 31, 2011, amounted to 4,428,274 options (average price of 73.03 euros) after adjustment, or 1.56% of the share capital, of which 705,854 options (average price of 76.29 euros) granted to members of Executive Management present as of December 31, 2011 during their term of office.

Out of the total number of options issued pursuant to the authorization of the May 5, 2010 Shareholders' Meeting, 4,467,819 options were retained for possible allotment by the Board of Directors as of December 31, 2011.

STOCK OPTIONS GRANTED IN 2011 (OCTOBER 14, 2011 PLAN)

Pursuant to the authorization of the Combined Shareholders' Meeting on May 5, 2010, the Board of Directors, in its meeting on October 14, 2011, granted 675,680 share subscription options at a unit price of 87 euros, equal to 100% of the average opening trading price of the Air Liquide share during the twenty trading days preceding the date on which the options were granted to 578 beneficiaries. Under Belgian regulations, the unit price amounts to 88 euros.

These options can only be exercised after a four-year minimum term from the date they were granted and must be exercised within a ten-year maximum term as from such date.

These options are subject to performance requirements according to the conditions mentioned above and on page 125 and a Group continued service requirement at the time the options are exercised.

Breakdown between the various beneficiary categories

In 2011	Number of beneficiaries	Number of options
Corporate officers of L'Air Liquide S.A.	2	138,000
Senior Executives (not corporate officers of L'Air Liquide S.A.) and exceptional contributors	576	537,680

Table 8—Options granted during the last ten years

	2002	2002 [a]	2004	2004	2005	2006	2007	2007	2008	2009	2010	2011
Date of authorization by the EGM	04/30/02	04/30/02	04/30/02	05/12/04	05/12/04	05/12/04	05/09/07	05/09/07	05/09/07	05/09/07	05/05/10	05/05/10
Date of grant by the Board of Directors or the Management Board	06/14/02	10/10/02	04/08/04	11/30/04	03/21/05	03/20/06	05/09/07	11/08/07	07/09/08	06/15/09	06/28/10	10/14/11
Total share subscription options granted [b] [f]	955,400	769,130	500,000	35,385	428,000	444,000	431,150	4,000	513,392	484,292	532,760	675,680
including to officers and Directors	*75,000*	*60*	*57,000*	*15,000*	*70,000*	*90,000*	*75,000*		*168,300*	*128,000*	*138,000*	*138,000*
Benoît Potier [b] [c]	50,000	30	40,000		40,000	50,000	40,000		88,000	88,000	88,000	88,000
Jean-Claude Buono [c]	25,000	30	17,000		15,000	20,000	15,000					
Klaus Schmieder [b] [c]				15,000	15,000	20,000	20,000		44,000			
Pierre Dufour [b] [c]									36,300	40,000	50,000	50,000
including to top ten employees (excluding corporate officers) receiving the highest number of options	*112,000*	*300*	*77,000*	*12,325*	*61,800*	*62,000*	*59,000*		*92,620*	*124,180*	*165,000*	*172,000*
Number of beneficiaries [g]	481	31,012	448	38	520	500	535	1	328	308	305	578
Exercise period start date	06/14/06	10/11/06	04/08/08	11/30/08	03/21/09	03/20/10	05/09/11	11/08/11	07/09/12	06/15/13	06/28/14	10/14/15
Expiration date	06/13/09	10/09/09	04/07/11	11/29/12	03/20/13	03/19/14	05/08/15	11/07/15	07/08/16	06/14/17	06/27/18	10/13/21
Subscription price in euros	168.00	128.00	139.00	131.00	138.00	168.00	183.00	94.00	84.00	65.00	83.00	87.00
Subscription price in euros as of 12/31/2011 [d]	56.09	48.08	48.86	50.66	53.36	64.97	77.86	79.98	78.63	60.84	83.00	87.00
Restated total number of share subscription options granted as of 12/31/2011 [d] [f]	2,428,417	1,365,617	1,339,630	87,499	1,080,716	1,130,721	1,009,043	4,702	548,232	517,475	532,760	675,680
Total shares subscribed as of 12/31/2011 [f]	2,354,624	1,039,616	1,304,606	68,237	591,185	337,553	60,641		377 [h]	342 [h]		
Total share subscription options cancelled as of 12/31/2011 [d] [e] [f]	73,793	326,001	35,024	1,891	17,004	23,776	35,389		10,214	4,005	7,940	
TOTAL SHARE SUBSCRIPTION OPTIONS REMAINING AS OF 12/31/2011 [d]				**17,371**	**472,527**	**769,392**	**913,013**	**4,702**	**537,641**	**513,128**	**524,820**	**675,680**

(a) Exceptional plan approved in 2002, for the Company's 100th year celebration and involving all Group employees who met certain conditions, including seniority. The plan expired on October 12, 2009, the stock exchange being closed on October 10, 2009.

(b) Stock options granted in November 2007 take into account the one-for-two share split on June 13, 2007 (par value split from 11 euros to 5.50 euros).

(c) Stock options granted during office as corporate officer (in historical data).

(d) Adjusted to take into account share capital increases through free share issues (2010, 2008, 2006, 2004) and the two-for-one share split (11 euros par value split to 5.50 euros) on June 13, 2007.

(e) Loss of exercise rights.

(f) Number of shares or stock options expressed historically.

(g) The number of beneficiaries decreased between 2008 and 2010 following the first implementation of a CGSE Plan in addition to a stock option plan. Corporate officers and Directors are not entitled to CGSE Plans.

(h) Early exercise of rights provided for in the stock option plans.

Table 9

Table 9.1 — Options granted to the ten employees (excluding corporate officers) who were granted the highest number of options

In 2011	Number of options	Average price *(in euros)*
For L'Air Liquide S.A.	138,800	87.00
For L'Air Liquide S.A. and its subsidiaries	172,000	87.00

The specific conditions applicable to corporate officers of the Company as part of the share subscription options granted in 2011 are described on pages 124 *et seq*.

STOCK OPTIONS EXERCISED IN 2011

Some of the options granted, as the case may be, from 2004 to 2009 by the Board of Directors or the Supervisory Board and the Management Board were exercised in fiscal year 2011, for a total of 917,848 shares at an average price of 56.08 euros.

Table 9.2 — Options exercised by the ten employees of L'Air Liquide S.A. and its subsidiaries (excluding corporate officers) with the highest number of options exercised

Grant date	Number of options exercised	Average price *(in euros)*
April 8, 2004	56,948	48.86
March 21, 2005	22,533	53.36
March 20, 2006	37,501	64.97
March 20, 2006 USA	2,071	66.18
May 9, 2007	5,879	77.86
TOTAL	**124,932**	**56.16**

Table 9.3 — Options exercised by the ten employees of L'Air Liquide S.A. (excluding corporate officers) with the highest number of options exercised

Grant date	Number of options exercised	Average price *(in euros)*
April 8, 2004	25,899	48.86
March 21, 2005	22,070	53.36
March 20, 2006	41,378	64.97
May 9, 2007	7,053	77.86
TOTAL	**96,400**	**58.93**

Conditional Grant of Shares to Employees

(Information to be regarded as the Special Report of the Board of Directors within the meaning of Article L. 225-197-4 of the French Commercial Code)

DESCRIPTION

In order to retain and motivate talented employees and compensate their medium-term performance, an additional compensation system was set up in 2008 involving conditional share grants to employees (CGSE).

The seventeenth resolution adopted by the Extraordinary Shareholders' Meeting of May 5, 2010 authorized the Board of Directors to grant free shares to Group employees (with the exception of the Group's corporate officers), up to a maximum of 0.5% of the Company's share capital on the date the Board decides to grant such shares.

Under this authorization, the Board of Directors adopted two different plans on October 14, 2011 ("France" Plan and "World" Plan) governing the conditional grant of Company shares to employee beneficiaries determined by the Board of Directors. The differences between the "France" and "World" Plans are mainly the number of years of service required—paragraph a) below, and the correlative absence of any holding requirement for the "World" Plan—paragraph c) opposite.

Conditional employee share grants are subject to:

a) a continued service requirement

Shares granted to a beneficiary shall only be definitively vested if he or she has been a salaried employee or corporate officer of a Group company during a vesting period, calculated as from the grant date, of two years for "France" Plan beneficiaries and four years for "World" Plan beneficiaries. In the event of retirement, the beneficiary retains his rights, but is no longer required to satisfy the continued service requirement.

b) a performance requirement

For 2011, this requirement is identical for both Plans (see the performance requirement in the Summary table of conditional share grants to employees below).

c) a holding requirement

As from the final grant date, the beneficiaries of the "France" Plan are required to hold their shares for two additional years during which such shares may not be transferred (except in the event of disability or death).

CONDITIONAL SHARE GRANTS TO EMPLOYEES DECIDED IN 2011

In connection with the "France" Plan and the "World" Plan of October 14, 2011, a total of 106,658 shares were allotted on a conditional basis to 972 beneficiaries (40,250 shares allotted to "France" Plan beneficiaries and 66,408 shares allotted to "World" Plan beneficiaries). As of December 31, 2011, the unit fair values of the shares allotted under the "France" Plan and the "World" Plan were 91.50 euros and 85.31 euros, respectively (calculated under IFRS). Subject to the achievement of the continued service and performance requirements, these shares shall be definitively vested by the beneficiaries on October 14, 2013 for the "France" Plan (with no possibility of transfer prior to October 14, 2015) and October 14, 2015 for the "World" Plan.

The number of definitively vested shares shall depend on the achievement rate set by the Board for the Group's undiluted net earnings per share, excluding foreign exchange impacts and exceptional items (recurring net earnings per share), for fiscal year 2012, compared to the recurring net earnings per share for fiscal year 2010.

For the 2011 grant, the performance requirement achievement rate shall be determined by the Board of Directors at the meeting held to approve the 2012 financial statements, according to a straight-line reducing-balance method.

Breakdown between the various beneficiary categories

	2010	2011
	Number of shares	Number of shares
Senior Executives (excluding the corporate officers and Executive Committee members of L'Air Liquide S.A.) receiving both options and conditional shares	68,210	48,080
Other executives and employees receiving conditional shares only	75,510	58,578

Shares granted to the ten employees (excluding corporate officers and Executive Committee members of L'Air Liquide S.A.) who were granted the highest number of shares

	2010	2011
	Number of shares	Number of shares
For L'Air Liquide S.A.	3,900	2,380
For L'Air Liquide S.A. and its subsidiaries	4,700	2,625

Summary table of conditional share grants to employees

	CGSE 2008	CGSE 2009	CGSE 2010	CGSE 2011
Date of authorization by the EGM	05/09/2007	05/09/2007	05/05/2010	05/05/2010
Date of grant by the Board of Directors	07/09/2008	06/15/2009	06/28/2010	10/14/2011
Total number of conditional shares granted	116,138	123,186	143,720	106,658
including the top ten employees (excluding corporate officers) receiving the highest number of shares	*5,720*	*4,955*	*4,700*	*2,625*
Total number of beneficiaries	651	897	952	972
Performance requirement (“France” and “World” Plans)	Achievement rate of the average growth target set for net profit attributable to ordinary shareholders of the parent (excluding foreign exchange impact and exceptional items) for fiscal years 2008 (compared to 2007) and 2009 (compared to 2008) [(a)]	Achievement rate of the average growth target set for recurring net earnings per share for fiscal year 2010 compared to recurring net earnings per share for fiscal year 2008	Achievement rate of the average growth target set for recurring net earnings per share for fiscal year 2011 compared to recurring net earnings per share for fiscal year 2009	Achievement rate of the average growth target set for recurring net earnings per share for fiscal year 2012 compared to recurring net earnings per share for fiscal year 2010
Performance requirement achievement rate	25% [(a)]	100%	100% [(e)]	Determined in 2013
“France” Plan final grant date	07/09/2010	06/15/2011	06/28/2012	10/14/2013
“France” Plan definitive grant	11,094 [(a) (b)]	47,780 [(c)]		
End of “France” Plan holding period	07/09/2012	06/15/2013	06/28/2014	10/14/2015
“World” Plan final grant date	07/09/2012	06/15/2013	06/28/2014	10/14/2015
“World” Plan definitive grant	143 [(d)]			

(a) The performance requirement of the 2008 CGSE Plan has been partially realized. The final attribution amounted to 25% of the number of shares granted in 2008.

(b) For the 2008 CGSE Plan, the definitive grant corresponds to the “France” Plan and has been adjusted to take into account the share capital increase through the free share attribution of May 28, 2010.

(c) For the 2009 CGSE Plan, the definitive grant corresponds to the “France” Plan and has been adjusted to take into account the share capital increase through the free share attribution of May 28, 2010.

(d) Early definitive grant stipulated in the historical data on stock option Plan Regulations.

(e) The Board of Directors determined the 2010 CGSE Plan performance requirement achievement rate during its meeting held to approve the 2011 financial statements. Subject to the approval of the financial statements by the Shareholders’ Meeting, the number of shares definitively allotted to the beneficiaries shall amount to 100% of the conditional share grant.

EMPLOYEE SAVINGS AND SHARE OWNERSHIP

For many years, Air Liquide has pursued an active policy promoting employee profit-sharing and incentive schemes in connection with the Group's development and the association of its employees with the Company's capital.

Profit-sharing

Profit-sharing and incentive schemes have been organized for many years in Group companies in France. This year they cover over 95% of employees in France, thus complying with the requirements of the Law of December 3, 2008 aimed at associating all employees in France with the Company's performance.

In 2011, L'Air Liquide S.A. paid 28.1 million euros to more than 5,168 employees in respect of profit-sharing and incentives. Company contributions to the Company Savings Plan are negotiated every year and amounted to nearly 4 million euros in 2011, representing an average of 5,901 euros per employee (working time equivalent), up 7.3% compared to the previous year.

Under the Profit-sharing Bonus Law, a supplementary incentive payment or otherwise an average gross bonus of 300 euros was paid in all companies with more than 50 employees, and all eligible Group companies with less than 50 employees.

Under the main Company Savings Plans, Group employees in France can make payments to diversified investment funds, on a voluntary basis or based on profit-sharing, incentives and, where applicable, contributions, and benefit from the preferential tax regime applicable in consideration for the blocking of their assets over a period of five years.

This year, 75% of L'Air Liquide S.A. employee profit-sharing and incentives was invested respectively in bond-weighted assets (72%) and equity-weighted assets (28%).

A total of 68% of employee savings was invested in corporate mutual funds holding only Air Liquide securities (54% in Air Liquide bonds, 14% in Air Liquide shares).

Employee share ownership

Since 1986, the Company has regularly performed share capital increases reserved for Group employees, for which subscription is offered at a preferential rate. The most recent capital increase was performed in December 2010 (for details see 2010 Reference Document).

In France, the shares subscribed in these capital increases are also eligible for the preferential tax regime applicable provided that they are blocked over a period of five years, while those held abroad are governed by the legal regulations prevailing in each relevant country.

At the end of 2011, the share of capital held by Group employees and former employees was estimated at 2.2%, of which 1.6% corresponds (within the meaning of Article L. 225-102 of the French Commercial Code) to shares subscribed by employees under employee-reserved capital increases or held through mutual funds. The percentage of Group employees holding L'Air Liquide S.A. shares totaled more than 50% of the workforce.

Air Liquide wishes to pursue this strategy and further the development of its employee share ownership, by regularly proposing share capital increases to employees.

INFORMATION CONCERNING MEMBERS OF THE BOARD OF DIRECTORS AND EXECUTIVE MANAGEMENT

(Information as of December 31, 2011) [(a)]

Benoît Potier

Chairman and Chief Executive Officer

Born in 1957

Date of first appointment: 2000

Start of current term: 2010

End of current term: 2014

Number of shares owned as of December 31, 2011: 153,578

Business address

Air Liquide, 75, quai d'Orsay—75321 Paris Cedex 07

Career

A graduate of *École centrale de Paris,* Benoît Potier joined Air Liquide in 1981 as a Research and Development engineer. After serving as a Project Manager in the Engineering and Construction division, he was made Vice-President of Energy Development in the Large Industries business line. In 1993, he became Director of Strategy & Organization and, in 1994, was put in charge of the Chemicals, Iron & Steel, Oil and Energy Markets. He was made an Executive Vice-President of Air Liquide in 1995 with additional responsibilities over the Engineering & Construction division and the Large Industries operations in Europe.

Benoît Potier was appointed Chief Executive Officer in 1997. He was appointed to the Board of Directors in 2000 and became Chairman of the Management Board in November 2001.

In 2006, he was appointed Chairman and Chief Executive Officer of L'Air Liquide S.A.

Positions and activities held during 2011

Functions within the Air Liquide Group

Chairman and Chief Executive Officer: L'Air Liquide S.A. *, Air Liquide International, Air Liquide International Corporation (ALIC)

Director: American Air Liquide Holdings, Inc.

Chairman of the Air Liquide Foundation

Positions or activities outside the Air Liquide Group

Director: Danone *

Member of the Supervisory Board and Member of the Audit Committee: Michelin *

Vice-Chairman: European Round Table (ERT)

Director: *École centrale, Association Nationale des Sociétés par Actions* (ANSA), *Cercle de l'Industrie, La Fabrique de l'industrie* (since October 2011)

Member of the Board: *Association Française des Entreprises Privées* (AFEP)

Member of the French Board: INSEAD

Positions and activities held during the last five years and that have expired

2010

Chairman and Member of the Audit Committee: Danone * (until February 2010)

2009

Chairman and Chief Executive Officer: American Air Liquide Inc. (AAL) (until September 2009)

Chairman: American Air Liquide Holdings, Inc. (until September 2009)

2007

Director: Air Liquide Italia Srl. (until April 2007), AL Air Liquide España S.A. (until May 2007)

* *Listed company.*

(a) *Pursuant to Article L. 225-102-1, paragraph 4 of the French Commercial Code and Annex I of EC Regulation no. 809/2004 of April 29, 2004 (point 14.1).*

Thierry Desmarest

Director

Born in 1945

Date of first appointment: 1999

Start of current term: 2009

End of current term: 2013

Number of shares owned as of December 31, 2011: 6,104

Business address

Total, Tour Coupole, 2, place de la Coupole—92078 Paris-La Défense

Career

A graduate of *École polytechnique* and *École des Mines,* Thierry Desmarest spent four years with the New Caledonia Department of Mines, before serving as a technical advisor at the ministry of industry in 1975, and then at the ministry of economic affairs in 1978.

He joined Total in 1981 as Managing Director of Total Algeria. He held various executive positions within Total Exploration Production, ultimately becoming its Chief Executive Officer in 1989 and a member of the Group's Executive Committee that same year. He became Chairman and Chief Executive Officer of Total in 1995, of Totalfina in 1999, and then of Elf Aquitaine and TotalFinaElf in 2000.

Thierry Desmarest was Chairman and Chief Executive Officer of Total from 2003 to February 2007, when he became Chairman of the Total S.A. Board of Directors. Appointed Honorary Chairman of Total S.A. in May 2010, he remains a Director and Chairman of the Total Foundation.

Positions and activities held during 2011

Functions within the Air Liquide Group

Director: L'Air Liquide S.A. * (Chairman of the Appointments and Governance Committee and member of the Remuneration Committee)

Positions or activities outside the Air Liquide Group

Honorary Chairman, Director: Total S.A * (Chairman of the Appointments and Governance Committee, member of the Remuneration Committee)

Director: Sanofi-Aventis * (member of the Remuneration Committee, member of the Appointments and Governance Committee, member of the Strategic Committee), Renault S.A.[a] (member of the Remuneration Committee, Chairman of the International Strategy Committee, member of the Industrial Strategy Committee), Renault S.A.S. and Bombardier Inc. * (member of the Appointments and Governance Committee, member of the Human Resources and Remuneration Committee)

Director: *École polytechnique, musée du Louvre*

Chairman: Total Foundation, *École polytechnique* Foundation

Positions and activities held during the last five years and that have expired

2010

Chairman of the Board of Directors: Total S.A. * (until May 2010)

Member of the Supervisory Board: Areva * (until March 2010)

2007

Chairman and Chief Executive Officer: Total S.A. * (until February 2007), Elf Aquitaine (until May 2007)

Alain Joly

Director

Born in 1938

Date of first appointment: 1982

Start of current term: 2009

End of current term: 2013

Number of shares owned as of December 31, 2011: 102,074

Business address

Air Liquide, 75, quai d'Orsay—75321 Paris Cedex 07

Career

A graduate of *École polytechnique,* Alain Joly joined Air Liquide's Engineering division in 1962. From 1967 to 1973, he held various responsibilities in Montreal at Air Liquide Canada and then in the Americas Division. From 1973 to 1985, he served successively as Vice-President of Corporate Strategy and Management, Regional Manager of the French Gases Division, Company Secretary and Secretary of the Board of Directors.

He became Director of Air Liquide in 1982, then Chief Executive Officer in 1985 and Chairman and Chief Executive Officer in 1995. Alain Joly was Chairman of the Supervisory Board of L'Air Liquide S.A. from November 2001 until May 10, 2006, and has been a Director of L'Air Liquide S.A. since this date.

* *Listed company.*

Positions and activities held during 2011

Functions within the Air Liquide Group

Director: L'Air Liquide S.A. * (member of the Appointments and Governance Committee, member of the Remuneration Committee)

Positions or activities outside the Air Liquide Group

Member of the Supervisory Board: Bac Partenaires Gestion

Positions and activities held during the last five years and that have expired

2009

Director: BNP Paribas * (until May 13, 2009)

2008

Director: Lafarge * (until May 2008)

Professor Rolf Krebs

Director

Born in 1940

Date of first appointment: 2004

Start of current term: 2008

End of current term: 2012 [(a)]

Number of shares owned as of December 31, 2011: 1,440

Address

Am Molkenborn 6—55122—Mainz—Germany

Career

Rolf Krebs studied medicine and obtained an MD from the University of Mainz. After having lectured there for several years, he joined Bayer AG in 1976 where he held various positions including Head of Pharmaceutical Research and Development, from 1984 to 1986, then Executive Vice-President of Bayer Italia from 1986 to 1989.

He joined Boehringer Ingelheim in 1989 as a member of the Management Board, and, from 2001 until the end of 2003, he was Chairman of the Management Board.

Rolf Krebs served as President of the European Federation of Pharmaceutical Industries from 1996 to 1998, then as President of the International Federation of Pharmaceutical Industries from 2000 to 2001.

Positions and activities held during 2011

Functions within the Air Liquide Group

Director: L'Air Liquide S.A. [(a)] (member of the Audit and Accounts Committee)

Positions or activities outside the Air Liquide Group

Chairman of the Supervisory Board: Epigenomics AG [(a)], Ganymed Pharmaceuticals AG, E. Merck GmbH & KGaA [(a)]

Member of the Supervisory Board: Merz Pharmaceuticals GmbH & Co KGaA, Senator GmbH & Co KGaA

Member of the Partners Board: E. Merck OHG

Positions and activities held during the last five years and that have expired

2009

Chairman of the Supervisory Board: Merz Pharmaceuticals GmbH, Senator GmbH & Co KGaA

2007

Member of the Advisory Board: Apax Partners, Kaneas Capital GmbH, Lehman Brothers Limited

Gérard de La Martinière

Director

Born in 1943

Date of first appointment: 2003

Start of current term: 2011

End of current term: 2015

Number of shares owned as of December 31, 2011: 3,561

Career

A graduate of *École polytechnique* and *École nationale d'administration,* Gérard de La Martinière held several positions with the French Ministry of Finance from 1969 to 1984. He was then General Secretary of the COB (formerly the French securities and exchange regulatory body) from 1984 to 1986, Chairman of the Paris Financial Instruments Clearing House from 1986 to 1988, and Chief Executive Officer of the Paris Stock Exchange (SBF) from 1988 to 1989.

Gérard de La Martinière joined the Axa Group in 1989 as Chairman and Chief Executive Officer of the Meeschaert-Rousselle brokerage unit. In 1991, he was named Executive Vice-President in charge of the Group's investments and financial services operations. In 1993, he took responsibility for the Group's Holding Companies and Corporate Affairs. He was a member of the Management Board between 1997 and 2003, and Vice-President of Finance, Audit and Strategy between 2000 and 2003.

* *Listed company.*

(a) *Renewal not requested.*

Gérard de La Martinière was Chairman of the *Fédération française des sociétés d'assurances* (French Federation of Insurance Companies), from May 2003 to September 2008. He was also Chairman of the European Insurance and Reinsurance Federation (CEA) from 2004 to 2008 and then Vice-Chairman until November 2009.

Positions and activities held during 2011

Functions within the Air Liquide Group

Director: L'Air Liquide S.A. * (Chairman of the Audit and Accounts Committee)

Positions or activities outside the Air Liquide Group

Member of the Supervisory Board and Chairman of the Audit Committee: Schneider Electric S.A. *

Member of the Supervisory Board: EFRAG

Director: Standard & Poor's Credit Market Services France SAS

Chairman: *Comité de la Charte du don en confiance* (French Donations Charter Committee)

Director: Allo Finance

Positions and activities held during the last five years and that have expired

2010

Director: Banque d'Orsay (until November 2010)

2009

Vice-Chairman: European Insurance and Reinsurance Federation (until November 2009)

2008

Chairman: *Fédération Française des Sociétés d'Assurance* (FFSA) (until September 2008); *Association Française de l'Assurance* (AFA) (until September 2008)

2007

Chairman: European insurance and Reinsurance Federation

Cornelis van Lede

Director

Born in 1942

Date of first appointment: 2003

Start of current term: 2011

End of current term: 2015

Number of shares owned as of December 31, 2011: 1,453

Business address

Jollenpad 1 0A—1081 KC Amsterdam—The Netherlands

Career

With a law degree from the University of Leiden and an MBA from INSEAD, Cornelis van Lede successively worked for Shell from 1967 to 1969 and McKinsey from 1969 to 1976 before joining Koninklijke Nederhorst Bouw B.V. as Chairman and Chief Executive Officer from 1977 to 1982. He was then a member of the Management Committee of Hollandse Beton Groep from 1982 to 1984.

From 1984 to 1991, he was Chairman of the Federation of Netherlands Industries, then Vice-President of the Union of Industrial and Employer's Confederations of Europe (UNICE) from 1991 to 1994.

In 1991, Cornelis van Lede joined Akzo N.V. as a member of the Management Board. Then, he became Vice-Chairman of the Management Board in 1992 and was Chairman of the Management Board of Akzo Nobel N.V. from 1994 to 2003. He was a member of the Supervisory Board of Akzo Nobel N.V. from 2003 to 2007.

Positions and activities held during 2011

Functions within the Air Liquide Group

Director: L'Air Liquide S.A. * (member of the Appointments and Governance Committee, Chairman of the Remuneration Committee)

Positions or activities outside the Air Liquide Group

Director: Air France-KLM *, Sara Lee Corporation *

Member of the Supervisory Board: Royal Philips Electronics N.V. *

Chairman of the Supervisory Board: Heineken N.V. *

Positions and activities held during the last five years and that have expired

2010

Member of the Board of Directors: INSEAD (until December 2010)

2007

Director: Reed Elsevier * (until April 2007)

Member of the Supervisory Board: Akzo Nobel N.V. * (until June 30, 2007)

Chairman of the Board of Directors: INSEAD

* *Listed company.*

Béatrice Majnoni d'Intignano

Director

Born in 1942

Date of first appointment: 2002

Start of current term: 2010

End of current term: 2014

Number of shares owned as of December 31, 2011: 1,759

Career

Having graduated with a high-level teaching degree in economics in 1975, Béatrice Majnoni d'Intignano has been *professeur agrégé* (tenured senior university professor) at the Paris XII-Créteil University since 1980 (currency, international relations, macroeconomics, economics of healthcare).

Béatrice Majnoni d'Intignano was *conseiller économique à l'Assistance Publique* (business consultant) for Paris Hospitals, from 1980 to 1987, and has been a temporary consultant with the World Health Organization from 1980 to 2001.

She is a member of the Editorial Committee of the magazine *Commentaire.* She was also a member of the Economic Analysis Council of the French Prime Minister from 1997 to 2008 and a member of *Société d'Économie Politique* until 2009.

Béatrice Majnoni d'Intignano is the author of a large number of books and articles about economics, employment, Europe, the economics of healthcare and women's role in society.

Positions and activities held during 2011

Functions within the Air Liquide Group

Director: L'Air Liquide S.A. * (member of the Audit and Accounts Committee)

Positions or activities outside the Air Liquide Group

Tenured Professor at the University of Paris XII-Créteil

Positions and activities held during the last five years and that have expired

2008

Member of the Economic Analysis Council chaired by the French Prime Minister

2007

Director: AGF, member of the Remuneration and Agreements Committee (until June 30, 2007)

Thierry Peugeot

Director

Born in 1957

Date of first appointment: 2005

Start of current term: 2009

End of current term: 2013

Number of shares owned as of December 31, 2011: 1,310

Business address

Peugeot S.A., 75, avenue de la Grande-Armée—75116 Paris Cedex 16

Career

A graduate of ESSEC, Thierry Peugeot began his career with the Marrel Group in 1982 as Export Manager for the Middle East and English-speaking Africa for Air Marrel, and then Director of Air Marrel America. He joined Automobiles Peugeot in 1988 as Regional Manager of the South-East Asia zone, then Chief Executive Officer of Peugeot do Brasil in 1991 and Chief Executive Officer of Slica in 1997. In 2000, he became International Key Accounts Director of Automobiles Citroën and then, in 2002, Vice-President of Services and Spare Parts before being appointed to the PSA Peugeot Citroën Vice-Presidents Committee. Thierry Peugeot has been Chairman of the Supervisory Board of Peugeot S.A. since 2002. He is also a member of the Board of Faurecia.

Positions and activities held during 2011

Functions within the Air Liquide Group

Director: L'Air Liquide S.A. *

Positions or activities outside the Air Liquide Group

Chairman of the Supervisory Board: Peugeot S.A. *

Vice-Chairman: *Établissements Peugeot Frères*

Director: Société FFP *, *La Société anonyme de participations*, Faurecia *, *Compagnie Industrielle de Delle*

Permanent representative of the *Compagnie Industrielle de Delle* on the LISI * Board of Directors

Chairman: *Association Nationale des Sociétés par Actions* (ANSA) (since February 2012)

3

* *Listed company.*

Positions and activities held during the last five years and that have expired

2010

Director: *La Française de Participations Financières* (until July 2010), *Immeubles et Participations de l'Est* (until November 2010)

Paul Skinner

Director

Born in 1944

Date of first appointment: 2006

Start of current term: 2010

End of current term: 2014

Number of shares owned as of December 31, 2011: 1,298

Business address

P.O. Box 65129, London SW1P 9LY

Career

Paul Skinner has a law degree from the University of Cambridge and is a graduate of the Manchester Business School. He started his career in 1966 with the Royal Dutch/Shell group. After having been responsible for managing several subsidiaries in Greece, Nigeria, New Zealand and Norway, Paul Skinner was President of the Shell International Trading and Shipping Company from 1991 to 1995. He was later appointed Chief Executive Officer of Royal Dutch/Shell's global Oil Products business and then Group Managing Director of the Royal Dutch/Shell group from 2000 to 2003.

After his retirement from Shell, he was Chairman of Rio Tinto plc, the global mining company, over the period 2003-2009. He is currently Chairman of Infrastructure UK, a division of HM Treasury, non-Executive Director of Standard Chartered plc and Tetra Laval Group, and a member of the Public Interest Body of PricewaterhouseCoopers LLP.

Positions and activities held during 2011

Functions within the Air Liquide Group

Director: L'Air Liquide S.A. * (member of the Audit and Accounts Committee)

Positions or activities outside the Air Liquide Group

Non-Executive Director: Standard Chartered plc *, Tetra Laval Group

Member of the Board of Directors: INSEAD (until November 2011)

Chairman: Infrastructure UK (a division of HM Treasury)

Member: Public Interest Body of PricewaterhouseCoopers LLP

Positions and activities held during the last five years and that have expired

2009

Chairman: Rio Tinto plc * (until April 2009), Rio Tinto Ltd. * (until April 2009)

Member of the Board: UK Ministry of Defense (until July 2009)

Jean-Claude Buono

Director

Born in 1943

Date of first appointment: 2008

Start of current term: 2008

End of current term: 2012 [(a)]

Number of shares owned as of December 31, 2011: 84,761

Business address

Air Liquide, 75, quai d'Orsay—75321 Paris Cedex 07

Career

An Economic Sciences graduate from ESCP and with a degree from the *Centre de Perfectionnement aux Affaires,* Jean-Claude Buono began his career in the Bull Group, where he was in charge of the Finance Department.

After 20 years with the Bull Group, Jean-Claude Buono joined Air Liquide in 1989, as Finance and Administration Director. He was appointed General Secretary and Secretary to the Board of Directors in 1997, Vice-President in 1999 and Executive Vice-President in July 2000. In November 2001, he was appointed member of the Management Board, and then Senior Executive Vice-President in May 2006. During this time and until the end of his term of office on November 8, 2007, Jean-Claude Buono was responsible for the Group's major operations in Europe and Asia in addition to the Financial and Legal Departments.

Positions and activities held during 2011

Functions within the Air Liquide Group

Director: L'Air Liquide S.A. [(a)], Air Liquide Welding (ALW), Aqua Lung International

Vice-Chairman and Director: Air Liquide International Corporation (until October 2011)

Director: Air Liquide International (until May 2011)

* *Listed company.*

(a) *Renewal not requested.*

Positions or activities outside the Air Liquide Group

Director: Velecta Paramount, SNPE

Positions and activities held during the last five years and that have expired

2010

Senior Executive Vice-President (until June 2010): Air Liquide International

2009

Director: American Air Liquide Inc. (until September 2009)

2008

Director: Air Liquide Santé International (until June 2008), Air Liquide Far Eastern Ltd. (until August 2008)

Chairman and Chief Executive Officer: Air Liquide Welding (until March 2008)

2007

Senior Executive Vice-President: L'Air Liquide S.A. (until November 2007)

Director: Air Liquide Tunisie (until December 2007)

Karen Katen

Director

Born in 1949

Date of first appointment: 2008

Start of current term: 2008

End of current term: 2012 (a)

Number of shares owned as of December 31, 2011: 1,600

Business address

Essex Woodlands Health Ventures—280 Park Avenue, 27th Floor East—New York, NY 10017-USA

Career

Karen Katen, a US citizen, is a graduate of the University of Chicago (BA in Political Sciences and MBA).

In 1974, she joined Pfizer and carried out various management and executive positions during more than 30 years. In her last position with Pfizer, she was Vice-Chairman of Pfizer Inc. and President of Pfizer Human Health, the group's main operating department. Karen Katen played a major role in the introduction of new medicines for the treatment of cardiovascular and mental diseases, as well as diabetes and cancer. She also successfully oversaw the integration of Warner Lambert (acquired in 2000) and Pharmacia (acquired in 2003) in the Pfizer Group. Having retired from Pfizer in March 2007, she was recently Chairman of the Pfizer Foundation. Currently she is a Senior Advisor at Essex Woodlands Health Ventures, a healthcare venture and growth equity firm, based in their New York office.

Positions and activities held during 2011

Functions within the Air Liquide Group

Director: L'Air Liquide S.A. *

Positions or activities outside the Air Liquide Group

Director: Harris Corporation *, Home Depot *, Catalyst, Armgo Pharmaceuticals

Director: The Rand Corporation's Health Board of Advisors, The Economic Club of New York Board of Trustees, Peterson Institute for International Studies, Takeda Global Advisory Board

Senior Advisor: Essex Woodlands Health Ventures

Trustee: University of Chicago

Trustee: University of Chicago Graduate School of Business

Positions and activities held during the last five years and that have expired

2009

Director: General Motors Corporation * (until July 2009)

2008

Chairman: Pfizer Foundation

Jean-Paul Agon

Director

Born in 1956

Date of first appointment: 2010

Start of current term: 2010

End of current term: 2014

Number of shares owned as of December 31, 2011: 1,066

Business address

L'Oréal—41, rue Martre—92110 Clichy

3

* *Listed company.*

(a) *Renewal of term proposed to the Shareholders' Meeting of May 9, 2012.*

Career

A graduate of HEC Business School, Jean-Paul Agon began his career with the L'Oréal Group in 1978. From 1981 to 1997, he held various senior management positions first as General Manager of L'Oréal Greece and General Manager of L'Oréal Paris, then International Managing Director for Biotherm International, Managing Director for L'Oréal Germany and finally Managing Director for L'Oréal Asia Zone. From 2001 to 2005, he was Chairman and Chief Executive Officer of L'Oréal USA as well as several subsidiaries of the L'Oréal Group in the USA. In 2005, he was appointed Deputy Chief Executive Officer of the L'Oréal Group, and became Chairman and Chief Executive Officer of the Group in 2006. He is Chairman and Chief Executive Officer of L'Oréal since March 2011.

Positions and activities held during 2011

Functions within the Air Liquide Group

Director: L'Air Liquide S.A. *

Positions or activities outside the Air Liquide Group

Chairman and Chief Executive Officer: L'Oréal *

Director: L'Oréal USA Inc. (United States)

Chairman of the Board of Directors and Director: Galderma Pharma S.A. (Switzerland)—L'Oréal Group

Vice-Chairman and Director: The Body Shop International plc (United Kingdom)—L'Oréal Group

Director: *Fondation d'Entreprise* L'Oréal

Positions and activities held during the last five years and that have expired (a)

2008

Chairman of the Board of Directors: Galderma Pharma S.A. (Switzerland) (until May 2008)

Siân Herbert-Jones

Director

Born in 1960

Date of first appointment: 2011

Start of current term: 2011

End of current term: 2015

Number of shares owned as of December 31, 2011: 600

Business address

255, quai de la Bataille-de-Stalingrad—92866 Issy-les-Moulineaux Cedex 9

Career

Holder of a Master of Art degree in History from Oxford University and a graduate from the Institute of Chartered Accountants in England and Wales, Siân Herbert-Jones first practiced for 13 years with the firm of PriceWaterhouseCoopers, in the London office from 1983 to 1993 in particular in the capacity of Corporate Finance Manager, then in the Paris office from 1993 to 1995 in the capacity of Mergers & Acquisitions Manager. She then joined the Sodexo Group in 1995 in which she was successively in charge of international development from 1995 to 1998 and the Group's treasury department from 1998 to 2000 then Deputy Chief Financial Officer in 2000. Since 2001, she has been the Sodexo Group's Chief Financial Officer; she is a member of the Executive Committee.

Positions and activities held during 2011

Functions within the Air Liquide Group

Director: L'Air Liquide S.A. *

Positions or activities outside the Air Liquide Group

Chief Financial Officer and member of the Executive Committee: Sodexo Group *

Chairman: ETIN SAS (France), Sodexo Etinbis SAS (France), Sofinsod SAS (France)

Director: Sodexho Awards Co, Sodexo Japan Kabushiki Kaisha Ltd, Sodexo Pass Luxembourg SA, Sodexho Mexico SA de CV, Sodexho Mexico Servicios de Personal SA de CV, Sodexo Motivation Solutions Mexico SA de CV, Sodexo Remote Sites the Netherlands, Sodexo Remote Sites Europe Ltd, Sodexo Motivation Solutions UK Ltd, Universal Sodexho Eurasia Ltd, Sodexo, Inc., Sodexo Management, Inc., Sodexo Remote Sites USA, Inc., Sodexo Services Enterprises LLC, Universal Sodexho Services de Venezuela SA, Universal Sodexho Empresa de Servicios y Campamentos SA, Sodexo Remote Sites Support Services Ltd (until 2011), Universal Sodexho Kazakhstan LTD (until 2011), Universal Sodexo Euroasia Ltd (until 2011)

Member of the Management Board: Sodexo en France SAS (France), Sodexo Entreprises SAS (France), Sodexo Pass International SAS (France), One SAS (France)

Permanent representative of Sofinsod SAS on the Supervisory Board of One SCA (France)

Positions and activities held during the last five years and that have expired

2010

Director: Sodexo Solutions de Motivation France SA (France), Universal Services Asia LLC (USA), Sodexo Pass Belgium SA (Belgium), Manager of Imagor Services & Cie (Belgium)

* *Listed company.*

(a) *During the last five years, Jean-Paul Agon also carried out various other terms of office and duties in subsidiaries of the L'Oréal USA Group of which he was Chairman and Chief Executive Officer until June 2005.*

2009

Director: Sodexo Asia Pacific Pte Ltd (Singapore), Sodexo Scandinavian Holding AB (Sweden), Chairman and Chief Executive Officer of Armement Lebert Buisson SA (France)

2008

Chairman of Mobility SAS (France), Director of Sodexo Argentina SA (Argentina)

2007

Director: La Compagnie Financière Aurore International (Belgium), Sodexo Perou SAC (Peru)

NEW CANDIDATE PROPOSED TO THE SHAREHOLDERS' MEETING OF MAY 9, 2012

Pierre Dufour

Senior Executive Vice-President

Born in 1955

Number of shares owned as of December 31, 2011: 68,430

Business address

Air Liquide, 75, quai d'Orsay—75321 Paris Cedex 07

Career

A graduate of *École polytechnique,* Montréal University, Stanford University (California) and Harvard University (Massachusetts), Pierre Dufour began his career in 1976 at Lavalin Inc. (now SNC-Lavalin Inc.), a leading engineering contractor in Montreal, Canada. From 1991 to 1997, he was Chief Executive Officer of SNC-Lavalin Inc.

In 1997, he joined the Air Liquide Group as Vice-President of Worldwide Engineering. In 1998, he was appointed Group Industrial Director, overseeing the technical aspects of Group operations worldwide. In 2000, he was appointed Chairman and Chief Executive Officer of American Air Liquide Holdings Inc., in Houston, Texas and joined L'Air Liquide S.A. Executive Committee. He became Vice-President of L'Air Liquide S.A. in 2001, Executive Vice-President in 2002 and was appointed Senior Executive Vice-President in November 2007. He is currently responsible for Large Industries, Engineering and Construction, Research and Safety business lines in the Americas, Africa, the Middle East and Asia Pacific.

Positions and activities held during 2011

Functions within the Air Liquide Group

Senior Executive Vice-President: L'Air Liquide S.A. *

Senior Executive Vice-President and Director: Air Liquide International

Chairman of the Board of Directors and Director: Air Liquide Middle East

Director: American Air Liquide Holdings, Inc., Air Liquide Arabia, Air Liquide Japan

Chairman and Director: American Air Liquide Inc.

Positions or activities outside the Air Liquide Group

Director and member of the Audit Committee: Archer Daniels Midland company *

Positions and activities held during the last five years and that have expired

2009

Chairman and Chief Executive Officer: American Air Liquide Holdings, Inc. (until September 2009)

2008

Chairman and Director: Air Liquide Canada, Inc. (until January 2008)

Director: VitalAire Canada, Inc. (until January 2008)

2007

Chairman and Chief Executive Officer: Air Liquide USA LLC (until November 2007), Air Liquide USA LP LLC (until November 2007), ALA LP LLC (until November 2007)

Chairman and Chief Executive Officer: Air Liquide Electronics LP LLC (until November 2007), Air Liquide LI LP LLC (until November 2007), Air Liquide IC LP LLC (until November 2007), AL America Holdings, Inc. (until November 2007)

Director: Air Liquide Process & Construction, Inc. (until September 2007), Air Liquide Healthcare America Corporation (until July 2007)

Chairman: Air Liquide USA GP LLC (until November 2007), Air Liquide USA LP (until November 2007)

* *Listed company.*

STATUTORY AUDITORS' OFFICES AND REMUNERATIONS

Statutory Auditors' offices

Ernst & Young et Autres

Principal Statutory Auditor

The Ernst & Young firm is represented by Jean-Yves Jégourel and Emmanuelle Mossé

Tour First—TS 14444—1, place des Saisons

92037 Paris La Défense Cedex (Courbevoie)

Deputy Statutory Auditor

Auditex

Tour First—TS 14444—1, place des Saisons

92037 Paris La Défense Cedex (Courbevoie)

Mazars

Principal Statutory Auditor

The Mazars firm is represented by Lionel Gotlib and Daniel Escudeiro

61, rue Henri-Regnault

92400 Courbevoie

Deputy Statutory Auditor

Patrick de Cambourg with Mazars

61, rue Henri-Regnault

92400 Courbevoie

Statutory Auditors' remunerations

	2011							
(in thousands of euros)	Ernst & Young		Mazars		Autres		Total	
Statutory audit, certification, review of individual and consolidated financial statements	5,203	75.9%	4,180	90.8%	625	35.8%	10,008	75.8%
• Issuer	752		497				1,249	
• Fully consolidated subsidiaries	4,451		3,683		625		8,759	
Other statutory audit engagements	814	11.9%	377	8.2%	149	8.5%	1,341	10.2%
• Issuer	403		289		0		692	
• Fully consolidated subsidiaries	411		88		149		649	
TOTAL OF AUDIT SERVICES	**6,017**	**87.7%**	**4,558**	**99.0%**	**774**	**44%**	**11,349**	**85.9%**
Legal, employee and tax services	829	12.1%	41	0.9%	730	41.8%	1,600	12.1%
Other services	11	0.2%	3	0.1%	243	13.9%	256	1.9%
TOTAL OTHER SERVICES RENDERED BY THE NETWORK TO THE FULLY CONSOLIDATED SUBSIDIARIES	**839**	**12.2%**	**44**	**1.0%**	**972**	**55.7%**	**1,855**	**14.0%**
TOTAL OF AUDITORS' REMUNERATION	**6,857**	**100.0%**	**4,602**	**100.0%**	**1,746**	**100.0%**	**13,205**	**100.0%**

	2010							
(in thousands of euros)	Ernst & Young		Mazars		Autres		Total	
Statutory audit, certification, review of individual and consolidated financial statements	5,096	69.1%	3,745	93.4%	638	56.7%	9,478	75.8%
• Issuer	851		582		0		1,433	
• Fully consolidated subsidiaries	4,245		3,163		638		8,045	
Other statutory audit engagements	812	11.0%	127	3.2%	59	5.3%	998	8.0%
• Issuer	241		71		0		312	
• Fully consolidated subsidiaries	571		56		59		686	
TOTAL OF AUDIT SERVICES	**5,907**	**80.1%**	**3,872**	**96.6%**	**697**	**62.0%**	**10,477**	**83.8%**
Legal, employee and tax services	1,410	19.1%	123	3.1%	188	16.7%	1,721	13.8%
Other services	56	0.8%	12	0.3%	240	21.3%	307	2.5%
TOTAL OTHER SERVICES RENDERED BY THE NETWORK TO THE FULLY CONSOLIDATED SUBSIDIARIES	**1,466**	**19.9%**	**135**	**3.4%**	**428**	**38.0%**	**2,029**	**16.2%**
TOTAL OF AUDITORS' REMUNERATION	**7,373**	**100.0%**	**4,008**	**100.0%**	**1,125**	**100.0%**	**12,505**	**100.0%**

In addition, the Group uses other audit firms to cover some smaller entities for audit services amounting to 774 thousand euros in 2011 and 697 thousand euros in 2010.

Other than Audit fees concern services provided outside of France that relate to the application of local tax regulations within the foreign countries where the Group operates.

4 Financial statements

CONSOLIDATED FINANCIAL STATEMENTS	**157**
Consolidated income statement	157
Statement of net income and gains and losses recognized directly in equity	158
Consolidated balance sheet	159
Consolidated cash flow statement	160
Consolidated statement of changes in equity	162
Accounting principles	164
Notes to the consolidated financial statements for the year ended December 31, 2011	175
Main consolidated companies and foreign exchange rates	226
Main consolidated companies	228
Remuneration of Statutory Auditors and their network	231
Statutory Auditors' Report on the consolidated financial statements	232

STATUTORY ACCOUNTS OF THE PARENT COMPANY	**234**
Balance sheet	234
Income statement	236
Notes	238
Statutory Auditors' Report on the annual financial statements	256
Five-year summary of Company's results	258

CONSOLIDATED FINANCIAL STATEMENTS

Consolidated income statement

For the year ended December 31

(in millions of euros)	Notes	2010	2011
Revenue	(2)	13,488.0	14,456.9
Other income	(3)	129.4	139.3
Purchases	(3)	(5,240.0)	(5,761.6)
Personnel expenses	(3)	(2,378.3)	(2,481.5)
Other expenses	(3)	(2,624.8)	(2,789.5)
Operating income recurring before depreciation and amortization		**3,374.3**	**3,563.6**
Depreciation and amortization expense	(3)	(1,122.1)	(1,154.9)
Operating income recurring		**2,252.2**	**2,408.7**
Other non-recurring operating income	(4)	30.4	123.1
Other non-recurring operating expenses	(4)	(28.4)	(95.3)
Operating income		2,254.2	2,436.5
Net finance costs	(5)	(228.9)	(235.5)
Other financial income	(5)	63.6	68.7
Other financial expenses	(5)	(145.9)	(131.4)
Income taxes	(6)	(512.7)	(576.4)
Share of profit of associates	(13)	27.8	32.8
Profit for the period		1,458.1	1,594.7
Minority interests		54.5	59.8
Net profit (Group share)		1,403.6	1,534.9
Basic earnings per share *(in euros)*	**(7)**	**4.99**	**5.43**
Diluted earnings per share *(in euros)*	**(7)**	**4.97**	**5.41**

Accounting principles and notes to the consolidated financial statements begin on page 164.

Statement of net income and gains and losses recognized directly in equity

For the year ended December 31

(in millions of euros)	**2010**	**2011**
Profit for the period	**1,458.1**	**1,594.7**
Items recognized in equity [(a)]		
Change in fair value of financial instruments	(6.7)	(6.1)
Change in foreign currency translation reserve	480.6	114.0
Actuarial gains/(losses)	(52.9)	(76.7)
Items recognized in equity, net of taxes	421.0	31.2
Net income and gains and losses recognized directly in equity	**1,879.1**	**1,625.9**
Attributable to minority interests	69.9	63.5
Attributable to equity holders of the parent	1,809.2	1,562.4

(a) With the exception of actuarial gains and losses, the other items recognized in equity will be subsequently transferred in the consolidated income statement.

Consolidated balance sheet

For the year ended December 31

ASSETS *(in millions of euros)*	Notes	December 31, 2010	December 31, 2011
Non-current assets			
Goodwill	(9)	4,390.8	4,558.5
Other intangible assets	(10)	670.1	638.2
Property, plant and equipment	(11)	11,036.7	12,096.9
		16,097.6	**17,293.6**
Other non-current assets			
Non-current financial assets	(12)	385.9	398.3
Investments in associates	(13)	196.4	211.1
Deferred tax assets	(14)	306.3	290.3
Fair value of non-current derivatives (assets)	(26)	84.4	63.6
		973.0	**963.3**
TOTAL NON-CURRENT ASSETS		**17,070.6**	**18,256.9**
Current assets			
Inventories and work-in-progress	(15)	741.7	784.1
Trade receivables	(16)	2,641.7	2,779.3
Other current assets	(18)	440.7	444.8
Current tax assets		68.0	52.0
Fair value of current derivatives (assets)	(26)	51.8	45.2
Cash and cash equivalents	(19)	1,523.1	1,761.1
TOTAL CURRENT ASSETS		**5,467.0**	**5,866.5**
TOTAL ASSETS		**22,537.6**	**24,123.4**

EQUITY AND LIABILITIES *(in millions of euros)*	Notes	December 31, 2010	December 31, 2011
Shareholders' equity			
Share capital		1,562.5	1,561.0
Additional paid-in capital		170.3	122.6
Retained earnings		5,868.2	6,631.7
Treasury shares		(101.1)	(91.6)
Net profit (Group share)		1,403.6	1,534.9
		8,903.5	**9,758.6**
Minority interests		**209.0**	**237.1**
TOTAL EQUITY [(a)]	**(20)**	**9,112.5**	**9,995.7**
Non-current liabilities			
Provisions, pensions and other employee benefits	(21,22)	1,803.6	1,897.0
Deferred tax liabilities	(14)	1,126.4	1,204.9
Non-current borrowings	(23)	5,680.8	5,662.5
Other non-current liabilities	(24)	204.8	190.4
Fair value of non-current derivatives (liabilities)	(26)	131.3	126.1
TOTAL NON-CURRENT LIABILITIES		**8,946.9**	**9,080.9**
Current liabilities			
Provisions, pensions and other employee benefits	(21,22)	216.4	190.6
Trade payables	(25)	1,829.7	1,992.5
Other current liabilities	(24)	1,291.8	1,244.4
Current tax payables		176.7	162.3
Current borrowings	(23)	921.2	1,373.5
Fair value of current derivatives (liabilities)	(26)	42.4	83.5
TOTAL CURRENT LIABILITIES		**4,478.2**	**5,046.8**
TOTAL EQUITY AND LIABILITIES		**22,537.6**	**24,123.4**

(a) A breakdown of changes in equity and minority interests is presented on pages 162 and 163.

Consolidated cash flow statement

For the year ended December 31

(in millions of euros)	2010	2011
Operating activities		
Net profit (Group share)	**1,403.6**	**1,534.9**
Minority interests	**54.5**	**59.8**
Adjustments:		
• Depreciation and amortization	1,122.1	1,154.9
• Changes in deferred taxes	130.2	99.6
• Increase (decrease) in provisions	(34.2)	5.1
• Share of profit of associates (less dividends received)	(10.6)	(17.9)
• Profit/loss on disposal of assets	(4.7)	(108.3)
Cash flow from operating activities before changes in working capital	**2,660.9**	**2,728.1**
Changes in working capital	(154.9)	(192.8)
Other	(86.1)	(109.5)
Net cash flows from operating activities	**2,419.9**	**2,425.8**
Investing activities		
Purchase of property, plant and equipment and intangible assets	(1,449.8)	(1,755.0)
Acquisition of subsidiaries and financial assets	(239.9)	(99.5)
Proceeds from sale of property, plant and equipment and intangible assets	43.0	180.9
Proceeds from sale of financial assets	0.8	1.3
Net cash flows used in investing activities	**(1,645.9)**	**(1,672.3)**
Financing activities		
Dividends paid		
• L'Air Liquide S.A.	(609.0)	(679.2)
• Minority interests	(37.8)	(42.2)
Proceeds from issues of share capital	110.3	51.5
Purchase of treasury shares	2.8	(93.8)
Increase (decrease) in borrowings	99.3	237.2
Transactions with minority shareholders	(92.5)	(3.3)
Net cash flows from (used in) financing activities	**(526.9)**	**(529.8)**
Effect of exchange rate changes and change in scope of consolidation	(90.8)	6.5
Net increase (decrease) in net cash and cash equivalents	**156.3**	**230.2**
NET CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	**1,325.9**	**1,482.2**
NET CASH AND CASH EQUIVALENTS AT END OF PERIOD	**1,482.2**	**1,712.4**

The analysis of net cash and cash equivalents at the end of the period is as follows:

(in millions of euros)	**2010**	**2011**
Cash and cash equivalents	1,523.1	1,761.1
Bank overdrafts (included in current borrowings)	(40.9)	(48.7)
Net cash and cash equivalents	**1,482.2**	**1,712.4**

NET INDEBTEDNESS CALCULATION

(in millions of euros)	**2010**	**2011**
Non-current borrowings (long-term debt)	(5,680.8)	(5,662.5)
Current borrowings (short-term debt)	(921.2)	(1,373.5)
TOTAL GROSS INDEBTEDNESS	**(6,602.0)**	**(7,036.0)**
Cash and cash equivalents	**1,523.1**	**1,761.1**
Derivative instruments (assets) – fair value hedge of borrowings	39.6	26.8
Derivative instruments (liabilities) – fair value hedge of borrowings		
TOTAL NET INDEBTEDNESS AT THE END OF THE PERIOD	**(5,039.3)**	**(5,248.1)**

STATEMENT OF CHANGES IN NET INDEBTEDNESS

(in millions of euros)	**2010**	**2011**
Net indebtedness at the beginning of the period	**(4,890.8)**	**(5,039.3)**
Net cash flows from operating activities	2,419.9	2,425.8
Net cash flows used in investing activities	(1,645.9)	(1,672.3)
Net cash flows used in financing activities excluding increase (decrease) in borrowings	(626.2)	(767.0)
Total net cash flow	**147.8**	**(13.5)**
Effect of exchange rate changes, opening net indebtedness of newly acquired companies and other	(296.3)	(195.3)
Change in net indebtedness	**(148.5)**	**(208.8)**
NET INDEBTEDNESS AT THE END OF THE PERIOD	**(5,039.3)**	**(5,248.1)**

Consolidated statement of changes in equity

For the year ended December 31

(in millions of euros)	Share capital	Additional paid-in capital	Retained earnings (including net profit)	Net income recognized directly in equity: Fair value of financial instruments	Net income recognized directly in equity: Translation reserves	Treasury shares	Shareholders' equity	Minority interests	Total equity
Equity and minority interests as of January 1, 2011	**1,562.5**	**170.3**	**7,538.5**	**(25.1)**	**(241.6)**	**(101.1)**	**8,903.5**	**209.0**	**9,112.5**
Profit for the period			**1,534.9**				**1,534.9**	**59.8**	**1,594.7**
Items recognized in equity			(76.4)	(6.1)	110.0		27.5	3.7	31.2
Net income and gains and losses recognized directly in equity for the period (f)			**1,458.5**	**(6.1)**	**110.0**		**1,562.4**	**63.5**	**1,625.9**
Increase (decrease) in share capital	5.1	46.3					51.4	0.1	51.5
Distribution			(679.2) (c)				(679.2)	(42.2)	(721.4)
Cancellation of treasury shares	(6.6)	(94.0)				100.6			
Purchase of treasury shares						(91.1)	(91.1)		(91.1)
Share-based payments			14.6				14.6		14.6
Put options granted to minority shareholders			0.1				0.1	(3.3)	(3.2)
Transactions with minority shareholders recognized directly in equity			(0.6)				(0.6)	(0.8)	(1.4)
Other			(2.5) (e)				(2.5)	10.8	8.3
Equity and minority interests as of December 31, 2011	**1,561.0 (a)**	**122.6 (b)**	**8,329.4**	**(31.2)**	**(131.6)**	**(91.6) (d)**	**9,758.6**	**237.1**	**9,995.7**

(a) Share capital as of December 31, 2011 comprised 283,812,941 shares with a par value of 5.50 euros. During the fiscal year, movements affecting share capital were as follows:
- *creation of 917,848 cash shares with a par value of 5.50 euros resulting from the exercize of options;*
- *share capital decrease via cancellation of 1,200,000 treasury shares.*

(b) The "Additional paid-in capital" heading was increased by the amount of issue premiums relating to share capital increases in the amount of 46.3 million euros and was decreased by the amount of issue premiums relating to the cancellation of treasury shares in the amount of (94.0) million euros.

(c) The amount distributed includes the cancellation of dividends relating to treasury shares and cancelled treasury shares, and dividends paid pursuant to the exercise of options.

(d) The number of treasury shares held as of December 31, 2011 totaled 1,119,676 (including 901,141 held by L'Air Liquide S.A.). During the fiscal year, movements affecting treasury shares were mainly as follows:
- *acquisitions, net of disposals, of 1,027,776 shares at an average price of 92.39 euros;*
- *cancellation of 1,200,000 shares;*
- *allocation of (47,724) shares as conditional grants of shares.*

(e) The changes in retained earnings mainly correspond to the impacts arising from the cancellation of gains and losses on disposals of treasury shares.

(f) The statement of net income and gains and losses recognized directly in equity is shown on page 158.

(in millions of euros)	Share capital	Additional paid-in capital	Retained earnings (including net profit)	Net income recognized directly in equity: Fair value of financial instruments	Net income recognized directly in equity: Translation reserves	Treasury shares	Shareholders' equity	Minority interests	Total equity
Equity and minority interests as of January 1, 2010	**1,453.4**	**171.8**	**6,786.5**	**(18.4)**	**(705.7)**	**(103.9)**	**7,583.7**	**168.2**	**7,751.9**
Profit for the period			**1,403.6**				**1,403.6**	**54.5**	**1,458.1**
Items recognized in equity			(52.6)	(6.7)	464.9		405.6	15.4	421.0
Net income and gains and losses recognized directly in equity for the period [(a)]			**1,351.0**	**(6.7)**	**464.9**		**1,809.2**	**69.9**	**1,879.1**
Increase (decrease) in share capital	9.7	97.9					107.6	2.7	110.3
Free share attribution	99.4	(99.4)							
Distribution			(609.0)				(609.0)	(37.8)	(646.8)
Purchase of treasury shares						2.8	2.8		2.8
Share-based payments			16.2				16.2		16.2
Put options granted to minority shareholders								1.7	1.7
Transactions with minority shareholders recognized directly in equity			(11.1)		(0.8)		(11.9)	4.0	(7.9)
Other			4.9				4.9	0.3	5.2
Equity and minority interests as of December 31, 2010	**1,562.5**	**170.3**	**7,538.5**	**(25.1)**	**(241.6)**	**(101.1)**	**8,903.5**	**209.0**	**9,112.5**

(a) The statement of net income and gains and losses recognized directly in equity is shown on page 158.

Accounting principles

BASIS FOR PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS

Due to its listing on the Paris Stock Exchange and pursuant to EC Regulation no. 1606/2002 of July 19, 2002, the consolidated financial statements of the Air Liquide Group for the year ended December 31, 2011 have been prepared in accordance with International Financial Reporting Standards (IFRS), as endorsed by the European Union as of December 31, 2011 and in accordance with IFRSs without use of the carve-out option, as published by the International Accounting Standards Board (IASB). The IFRS standards and interpretations as adopted by the European Union are available at the following website:

http://ec.europa.eu/internal_market/accounting/ias/index_en.htm

The Group has not anticipated any new standards, amendments to existing standards or new interpretations published by the IASB but not yet approved or not yet mandatory in the European Union, as of December 31, 2011.

The financial statements are presented in millions of euros. They were approved by the Board of Directors on February 16, 2012 and will be submitted for approval to the Annual General Meeting on May 9, 2012.

NEW IFRS AND INTERPRETATIONS

1. Standards, interpretations and amendments whose application is mandatory as of January 1, 2011

The following standards, interpretations and amendments whose application is mandatory as of January 1, 2011 had no impact on the Air Liquide Group financial statements:

- IAS 24 revised "Related Party Disclosures";
- amendment to IAS 32 "Classification of Rights Issues";
- amendment to IFRS 1 "Limited Exemption from Comparative IFRS 7 Disclosures for First-time Adopters";
- amendment to IFRIC 14 "Prepayments of a Minimum Funding Requirement";
- interpretation IFRIC 19 "Extinguishing Financial Liabilities with Equity Instruments";
- improvements to IFRSs, published by the IASB in May 2010.

2. Standards, interpretations and amendments endorsed by the European Union whose application is optional in 2011

The Group financial statements for the year ended December 31, 2011 do not include any potential impacts from the standards, interpretations and amendments endorsed by the European Union as of December 31, 2011 whose adoption is only mandatory as of fiscal years beginning after December 31, 2011.

The amendment to IFRS 7 "Financial Instruments: Disclosures – Transfers of Financial Assets", published on October 7, 2010 will have no impact on the Group financial statements.

3. Standards, interpretations and amendments not yet endorsed by the European Union

The following texts published by the IASB as of December 31, 2011 and not yet endorsed by the European Union are being analyzed:

- IAS 27 revised "Separate Financial Statements," published on May 12, 2011;
- IAS 28 revised "Investments in Associates and Joint Ventures," published on May 12, 2011;
- IFRS 10 "Consolidated Financial Statements," published on May 12, 2011;
- IFRS 11 "Joint Arrangements," published on May 12, 2011;
- IFRS 12 "Disclosure of Interests in Other Entities," published on May 12, 2011;
- IFRS 13 "Fair Value Measurement," published on May 12, 2011;
- amendment to IAS 19 "Employee Benefits," published on June 16, 2011.

The following texts published by the IASB as of December 31, 2011 and not yet endorsed by the European Union should not have a material impact on the Group financial statements:

- IFRS 9 "Financial Instruments: Classification and Measurement," published on November 12, 2009;
- amendment to IAS 12 "Deferred Tax: Recovery of Underlying Assets," published on December 20, 2010;
- amendment to IFRS 1 "First-time Adoption of International Financial Reporting Standards," published on December 20, 2010;
- amendment to IAS 1 "Presentation of Items of Other Comprehensive Income," published on June 16, 2011;
- interpretation IFRIC 20 "Stripping Costs in the Production Phase of a Surface Mine," published on October 19, 2011;
- amendment to IFRS 9 and to IFRS 7 "Application date", published on December 16, 2011;
- amendment to IAS 32 "Disclosures – Offsetting Financial Assets and Financial Liabilities;
- amendment to IFRS 7 "Offsetting Financial Assets and Financial Liabilities", published on December 16, 2011.

USE OF ESTIMATES AND ASSUMPTIONS

The preparation of the financial statements requires Group or subsidiary Management to make estimates and use certain assumptions which have a significant impact on the carrying amounts of assets and liabilities recorded in the consolidated balance sheet, the notes related to these assets and liabilities, the profit and expense items in the income statement and the commitments relating to the period-end. Balance sheet, income statement and cash flow statement line items could differ should the subsequent actual results differ from the estimates. The most significant estimates and assumptions concern the following:

- the estimated useful life of property, plant and equipment used for calculation of depreciation and amortization: these estimates are described in section 5.e. of the Accounting policies;
- the assumptions used to determine provisions for employee retirement benefit obligations: the actuarial assumptions used (turnover, mortality, retirement age, salary increase, etc.), and the discount rates used to determine the present value of obligations and the expected return on long-term assets, as described in Notes 22.2 and 22.4;
- the estimates and assumptions concerning asset impairment tests, as described in section 5.f. and in Note 9.2;
- the methods used to recover deferred tax assets on the balance sheet;
- the risk assessment to determine the amount of provisions for contingencies and losses.

ACCOUNTING POLICIES

The consolidated financial statements were prepared under the historical cost convention, except for available-for-sale financial assets and financial assets and liabilities measured at fair value through profit or loss in accordance with IAS 32/39. The carrying amount of other assets and liabilities hedged against fair value risk is adjusted to take into account the changes in fair value attributable to the hedged risks. In addition, the principles of fairness, going concern, and consistency were applied.

1. CONSOLIDATION METHODS

The consolidation methods used are:

- full consolidation method for subsidiaries;
- proportionate method for joint ventures.

Associates are accounted for using the equity method.

a. Subsidiaries

All the subsidiaries or companies in which the Air Liquide Group exercises control are fully consolidated. Control exists when the Group has the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. Control is presumed to exist when the Group owns, directly or indirectly, more than 50% of the voting rights. Companies are fully consolidated until the date on which control is transferred outside the Group.

b. Joint ventures

Joint ventures are proportionately consolidated. Joint ventures are entities in which the Group has joint control with one or several partners through a contractual arrangement. Under this consolidation method, assets and liabilities and profits and expenses are shared between the partners in proportion to their percentage of control in the consolidated financial statements. These amounts are recorded on each line of the financial statements as for the consolidated entities.

c. Associates

The equity method applies to associates over which the Air Liquide Group has significant influence (generally when the Group has more than a 20% interest), but no control. Under the equity method, the net assets and net profit of a company are recognized *prorata* to the interest held by the parent in the share capital.

On acquisition of an investment in an associate, the goodwill relating to the associate is included in the carrying amount of the investment.

The financial statements of subsidiaries, joint ventures and associates included in the consolidated financial statements are prepared as of December 31.

2. ADJUSTMENTS ARISING FROM CONSOLIDATION

a. Inter-company transactions

All inter-company receivables and payables, income and expenses and profits or losses are eliminated.

b. Tax-driven provisions

Movements in the provisions, which have been established in compliance with tax regulations or which are similar to reserves, are eliminated in the determination of consolidated net profit.

c. Deferred taxes

Deferred taxes are recognized for all temporary differences between the carrying amount of assets and liabilities and their tax base, excluding non-deductible goodwill and the other exceptions provided in IAS 12. Deferred tax assets are recognized on all deductible temporary differences provided that it is highly probable that the tax benefits will be realized in future years.

Deferred taxes are calculated at the tax rate applicable when the temporary difference is reversed and allowed under local regulations at the period-end date. The liability method is applied and any changes to the tax rates are recognized in the income statement, except those related to items directly recognized in equity.

Deferred tax assets and liabilities are offset if the entities have a legally enforceable right to offset and if they relate to income tax levied by the same taxation authority. Deferred taxes are not discounted.

3. TRANSLATION OF THE FINANCIAL STATEMENTS OF FOREIGN SUBSIDIARIES

At the balance sheet date, the financial statements of foreign subsidiaries are translated into euros as follows:

- balance sheet items, at the official year-end exchange rates;
- income statement and cash flow statement items, using the average exchange rate over the period for each currency.

Exchange differences are recognized under a separate item “translation reserves” in gains and losses recognized directly in equity.

Cumulative foreign exchange gains and losses as of January 1, 2004 arising from the translation into euros of the financial statements of foreign subsidiaries located outside the Euro zone have been maintained as a separate component of equity.

On removal from the scope of consolidation, the cumulative exchange differences of a company whose functional currency is not the euro are recognized in the income statement.

4. REVENUE RECOGNITION

a. Revenue from the sales of goods and services

Revenue from the sale of goods is recognized when the significant risks and rewards of ownership have been transferred to the buyer, net of sales taxes, rebates and discounts and after eliminating sales within the Group.

Revenue associated with service delivery is recognized in reference to the stage of completion of the transaction when it can be reliably measured.

b. Engineering and Construction contracts

Contract revenue and costs associated with construction contracts are recognized as revenue and expenses respectively, based on the stage of completion of the contracts at the balance sheet date.

The margin realized at the stage of completion is recognized only when it can be reliably measured. When it is probable that total contract costs will exceed total contract revenue, the expected loss is immediately recognized as an expense.

The stage of completion is assessed by using the ratio of contract costs incurred at the balance sheet date versus total estimated contract costs.

5. NON-CURRENT ASSETS

a. Goodwill and business combinations

Business combinations as of January 1, 2010

The Group has prospectively applied IFRS 3 revised and IAS 27 revised since January 1, 2010.

When the Group obtains control of an acquiree, the business combination is accounted for by applying the acquisition method on the acquisition date, in accordance with IFRS 3 revised:

- The identifiable assets acquired and the liabilities and contingent liabilities assumed are measured at fair value.
- Any minority interests in an acquiree are measured as the minority interest’s proportionate share of the acquiree’s net identifiable assets or at fair value. This option is applied on a case-by-case basis.
- The consideration transferred and any contingent consideration are measured at fair value.
- Acquisition-related costs are recorded as expenses in the periods in which they are incurred.

For a business combination achieved in stages, any previously held equity interests in the acquiree are measured at the acquisition-date fair value. Any resulting gains or losses are recognized in profit or loss.

The measurement period of a business combination shall not exceed 12 months as of the acquisition date. Any adjustments to the consideration transferred after the measurement period are recognized in the income statement.

On the acquisition date, goodwill is recognized in the consolidated balance sheet as the difference between:

- the consideration transferred plus the amount of minority interests in the acquiree and the fair value of the previously held equity interest;
- the fair value of the identifiable assets acquired and the liabilities and contingent liabilities assumed.

Negative goodwill is recognized immediately through profit or loss.

Business combinations prior to january 1, 2010

Business combinations achieved prior to January 1, 2010 have been accounted for in accordance with the former versions of IFRS 3 and IAS 27. These standards had already adopted the acquisition method in the version published by the IASB in March 2004. The main provisions which differ from the revised standards are as follows:

- minority interests were measured based on their share of the net identifiable assets of the acquiree and the fair value measurement option did not exist;
- earn-outs were included in the acquisition cost, without time limits, when the payment was deemed probable and the amount could be reliably measured;
- acquisition-related costs were recorded in the cost of the business combination.

For an acquisition achieved in stages, the fair value remeasurement of any previously held net asset was recognized in equity.

For an acquisition of minority interests in a previously held company, the difference between the acquisition cost and the net carrying amount of the minority interests was recorded in goodwill.

At the time of the transition to IFRS and in accordance with the exemption offered by IFRS 1, the Group decided not to apply IFRS 3 "Business combinations" retrospectively for acquisitions that took place prior to January 1, 2004.

Goodwill is allocated to cash-generating units (CGU) or groups of cash-generating units. Subsequently, goodwill is not amortized but is tested for impairment annually or more frequently if there are any indications of impairment, in accordance with the method described in section 5.f.

b. Research and Development expenditures

Research and Development expenditures include all costs related to the scientific and technical activities, patent work, education and training necessary to ensure the development, manufacturing, start-up, and commercialization of new or improved products or processes.

According to IAS 38, development costs shall be capitalized if, and only if, the Group can meet all of the following criteria:

- the intangible asset is clearly identified and the related costs are itemized and reliably monitored;
- the technical and industrial feasibility of completing the intangible asset;
- there is a clear intention to complete the intangible asset and use or sell it;
- its ability to use or sell the intangible asset arising from the project;
- how the intangible asset will generate probable future economic benefits;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset.

Research expenditure is recognized as an expense when incurred.

c. Internally generated intangible assets

Internally generated intangible assets primarily include the development costs of information management systems. These costs are capitalized only if they satisfy the criteria as defined by IAS 38 and described above.

Internal and external development costs on management information systems arising from the development phase are capitalized. Significant maintenance and improvement costs are added to the initial cost of assets if they specifically meet the capitalization criteria.

Internally generated intangible assets are amortized over their useful lives.

d. Other intangible assets

Other intangible assets include separately acquired intangible assets such as software, licenses, and intellectual property rights. They also include the technology, brands and customer contracts valued upon the acquisition of companies in accordance with IFRS 3 "Business Combinations".

With the exception of brands, intangible assets are amortized using the straight-line method over their useful lives. Information management systems are generally amortized over five and seven years and customer contracts over a maximum period of 25 years, considering the probabilities of renewal.

e. Property, plant and equipment

Land, buildings and equipment are carried at cost less any accumulated depreciation and any accumulated impairment losses.

In the event of mandatory dismantling or asset removals, related costs are added to the initial cost of the relevant assets and provisions are recognized to cover these costs.

Interest costs on borrowings to finance the construction of property, plant, and equipment are capitalized during the period of construction when they relate to the financing of industrial projects over a twelve-month construction period, or longer.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for separately and depreciated over their own useful lives.

Repair and maintenance costs are recognized as expenses when incurred. The costs of major inspections and overhauls of cogeneration plants are recognized as a separate component of the asset and are depreciated over the period between two major overhauls.

Depreciation is calculated according to the straight-line method over the estimated useful lives as follows:

- buildings: 20 years;
- cylinders: 10 to 20 years;
- production units: 15 to 20 years;
- pipelines: 15 to 35 years;
- other equipment: 5 to 15 years.

Land is not depreciated.

f. Impairment of assets

In accordance with IAS 36, the Group regularly assesses whether there are any indications of asset impairment. If such indications exist, an impairment test is performed to assess whether the carrying amount of the asset is greater than its recoverable amount, defined as the higher of the fair value less costs to sell (net fair value) and the value in use.

Impairment tests are performed systematically once a year for goodwill and intangible assets with indefinite useful lives.

Assets that do not generate largely independent cash flows are grouped according to the cash-generating units (CGU) to which they belong. A cash-generating unit is an identifiable group of assets that generates cash inflows that are largely independent of the cash inflows of other assets or groups of assets. They are mainly determined on a geographical basis and by reference to the markets in which the Group operates.

In practice, the Group performs impairment tests at various levels pursuant to these principles and in accordance with IAS 36:

- dedicated and on-site plants are tested individually;
- pipelines and plants that provide these pipelines are tested at the network level;
- liquid gas and hydrogen/CO plants are grouped together according to the plants' customer market;
- other assets are allocated to cash-generating units or groups of cash-generating units.

The cash-generating units of the Gas and Services activity are determined on a geographical basis. The Other Activities are managed at the European (Welding) or worldwide (Engineering and Construction) levels.

Goodwill is allocated to cash-generating units or groups of cash-generating units that benefit from business combination synergies and which represent the levels at which goodwill is monitored by the Group.

When performing impairment tests on cash-generating units or groups of cash-generating units comprising goodwill, the Group uses the market multiples approach to determine if the goodwill is subject to impairment. Insofar as the fair value is not significantly greater than the net carrying amount of the cash-generating unit or group of cash-generating units, the Group confirms the recoverable amount of the cash-generating unit or group of cash-generating units using the estimated cash flow approach (value in use).

For other cash-generating units or groups of cash-generating units, and assets whose value is tested on an individual basis, the Group determines the recoverable amount using the estimated cash flow approach (value in use).

The market multiples used are determined based on the market value of the Air Liquide Group.

The growth rates, taken into account with respect to the cash flow estimates for cash-generating units or groups of cash-generating units, are determined based on the activity and geographical location of the CGU considered.

In assessing value in use for property, plant and equipment, the estimated future cash flows are discounted to their present value. Cash flows are measured over the asset's estimated period of use, taking into account customer contract terms and technical obsolescence.

The discount rate depends on the nature, the location of the asset and the customer market. It is determined according to the minimum level of profitability expected from the investment considering industrial and commercial risks and credit terms.

When the recoverable amount of an asset, a cash-generating unit or a group of cash-generating units is lower than its carrying amount, an impairment loss is recognized immediately through profit and loss. An impairment loss of a cash-generating unit is first allocated to goodwill.

When the recoverable amount exceeds the carrying amount again, the previously recognized impairment loss is reversed to the income statement, with the exception of impairment losses on goodwill, which cannot be reversed.

g. Leases

Finance leases

Leases of property, plant and equipment that transfer virtually all the risks and rewards of ownership to the Group are classified as finance leases. Items of property, plant and equipment acquired under finance leases are depreciated over the shorter of the asset's useful life or the lease term.

Operating leases

Leases where the lessor does not retain substantially all the risks and rewards incidental to ownership are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to the income statement on a straight-line basis over the lease term.

IFRIC 4 "Determining Whether an Arrangement Contains a Lease" has no impact on the Group consolidated financial statements. In fact, the risks and rewards arising from the use of assets potentially affected by this interpretation are not transferred to the Group's customers. Consequently, the gas supply contracts related to these assets are not classified as finance leases.

6. FINANCIAL INSTRUMENTS

a. Non-current financial instruments

Non-consolidated investments

According to IAS 39, investments in non-consolidated companies that are not accounted for using the equity method are classified as available for sale assets.

The fair value of investments in listed companies is recognized at their quoted market price at year-end. Investments whose fair value cannot be reliably measured are recognized at cost less any accumulated impairment losses. For this purpose, the recoverable amount is based on the Group's share of net assets, expected future profitability and the business plan of the entity representing the investment.

Changes in fair value are recognized in a separate equity line item until the investment is effectively sold. However, unrealized capital losses are immediately recognized in the income statement when the impairment loss is permanent.

Unrealized gains or losses previously recognized in equity are recorded in profit or loss on sale of the investments.

Loans and other financial assets

Loans and other financial assets are initially recognized at their fair value and subsequently carried at amortized cost. Impairment tests are performed at each closing date. Any impairment losses are recognized immediately in the income statement.

b. Trade and other receivables

Trade and other receivables are carried at fair value upon initial recognition and then at amortized cost less any impairment losses.

Impairment losses are recognized when it becomes probable that the amount due will not be collected and the loss can be reasonably estimated. Impairment losses are estimated by taking into account historical losses, age and a detailed risk estimate.

c. Cash and cash equivalents

Cash and cash equivalents include cash balances, current bank accounts, and short-term highly liquid investments that are readily convertible into cash and do not present a material risk of a change in value.

As cash investments maturing in less than three months are exposed to a negligible risk of a change in value, they are recognized at historical cost (including accrued interest) which is considered to approximate fair value.

d. Current and non-current borrowings

Borrowings include bond debentures and other bank borrowings (including borrowings arising from finance leases and the put options granted to minority shareholders).

At inception, borrowings are recognized at fair value corresponding to the net proceeds collected. At each balance sheet date, except for put options granted to minority shareholders, they are measured at amortized cost using the effective interest rate (EIR) method. Under this method, the borrowing cost includes the redemption premiums and issuance costs initially deducted from the nominal amount of the borrowing in liabilities.

Borrowings maturing in less than one year are classified as current borrowings.

Borrowings hedged by interest rate swaps are recognized on a hedge accounting basis.

e. Derivative assets and liabilities

Derivative financial instruments are mainly used to manage exposures to foreign exchange, interest rate and commodity risks relating to the Group's financial and operating activity. For all these transactions, the Group applies hedge accounting and documents, at the inception of the transaction, the type of hedging relationship, the hedging instruments, and the nature and term of the hedged item.

However, in very limited circumstances, some derivatives do not qualify for hedge accounting.

Applying hedge accounting has the following consequences:

- fair value hedges for existing assets and liabilities: the hedged portion of the item is carried at fair value in the balance sheet. Any changes in fair value are recognized in the income statement, where it is offset by the corresponding changes in fair value of the hedging instruments (except for the impact of premiums/discounts);
- future cash flow hedges: the effective portion of the change in fair value of the hedging instrument is recorded directly in equity (other comprehensive income), while the change in the fair value of the hedged item is not recognized in the balance sheet. The change in fair value of the ineffective portion is recognized in other financial income or expenses. Amounts recorded in other comprehensive income are reclassified in the income statement when the hedged transactions occur and are recorded;
- hedges of net investments in a foreign entity: the effective portion of the changes in fair value of the derivative instrument is recognized in gains and losses recognized directly in equity under translation reserves. The ineffective portion of the changes in fair value is recognized in the income statement. Once the foreign entity subject to the net investment hedge is sold, the loss or profit initially recognized in translation reserves is recognized in profit or loss. This method also applies for foreign exchange hedging on dividends payable by subsidiaries.

Derivative financial instruments which do not qualify for hedge accounting are carried at fair value through profit or loss with an offsetting entry in financial assets and financial liabilities.

The fair value of assets, liabilities and derivatives is based on the market price at the balance sheet date.

7. ASSETS CLASSIFIED AS HELD FOR SALE

Non-current assets or disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. Assets classified as held for sale are no longer depreciated (amortized) as of the date they are classified as assets or disposal groups held for sale.

Assets or disposal groups are measured at the lower of their carrying amount or fair value less costs to sell.

8. INVENTORIES AND WORK-IN-PROGRESS

Inventories are measured at the lower of cost or net realizable value. Cost includes direct raw materials, direct and indirect labor costs and other costs incurred in bringing the inventories to their present location and condition.

Net realizable value is the estimated selling price in the normal course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

9. SHARE CAPITAL, RESERVES AND TREASURY SHARES

Air Liquide's share capital is composed of ordinary shares.

Retained earnings include the following items:

- **Translation reserves:** Exchange differences arising from the translation into euros of financial statements prepared by foreign subsidiaries whose functional currency is not the euro are recorded in translation reserves. Fair value changes in net investment hedges of these foreign subsidiaries are also recorded in this reserve;
- **Fair value of financial instruments:** This item records accumulated fair value changes in the effective portion of cash flow hedge derivatives (transactions not yet recognized in the accounts);
- **Actuarial gains and losses:** Pursuant to the option offered by IAS 19 revised, all actuarial gains and losses and adjustments arising from the asset ceiling, net of deferred taxes, are recognized in consolidated reserves in the period in which they occur.

When the Group buys back its own shares, they are classified as treasury shares at the purchase price and presented as a deduction from equity for the consideration paid. The profit or loss from the sale of treasury shares is recognized directly in equity, net of tax.

Furthermore, IAS 27 revised, applicable as of January 1, 2010, introduced several changes, in particular:

- Acquisitions or disposals of minority interests, without change in control, are considered as transactions with Group shareholders. Thus, the difference between the price paid to increase the percentage of interest in entities that are already controlled and the additional share of equity thus acquired is recognized in Shareholders' equity. Similarly, a decrease in the Group's percentage interest in a controlled entity is accounted for as an equity transaction with no impact on profit or loss.

- Disposals of shares with loss of control give rise to the recognition in disposal gains or losses of the change in fair value calculated for the total investment at the date of disposal. Any investments retained, where applicable, will be measured at fair value at the date when control is lost.

10. MINORITY INTERESTS

In accordance with IAS 32/39, put options granted to minority shareholders are recorded as borrowings at the option's estimated strike price.

The share in the net assets of subsidiaries is reclassified from minority interests to borrowings.

Due to the absence of any specific IFRS guidances, the Group has elected to recognize the consideration for the difference between the strike price of the option granted and the value of the minority interests reclassified as borrowings as follows:

- for options granted prior to January 1, 2010, in goodwill;
- for options granted after January 1, 2010, in shareholders' equity.

Minority interests in profit and loss do not change and still reflect present ownership interests.

11. PROVISIONS

a. Provisions

Provisions are recognized when:

- the Group has a present obligation as a result of a past event;
- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation;
- a reliable estimate can be made of the amount of the obligation.

Restructuring provisions include only the direct costs arising from the restructuring and are recognized in the period in which the Group has approved a detailed and formal restructuring plan and the restructuring has either begun or been announced.

A provision for losses on contracts is recognized when the expected benefits from the contract are lower than the cost of satisfying the obligations under the contract.

b. Pensions and employee benefits

The Group provides its employees with various pension plans, termination benefits, jubilees and other post-employment benefits for both active employees and retirees. These plans vary according to the laws and regulations applicable in each country as well as the specific rules in each subsidiary.

These benefits are covered in two ways:

- by so-called defined contribution plans;
- by so-called defined benefit plans.

Defined contribution plans are plans under which the employer is committed to pay regular contributions. The employer's obligation is limited to payment of the planned contributions. The employer does not grant any guarantees on the future level of benefits paid to the employee or retiree (means-based obligation). The annual pension expense is equal to the contribution paid during the fiscal year which relieves the employer from any further obligations.

Defined benefit plans are plans under which the employer guarantees the future level of benefits defined in the agreement, most often depending on the employee's salary and seniority (result-based obligation). Defined benefit plans can be:

- either financed by contributions to specialized funds that manage the amounts received;
- or managed internally.

The Group grants both defined benefit and defined contribution plans.

For defined benefit plans, retirement and similar commitments are measured by independent actuaries, based on the projected unit credit method in accordance with IAS 19. The actuarial calculations mainly take into account the following assumptions: salary increases, employee turnover, retirement date, expected salary trends, mortality, inflation and appropriate discount rates for each country.

Defined benefit plans are covered by external pension funds in certain cases. The assets of these plans are mostly invested in bonds or equities carried at their fair value.

In accordance with IFRS 1, the Group opted to recognize in equity all cumulative deferred actuarial gains and losses relating to employee benefits recorded in the balance sheet as of January 1, 2004, the transition date.

All actuarial gains and losses subsequent to January 1, 2004 and adjustments arising from the asset ceiling are recognized immediately in the gains and losses recognized directly in equity in the period in which they occur.

Valuations are carried out annually by independent actuaries for significant plans and every three years for other plans unless there are material changes in circumstances that necessitate a new calculation.

12. FOREIGN CURRENCY TRANSACTIONS AND BALANCES

Foreign currency transactions are recognized according to the following principles:

- foreign currency transactions are translated by each company into its functional currency at the exchange rate prevailing on the date of the transaction;
- at year-end, monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the closing exchange rate.

Exchange differences relating to commercial transactions are recognized in operating profit. For financial transactions, exchange differences are recognized in financial income and expenses except for differences resulting from the hedge of a net investment that are directly recognized in equity until the net investment is removed from the consolidation scope.

13. CONTINGENT ASSETS AND LIABILITIES

Contingent assets and liabilities arise from past events, the outcome of which depends on future uncertain events.

Contingent liabilities represent:

- possible obligations arising from past events whose existence will be confirmed only by the occurrence of uncertain future events not wholly within the control of the entity; or,
- present obligations that arise from past events but that are not recognized because it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation or because the amount of the obligation cannot be measured with sufficient reliability.

Contingent assets and liabilities that are material are disclosed in the notes to the consolidated financial statements, except for contingent liabilities assumed in a business combination, which are recognized in accordance with IFRS 3 revised.

14. DISCONTINUED OPERATIONS

A discontinued operation is a clearly distinguishable Group component that:

- either has been separated, or is classified as held for sale;
- represents a separate major line of business or geographical area of operations;
- is part of a single coordinated plan to dispose of a separate major line of business or geographical area of operations;
- is a subsidiary acquired exclusively with a view to resale.

The results of discontinued operations are presented separately in the income statement.

15. GOVERNMENT GRANTS

Government grants received are recognized in other non-current liabilities. They are then recognized as income in the income statement for the period on the same basis as the subsidized assets are depreciated.

16. SHARE-BASED PAYMENTS

The Group grants stock options to management and some employees. Employees also benefit from conditional share allocations. In accordance with IFRS 2, stock options and conditional share allocations are measured at fair value on the grant date. The valuation model used is the binomial mathematical model. Any changes in value subsequent to the grant date do not call into question the initial measurement.

In accordance with IFRS 2, performance conditions, other than market conditions, have no impact on the fair value measurement of goods and services received but adjust the expense that is recognized according to the number of equity instruments actually granted.

In accordance with IFRS 2, the fair value of options granted and conditional share allocations is recognized as an employee expense in the income statement with a corresponding increase in equity, and amortized on a straight-line basis over the vesting period.

In accordance with the option available under IFRS 1, IFRS 2 has only been applied to stock option plans granted after November 7, 2002 and not vested as of January 1, 2004.

The dilution effect of non-vested stock option plans and conditional share allocations is reflected in the calculation of diluted earnings per share.

For employee savings plans, the capital increases reserved for employees and performed under conditions that differ from market conditions result in the recognition of an expense. This expense corresponds to the contribution paid by the Company and the discount on the share price less the cost of non-transferability for the employees.

17. GREENHOUSE GAS EMISSION RIGHTS

In certain countries, the Air Liquide Group receives greenhouse gas emission rights free of charge. These allowances are allocated on a yearly basis for a compliance period of three years.

In return, the Group has to deliver allowances equal to its actual emissions.

In the absence of any specific IFRS guidance, the Group has elected the following accounting approach: at each balance sheet date, the Group assesses if it has sufficient emission rights to cover its actual emissions. If the rights allocated exceed actual emissions, no asset is recognized and the rights sold are recognized in profit or loss. Conversely, the Group shall recognize a net liability.

BASIS FOR PRESENTATION OF FINANCIAL INFORMATION

1. SEGMENT INFORMATION

The Group is structured according to the following activities: Gas and Services, Engineering and Construction, and Other Activities (Welding, Specialty Chemicals and Diving).

The Group's main operational decision-making body is the Executive Management assisted by the Executive Committee.

The Gas and Services activity is organized by geographical area, which is the responsible level for operations management and performance monitoring. These geographical areas are as follows:

- Europe;
- Americas;
- Asia-Pacific;
- Middle East and Africa.

Within the Gas and Services segment, the geographical areas determine sales policies and development projects in liaison with the four business lines (Large Industries, Industrial Merchant, Healthcare and Electronics).

The Engineering and Construction segment is managed separately at the international level. The segment designs, develops and builds industrial gas production plants for the Group and third parties. It also designs and manufactures plants in the traditional, renewable and alternative energy sectors.

Information on the Welding, Specialty Chemicals and Diving segments is presented in "Other Activities".

Research and Development and corporate activities do not meet the Operating segments definition and are thus presented within reconciliation.

The information communicated in the tables covering segment information is presented according to the same accounting principles as those used for the Group Consolidated financial statements.

Revenue is analyzed by geographical area of production (country of origin).

Inter-segment revenue for the Gas and Services activity is not material and therefore not specifically presented. The Engineering and Construction inter-segment revenue corresponds to the sales involving the Gas and Services operating segments.

The Group operating performance is assessed on the basis of each segment's recurring operating income.

Segment assets include non-current assets, with the exception of "Deferred tax assets", "Investments in associates", "Fair value of non-current derivatives (assets)", as well as "Inventories and work-in-progress", "Trade receivables" and "Other current assets".

Segment liabilities correspond to "Provisions, pensions and other employee benefits", "Trade payables", "Other current liabilities" and "Other non-current liabilities".

Segment profits, assets and liabilities consist of amounts directly attributable to each segment, provided they can be allocated to the segment on a reasonable basis.

2 NET INDEBTEDNESS

Net indebtedness includes:

- current and non-current borrowings minus the fair value of hedging derivative assets to cover borrowings less;
- cash and cash equivalents, as defined in Note 6.c., minus the fair value of hedging derivative liabilities to cover loans.

3. OPERATING INCOME OR LOSS RECURRING

The Group's operating performance is measured based on operating income or loss recurring determined in accordance with CNC recommendation 2009-R.03.

4. OTHER NON-RECURRING OPERATING INCOME AND EXPENSES

Material non-recurring transactions that could affect operating performance readability are classified under "Other non-recurring operating income" and "Other non-recurring operating expenses". They mainly include:

- gains or losses on the disposal of activities;
- restructuring costs resulting from plans whose unusual and material nature distort the readability of the operating income recurring;
- very significant charges to provisions and impairment losses for property, plant and equipment and intangible assets;
- acquisition-related costs accounted for as expenses following adoption of IFRS 3 revised "Business combinations".

Notes to the consolidated financial statements for the year ended December 31, 2011

Note 1 – Segment information	176
Note 2 – Revenue	178
Note 3 – Operating income recurring and expenses	179
Note 4 – Other non-recurring operating income and expenses	180
Note 5 – Net finance costs and other financial income and expenses	181
Note 6 – Income taxes	181
Note 7 – Net earnings per share	182
Note 8 – Dividend per share	183
Note 9 – Goodwill	183
Note 10 – Other intangible assets	185
Note 11 – Property, plant and equipment	186
Note 12 – Non-current financial assets	188
Note 13 – Investments in associates	188
Note 14 – Deferred taxes	189
Note 15 – Inventories	190
Note 16 – Trade receivables	190
Note 17 – Working capital requirement	191
Note 18 – Other current assets	191
Note 19 – Cash and cash equivalents	192
Note 20 – Shareholders' equity	192
Note 21 – Provisions, pensions and other employee benefits	196
Note 22 – Employee benefit obligations	197
Note 23 – Borrowings	206
Note 24 – Other liabilities (non-current/current)	211
Note 25 – Trade payables	211
Note 26 – Financial instruments	211
Note 27 – Related party information	221
Note 28 – Commitments	224
Note 29 – Contingent liabilities	225
Note 30 – Greenhouse gas emission rights	225
Note 31 – Post-balance sheet events	225

Note 1 – Segment information

INCOME STATEMENT

2011	Gas and Services					Engineering and Construction	Other activities	Recon-ciliation	Total
(in millions of euros)	Europe	Americas	Asia-Pacific	Middle East and Africa	Sub-total				
Revenue	**6,584.9**	**2,859.0**	**3,083.2**	**311.5**	**12,838.6**	**705.1**	**913.2**		**14,456.9**
Inter-segment revenue						*542.8*		*(542.8)*	
Operating income recurring	**1,226.9**	**627.8**	**501.8**	**64.9**	**2,421.4**	**74.7**	**106.3**	**(193.7)**	**2,408.7**
incl. depreciation and amortization	*(547.5)*	*(277.3)*	*(246.9)*	*(30.4)*	*(1,102.1)*	*(26.3)*	*(22.7)*	*(3.8)*	*(1,154.9)*
Other non-recurring operating income									123.1
Other non-recurring operating expenses									(95.3)
Net finance costs									(235.5)
Other financial income									68.7
Other financial expenses									(131.4)
Income taxes									(576.4)
Share of profit of associates									32.8
Profit for the period									**1,594.7**
Purchase of intangible assets and property, plant and equipment	(690.7)	(387.0)	(509.5)	(137.2)	(1,724.4)	(15.0)	(23.8)	8.2	(1,755.0)

2010	Gas and Services					Engineering and Construction	Other activities	Recon-ciliation	Total
(in millions of euros)	Europe	Americas	Asia-Pacific	Middle East and Africa	Sub-total				
Revenue	**6,201.1**	**2,748.5**	**2,643.6**	**292.5**	**11,885.7**	**751.3**	**851.0**		**13,488.0**
Inter-segment revenue						*430.5*		*(430.5)*	
Operating income recurring	**1,182.8**	**590.2**	**434.4**	**73.3**	**2,280.7**	**67.8**	**81.0**	**(177.3)**	**2,252.2**
incl. depreciation and amortization	*(533.5)*	*(283.9)*	*(222.5)*	*(26.1)*	*(1,066.0)*	*(26.8)*	*(25.2)*	*(4.1)*	*(1,122.1)*
Other non-recurring operating income									30.4
Other non-recurring operating expenses									(28.4)
Net finance costs									(228.9)
Other financial income									63.6
Other financial expenses									(145.9)
Income taxes									(512.7)
Share of profit of associates									27.8
Profit for the period									**1,458.1**
Purchase of intangible assets and property, plant and equipment	(521.5)	(369.6)	(464.8)	(68.5)	(1,424.4)	(13.9)	(16.1)	4.6	(1,449.8)

BALANCE SHEET

2011	Gas and Services					Engineering and Construction	Other activities	Recon-ciliation	Total
(in millions of euros)	Europe	Americas	Asia-Pacific	Middle East and Africa	Sub-total				
Segment assets	8,995.2	4,351.9	5,987.5	813.4	20,148.0	794.3	609.6	148.2	21,700.1
Goodwill	2,196.8	568.6	1,343.4	117.3	4,226.1	224.1	108.3		4,558.5
Intangible assets and property, plant and equipment, net	4,967.6	3,212.7	3,679.9	504.9	12,365.1	238.6	118.2	13.2	12,735.1
Other segment assets	1,830.8	570.6	964.2	191.2	3,556.8	331.6	383.1	135.0	4,406.5
Non-segment assets									2,423.3
Total assets									**24,123.4**
Segment liabilities	2,345.6	744.1	805.7	111.7	4,007.1	984.1	226.2	297.5	5,514.9
Non-segment liabilities									8,612.8
Equity including minority interests									9,995.7
Total equity and liabilities									**24,123.4**

2010	Gas and Services					Engineering and Construction	Other activities	Recon-ciliation	Total
(in millions of euros)	Europe	Americas	Asia-Pacific	Middle East and Africa	Sub-total				
Segment assets	8,741.8	4,070.3	5,301.5	615.7	18,729.3	766.8	617.2	194.3	20,307.6
Goodwill	2,171.0	532.0	1,250.0	119.4	4,072.4	210.9	107.5		4,390.8
Intangible assets and property, plant and equipment, net	4,827.9	3,015.7	3,130.9	322.5	11,297.0	252.6	143.4	13.8	11,706.8
Other segment assets	1,742.9	522.6	920.6	173.8	3,359.9	303.3	366.3	180.5	4,210.0
Non-segment assets									2,230.0
Total assets									**22,537.6**
Segment liabilities	2,317.4	633.9	710.9	86.5	3,748.7	1,091.5	233.3	272.8	5,346.3
Non-segment liabilities									8,078.8
Equity including minority interests									9,112.5
Total equity and liabilities									**22,537.6**

The Research and Development and Corporate activities are presented in the “Reconciliation” column. The operating income recurring of the Engineering and Construction activity includes financial income generated by advances received from customers. It is presented in net finance costs in the consolidated income statement. The adjustment arising from the presentation difference is included in the “Reconciliation” column.

OTHER INFORMATION ON GEOGRAPHICAL AREAS

2011	France	Europe excl. France	Americas	Asia-Pacific	Middle East and Africa	Total
(in millions of euros)						
Revenue	**2,754.2**	**5,215.8**	**2,960.2**	**3,215.2**	**311.5**	**14,456.9**
Non-current assets [(a)]	**990.6**	**6,566.5**	**3,992.2**	**5,292.7**	**662.7**	**17,504.7**
incl. Investments in associates	*3.3*	*13.8*	*6.5*	*147.1*	*40.4*	*211.1*

(a) Excluding non-current financial assets, deferred taxes and non-current fair value of derivative assets.

2010	France	Europe excl. France	Americas	Asia-Pacific	Middle East and Africa	Total
(in millions of euros)						
Revenue	**2,652.4**	**4,819.8**	**2,853.2**	**2,870.1**	**292.5**	**13,488.0**
Non-current assets [(a)]	**1,021.3**	**6,394.9**	**3,749.7**	**4,638.2**	**489.9**	**16,294.0**
incl. Investments in associates	*1.3*	*13.4*	*5.1*	*128.6*	*48.0*	*196.4*

(a) Excluding non-current financial assets, deferred taxes and non-current fair value of derivative assets.

Due to the substantial number of customers served by the Group (over one million worldwide), their significant diversity in multiple sectors and their wide geographical dispersion, the Group’s top external customer represents only 2.1% of Air Liquide revenue.

Note 2 – Revenue

(in millions of euros)	2010	%	2011	%
Gas and Services	11,885.7	88%	12,838.6	89%
Engineering and Construction	751.3	6%	705.1	5%
Other Activities	851.0	6%	913.2	6%
TOTAL	**13,488.0**	**100%**	**14,456.9**	**100%**

Consolidated revenue in 2011 totaled 14,456.9 million euros, up +7.2% compared to 2010. The increase amounted to +6.4% after adjustment for the cumulative impact of foreign exchange fluctuations and natural gas prices:

- foreign exchange rate fluctuations represented -33 million euros in 2011 for an impact of -0.2% on consolidated revenue. The impact was primarily due to the appreciation of the euro compared to the US dollar, partially offset by the depreciation of the euro against the yen;
- natural gas prices had an impact of 136 million euros excluding foreign exchange fluctuations, for a contribution of 1.0% to Group revenue.

Note 3 – Operating income recurring and expenses

Operating income recurring and expenses include purchases, personnel expenses, depreciation and amortization, other recurring income and other recurring expenses.

The Group purchases mainly consist of electricity, natural gas and industrial and medical products.

3.1. PERSONNEL EXPENSES

(in millions of euros)	2010	2011
Wages and social security charges	(2,303.5)	(2,429.6)
Defined contribution pension plans	(23.8)	(23.7)
Defined benefit pension plans [(a)]	(38.7)	(13.6)
Share-based payments	(12.3)	(14.6)
TOTAL	**(2,378.3)**	**(2,481.5)**

(a) In 2011, the expense relating to defined benefit pension plans includes the impact of plan curtailments, amendments and past service cost amounting to 28.3 million euros in 2011 and to 1.9 million euros in 2010 (see note 22.3 on employee benefit obligations on pages 199 to 201).

Fully and proportionately consolidated companies employed 46,200 individuals as of December 31, 2011 (43,600 individuals as of December 31, 2010). Furthermore, the number of employees from acquired or newly consolidated companies, net of entities sold, totaled 365 in 2011.

3.2. OTHER RECURRING EXPENSES

Other recurring expenses primarily include transport and distribution costs, sub-contracting costs, operating leases and insurance premiums.

3.3. RESEARCH AND DEVELOPMENT EXPENDITURES

In 2011, innovation costs amounted to 251.9 million euros (235.3 million euros in 2010) including Research and Development costs of 186.1 million euros (174.2 million euros in 2010).

Development costs incurred by the Group in the course of its Research and Development projects were expensed. The conditions required in IFRS for the capitalization of development costs were not met, since expenditures did not systematically result in the completion of an intangible asset that will be available for use or sale.

3.4. DEPRECIATION AND AMORTIZATION EXPENSE

(in millions of euros)	2010	2011
Intangible assets	(76.4)	(78.4)
Property, plant and equipment (PP&E) [(a)]	(1,045.7)	(1,076.5)
TOTAL	**(1,122.1)**	**(1,154.9)**

(a) Including the depreciation expense after deduction of investment grants released to profit.

Note 4 – Other non-recurring operating income and expenses

(in millions of euros)	2010	2011
Expenses		
Reorganization, restructuring and integration costs	(7.8)	(26.7)
Acquisition costs	(5.7)	(3.8)
Other	(14.9)	(64.8)
TOTAL OTHER NON-RECURRING OPERATING EXPENSES	**(28.4)**	**(95.3)**
Income		
Gain on assets disposals		122.3
Other	30.4	0.8
TOTAL OTHER NON-RECURRING OPERATING INCOME	**30.4**	**123.1**
TOTAL	**2.0**	**27.8**

In 2011:

- the Group recognized capital gains on the disposal of subsidiaries in the amount of 122 million euros, calculated in accordance with IAS 27 section 34 and IAS 36 section 86, and relating to:
  - the sale of its interest in its subsidiary Lamers High Tech Systems B.B. (Netherlands) on June 22, 2011,
  - the sale of its interest in its subsidiary A –TEC Co., Ltd (Japan) on July 1, 2011,
  - the sale of its interests in its subsidiaries Givaudan-Lavirotte (France) on December 13, 2011 and Seppic Belgium (Belgium) on December 31, 2011;
- the Group recognized in “Other non-recurring operating expenses” a provision of 40 million euros to cover risks related to litigations and an amount of 9 million euros to cover risks relating to the recoverability of receivables from public sector customers in Southern Europe.

In 2010:

- the Group recognized an amount of 25 million euros in “Other non-recurring operating income” following the favorable resolution of a litigation;
- an 8 million euros provision recognized in 2008 with respect to the non-recoverability of receivables was reversed to “Other non-recurring operating expenses”, after LyondellBasell’s US subsidiary emerged from Chapter 11 bankruptcy protection and following the collection of receivables previously due. In addition, the Group also recognized a 5 million euros provision to account for non-recovery risks with respect to the receivables of its Greek subsidiary;
- previously recognized impairment losses of 9 million euros were reversed to “Other non-recurring operating expenses” insofar as the recoverable amount of certain dedicated plants was restored to a value exceeding the carrying amount;
- the Group recognized in “Other non-recurring operating expenses” a provision of 20 million euros to cover risks related to litigations.

Note 5 – Net finance costs and other financial income and expenses

5.1. NET FINANCE COSTS

(in millions of euros)	**2010**	**2011**
Finance cost	(242.0)	(254.5)
Financial income from short-term investments and loans	13.1	19.0
TOTAL	**(228.9)**	**(235.5)**

The average cost of debt stood at 4.8% in 2011 (4.9% in 2010) and is broken down in note 23.4.

Capitalized finance costs totaled 25.4 million euros in 2011 (25.0 million euros in 2010).

5.2. OTHER FINANCIAL INCOME AND EXPENSES

(in millions of euros)	**2010**	**2011**
Financial income related to employee benefits	51.5	56.6
Other financial income	12.1	12.1
TOTAL OTHER FINANCIAL INCOME	**63.6**	**68.7**
Financial expenses related to employee benefits	(116.0)	(112.1)
Other financial expenses	(29.9)	(19.3)
TOTAL OTHER FINANCIAL EXPENSES	**(145.9)**	**(131.4)**

The impact of the revaluation of derivative instruments was included in “Other financial income” in 2011 and in “Other financial expenses” in 2010, in accordance with accounting principles described in paragraph 6.e.

Note 6 – Income taxes

6.1. INCOME TAXES

(in millions of euros)	**2010**	**2011**
Current tax		
Income tax expense payable	(384.7)	(478.3)
Prior year tax losses or tax credits not previously recognized	0.7	
TOTAL	**(384.0)**	**(478.3)**
Deferred tax		
Temporary differences	(127.6)	(106.0)
Impact of tax rate changes	(1.1)	7.9
TOTAL	**(128.7)**	**(98.1)**

The change in current tax and deferred tax expense for temporary differences was mainly related to tax incentives for investments in the United States, which increased the differences between tax and economic depreciation in 2010.

6.2. RECONCILIATION BETWEEN THE STANDARD TAX RATE AND THE GROUP EFFECTIVE TAX RATE

(in %)	2010	2011
Standard tax rate	**31.3**	**31.5**
Impact of transactions taxed at reduced rates	(2.6)	(4.1)
Impact of tax rate changes	0.1	(0.4)
Impact of tax exemptions and other	(2.4)	
Group effective tax rate	**26.4**	**27.0**

The standard tax rate is the average rate obtained by applying the statutory tax rate for each country to their related earnings before tax.

The average effective tax rate is determined as follows: (current and deferred income tax expense) / (net profit before tax less share of profit of associates and net profit from discontinued operations).

In France, L'Air Liquide S.A. has elected to determine French income taxes on a consolidated basis, including all French subsidiaries complying with the requirements.

Foreign subsidiaries have elected to apply for similar rules wherever this is allowed under local regulations.

In 2011, the average effective tax rate remained relatively unchanged compared to fiscal year 2010.

Note 7 – Net earnings per share

7.1. BASIC EARNINGS PER SHARE

	2010	2011
Net profit (Group share) attributable to ordinary shareholders of the parent *(in millions of euros)*	1,403.6	1,534.9
Weighted average number of ordinary shares outstanding	281,491,673	282,615,649
Basic earnings per share *(in euros)*	**4.99**	**5.43**

Basic earnings per share are calculated by dividing net profit (Group share) attributable to ordinary shareholders of Air Liquide by the weighted average number of shares outstanding during the year, excluding ordinary shares purchased by Air Liquide and recognized in equity.

7.2. DILUTED EARNINGS PER SHARE

	2010	2011
Net profit used to calculate diluted earnings per share *(in millions of euros)*	**1,403.6**	**1,534.9**
Weighted average number of ordinary shares outstanding	281,491,673	282,615,649
Adjustment for dilutive impact of share subscription options	908,700	888,667
Adjustment for dilutive impact of conditional grant of shares	233,268	260,341
Adjusted weighted average number of shares outstanding used to calculate diluted earnings per share	**282,633,641**	**283,764,657**
Diluted earnings per share *(in euros)*	**4.97**	**5.41**

Diluted earnings per share take into account the share subscription options and conditional share grants allocated to employees if:

- the issue price, adjusted for expenses not recognized at the year-end pursuant to IFRS 2, is lower than the Air Liquide annual average price per share price;
- the performance requirements related to the employee conditional share grants meet the criteria of section 52 of IAS 33.

Instruments that could dilute net profit (Group share) attributable to ordinary shareholders of the parent and are not included in the diluted earnings per share calculation, insofar as they are undiluted over the year, are as follows:

- in 2011, the 2011 share subscription option plan;
- in 2010, the 2008 and 2010 share subscription option plans.

The Group has not issued any other financial instruments that may generate further dilution of net earnings per share.

Note 8 – Dividend per share

The 2010 dividend on ordinary shares declared and paid on May 16, 2011 was 684.0 million euros (including treasury shares), for a dividend of 2.35 euros per share. Dividends paid represent a distribution rate of 48.7% of profit for the period attributable to shareholders of the parent.

A dividend distribution of 729.1 million euros (including treasury shares), for a dividend of 2.50 euros per share, on ordinary shares, will be proposed to the Annual General Meeting in respect of 2011. These dividends represent a distribution rate of 47.5% of the profit for the period attributable to shareholders of the parent.

Note 9 – Goodwill

9.1. MOVEMENTS DURING THE PERIOD

(in millions of euros)	**As of January 1**	**Goodwill recognized during the period**	**Goodwill removed during the period**	**Foreign exchange differences**	**Other movements [(a)]**	**As of December 31**
2010	4,002.9	108.9		263.5	15.5	4,390.8
2011	4,390.8	75.1	(2.6)	91.1	4.1	4,558.5

(a) Other movements mainly include the increase in the fair value of put options granted to minority shareholders.

Goodwill recognized mainly included the following acquisitions:

- ADEP Assistance (France) in January 2011, Licher MT GmbH (Germany) in March 2011 and the business of an industriel gases distributor located in Ontario (Canada) in October 2011;
- DinnoSanté by VitalAire France in 2010.

9.2. SIGNIFICANT GOODWILL

	2010	2011		
(in millions of euros)	Net carrying amount	Gross carrying amount	Impairment losses	Net carrying amount
Germany [(a)]	1,403.1	1,413.9		1,413.9
Japan [(b)]	761.6	825.8		825.8
SOAEO [(b)]	465.7	470.7		470.7
Lurgi [(b)]	411.1	416.5		416.5
United States [(b)]	346.9	358.3		358.3
AL Welding	90.9	90.6		90.6
Other subsidiaries	911.5	985.5	(2.8)	982.7
TOTAL GOODWILL	**4,390.8**	**4,561.3**	**(2.8)**	**4,558.5**

(a) Including goodwill arising from the Messer activities in Germany for 1,270.5 million euros.

(b) The variation between 2010 and 2011 was mainly due to the foreign exchange impact.

In 2011, the Group did not record any goodwill impairment losses.

Impairment tests were carried out using the same methods as those applied in previous years. The key model assumptions used, such as market multiples and the discount rate, took into account the Stock Exchange and world economic context.

The growth rates taken into account in the cash flow estimates for cash-generating units or groups of cash-generating units were significantly lower than the Group's historical average growth rates. They were comprised of between 2% and 3% for cash-generating units or groups of cash-generating units operating in mature markets, and a maximum of 5% for cash-generating units or groups of cash-generating units operating in emerging markets.

The market multiples used were determined using the Air Liquide Group market value as of December 31, 2011.

The weighted average cost of capital used for these calculations was 7.4% as of December 31, 2011 (7.4% as of December 31, 2010).

The weighted average cost of capital and market multiples are adjusted according to activity and the geographical location of the tested cash-generating units.

As of December 31, 2011 and 2010, the recoverable amounts of cash-generating units or groups of cash-generating units exceeded significantly their net carrying amounts.

Note 10 – Other intangible assets

10.1. GROSS CARRYING AMOUNTS

(in millions of euros)	As of January 1	Additions	Disposals	Foreign exchange differences	Acquisitions related to business combination	Other movements [(a)]	As of December 31
2010							
Internally generated intangible assets	253.1	10.1	(2.2)	1.8		0.8	263.6
Other intangible assets	942.5	27.3	(14.8)	36.6	2.3	4.7	998.6
Total gross intangible assets	**1,195.6**	**37.4**	**(17.0)**	**38.4**	**2.3**	**5.5**	**1,262.2**
2011							
Internally generated intangible assets	263.6	15.4	(0.6)	0.3		(0.3)	278.4
Other intangible assets	998.6	27.7	(12.9)	12.0	(0.3)	(5.5)	1,019.6
Total gross intangible assets	**1,262.2**	**43.1**	**(13.5)**	**12.3**	**(0.3)**	**(5.8)**	**1,298.0**

(a) Other movements primarily include account reclassifications and changes in consolidation scope.

10.2. AMORTIZATION AND IMPAIRMENT LOSSES

(in millions of euros)	As of January 1	Charge for the period	Disposals	Foreign exchange differences	Acquisitions related to business combination	Other movements [(a)]	As of December 31
2010							
Internally generated intangible assets	(161.9)	(16.5)	0.9	(1.0)		(1.0)	(179.5)
Other intangible assets	(357.7)	(59.9)	14.9	(10.5)		0.6	(412.6)
Total intangible asset amortization	**(519.6)**	**(76.4)**	**15.8**	**(11.5)**		**(0.4)**	**(592.1)**
Total net intangible assets	**676.0**	**(39.0)**	**(1.2)**	**26.9**	**2.3**	**5.1**	**670.1**
2011							
Internally generated intangible assets	(179.5)	(18.5)	0.6	(0.2)			(197.6)
Other intangible assets	(412.6)	(59.9)	11.3	(4.6)		3.6	(462.2)
Total intangible asset amortization	**(592.1)**	**(78.4)**	**11.9**	**(4.8)**		**3.6**	**(659.8)**
Total net intangible assets	**670.1**	**(35.3)**	**(1.6)**	**7.5**	**(0.3)**	**(2.2)**	**638.2**

(a) Other movements primarily include account reclassifications and changes in consolidation scope.

At year-end, the Group had no significant commitment for the purchase of intangible assets and was not subject to any restrictions over the use of existing intangible assets.

Note 11 – Property, plant and equipment

11.1. GROSS CARRYING AMOUNTS

(in millions of euros)	As of January 1	Additions	Disposals	Foreign exchange differences	Acquisitions related to business combination	Other movements [(a)]	As of December 31
2010							
Land	264.6	5.3	(9.3)	32.2	1.2	4.7	298.7
Buildings	1,133.7	22.3	(15.8)	86.1	5.0	59.5	1,290.8
Equipment, cylinders, installations	18,890.3	584.6	(211.4)	1,258.2	80.6	947.9	21,550.2
Total property, plant and equipment in service	**20,288.6**	**612.2**	**(236.5)**	**1,376.5**	**86.8**	**1,012.1**	**23,139.7**
Construction in progress	1,536.7	802.9		138.6	0.3	(972.7)	1,505.8
Total property, plant and equipment	**21,825.3**	**1,415.1**	**(236.5)**	**1,515.1**	**87.1**	**39.4**	**24,645.5**
2011							
Land	298.7	3.4	(2.6)	11.4	2.3	(1.3)	311.9
Buildings	1,290.8	21.3	(4.1)	26.2	1.6	(4.6)	1,331.2
Equipment, cylinders, installations	21,550.2	631.3	(239.0)	321.1	29.5	702.2	22,995.3
Total property, plant and equipment in service	**23,139.7**	**656.0**	**(245.7)**	**358.7**	**33.4**	**696.3**	**24,638.4**
Construction in progress	1,505.8	1,172.4		73.3	0.1	(660.9)	2,090.7
Total property, plant and equipment	**24,645.5**	**1,828.4**	**(245.7)**	**432.0**	**33.5**	**35.4**	**26,729.1**

(a) Other movements primarily include changes in consolidation scope.

Purchases of property, plant and equipment and intangible assets in the consolidated statement of cash flows correspond to the increase in property, plant and equipment and intangible assets adjusted for the change in the fixed asset suppliers' balance during the fiscal year.

11.2. DEPRECIATION AND IMPAIRMENT LOSSES

(in millions of euros)	As of January 1	Charge for the period	Impairment losses	Impairment losses removed	Disposals	Foreign exchange differences	Acquisitions related to business combination	Other movements [a]	As of December 31
2010									
Buildings	(674.2)	(49.3)			12.5	(54.3)		(4.2)	(769.5)
Equipment, cylinders, installations	(11,230.3)	(1,007.0)	(1.3)	9.3	188.4	(779.8)		(18.6)	(12,839.3)
Total property, plant and equipment depreciation	**(11,904.5)**	**(1,056.3)**	**(1.3)**	**9.3**	**200.9**	**(834.1)**		**(22.8)**	**(13,608.8)**
Total property, plant and equipment, net	**9,920.8**	**358.8**	**(1.3)**	**9.3**	**(35.6)**	**681.0**	**87.1**	**16.6**	**11,036.7**
2011									
Buildings	(769.5)	(47.9)			5.8	(16.6)		10.3	(817.9)
Equipment, cylinders, installations	(12,839.3)	(1,038.4)	(3.4)	9.8	209.2	(204.6)		52.4	(13,814.3)
Total property, plant and equipment depreciation	**(13,608.8)**	**(1,086.3)**	**(3.4)**	**9.8**	**215.0**	**(221.2)**		**62.7**	**(14,632.2)**
Total property, plant and equipment, net	**11,036.7**	**742.1**	**(3.4)**	**9.8**	**(30.7)**	**210.8**	**33.5**	**98.1**	**12,096.9**

(a) Other movements primarily include changes in consolidation scope.

The charge for the period corresponds to the increase in depreciation, net of the investment grants released to the income statement.

11.3. FINANCE LEASES

Air Liquide enters into lease agreements for the use of certain industrial assets. The substance of a number of these agreements satisfies the definition of a finance lease.

These agreements primarily include office and industrial buildings, vehicle trailers and other industrial equipment as well as information technology hardware.

The present value of minimum lease payments for leased assets is recorded in the balance sheet under "Property, plant and equipment". The breakdown is as follows:

	2010		2011	
(in millions of euros)	Minimum lease payments	Present value of minimum lease payments	Minimum lease payments	Present value of minimum lease payments
Less than 1 year	8	7	6	5
1 to 5 years	14	14	16	14
More than 5 years	8	5	4	3
Total minimum lease payments	**30**	**26**	**26**	**22**
Less impact of discounting (finance charge)	(4)		(4)	
Present value of minimum lease payments	**26**		**22**	

Note 12 – Non-current financial assets

(in millions of euros)	2010	2011
Available-for-sale financial assets	113.2	77.9
Loans	40.7	49.1
Other long-term receivables	227.9	269.3
Employee benefits – prepaid expenses	4.1	2.0
NON-CURRENT FINANCIAL ASSETS	**385.9**	**398.3**

Available-for-sale financial assets primarily consist of unlisted and non-consolidated investments, in particular capital contributions to Group companies in the development phase and a 13% interest in Exeltium S.A.S.

Other long-term receivables comprise the receivable related to the equalization charge refund claim paid for the 2000 to 2004 period in the amount of 71.7 million euros before interests on arrears, which amounted to 26.5 million euros as of December 31, 2011. In 2011, no event affected the recoverability of this receivable.

Note 13 – Investments in associates

13.1. FINANCIAL INFORMATION RELATED TO ASSOCIATES

Group share of associates as of December 31, 2011	Share of profit for the period	Share of equity [(a)]
(in millions of euros)		
Europe	(0.3)	17.1
Americas	2.7	6.5
Asia-Pacific	25.3	147.1
Middle East and Africa	5.1	40.4
TOTAL	**32.8**	**211.1**

(a) The goodwill related to associates is included in the carrying amount of the investment.

Group share of associates as of December 31, 2010	Share of profit for the period	Share of equity [(a)]
(in millions of euros)		
Europe	2.3	14.7
Americas	2.1	5.1
Asia-Pacific	19.2	128.6
Middle East and Africa	4.2	48.0
TOTAL	**27.8**	**196.4**

(a) The goodwill related to associates is included in the carrying amount of the investment.

13.2. MOVEMENTS DURING THE YEAR

(in millions of euros)	As of January 1	Share of profit for the period	Dividend distribution	Foreign exchange differences	Other movements	As of December 31
2010	166.5	27.8	(17.2)	15.3	4.0	196.4
2011	196.4	32.8	(14.9)	2.4	(5.6)	211.1

13.3. FINANCIAL INDICATORS OF ASSOCIATES (100%)

Balance sheet

(in millions of euros)	2010	2011
Total assets	890.1	923.9
Equity	453.3	488.8
Net indebtedness	202.4	132.9

Income statement

(in millions of euros)	2010	2011
Revenue	567.6	613.4
Profit for the period	62.1	51.2

Net indebtedness (group share)

In millions of euros	2010	2011
Net indebtedness	102.4	59.2

Note 14 – Deferred taxes

Movements in deferred tax assets and liabilities during the period were as follows:

14.1. DEFERRED TAX ASSETS

(in millions of euros)	2010	2011
As of January 1	**350.1**	**306.3**
Income (charge) to the income statement	(56.2)	(24.3)
Income (charge) to equity for the period	5.7	0.3 [(a)]
Acquisitions/Disposals	(0.1)	3.9
Foreign exchange differences	8.6	0.6
Other [(b)]	(1.8)	3.5
As of December 31	**306.3**	**290.3**

(a) Corresponds to the deferred tax recognized in other items in the statement of net income and gains and losses directly recognized in equity: 3.3 million euros relating to the change in fair value of derivatives and (3.0) million euros relating to actuarial gains and losses. In 2010, the respective impacts amounted to 0.2 million euros relating to the change in fair value of derivatives and 5.5 million euros relating to actuarial gains and losses.

(b) Other movements result from reclassifications between current and deferred tax.

14.2. DEFERRED TAX LIABILITIES

(in millions of euros)	2010	2011
As of January 1	**999.4**	**1,126.4**
Charge (income) to the income statement	72.5	73.8
Charge (income) to equity for the period	(20.7)	(45.0) [(a)]
Acquisitions / Disposals	0.6	(2.2)
Foreign exchange differences	68.9	18.2
Other [(b)]	5.7	33.7
As of December 31	**1,126.4**	**1,204.9**

(a) Corresponds to the deferred tax recognized in other items in the statement of net income and gains and losses directly recognized in equity: (0.3) million euros relating to the change in fair value of derivatives and (44.7) million euros relating to actuarial gains and losses. In 2010, the respective impacts amounted to (3.1) million euros relating to the change in fair value of derivatives and (17.6) million euros relating to actuarial gains and losses.

(b) Other movements result from reclassifications between current and deferred tax.

As of December 31, 2011, unrecognized deferred tax assets totaled 14.6 million euros, compared to 13.9 million euros as of December 31, 2010.

Deferred taxes are mainly generated by differences between the tax and economic depreciation of assets, tax loss carry-forwards and provisions not immediately deductible for tax purposes, in particular employee benefit provisions.

Note 15 – Inventories

(in millions of euros)	2010	2011
Raw materials and supplies	193.5	220.1
Finished and semi-finished goods	454.1	490.1
Work-in-progress	94.1	73.9
NET INVENTORIES	**741.7**	**784.1**

(in millions of euros)	2010	2011
Write-down of inventories	(27.5)	(22.3)
Reversals of write-down	23.9	27.0
NET WRITE-DOWN RECOGNIZED IN THE INCOME STATEMENT	**(3.6)**	**4.7**

Note 16 – Trade receivables

(in millions of euros)	2010	2011
Trade and other operating receivables	2,779.2	2,916.1
Allowance for doubtful receivables	(137.5)	(136.8)
TRADE RECEIVABLES	**2,641.7**	**2,779.3**

Trade and other operating receivables included the gross amounts from Engineering and Construction customers for 147.0 million euros (105.3 million euros as of December 31, 2010).

For all Engineering and Construction contracts in progress at the year-end, the gross amounts payable from and to customers correspond to the sum of costs incurred and profits recognized using the percentage of completion method, equivalent to revenue recorded using the percentage of completion method, less any advances received.

Amounts due to customers are presented under other current liabilities (see note 24).

As of December 31, 2011, cumulative revenue recognized using the percentage of completion method and advances received amounted to 1,550.4 million euros and 1,586.3 million euros, respectively.

As of December 31, 2010, cumulative revenue recognized using the percentage of completion method and advances received amounted to 1,399.0 million euros and 1,489.1 million euros, respectively.

16.1. BREAKDOWN OF TRADE AND OTHER OPERATING RECEIVABLES

(in millions of euros)	**Gross carrying amount**	**Not yet due**	**Impaired and overdue**	**Not impaired and overdue**
2010	2,779.2	2,083.5	104.3	591.4
2011	2,916.1	2,189.1	116.4	610.6

Outstanding trade receivables overdue and not impaired mainly comprised receivables due in less than three months (67.0% in 2011, 63.7% in 2010). Their non-impairment arises from a detailed analysis of the related risks.

Trade receivables overdue by more than three months and not impaired mainly concerns public sector customers in the Healthcare segment for which the credit risk is very low.

16.2. ALLOWANCE FOR DOUBTFUL RECEIVABLES

(in millions of euros)	**As of January 1**	**Charges**	**Reversals**	**Foreign exchange differences**	**Other movements**	**As of December 31**
2010	(135.9)	(51.7)	51.1	(4.8)	3.8	(137.5)
2011	(137.5)	(52.1)	52.5	(0.2)	0.5	(136.8)

Note 17 – Working capital requirement

The increase in the working capital requirement for 192.8 million euros, presented in the consolidated cash flow statement, breaks down as follows:

- favorable impact of changes in tax receivables and payables in the amount of -25.6 million euros;
- decrease in working capital resources of the Engineering and Construction activity in the amount of 80.6 million euros;
- increase in the working capital requirement of Gas and Services and other activities in the amount of 126.9 million euros.

Note 18 – Other current assets

(in millions of euros)	**2010**	**2011**
Advances and down-payments made	93.9	86.0
Prepaid expenses	63.5	77.3
Other sundry current assets	283.3	281.5
OTHER CURRENT ASSETS	**440.7**	**444.8**

Note 19 – Cash and cash equivalents

(in millions of euros)	2010	2011
Short-term loans	47.3	53.8
Short-term investments	946.7	992.5
Cash in bank	529.1	714.8
CASH AND CASH EQUIVALENTS	**1,523.1**	**1,761.1**

Short-term investments include temporary cash investments maturing in less than three months (cash notes and certificates of deposit) towards banks or counterparties with a minimum long-term rating of A and a minimum short-term rating of A1 (S&P).

Cash in bank comprised the unused portion of the renminbi bond described in note 23 in the amount of 130 million euros. This balance will be used in the short term to finance industrial projects in China.

Note 20 – Shareholders' equity

20.1. SHARES

Number of shares

	2010	2011
Number of shares outstanding as of January 1	264,254,354	284,095,093
Free share attribution	18,078,440	
Capital increase reserved for employees	712,958	
Options exercized during the period	1,049,341	917,848
Cancellation of treasury shares		(1,200,000)
NUMBER OF SHARES AS OF DECEMBER 31	**284,095,093**	**283,812,941**

The shares have a par value of 5.50 euros each and are all issued and fully paid-up.

The Board of Directors' meeting of May 5, 2010 decided to create 17,651,181 new shares with a par value of 5.50 euros, ranking for dividends as of January 1, 2010. On May 28, 2010, these shares were granted as free shares to shareholders, at the rate of one new share for fifteen former shares, by capitalizing additional paid-in capital.

Furthermore, in accordance with Article 21 of the Bylaws, 427,259 new shares were created with a par value of 5.50 euros, ranking for dividends as of January 1, 2010. On May 28, 2010, these shares were granted as free shares to shareholders, at the rate of one new share for one hundred and fifty former shares, by capitalizing additional paid-in capital. The shares affected by this additional grant are those shares held in registered form continuously from December 31, 2007 to May 27, 2010 inclusive.

In 2011, Air Liquide continued with its dividend distribution policy. In 2011, a total of 1,027,776 shares were purchased (net of disposals).

20.2. TREASURY SHARES

Treasury shares consist of Air Liquide shares held by the Group, including the shares forming part of the liquidity contract in accordance with an ethics charter recognized by the French financial markets authority (*Autorité des marchés financiers*). As of December 31, 2011, the Group held 1,119,676 treasury shares (1,339,624 as of December 31, 2010). This movement in the number of treasury shares is explained on pages 162 and 163 (consolidated statement of changes in equity).

20.3. SHARE-BASED PAYMENTS

Share subscription option plans

Following the authorizations by the Annual General Meetings, the decisions of the Board of Directors, the Supervisory Board and the Management Board and based on the recommendations of the Remuneration Committee, the Group adopted share subscription plans for certain senior executives of the Company and its worldwide subsidiaries, including corporate officers.

The purpose of these options is to motivate key Group executives, reward the loyalty of high-performing executives for their conduct in exceptional situations, and associate them with the long-term interests of shareholders.

Stock options are granted for a minimum unitary amount which cannot be lower than the average market price during the 20 trade days prior to the date of grant. The maximum exercize period is seven years for options granted between June 14, 2002 and April 8, 2004 and eight years for those granted between November 30, 2004 and June 28, 2010 inclusive, and ten years for the October 14, 2011 stock option plan.

Stock options granted since May 12, 1999 can only be exercized after a four-year minimum term from the date they were granted.

At its October 14, 2011 meeting, the Board of Directors granted 675,680 stock options (578 beneficiaries), at a subscription price of 87 euros, available for exercize from October 14, 2015 to October 13, 2021.

The total number of stock options, granted by the Board of Directors, the Supervisory Board, and the Management Board under the plans authorized by Annual General Meetings, but not exercized as of December 31, 2011 amounted to, after adjustment, 4,428,274 options (average price of 73.03 euros), or 1.56% of the share capital, of which 705,854 options (average price of 76.29 euros) were granted to members of Executive Management, present within the Company as of December 31, 2011.

Out of the total number of options issued pursuant to the authorization of the Annual General Meeting of May 5, 2010, 4,467,819 options were retained for possible allotment by the Board of Directors as of December 31, 2011.

Conditional grant of shares to employees

In order to retain and further motivate talented employees and compensate their medium-term performance, an additional compensation system was set up in 2008 involving the Conditional Grant of Shares to Employees.

The seventeenth resolution adopted by the Extraordinary Annual General Meeting of May 5, 2010 authorized the Board of Directors to grant free shares to Group employees (with the exception of the Group's senior corporate officers), up to a maximum of 0.5% of the Company's share capital on the date the Board decides to grant such shares.

Under this authorization, the Board of Directors adopted two different regulations on October 14, 2011 ("France" Plan and "World" Plan) governing the conditional grant of Company shares to employee beneficiaries determined by the Board. The beneficiaries or beneficiary categories are designated by the Company's Board of Directors, according to the allocation criteria relating to their contribution to the Group's performance.

The differences between the "France" and "World" Plans are mainly the number of years of service required and the correlative absence of any holding requirement for the "World" Plan, as described below.

Conditional employee share grants are subject to:

- a continued service requirement: shares granted to a beneficiary shall only be definitively vested if he or she has been a salaried employee or corporate officer of a Group company during a vesting period, calculated as from the grant date, of two years for "France" Plan beneficiaries and four years for "World" Plan beneficiaries. In the event of retirement, the beneficiary retains his rights, but is no longer required to satisfy the continued service requirement;
- a performance requirement: for 2011, this requirement is identical for both Plans: it corresponds to the achievement rate of the average growth target set for the Group's undiluted net earnings per share, excluding foreign exchange impact and exceptional items (recurring net earnings per share), for fiscal year 2012, compared to the recurring net earnings per share for fiscal year 2010;
- a holding requirement: as from the final grant date, the beneficiaries of the "France" Plan are required to hold their shares for two additional years during which such shares may not be transferred (except in the event of disability or death).

The granted shares shall be either shares issued through a capital increase performed by the Company by no later than the definitive vesting date or shares bought back by the Company in the market prior to such date. The granted shares shall be of the same nature and category as those making up the Company's share capital at the date on which the plans are approved by the Board of Directors.

At its October 14, 2011 meeting, the Board of Directors decided to grant 106,658 conditional shares to employees (972 beneficiaries).

Options granted to the ten employees of the Company and its subsidiaries (excluding corporate officers) who were granted the highest number of options

In 2011, 172,000 options were granted to the ten employees of the Company and its subsidiaries (excluding corporate officers) who were granted the highest number of options.

Options exercized in 2011 by the ten employees of the Company and its subsidiaries (excluding corporate officers) with the highest number of options exercized

Year of grant	Number of options exercized	Average price *(in euros)*
2004	56,948	48.86
2005	22,533	53.36
2006	39,572	64.97
2007	5,879	77.86
TOTAL	**124,932**	**56.14**

Options exercized in 2010 by the ten employees of the Company and its subsidiaries (excluding corporate officers) with the highest number of options exercized

Year of grant	Number of options exercized	Average price *(in euros)* [(a)]
2004	88,101	50.40
2005	32,563	54.86
2006	9,054	64.97
TOTAL	**129,718**	**52.54**

(a) The average prices were impacted by the breakdown in the number of options exercized before or after the free share attribution of May 28, 2010.

Number of share subscription options and weighted average strike price

	2010		2011	
	Options	**Weighted average strike price** *(in euros)*	**Options**	**Weighted average strike price** *(in euros)*
Total number of options outstanding as of January 1 (at the historical rate)	**4,926,871**	**67.08**	**4,699,547**	**67.66**
Options granted during the period (at the historical rate as of the date the plan was set up)	532,760	83.00	675,680	87.00
Options exercized during the period (at the historical rate in effect on each exercise date)	1,049,341	53.38	917,848	56.08
Options cancelled during the period (at the historical rate in effect on each cancellation date)	13,648		29,105	
Total number of options as of December 31 (at the historical rate) [(a)]	**4,699,547**	**67.66**	**4,428,274**	**73.03**
Of which total number of options eligible for exercize	***2,129,554***	***57.98***	***2,177,005***	***67.77***
Total adjusted number of options as of December 31 [(b)]	**4,699,547**	**67.66**	**4,428,274**	**73.03**
Of which total number of options eligible for exercize after adjustment	***2,129,554***	***57.98***	***2,177,005***	***67.77***

(a) In 2010, the difference between the number of options not exercized as of December 31 and the number as of January 1 (the latter adjusted for the movements indicated in the table) corresponds to the expired options and the overall impact, on the date of completion, of a free share attribution on the number of options not exercized in 2010.

(b) Corresponds to the overall restatement consisting of an increase in the total number of options remaining at the end of fiscal year 2009 for the free share attribution of May 28, 2010.

Information on the fair value of share subscription options and conditional grants of shares

The Group grants stock options to senior management and some employees. Employees are also entitled to conditional grants of shares.

Share subscription options

In accordance with IFRS 2, stock options are measured at fair value at the grant date. The fair value is estimated using the binomial mathematical valuation model.

Valuations are based on the following main underlying assumptions:

- volatility: implicit;
- risk-free interest rate: six-year-zero-coupon benchmark rate on the plan issue date;
- dividend growth rate: based on the average annual growth rate observed in the past;
- employee resignation rate: that of individuals belonging to the same age group as the plan beneficiaries. This resignation rate is used to reflect theoretically the options which will not be exercized due to the resignation of the beneficiaries.

	2010 Plan 1 June 28, 2010		2011 Plan 1 October 14, 2011			
Duration of the option	6 years		6 years			
Fair value of the option *(in euros)*	15.86 [(a)]	13.72 [(c)]	20.50 [(a)]	20.12 [(b)]	14.21 [(c)]	13.98 [(d)]

(a) Fair value of options not subject to performance requirements, and options subject to performance requirements linked to the Group's results for all Group entities, with the exception of Belgium for the 2011 plan;

(b) Fair value of options not subject to performance requirements, and options subject to performance requirements linked to the Group's results for Belgium only;

(c) Fair value of options subject to performance requirements linked to the share price trend for all Group entities, with the exception of Belgium for the 2011 plan;

(d) Fair value of options subject to performance requirements linked to the share price trend for Belgium only.

Conditional grants of shares

Conditional grants of shares are measured at fair value, taking into account a discount on non-transferable shares. The cost of non-transferability is measured as the cost of a strategy in two phases consisting of the forward sale of shares that cannot be transferred over a period of four years and the purchase on the spot market of the same number of shares financed by an amortizable loan with an in fine capital refund.

Valuations are based on the following main underlying assumptions:

- risk-free interest rate: four-year zero-coupon benchmark rate on the plan issue date, to which a credit margin is applied in the same way as for an employee;
- dividend growth rate: based on the average annual growth rate observed in the past;
- employee resignation rate: that of individuals belonging to the same age group as the plan beneficiaries. This resignation rate is used to reflect theoretically the shares which will not be allocated due to the resignation of the beneficiaries;
- the Group's performance requirement is not considered as an underlying assumption and was deemed to have been fully achieved on the valuation date.

4

	2010 Plan 1 June 28, 2010	2010 Plan 2 June 28, 2010	2011 Plan 1 October 14, 2011	2011 Plan 2 October 14, 2011
Duration of the conditional grant	4 years	4 years	4 years	4 years
Fair value of the conditional grant *(in euros)*	83.43 [(a)]	77.79 [(b)]	91.50 [(a)]	85.31 [(b)]

(a) Conditional Grant of Shares to Employees for beneficiaries located in France.

(b) Conditional Grant of Shares to Employees for beneficiaries located outside France.

An expense of 14.6 million euros (excluding tax) was recognized for share subscription option and Conditional Grant of Shares to Employees plans in the income statement in 2011 (12.3 million euros in 2010) with a corresponding entry offset in equity.

Group savings plan

At its May 5, 2010 meeting, the Board of Directors decided to perform a share capital increase for Group employees who are members of the France Group savings plan or the International Air Liquide Group savings plan.

The subscription price was 74.49 euros for all eligible Group employees, except those from US subsidiaries, for whom the subscription price was 79.15 euros.

A total of 712,958 Air Liquide shares were subscribed, representing a total share issue of 53.3 million euros, including additional paid-in capital of 49.3 million euros.

The Group savings plans were recorded in the income statement and valued in accordance with IFRS 2 "Share-based Payment", based on the following assumptions:

- a subscription period of two weeks;
- shares blocked for a period of five years from the end of the subscription period in accordance with French law.

The recorded expense takes into account the five-year period during which shares are blocked and cannot be sold. The discount was measured taking into account the employee borrowing rate.

In 2010, the expense recognized in respect of the savings plans in accordance with IFRS 2 "Share-based Payment", taking into account the discount, totaled 5.3 million euros, including additional contributions of 1.4 million euros granted by French subsidiaries.

This expense is recorded in "Other expenses".

Note 21 – Provisions, pensions and other employee benefits

(in millions of euros)	**As of January 1**	**Increase**	**Utilized**	**Other reversals**	**Discounting**	**Foreign exchange differences**	**Acquisitions related to business combination**	**Other movements (a)**	**As of December 31**
2010									
Pensions and other employee benefits	1,497.2	38.7	(164.2)		137.8	33.6	0.3	2.0	1,545.4
Restructuring plans	25.2	3.8	(12.3)			1.0		0.4	18.1
Guarantees and other provisions of Engineering and Construction activity	143.3	69.5	(71.1)	(32.6)		3.6		0.4	113.1
Dismantling	155.5		(3.0)	(3.9)	5.5	7.3		(13.6)	147.8
Other provisions	179.3	57.9	(39.0)	(13.6)		5.3	0.7	5.0	195.6
Total Provisions	**2,000.5**	**169.9**	**(289.6)**	**(50.1)**	**143.3**	**50.8**	**1.0**	**(5.8)**	**2,020.0**
2011									
Pensions and other employee benefits	1,545.4	13.6	(160.2)		173.2	13.6	0.6	(5.1)	1,581.1
Restructuring plans	18.1	6.1	(5.8)	(0.5)		0.2	0.5	3.4	22.0
Guarantees and other provisions of Engineering and Construction activity	113.1	74.4	(22.4)	(44.2)		1.5		4.0	126.4
Dismantling	147.8		(2.7)		5.5	0.7		14.5	165.8
Other provisions	195.6	82.3	(60.3)	(24.9)		(0.5)	3.9	(3.8)	192.3
TOTAL PROVISIONS	**2,020.0**	**176.4**	**(251.4)**	**(69.6)**	**178.7**	**15.5**	**5.0**	**13.0**	**2,087.6**

(a) Other movements correspond to account reclassifications and provisions for dismantling, with no impact on the consolidated statement of cash flows.

In the normal course of its operations, the Group is party to arbitration, judicial or administrative proceedings. The potential costs of such proceedings are provided for, when they are probable, only if the amount can be quantified or estimated within a reasonable range. In the latter case, the amount provisioned represents the best estimate of the Group's management. Provisions are determined based on a case-by-case risk assessment and events occurring during proceedings may result in a risk reappraisal at any time. These litigations are by nature diverse and involve various Group subsidiaries. Contingency provisions recorded with respect to all Group litigations amounted to 76 million euros as of December 31, 2011 (83 million euros as of December 31, 2010) and are presented in "Other provisions".

The Group has not provided a breakdown, considering that the disclosure of the amount of the provisions for individual litigations is likely to seriously harm the Group.

On May, 26 2011, Air Liquide Japan Ltd and three other competitors received a fine payment order from the Japanese Fair Trade Commission (JFTC), regarding unfair practices in sales of liquid oxygen, liquid nitrogen and liquid argon (excluding medical use) in Japan between April 2008 and January 2010.

The JFTC has required Air Liquide Japan Ltd to take corrective actions and a fine amounting to 4.8 billion Japanese Yen (equivalent to 43 million euros) was paid on August, 29 2011. Air Liquide Japan Ltd has engaged into administrative proceedings following the JFTC's decision. An expense was booked representing the best estimate of the risk related to this dispute.

No single litigation is likely to have a material impact on the Group's financial position or profitability.

Note 22 – Employee benefit obligations

22.1. PENSION PLANS

The Group provides its employees with various pension plans, termination benefits, jubilees and other post-employment benefits for both active employees and retirees. The features of these plans vary according to laws and regulations applicable in each country as well as each subsidiary policy.

These benefits are covered in two ways:

- by so-called defined contribution plans;
- by so-called defined benefit plans.

Air Liquide and some of its French subsidiaries grant retirees and certain active employees' additional benefits beyond the normal pension plans. Those benefits and plans are all based on the employee's final salary. The supplementary plans are now closed. The annual amount paid with respect to these plans cannot exceed a percentage of payroll or, in certain cases, of the pre-tax profit for the relevant companies.

IAS 19 "Employee Benefits" characterizes defined contribution plans very precisely and restrictively and indicates that any plans not complying fully with the conditions required are defined benefit plans by default.

The restricted definition given to defined contribution plan requires Air Liquide to state the retirement supplement as a defined benefit plan, despite the existence of certain limits that restrict the Company's obligations and the fact that the obligations are not of a stable and continuous nature.

This qualification, as a defined benefit plan, results in the recognition of a provision against future obligations.

The existence of limits on these obligations creates uncertainty in the valuation of amounts that will actually be paid to retirees. Considering the difficulty in quantifying the impact of the limits, the provision recorded corresponds to the actuarial value of the amounts to be paid out to retirees until the plan disappears, excluding the impact of these limits.

22.2. DETERMINATION OF ASSUMPTIONS AND ACTUARIAL METHODS

Benefit obligations are regularly valued by actuaries. These valuations are performed individually for each plan in accordance with IFRS.

The actuarial method used is the "projected unit credit method", taking into account final salary.

In accordance with the option offered by revised IAS 19 "Employee Benefits", all actuarial gains and losses and adjustments arising from the asset ceiling are immediately recognized in the period in which they occur.

The actuarial assumptions (turnover, mortality, retirement age, salary increase…) vary according to demographic and economic conditions in each country in which the plans are in place.

The discount rates used to determine the present value of the obligation are based on Government bonds or High-Quality corporate bonds, when the financial markets are sufficiently liquid, with the same duration as the obligations at the valuation date. Hence, in the Euro zone, the United States, the United Kingdom and Canada, the rates were determined using tools developed by independent actuaries. These tools comprise several hundred minimum AA-rated private borrowings, with maturities ranging from one to around 30 years. The expected benefit flows are then discounted using a single rate equal to the weighted average rate corresponding to each maturity. Finally, the tool generates a single rate which, when applied to all expected cash flows, gives the same present value of these future cash flows.

The expected return on long-term assets is determined by taking into account, in each country, the asset allocation in the portfolio.

22.3. OBLIGATIONS

Group obligations with respect to pension plans and similar benefits are shown below as of December 31, 2011:

(in millions of euros)	Defined benefit plans	Retirement termination payments	Other long term benefits	Medical Plans	Total
A. Change in net liabilities					
Net liabilities at the beginning of the period	(1,360.3)	(92.5)	(28.4)	(60.1)	(1,541.3)
Acquisition / transfer	2.9	(0.1)	0.4		3.2
Expense (income) recognized	(54.4)	(12.0)	(4.6)	1.9	(69.1)
Employer contributions	143.2	6.2	6.3	4.5	160.2
Gains (losses) for the period	(110.7)	(3.3)		(4.5)	(118.5)
Exchange rate movements	(13.3)	(0.1)	0.2	(0.4)	(13.6)
Net liabilities at the end of the period	**(1,392.6)**	**(101.8)**	**(26.1)**	**(58.6)**	**(1,579.1)**
B. Expense recorded in 2011					
Service cost	32.2	5.7	3.0	0.8	41.7
Interest cost	102.5	5.6	1.3	2.7	112.1
Expected return on plan assets	(56.4)	(0.1)	(0.1)		(56.6)
Past service cost	(9.5)	0.9	0.2		(8.4)
Actuarial (gains) / losses			0.2		0.2
Curtailment / settlement	(14.4)	(0.1)		(5.4)	(19.9)
Expense (income) recognized	**54.4**	**12.0**	**4.6**	**(1.9)**	**69.1**
C. Change in present value of obligations in 2011					
DBO at the beginning of the period	2,277.0	115.7	30.3	59.7	2,482.7
Service cost	32.2	5.7	3.0	0.8	41.7
Interest cost	102.5	5.6	1.3	2.7	112.1
Employee contributions	3.3				3.3
Plan amendments	(9.4)	(0.3)	0.2	0.1	(9.4)
Curtailment / settlement	(68.5)	(0.1)		(5.4)	(74.0)
Acquisition / (divestiture)	(3.2)	(0.1)	(0.4)		(3.7)
Benefit payments	(129.7)	(5.8)	(5.9)	(4.5)	(145.9)
Actuarial (gains) / losses	77.2	2.7		4.5	84.4
Exchange rate movements	37.8	0.1	(0.2)	0.4	38.1
Obligations at the end of the period	**2,319.2**	**123.5**	**28.3**	**58.3**	**2,529.3**
D. Change in plan assets in 2011					
Fair value of assets at the beginning of the period	913.7	2.7	1.9		918.3
Acquisitions / (divestitures)	(0.3)	(0.2)			(0.5)
Actual return on plan assets	21.7	(0.5)	(0.1)		21.1
Employer contributions	128.2	6.0	4.8	4.5	143.5
Employee contributions	3.3				3.3
Benefit payments	(114.7)	(5.6)	(4.4)	(4.5)	(129.2)
Settlement	(54.1)				(54.1)
Exchange rate movements	24.5				24.5
Fair value of assets at the end of the period	**922.3**	**2.4**	**2.2**		**926.9**
E. Funded status at the end of 2011					
Present value of obligations	(2,319.2)	(123.5)	(28.3)	(58.3)	(2,529.3)
Fair value of plan assets	922.3	2.4	2.2		926.9
(Loss) / surplus	(1,396.9)	(121.1)	(26.1)	(58.3)	(1,602.4)
Unrecognized past service cost - benefits not vested	4.3	19.3		(0.3)	23.3
Surplus management reserve					
Net liabilities	**(1,392.6)**	**(101.8)**	**(26.1)**	**(58.6)**	**(1,579.1)**
F. Actuarial (Gains) and losses recognized directly in equity					
(Gains) and losses at the beginning of the period	317.3	0.2		(13.0)	304.5
(Gains) and losses on obligations	77.2	2.7		4.5	84.4
(Gains) and losses on plan assets	34.7	0.6			35.3
Change in surplus management reserve	(1.2)				(1.2)
Exchange rate movements	15.8			0.3	16.1
(Gains) and losses at the end of the period [(a)]	**443.8**	**3.5**		**(8.2)**	**439.1**

(a) Losses (gains), net of tax, recognized in equity, amounted to 287.3 million euros as of December 31, 2011.

Group obligations with respect to pension plans and similar benefits are shown below as of December 31, 2010:

(in millions of euros)	Defined benefit plans	Retirement termination payments	Other long term benefits	Medical Plans	Total
A. Change in net liabilities					
Net liabilities at the beginning of the period	(1,321.8)	(85.6)	(28.2)	(56.5)	(1,492.1)
Acquisition / transfer	(2.2)	0.8	(0.1)	(0.2)	(1.7)
Expense (income) recognized	(82.1)	(11.2)	(5.8)	(4.1)	(103.2)
Employer contributions	144.2	9.1	7.3	4.4	165.0
Gains (losses) for the period	(69.6)	(5.0)		(1.4)	(76.0)
Exchange rate movements	(28.8)	(0.6)	(1.6)	(2.3)	(33.3)
Net liabilities at the end of the period	**(1,360.3)**	**(92.5)**	**(28.4)**	**(60.1)**	**(1,541.3)**
B. Expense recorded in 2010					
Service cost	30.1	5.3	3.6	1.0	40.0
Interest cost	106.3	5.3	1.3	3.1	116.0
Expected return on plan assets	(51.4)	(0.1)			(51.5)
Past service cost	(1.1)	0.9	0.4		0.2
Actuarial (gains) / losses			0.6		0.6
Curtailment / settlement	(1.8)	(0.2)	(0.1)		(2.1)
Expense (income) recognized	**82.1**	**11.2**	**5.8**	**4.1**	**103.2**
C. Change in present value of obligations in 2010					
DBO at the beginning of the period	2,092.6	107.6	29.0	56.0	2,285.2
Service cost	30.1	5.3	3.6	1.0	40.0
Interest cost	106.3	5.3	1.3	3.1	116.0
Employee contributions	2.8				2.8
Plan amendments	(5.1)	1.8	0.5	0.1	(2.7)
Curtailment / settlement	(1.9)	(0.2)	(0.1)		(2.2)
Acquisition / (divestiture)	4.1	(0.8)	0.1	0.2	3.6
Benefit payments	(124.7)	(8.8)	(6.2)	(4.4)	(144.1)
Actuarial (gains) / losses	70.9	4.9	0.6	1.4	77.8
Exchange rate movements	101.9	0.6	1.5	2.3	106.3
Obligations at the end of the period	**2,277.0**	**115.7**	**30.3**	**59.7**	**2,482.7**
D. Change in plan assets in 2010					
Fair value of assets at the beginning of the period	763.2	2.4	0.8		766.4
Acquisitions / (divestitures)	1.9				1.9
Actual return on plan assets	53.2				53.2
Employer contributions	129.6	8.5	5.4	4.4	147.9
Employee contributions	2.8				2.8
Benefit payments	(110.1)	(8.2)	(4.3)	(4.4)	(127.0)
Settlement	(0.1)				(0.1)
Exchange rate movements	73.2				73.2
Fair value of assets at the end of the period	**913.7**	**2.7**	**1.9**		**918.3**
E. Funded status at the end of 2010					
Present value of obligations	(2,277.0)	(115.7)	(30.3)	(59.7)	(2,482.7)
Fair value of plan assets	913.7	2.7	1.9		918.3
(Loss) / surplus	(1,363.3)	(113.0)	(28.4)	(59.7)	(1,564.4)
Unrecognized past service cost - benefits not vested	4.2	20.5		(0.4)	24.3
Surplus management reserve	(1.2)				(1.2)
Net liabilities	**(1,360.3)**	**(92.5)**	**(28.4)**	**(60.1)**	**(1,541.3)**
F. Actuarial (Gains) and losses recognized directly in equity					
(Gains) and losses at the beginning of the period	227.5	(5.0)		(12.7)	209.8
(Gains) and losses on obligations	70.9	4.9		1.4	77.2
(Gains) and losses on plan assets	(1.8)	0.1			(1.7)
Change in surplus management reserve	0.5				0.5
Exchange rate movements	20.2	0.2		(1.7)	18.7
(Gains) and losses at the end of the period [(a)]	**317.3**	**0.2**		**(13.0)**	**304.5**

(a) Losses (gains), net of tax, recognized in equity, amounted to 200.1 million euros as of December 31, 2010.

The above amounts break down as follows by geographical area as of December 31, 2011:

(in millions of euros)	Obligations	Plan assets	Provisions in the balance sheet	Over (Under) funding
Europe / Africa	(1,613)	340	(1,251)	(22)
Americas	(774)	508	(266)	0
Asia-Pacific	(142)	79	(62)	(1)
TOTAL	**(2,529)**	**927**	**(1,579)**	**(23)**

The above amounts break down as follows by geographical area as of December 31, 2010:

(in millions of euros)	Obligations	Plan assets	Provisions in the balance sheet	Over (Under) funding
Europe / Africa	(1,649)	340	(1,285)	(24)
Americas	(703)	506	(197)	
Asia-Pacific	(131)	72	(59)	
TOTAL	**(2,483)**	**918**	**(1,541)**	**(24)**

22.4. MAIN ASSUMPTIONS

The main discount rates used are as follows:

	2010	2011
Euro zone	4.9%	4.9%
Canada	5.4%	5.0%
Japan	1.5%	1.5%
Switzerland	2.8%	2.5%
United States	5.5%	4.5%
United Kingdom	5.5%	4.9%
Australia	4.8%	3.8%

Expected returns on plan assets are as follows:

	2010	2011
Euro zone	4.5%	4.4%
Canada	6.7%	6.7%
Japan	3.0%	3.0%
Switzerland	4.3%	4.2%
United States	8.0%	8.0%
United Kingdom	6.8%	6.2%
Australia	7.0%	6.4%

4

The different expected returns on plan assets per category of investment are as follows:

2011	Shares	Bonds	Other
Euro zone	8.0%	4.0%	3.8%
Canada	8.9%	4.3%	6.1%
Japan	4.0%	2.0%	
Switzerland	6.0%	2.8%	3.5%
United States	10.1%	5.5%	6.7%
United Kingdom	7.3%	3.5%	5.0%
Australia	7.7%	4.4%	6.5%

2010	Shares	Bonds	Other
Euro zone	8.0%	4.0%	3.8%
Canada	9.2%	3.9%	9.1%
Japan	4.0%	2.0%	
Switzerland	6.7%	3.2%	3.4%
United States	9.7%	5.6%	7.6%
United Kingdom	7.8%	4.6%	5.8%
Australia	8.1%	4.7%	6.8%

Financial asset allocation breaks down as follows *(in millions of euros)*:

	Shares		Bonds		Real estate		Cash		Others		Total	
2011	**Amounts**	**%**	**Amounts**	**%**	**Amounts**	**%**	**Amounts**	**%**	**Amounts**	**%**	**Amounts**	**%**
Europe / Africa	96	28.2%	134	39.3%	62	18.2%	4	1.2%	45	13.2%	341	100.0%
Americas	263	51.8%	215	42.3%	20	3.9%	5	1.0%	5	1.0%	508	100.0%
Asia-Pacific	40	51.3%	36	46.2%			2	2.6%			78	100.0%
TOTAL	**399**		**385**		**82**		**11**		**50**		**927**	

	Shares		Bonds		Real estate		Cash		Others		Total	
2010	**Amounts**	**%**	**Amounts**	**%**	**Amounts**	**%**	**Amounts**	**%**	**Amounts**	**%**	**Amounts**	**%**
Europe / Africa	97	28.5%	142	41.8%	61	17.9%	3	0.9%	37	10.9%	340	100.0%
Americas	278	54.9%	205	40.4%	20	3.9%	2	0.4%	2	0.4%	507	100.0%
Asia-Pacific	37	52.1%	32	45.1%			2	2.8%			71	100.0%
TOTAL	**412**		**379**		**81**		**7**		**39**		**918**	

22.5. BREAKDOWN OF GAINS AND LOSSES FOR THE PERIOD

(in millions of euros)	2010	2011
Experience gains and losses on present value of the obligation	1	10
Gains and losses on present value of the obligation related to changes in assumptions	(78)	(94)
Experience gains and losses on fair value of assets	2	(35)

22.6. BREAKDOWN OF EXPERIENCE GAINS AND LOSSES ON FINANCIAL ASSETS

2011 *(in millions of euros)*	Expected return on assets	Actual return on assets	Gains and losses on assets
Europe / Africa	16.0	3.6	(12.4)
Americas	38.4	17.9	(20.5)
Asia-Pacific	2.2	(0.4)	(2.6)
TOTAL	**56.6**	**21.1**	**(35.5)**

2010 *(in millions of euros)*	Expected return on assets	Actual return on assets	Gains and losses on assets
Europe / Africa	16.6	(1.4)	(18.0)
Americas	32.9	54.6	21.7
Asia-Pacific	2.0		(2.0)
TOTAL	**51.5**	**53.2**	**1.7**

22.7. IMPACT OF A 1% FLUCTUATION IN THE INFLATION RATE WITH REGARD TO HEALTH COVERAGE PLANS

	Obligation as of December 31, 2011 *(in millions of euros)*	Inflation +1%	Inflation -1%
Europe / Africa	33.0	11.1%	(9.3)%
North America	26.0	3.0%	(2.6)%
Asia-Pacific	-	-	-

	Obligation as of December 31, 2010 *(in millions of euros)*	Inflation +1%	Inflation -1%
Europe / Africa	38.0	11.8%	(9.9)%
North America	21.0	2.5%	(2.4)%
Asia-Pacific	-	-	-

22.8. IMPACT OF A -0.25% DECREASE IN DISCOUNT RATES

	Impact on obligations as of December 31, 2011 *(in millions of euros)*	% of total obligations as of December 31, 2011
Europe / Africa	42	2.6%
Americas	28	3.6%
Asia-Pacific	4	2.8%
TOTAL	**74**	**2.9%**

	Impact on obligations as of December 31, 2010 *(in millions of euros)*	% of total obligations as of December 31, 2010
Europe / Africa	45	2.7%
Americas	25	3.6%
Asia-Pacific	3	2.3%
TOTAL	**73**	**2.9%**

22.9. IMPACT OF A +0.25% INCREASE IN DISCOUNT RATES

	Impact on obligations as of December 31, 2011 *(in millions of euros)*	% of total obligations as of December 31, 2011
Europe / Africa	(41)	(2.5)%
Americas	(27)	(3.5)%
Asia-Pacific	(4)	(2.8)%
TOTAL	**(72)**	**(2.8)%**

	Impact on obligations as of December 31, 2010 *(in millions of euros)*	% of total obligations as of December 31, 2010
Europe / Africa	(45)	(2.7)%
Americas	(23)	(3.3)%
Asia-Pacific	(3)	(2.3)%
TOTAL	**(71)**	**(2.9)%**

22.10. IMPACT OF A -0.25% DECREASE IN THE EXPECTED RETURN ON PLAN ASSETS

	Impact on the 2012 expense *(in millions of euros)*	% of the total 2012 expense
Europe / Africa	0.6	0.8%
Americas	1.3	15.0%
Asia-Pacific	0.2	2.8%
TOTAL	**2.1**	**2.2%**

	Impact on the 2011 expense *(in millions of euros)*	% of the total 2011 expense
Europe / Africa	0.6	0.7%
Americas	1.3	12.9%
Asia-Pacific	0.2	2.9%
TOTAL	**2.1**	**2.1%**

22.11. IMPACT OF A +0.25% INCREASE IN THE EXPECTED RETURN ON PLAN ASSETS

	Impact on the 2012 expense *(in millions of euros)*	% of the total 2012 expense
Europe / Africa	(0.6)	(0.8)%
Americas	(1.3)	(15.0)%
Asia-Pacific	(0.2)	(2.8)%
TOTAL	**(2.1)**	**(2.2)%**

	Impact on the 2011 expense *(in millions of euros)*	% of the total 2011 expense
Europe / Africa	(0.6)	(0.7)%
Americas	(1.3)	(12.9)%
Asia-Pacific	(0.2)	(2.9)%
TOTAL	**(2.1)**	**(2.1)%**

Note 23 – Borrowings

This note provides information on the breakdown of the Group's borrowings by instrument. For further information on financial instruments and foreign exchange and interest rate risk exposure, please see note 26.

The Air Liquide Group net indebtedness breaks down as follows:

	2010			2011		
	Carrying amount			Carrying amount		
(in millions of euros)	**Non-current**	**Current**	**Total**	**Non-current**	**Current**	**Total**
Bonds	3,492.9	347.0	3,839.9	3,518.1	511.3	4,029.4
Private placements	212.1	74.8	286.9		213.4	213.4
Commercial paper programs	460.8		460.8	434.9		434.9
Bank debt and other financial debt	1,379.6	492.6	1,872.2	1,569.9	643.4	2,213.3
Finance leases [(a)]	18.7	6.8	25.5	16.7	5.4	22.1
Put options granted to minority shareholders	116.7		116.7	122.9		122.9
TOTAL BORROWINGS (A)	**5,680.8**	**921.2**	**6,602.0**	**5,662.5**	**1,373.5**	**7,036.0**
Loans maturing in less than one year		47.3	47.3		53.8	53.8
Short-term marketable securities		946.7	946.7		992.5	992.5
Cash in bank		529.1	529.1		714.8	714.8
TOTAL CASH AND CASH EQUIVALENTS (B)		**1,523.1**	**1,523.1**		**1,761.1**	**1,761.1**
Fair value of derivatives (assets) [(b)]	(30.6)	(9.0)	(39.6)	(26.4)	(0.4)	(26.8)
TOTAL DERIVATIVE INSTRUMENTS RELATING TO BORROWINGS (C)	**(30.6)**	**(9.0)**	**(39.6)**	**(26.4)**	**(0.4)**	**(26.8)**
NET INDEBTEDNESS (A) - (B) +(C)	**5,650.2**	**(610.9)**	**5,039.3**	**5,636.1**	**(388.0)**	**5,248.1**

(a) See note 11.3.

(b) Fair market value of derivative instruments hedging fixed-rate debt.

In accordance with the Group's policy to diversify funding sources, debt is divided into several types of instruments (capital markets and bank debts). Long-term bonds in the form of Euro Medium Term Notes (EMTNs) and private placements are the primary funding sources and represent 60% of gross debt as of December 31, 2011. At the end of 2011, outstanding notes under this program amounted to 4.0 billion euros (nominal amount), of which 473.4 million euros (nominal amount) was issued in 2011 to finance Group growth and benefit from attractive market conditions. Outstanding commercial paper, which decreased compared to the end of 2010, amounted to 434.9 million euros as of December 31, 2011 versus 460.8 million euros as of December 31, 2010. In accordance with the Group's policy, the outstanding commercial paper programs are backed by committed long-term credit lines, which amounted to 2.1 billion euros as of December 31, 2011.

Gross indebtedness increased by 434.0 million euros due to the increase of bank debts in the subsidiaries, the consolidation of new entities and the negative impact of exchange rates.

Gross indebtedness was also impacted by the 2011 bond issue for a total of 2,600 million renminbi (CNY) (equivalent to nearly 319 million euros), to finance Group development in China, in 2 tranches:

- a tranche of 1,750 million renminbi (equivalent to nearly 215 million euros) issued on September 8, 2011 and maturing on September 19, 2016;
- a tranche of 850 million renminbi (equivalent to nearly 104 million euros) issued on September 9, 2011 and maturing on September 19, 2018.

In consideration thereof, the 300 million euros bond maturing in December 2011 was not renewed.

In connection with the EMTN program, a private placement maturing on December 16, 2019 was issued on December 15, 2011 for a total of 15,500 million Japanese yen (equivalent to nearly 155 million euros). In addition, the 100 million US dollar private placement maturing in August 2011 (equivalent to nearly 77 million euros) was not renewed.

The carrying amount of borrowings in the balance sheet breaks down into the issue amount, the amortized cost and fair value adjustments, as follows:

	2010		2011			
(in millions of euros)	**Issuance currency**	**Carrying amount**	**Issuance amount [a]**	**Amortized cost adjustments [b]**	**Fair value adjustments [c]**	**Carrying amount** (a) + (b) + (c)
Air Liquide Bonds (employee savings)	EUR	75.2	82.0	0.4		82.4
Bonds in the EMTN program	EUR and JPY	3,764.7	3,617.0	(15.7)	24.0	3,625.3
Bonds not in the EMTN program	CNY		318.7	3.0		321.7
Total bonds		**3,839.9**	**4,017.7**	**(12.3)**	**24.0**	**4,029.4**
Private placements	EUR	134.8	130.0	4.8		134.8
Private placements	USD	152.1	77.3	1.3		78.6
Total private placements		**286.9**	**207.3**	**6.1**		**213.4**
Commercial paper programs	EUR and USD	460.8	435.3	(0.4)		434.9
Bank debt and other financial debt		1,872.2	2,190.4	20.1	2.8	2,213.3
Finance leases *		25.5	22.1			22.1
Put options granted to minority shareholders		116.7	122.9			122.9
Long-term borrowings		**6,602.0**	**6,995.7**	**13.5**	**26.8**	**7,036.0**

* *See note 11.3.*

(a) *Nominal amount.*

(b) *Amortized cost including accrued interest.*

(c) *Fair market value of the fixed-rate debt.*

23.1. MATURITY OF BORROWINGS

2011	**Nominal amount**	**Carrying amount**	**Maturity**									
					≥ 1 year and ≤ 5 years				**> 5 years**			
(in millions of euros)			**On demand**	**< 1 year**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**> 2019**
Bonds	4,017.7	4,029.4		511.3	621.3	572.2	273.8	228.7	512.0	525.3	154.8	630.0
Private placements	207.3	213.4		213.4								
Commercial paper programs [a]	435.3	434.9								434.9		
Bank debt and other financial debt	2,190.4	2,213.3		643.4	486.8	551.7	182.7	187.5	63.7	24.7	12.7	60.1
Finance leases [b]	22.1	22.1		5.4	4.1	4.6	3.6	1.4	0.6	1.3	0.5	0.6
Put options granted to minority shareholders	122.9	122.9	122.9									
TOTAL BORROWINGS	**6,995.7**	**7,036.0**	**122.9**	**1,373.5**	**1,112.2**	**1,128.5**	**460.1**	**417.6**	**576.3**	**986.2**	**168.0**	**690.7**

(a) *The maturity date for outstanding commercial paper corresponds to that of the confirmed credit lines.*

(b) *See note 11.3.*

2010	Nominal amount	Carrying amount	Maturity									
					≥ 1 year and ≤ 5 years				> 5 years			
(in millions of euros)			On demand	< 1 year	2012	2013	2014	2015	2016	2017	2018	>2018
Bonds	3,825.2	3,839.9		347.0	465.3	638.9	572.2	273.9		512.0	416.2	614.4
Private placements	279.7	286.9		74.8	212.1							
Commercial paper programs [(a)]	461.2	460.8						360.8	100.0			
Bank debt and other financial debt	1,860.0	1,872.2		492.6	290.3	386.1	414.0	134.4	113.8	14.2	11.4	15.4
Finance leases [(b)]	25.5	25.5		6.8	5.3	2.5	3.0	3.3	0.5	0.7	0.5	2.9
Put options granted to minority shareholders	116.7	116.7	116.7									
TOTAL BORROWINGS	**6,568.3**	**6,602.0**	**116.7**	**921.2**	**973.0**	**1,027.5**	**989.2**	**772.4**	**214.3**	**526.9**	**428.1**	**632.7**

(a) The maturity date for outstanding commercial paper corresponds to that of the confirmed credit lines.
(b) See note 11.3.

It is Group policy to spread over time the maturity of long-term debt (bonds, private placements and bank debt) in order to limit the annual refinancing needs. In the table above, the maturity date of outstanding commercial paper corresponds to that of the confirmed credit lines backing up the short-term commercial paper program.

23.2. NET INDEBTEDNESS BY CURRENCY

The Group provides a natural hedge and reduces its exposure to currency fluctuations by raising debt mainly in the currency of the cash flows that are generated to repay the debt. In countries outside the euro, US dollar and Japanese yen zones, financing is raised in either local or foreign currency (EUR or USD) when sales contracts are indexed in foreign currency. Debt in other foreign currency is mainly denominated in Chinese renminbi, Singapore dollar, Brazilian real and sterling pound.

As part of intra-group multi-currency financing, the Central Treasury Department converts the debt raised in financial markets into various currencies to refinance subsidiaries in their functional currencies or their cash flow currencies. The breakdown of this hedging portfolio is shown in the table below.

In particular, a portion of the euro debt raised (2,664 million euros) was converted to other currencies to refinance foreign subsidiaries. Of the Group's US dollar gross debt of 1,758.5 million euros (1,569.5 million euros of net debt plus 189 million euros of cash), 205.2 million euros were raised directly in US dollars and 1,553.3 million euros were raised in euros and converted to US dollars using currency swap contracts.

2011	Gross debt - original issue	Cash and cash equivalents	Currency swaps	Ajusted net indebtedness	Non-current assets
(in millions of euros)					
EUR	4,867.1	(1,013.1)	(2,664.0)	1,190.0	7,210.0
USD	234.2	(199.0)	1,553.3	1,588.5	3,432.1
JPY	770.7	(50.1)	474.1	1,194.7	1,692.1
CNY	570.8	(260.4)	318.7	629.1	1,589.9
Other currencies	566.4	(238.5)	317.9	645.8	4,332.8
TOTAL	**7,009.2**	**(1,761.1)**		**5,248.1**	**18,256.9**

2010	Gross debt - original issue	Cash and cash equivalents	Currency swaps	Ajusted net indebtedness	Non-current assets
(in millions of euros)					
EUR	4,690.9	(1,112.9)	(1,914.1)	1,663.9	7,299.3
USD	219.9	(80.9)	1,122.5	1,261.5	3,028.8
JPY	721.4	(11.9)	477.7	1,187.2	1,598.5
Other currencies	930.2	(317.4)	313.9	926.7	5,144.0
TOTAL	**6,562.4**	**(1,523.1)**		**5,039.3**	**17,070.6**

23.3. FIXED-RATE PORTION OF TOTAL DEBT

(in % of total debt)		2010	2011
EUR debt	Portion of fixed-rate debt	90%	89%
	Additional optional hedges [(a)]	10%	11%
USD debt	Portion of fixed-rate debt	60%	42%
	Additional optional hedges [(a)]	11%	9%
JPY debt	Portion of fixed-rate debt	67%	83%
	Additional optional hedges [(a)]		
Total debt	Portion of fixed-rate debt	69%	70%
	Additional optional hedges [(a)]	7%	6%

(a) Additional optional hedges consist of caps, which enable a maximum interest rate to be set in advance, while profiting from short-term interest rates, in return for a premium payment.

As of December 31, 2011, fixed-rate debt represented 70% of the gross debt. Including all optional hedges as of December 31, 2011 up to the total amount of gross debt in each currency, the average debt hedging ratio (fixed rate + hedging options) was 76%.

The euro hedge fixed rate was steady, the non-renewals of optional hedges for 50 million euros that expired in May 2011 and the fixed-rate swap for 180 million euros that expired in January 2011 were offset by a decrease in euro outstanding debt.

The US dollar hedge fixed rate fell following the expiry of the 100 million US dollar (equivalent to nearly 77 million euros) fixed-rate private placement in 2011 that was offset by floating-rate debt.

The Japanese yen hedge fixed rate increased following the December 2011 issue of the fixed-rate private placement for 15,500 million Japanese yen (equivalent to nearly 155 million euros).

23.4. BREAKDOWN OF NET FINANCE COSTS

	2010			2011		
(in millions of euros)	**Average outstanding debt**	**Net interests**	**Net finance cost**	**Average outstanding debt**	**Net interests**	**Net finance cost**
EUR	2,005.1	122.7	6.1%	1,702.5	102.0	6.0%
USD	1,186.9	49.8	4.2%	1,352.7	54.0	4.0%
JPY	1,103.5	21.4	1.9%	1,186.9	21.7	1.8%
CNY	413.5	26.8	6.5%	551.8	37.3	6.8%
Other currencies	524.5	33.1	6.3%	607.2	45.9	7.6%
Other expenses		0.1				
Capitalized interest [a]		(25.0)			(25.4)	
TOTAL	**5,233.5**	**228.9**	**4.9%**	**5,401.1**	**235.5**	**4.8%**

(a) Excluded from cost of debt by currency.

Net finance costs amounted to 4.8% in 2011, compared to 4.9% in 2010. This average cost decrease was mainly attributable to a decrease in the cost of US dollar denominated debt and a better interest rate on euro liquidities.

Two financing arrangements exceeding 50 million euros include financial covenants: a private placement subscribed by the subsidiary American Air Liquide, Inc. (nominal amount of 100 million US dollars as of December 31, 2011 equivalent to nearly 77 million euros), and a confirmed long-term credit line drawn down by Air Liquide China in the amount of 1.3 billion renminbi (154.4 million euros) as of December 31, 2011. These financial covenants were all met as of December 31, 2011.

There was a slight decrease in financing arrangements with financial covenants, which accounted for 13.5% of the Group's gross debt as of December 31, 2011.

All new bond issues carried out by L'Air Liquide S.A. and Air Liquide Finance respectively since 2007 as part of the EMTN program, including the June and October 2010 issues for 500 million euros and 456 million euros, respectively, and the September 2011 renminbi issue and the December 2011 Japanese yen private placement, include a change of control clause.

23.5. PUT OPTIONS GRANTED TO MINORITY SHAREHOLDERS

(in millions of euros)	**2010**	**2011**
Put options granted to minority shareholders	116.7	122.9

23.6. OTHER INFORMATION

As indicated in note 13.3. to the Consolidated financial statements, Air Liquide's share in the debt of associates as of December 31, 2011 contracted in the normal course of business was 59.2 million euros compared to 102.4 million euros as of December 31, 2010.

Furthermore, non-recourse factoring of receivables represented 72.0 million euros as of December 31, 2011 compared to 80.0 million euros in 2010. These items do not represent risk or financial commitments for the Group.

In addition, as of December 31, 2011, a portion of borrowings was guaranteed by assets valued at 222.4 million euros (171.5 million euros as of December 31, 2010).

Note 24 – Other liabilities (non-current/current)

24.1. OTHER NON-CURRENT LIABILITIES

(in millions of euros)	2010	2011
Investment grants	90.1	85.3
Advances and deposits received from customers	98.8	90.0
Other non-current liabilities	15.9	15.1
TOTAL OTHER NON-CURRENT LIABILITIES	**204.8**	**190.4**

24.2. OTHER CURRENT LIABILITIES

(in millions of euros)	2010	2011
Advances received	349.6	263.5
Advances and deposits received from customers	96.8	97.2
Other payables	492.8	565.9
Accruals and deferred income	352.6	317.8
TOTAL OTHER CURRENT LIABILITIES	**1,291.8**	**1,244.4**

As mentioned in note 16 to the Consolidated financial statements, amounts payable to customers under engineering contracts in the amount of 182.9 million euros were included in other current liabilities as of December 31, 2011 (195.4 million euros in 2010).

Note 25 – Trade payables

(in millions of euros)	2010	2011
Operating suppliers	1,692.4	1,741.2
Property, plant and equipment and intangible assets suppliers	137.3	251.3
TOTAL TRADE PAYABLES	**1,829.7**	**1,992.5**

Note 26 – Financial instruments

26.1. CARRYING AMOUNT AND FAIR VALUE OF FINANCIAL ASSETS AND LIABILITIES

The financial assets or liabilities whose carrying amount is different from their fair value are fixed-rate borrowings that are not hedged. This difference is not material.

	2010		2011	
(in millions of euros)	Carrying amount	Fair value	Carrying amount	Fair value
FINANCIAL LIABILITIES				
Non-current borrowings	5,680.8	5,881.4	5,662.5	5,930.4

The Group's financial instruments are measured at fair value to the extent that available financial market data enables a relevant estimate of market value assuming the absence of any intentions or need to liquidate.

Group policy consists in using financial derivatives only when hedging effective financial flows. As a result, most derivatives used benefit from hedge accounting. Derivatives that do not benefit from hedge accounting do not represent material amounts and are not speculative.

26.2. FINANCIAL POLICY AND RISK MANAGEMENT

a. Financial risk management

Risk management is a priority for the Group. Hence, in 2010, the Finance and Operations Control Department redefined its governance with regard to financial decision-making at two levels:

A Strategic Finance Committee, involving members of the Executive Management and of the Finance and Operations Control Department, whose purpose is to verify the effective application of the Group's financial policy, approve proposals and suggestions that have been submitted and review on a regular basis the rules governing the Group's financial policy. The Committee meets at least three times a year and upon request if necessary. It includes the Group Finance and Operations Control Director, the Corporate Finance and M&A Director and the Group Treasury and Financing Director, under the authority of the Chairman and Chief Executive Officer.

An Operating Finance Committee, internal to the Finance and Operations Control Department, whose purpose is to decide on the Group's day-to-day financial management, submit significant operations to the Strategic Finance Committee, and ensure their implementation once approved. The Committee meets every four to six weeks. It includes the Group Finance and Operations Control Director, the Corporate Finance and M&A Director and the Group Treasury and Financing Director, who are assisted by a Committee secretary.

The Finance and Operations Control Department manages the main financial risks centrally, based on the decisions of the Strategic Finance Committee to which it reports on a regular basis. The Finance and Operations Control Department also performs the analysis of country and customer risks and provides input on these risks at Investment Committee meetings.

The financial policy adopted by Air Liquide, the purpose of which is to minimize the risks incurred by the Group and its subsidiaries, enabled the Group to safeguard its financing in 2011. To minimize the refinancing risk relating to debt repayment schedules, the Group diversifies funding sources and spreads maturity dates over several years. In 2011, the Group was able to extend its debt maturity through the issue of a Chinese renminbi bond and a Japanese yen private placement, with maturities of 5, 7 and 8 years. At the 2011 year-end, the long-term debt ratio (gross debt maturing in more than one year/total gross debt) represented 80% of the total Group debt.

The interest rate and foreign currency hedging strategies validated by the Operating Finance Committee are set up according to market opportunities with a concern for optimization, while complying with the prudence and risk limitation principles.

The Group also maintained an enhanced and regular vigilance regarding its bank and customer counterparty risk, with a regular monitoring of ratings and level of risk of these counterparties.

Foreign exchange risk

Principles

Financial instruments are only used to hedge transaction-based foreign exchange risk. This risk includes cash flows arising from patent royalties, technical support and dividends, and foreign currency commercial cash flows from operating entities. These commercial cash flows in foreign currencies are not significant compared to consolidated revenue on an annual basis.

Foreign exchange risk on patent royalty, technical support and dividend flows is hedged on an annual basis by the Central Treasury Department using currency forwards with a maximum term of 18 months.

Foreign currency commercial flows of operating units are hedged by the subsidiaries as part of the annual budget process. Approximately 40 subsidiaries are exposed to foreign exchange risk. These subsidiaries mainly contract currency forwards. These operations are contracted with the internal counterparty Air Liquide Finance. The majority of these contracts have short maturities (three to twelve months). When preparing their budget at the year-end, the subsidiaries report their foreign exchange risk exposure for the following year to the Central Treasury Department. This department monitors the adequacy of the hedges contracted compared with the identified risks and receives an exhaustive list of all hedges in place every six months.

Impact of foreign currency fluctuations on income statement and balance sheet items

The table below shows the impact of a 1% increase in the foreign exchange rate on the following items:

(in millions of euros)	Revenue	% Total Group	Operating income recurring	% Total Group	Net profit	% Total Group	Equity	% Total Group
USD	16.5	0.1%	3.8	0.2%	1.8	0.1%	17.2	0.2%
JPY	11.7	0.1%	1.5	0.1%	0.3	0.0%	3.4	0.0%

The foreign currency risk sensitivity analysis shows that a 1% increase in the US dollar and the Japanese yen as of December 31, 2011 would result in changes to operating income recurring, net profit and equity as indicated above.

A 1% decrease in the above currencies as of December 31, 2011 would have the same but opposite impacts as those presented above, assuming that all other variables remained constant.

Impact of foreign currency fluctuations on derivatives

The table below shows the impact of a 1% fluctuation in hedging currency exchange rates on the recognition as of December 31, 2011 of the portfolio of foreign exchange derivatives in the Group's net profit and equity. The sensitivity of net profit and equity primarily reflects the impact of the foreign exchange swaps relating to the intra-group financing activity of the subsidiary Air Liquide Finance, and the US dollar and Japanese yen forward currency hedges contracted at head office to hedge the royalties and dividend in these currencies.

	Foreign exchange risk			
	+1%		-1%	
(in millions of euros)	P&L impact	Equity impact	P&L impact	Equity impact
Foreign exchange derivatives	(0.1)	(1.8)	0.1	1.8

Interest rate risk

Principles

Air Liquide's interest rate risk management on its main currencies – euro, US dollar, and Japanese yen – is centralized. These currencies represent 75% of total net debt at the end of 2011. For other currencies, the Finance and Operations Control Department advises the subsidiaries on types of bank loans and/or hedging their foreign currency exposure in accordance with local financial market features.

Group policy is to maintain the majority portion of total debt at fixed rates and to protect the residual balance using optional hedges. This approach enables the Group to limit the impact of interest rate fluctuations on financial expenses.

Thus, at the 2011 year-end, 70% of the gross debt was maintained at a fixed rate and 6% was protected using optional hedges. The fixed-rate/floating-rate breakdown of the debt is reviewed regularly by the Strategic Finance Committee, taking into account changes in interest rates and the level of Group debt.

Impact of interest rate fluctuations on floating-rate debt

Group net indebtedness exposed to interest rate fluctuations amounted to around 704 million euros as of December 31, 2011 (gross debt adjusted for short-term securities), compared with 668 million euros as of December 31, 2010.

The increase in the portion of debt exposed to interest rate fluctuations was mainly due to a lower average volume of floating-rate euro financial short-term investments in 2011.

An increase or decrease in interest rates by 100 basis points (±1%) on all yield curves would have an impact of approximately ±7 million euros on the Group's annual financial charges before tax, assuming outstanding debt remains constant.

All hedging instruments used to manage interest rate and foreign exchange risk relate to identified risks.

Impact of interest rate fluctuations on derivatives

The table below shows the impact on the recognition as of December 31, 2011 of the portfolio of interest rate derivatives in the Group's net profit and equity of a 0.5% fluctuation in interest rates in all of the foreign currency.

	Interest rate risk			
	+0.5%		-0.5%	
(in millions of euros)	**P&L impact**	**Equity impact**	**P&L impact**	**Equity impact**
Interest rate derivatives [a]	0.9	17.6	(0.9)	(17.9)

(a) Include the underlying issue swaps.

All hedging instruments used to manage interest rate or foreign exchange risk relate to identified risks and were set up to comply with the Group's financial policy. The impact on equity primarily stems from the fixed-rate hedging instruments subscribed by the Air Liquide Finance subsidiary.

Counterparty risk

Counterparty risks for Air Liquide potentially include customers and bank counterparties.

The Group's subsidiaries serve a very significant number of customers (over 1 million worldwide) present in extremely varied markets: chemicals, steel, refining, food, pharmaceuticals, metals, automotive, manufacturing, healthcare, research laboratories, photovoltaic, etc. The Group's leading customer represents around 2% of revenue, the Group's 10 leading customers represent 13% of sales, and the Group's 50 leading customers represent about 28% of sales. The geographical risk is limited by the Group's permanent coverage in 80 countries on all continents. This diversity reduces customer and market risk.

To better assess its exposure, the Group has adopted procedures to regularly monitor the financial situation of its major customers and has set up monthly reporting for its 120 leading customers in order to monitor the related consolidated risk.

Moreover, customer risk assessment, especially customer site quality, is an important component of the investment decision process.

Bank counterparty risk relates to the outstanding amounts of financial instruments (deposits and derivatives) and to the lines of credit contracted with each bank. Based on its financial policy, the Group requires a long-term Standard & Poor's "A" rating or a Moody's "A2" rating from its counterparties. The Group's lines of credit are also spread among several banks to avoid risk of concentration. The Operating Finance Committee regularly checks and approves the list of financial instruments and bank counterparties. The outstanding investments are subject to strict limits per counterparty.

Liquidity risk

It is Group financial policy to spread over time the maturity of long-term debt in order to avoid concentration of annual refinancing needs. This liquidity risk is also reduced by the steady cash flow generation from operations as well as the setting-up of committed credit lines. The financial covenants governing the financing arrangements described in note 23.4 do not have an impact on the Group's access to liquidity.

Outstanding commercial paper amounted to 434.9 million euros as of December 31, 2011, a decrease of 25.9 million euros compared to the end of 2010. Group policy requires that commercial paper programs be backed by confirmed long-term credit lines. In 2011, this requirement was largely met throughout the year: the amount of confirmed credit lines has always exceeded outstanding commercial paper.

When the Group makes financial investments other than bank deposits, it systematically favors monetary instruments, mainly short-term, in order to limit the risk of non-liquidity or high volatility.

2011		Cash flow < 1 year		Cash flow ≥ 1 year and ≤ 5 years		Cash Flow > 5 years	
(in millions of euros)	**Book value as of 12/31/2011**	**Interest**	**Capital refund**	**Interest**	**Capital refund**	**Interest**	**Capital refund**
Derivative instruments							
Assets							
Fair value of derivatives (assets)	108.8	88.4	560.8	108.7	24.4	43.3	420.3
Liabilities							
Fair value of derivatives (liabilities)	(209.6)	(89.8)	(600.0)	(119.1)	(23.5)	(52.0)	(420.3)
Sub-total Derivative instruments		**(1.4)**	**(39.2)**	**(10.4)**	**0.9**	**(8.7)**	
Assets							
Loans and other non-current receivables	318.4				318.4		
Trade receivables	2,779.3		2,682.6		96.7		
Cash and cash equivalents	1,761.1	0.8	1,760.7				
Sub-total Assets		**0.8**	**4,443.3**		**415.1**		
Liabilities							
Non-current borrowings	(5,662.5)	(173.5)		(562.3)	(3,049.3) [(a)]	(266.6)	(2,463.9)
Other non-current liabilities	(190.4)				(190.4)		
Trade and other payables	(1,992.5)		(1,983.3)		(9.2)		
Current borrowings	(1,373.5)	(69.3)	(1,359.6)				
Sub-total Liabilities		**(242.8)**	**(3,342.9)**	**(562.3)**	**(3,248.9)**	**(266.6)**	**(2,463.9)**

(a) Non-current borrowings included outstanding commercial paper. The maturity date for outstanding commercial paper is the same as that of confirmed lines of credit. See note 23.1.

2010		Cash Flow < 1 year		Cash flow ≥ 1 year and ≤ 5 years		Cash Flow > 5 year	
(in millions of euros)	Book value as of 12/31/2010	Interest	Capital refund	Interest	Capital refund	Interest	Capital refund
Derivative instruments							
Assets							
Fair value of derivatives (assets)	136.2	105.8	95.8	163.3	485.3	63.7	409.5
Liabilities							
Fair value of derivatives (liabilities)	(173.7)	(100.7)	(116.6)	(166.5)	(483.2)	(69.7)	(409.5)
Sub-total Derivative instruments		**5.1**	**(20.8)**	**(3.2)**	**2.1**	**(6.0)**	
Assets							
Loans and other non-current receivables	268.6				268.6		
Trade receivables	2,641.7		2,553.1		88.6		
Cash and cash equivalents	1,523.1	0.8	1,522.8				
Sub-total Assets		**0.8**	**4,075.9**		**357.2**		
Liabilities							
Non-current borrowings	(5,680.8)	(208.4)		(589.2)	(3,685.6) [(a)]	(292.6)	(1,861.2)
Other non-current liabilities	(204.8)				(204.8)		
Trade and other payables	(1,829.7)		(1,812.1)		(17.6)		
Current borrowings	(921.2)	(38.7)	(904.9)				
Sub-total Liabilities		**(247.1)**	**(2,717.0)**	**(589.2)**	**(3,908.0)**	**(292.6)**	**(1,861.2)**

(a) Current borrowings included outstanding commercial paper. The maturity date for outstanding commercial paper is the same as that of confirmed lines of credit. See Note 23.1.

The table above shows the future cash flows related to the main balance sheet items and financial derivatives at the two previous year-ends. The interest flows are calculated in accordance with IFRS 7 and represent the interest payable for each period concerned. The interest flows relating to floating interest rate or foreign currency instruments were calculated using the closing interest and exchange rates as of December 31, 2011 and 2010. The flows relating to debt repayment obligations differ from the amount recognized in the Group's balance sheet due to the accounting treatment applied to borrowings and without taking into account hedging instruments.

Outstanding cash and cash equivalents rose at the end of 2011. The variation between outstanding non-current borrowings and outstanding current borrowings primarily reflects the switch of category for a portion of the debt to less than one year (mainly EMTN bond issue of 468 million euros maturing in November 2012). Outstanding borrowings exceeding 5 years increased, primarily due to private placement issues for 15,550 million Japanese yen (155 million euros) and a EMTN for 850 million renminbi (104 million euros).

2011	Cash flow < 1 year			
	< 3 months		≥ 3 months and < 1 year	
(in millions of euros)	**Interest**	**Capital refund**	**Interest**	**Capital refund**
Derivative instruments				
Assets				
Fair value of derivatives (assets)	9.8	73.8	78.6	487.0
Liabilities				
Fair value of derivatives (liabilities)	(20.5)	(98.5)	(69.3)	(501.5)
Sub-total Derivative instruments	**(10.7)**	**(24.7)**	**9.3**	**(14.5)**
Liabilities				
Non-current borrowings	(30.1)		(143.4)	
Trade payables		(1,759.8)		(223.5)
Current borrowings	(9.6)	(332.2)	(59.7)	(1,027.4)
Sub-total Liabilities	**(39.7)**	**(2,092.0)**	**(203.1)**	**(1,250.9)**

2010	Cash flow < 1 year			
	< 3 months		≥ 3 months and < 1 year	
(in millions of euros)	**Interest**	**Capital refund**	**Interest**	**Capital refund**
Derivative instruments				
Assets				
Fair value of derivatives (assets)	16.4	85.0	89.4	10.8
Liabilities				
Fair value of derivatives (liabilities)	(22.6)	(102.6)	(78.1)	(14.0)
Sub-total Derivative instruments	**(6.2)**	**(17.6)**	**11.3**	**(3.2)**
Liabilities				
Non-current borrowings	(26.3)		(182.1)	
Trade payables		(1,674.4)		(137.7)
Current borrowings	(6.4)	(205.8)	(32.3)	(699.1)
Sub-total Liabilities	**(32.7)**	**(1,880.2)**	**(214.4)**	**(836.8)**

The table above shows the future cash flows maturing in less than one year relating to the main balance sheet items and derivative instruments. The interest and repayment flows relating to current borrowings maturing in less than three months correspond to bank overdrafts and a portion of the short-term borrowings recorded at the 2011 year-end. The interest and repayment flows relating to current borrowings maturing in more than three months and less than one year include short-term debt and the portion of the Group's long-term debt that matures in less than one year.

Hierarchy of financial instruments fair value

(in millions of euros)	2010	2011
Level 1	**8.9**	**8.6**
Available-for-sale financial assets (listed shares)	8.9	8.6
Level 2	**(37.5)**	**(100.8)**
Derivatives	(37.5)	(100.8)
Level 3	**116.7**	**122.9**
Put options granted to minority shareholders	116.7	122.9

Commodity risk (energy contracts)

Most of Air Liquide's energy supplies are obtained through forward purchase contracts at a fixed or indexed price.

IAS 39 provides for the inclusion within its scope of forward purchases and sales of non-financial assets, once these transactions are deemed similar to derivative instruments.

However, IAS 39 considers that forward contracts for non-financial assets should not be considered as derivatives when they have been entered into to meet the Company's "normal" business requirements, resulting in the delivery upon maturity of the underlying for use in the Company's industrial process. As Air Liquide does not purchase electricity or natural gas for the purposes of speculation or arbitrage on commodity price trends, no forward contracts relating to energy meet the definition of a derivative instrument. These contracts were entered into as part of the Company's normal business for use in the industrial process.

Furthermore, in a global context of highly volatile electricity and natural gas market prices, Air Liquide continues to index long-term customer contracts to hedge these risks. For natural gas and electricity prices, the opening of some markets led the Group, under these circumstances, to replace the price indices used during the regulated period by indices relevant to each local market.

There nonetheless remain certain isolated contracts, for which price indexation alone cannot guarantee a total and effective hedge of energy price fluctuation risks. These risks are, therefore, hedged by Air Liquide using appropriate commodity derivatives.

The fair value recognition of these derivative instruments had no material impact on Group equity or profits as of December 31, 2011.

b. Information on derivative instruments

Impact of the fair value recognition of derivative instruments on the balance sheet:

2011		Assets					Equity and Liabilities							
				Fair value of derivatives								Fair value of derivatives		
(in millions of euros)	IFRS classification	Deferred tax assets	Trade receivables	Assets - non current	Assets - current	Total	Net income recognized in equity	Profit for the period	Deferred tax liabilities	Borrowings	Trade payables	Liabilities - non current	Liabilities current	Total
Foreign exchange risk														
Currency forwards hedging future cash flows	CFH [(a)]	6.6			16.6	23.2	(4.4)	(0.3)	4.6				23.3	23.2
Currency forwards hedging transactions recorded in the accounts and Cross Currency Swaps	FVH [(b)]	10.7	5.3	14.7	12.1	42.8		0.1	10.8	(9.5)	0.2	2.5	38.7	42.8
Other derivatives	[(c)]	4.1			12.0	16.1		0.1	4.1	11.1[(e)]			0.8	16.1
Currency embedded derivatives and Cross Currency Swaps	NIH [(d)]	28.2		22.2	2.0	52.4	(32.2)		2.4			80.6	1.6	52.4
Interest rate risk														
Interest rate swaps and Cross Currency Swaps	FVH [(b)]			26.4	0.4	26.8		1.8	0.9	24.1				26.8
Swaps and options	NIH [(d)]	2.7				2.7	(5.1)					7.8		2.7
Swaps and options	CFH [(a)]	16.4		0.3		16.7	(30.1)	(1.0)	0.1			35.2	12.5	16.7
Other derivatives	[(c)]	0.7			2.1	2.8		0.2	0.7				1.9	2.8
Commodity risk (energy)														
Forwards hedging future cash flows	CFH [(a)]	1.6				1.6	(3.1)						4.7	1.6
TOTAL		**71.0**	**5.3**	**63.6**	**45.2**	**185.1**	**(74.9)**	**0.9**	**23.6**	**25.7**	**0.2**	**126.1**	**83.5**	**185.1**

(a) CFH: Cash Flow Hedge.
(b) FVH: Fair Value Hedge.
(c) Derivative instruments not benefiting from hedge accounting.
(d) NIH: Net Investment Hedge.
(e) Financial instrument not recognized as a hedging instrument under IAS 39.

2010		Assets					Equity and Liabilities							
				Fair value of derivatives								Fair value of derivatives		
(in millions of euros)	IFRS classification	Deferred tax assets	Trade receivables	Assets - non current	Assets - current	Total	Net income recognized in equity	Profit for the period	Deferred tax liabilities	Borrowings	Trade payables	Liabilities - non current	Liabilities current	Total
Foreign exchange risk														
Currency forwards hedging future cash flows	CFH [(a)]	3.9			13.7	17.6	1.2	(0.9)	4.0			0.6	12.7	17.6
Currency forwards hedging transactions recorded in the accounts and Cross Currency Swaps	FVH [(b)]	17.2	2.6	43.0	4.2	67.0		0.2	17.0	17.2	0.7	7.4	24.5	67.0
Other derivatives	[(c)]	5.1			15.8	20.9		0.8	5.4	14.4 [(e)]			0.3	20.9
Currency embedded derivatives and Cross Currency Swaps	NIH [(d)]	22.5		9.4	4.0	35.9	(33.7)		4.1			65.1	0.4	35.9
Interest rate risk														
Interest rate swaps and Cross Currency Swaps	FVH [(b)]	0.4		30.6	9.0	40.0		(0.3)	0.3	40.0				40.0
Swaps and options	NIH [(d)]	3.2				3.2	(6.2)					9.4		3.2
Swaps and options	CFH [(a)]	17.0		1.4		18.4	(30.6)	(0.7)	0.4			48.8	0.5	18.4
Other derivatives	[(c)]	1.4			5.1	6.5		0.7	1.8				4.0	6.5
Commodity risk (energy)														
Forwards hedging future cash flows	CFH [(a)]													
TOTAL		**70.7**	**2.6**	**84.4**	**51.8**	**209.5**	**(69.3)**	**(0.2)**	**33.0**	**71.6**	**0.7**	**131.3**	**42.4**	**209.5**

(a) CFH: Cash Flow Hedge.
(b) FVH: Fair Value Hedge.
(c) Derivative instruments not benefiting from hedge accounting.
(d) NIH: Net Investment Hedge.
(e) Financial instrument not recognized as a hedging instrument under IAS 39.

The Group records the accounting impacts arising from derivative hedging of highly probable future cash flows as CFH (Cash Flow Hedge). The accounting impacts recorded as FVH (Fair Value Hedge) correspond to the derivative hedging of items that have already been recognized.

The impacts recognized as NIH (Net Investment Hedge) correspond to foreign exchange transactions performed by the Group in connection with its dividend hedging policy and the hedges of net investments in a foreign entity.

Interest-rate repricing schedule for fixed-rate debt and interest-rate risk hedging instruments

2011				Interest rates repricing dates		
(in millions of euros)	Currency of issue	Carrying amount	Nominal amount outstanding	< 1 year	≥1 and ≤ 5 years	> 5 years
Original issue – left at fixed rate	EUR	1,942.5	1,942.5	54.8	870.2	1,017.5
Interest rate swaps hedges	EUR		292.4	122.5	169.9	
Caps hedges	EUR		225.0	50.0	175.0	
Original issue – left at fixed rate	USD	350.4	350.4	95.3	21.9	233.2
Interest rate swaps hedges	USD		476.0	430.0	28.3	17.7
Caps hedges	USD		154.6	154.6		
Original issue – left at fixed rate	JPY	527.9	527.9		104.5	423.4
Interest rate swaps hedges	JPY		499.1	199.6	299.5	

2010				Interest rates repricing dates		
(in millions of euros)	Currency of issue	Carrying amount	Nominal amount outstanding	< 1 year	≥1 and ≤ 5 years	> 5 years
Original issue – left at fixed rate	EUR	1,886.3	1,886.3	9.7	812.8	1,063.8
Interest rate swaps hedges	EUR		535.0	180.0	280.0	75.0
Caps hedges	EUR		275.0	50.0	150.0	75.0
Original issue – left at fixed rate	USD	396.4	396.4		152.4	244.0
Interest rate swaps hedges	USD		483.6		449.5	34.1
Caps hedges	USD		74.9		74.9	
Original issue – left at fixed rate	JPY	300.4	300.4		1.2	299.2
Interest rate swaps hedges	JPY		497.0	151.9	345.1	

Note 27 – Related party information

27.1. TRANSACTIONS WITH COMPANIES INCLUDED IN THE SCOPE OF CONSOLIDATION

The consolidated financial statements include the financial statements of L'Air Liquide S.A. and all the subsidiaries listed in the table shown on pages 228 to 229. L'Air Liquide S.A. is the Group's parent.

Due to the activities and legal organization of the Group, only transactions with associates and proportionately consolidated companies are considered to be related party transactions. Transactions performed between these companies and Group subsidiaries are not material.

Information on associates is disclosed in note 13 to the consolidated financial statements.

Contribution to the consolidated balance sheet and income statement of proportionately consolidated companies (100%)

(in millions of euros)	2010	2011
Non-current assets	357	323
Current assets	93	92
Total assets	**450**	**415**
Equity	268	274
Non-current liabilities	132	85
Current liabilities	50	56
Total equity and liabilities	**450**	**415**
Revenue	280	288
Operating expenses	(206)	(210)
Net finance costs	(6)	(4)
Profit before tax	68	74
Income taxes	(10)	(15)
PROFIT FOR THE PERIOD	**58**	**59**

27.2. REMUNERATIONS ALLOCATED TO MEMBERS OF THE BOARD OF DIRECTORS AND MANAGEMENT BODIES

The remuneration of Group executives includes the remuneration allocated to the Board of Directors and the Company's management bodies as compensation for their duties within the entire Group as employees and corporate officers for the respective fiscal years. The Company's management bodies include all the members of Executive Management and the Executive Committee. The expenses recognized in this respect are as follows:

(in thousands of euros)	2010	2011
Short-term benefits	11,712	13,653
Post-employment benefits: pension and health coverage	1,297	1,874
Termination benefits		129
Share-based payments	4,077	3,830
TOTAL	**17,086**	**19,486**

The increase was mainly explained by the change in the number of Executive Committee members.

Short-term benefits

Short-term benefits include fixed remuneration, variable remuneration, benefits in-kind and Directors' fees. The entire variable portion of remuneration due for any given year is paid the following year after the financial statements are approved.

The remuneration policy for members of the executive team takes into account market practices. It includes a substantial variable portion based on earnings and individual performance objectives.

Post-employment benefits

Post-employment benefits include the contributions paid to external pension funds for members of Executive Management and the Executive Committee. Retirement commitments for executives and former executives of the Board of Directors totaled 31,666 thousand euros in 2011 and 31,317 thousand euros in 2010.

Share-Based payments

The stock options held by members of Executive Management and the Executive Committee have the following expiry dates and strike prices:

Year	Expiry date	Strike price *(in euros)*	Number 2010	Number 2011
2003		No option granted		
2004 (April 08)	04/07/2011	48.86	19,587	
2005	03/20/2013	53.36	178,180	66,598
2006	03/19/2014	64.97	243,081	169,740
2007 (May 09)	05/08/2015	77.86	206,844	217,421
2008 (July 09)	07/08/2016	78.63	222,808	231,035
2009 (June 15)	06/14/2017	60.84	264,962	272,441
2010	06/27/2018	83.00	293,000	312,000
2011 (October 14)	10/13/2021	87.00		310,000

Regarding the entities of the Group not located in Belgium, the fair value of options granted in 2011 and determined according to IFRS 2 amounted to:

- 20.5 euros per option for options not subject to performance conditions, and for options subject to performance conditions linked to the Group's results for the 2011 plan;
- 14.21 euros per option for options subject to performance conditions linked to the share price trend for the 2011 plan (13.72 euros per option in 2010).

Regarding, the entities of the Group located in Belgium, the fair value of options granted in 2011 and determined according to IFRS 2 amounted to:

- 20.12 euros per option for options not subject to performance conditions, and for options subject to performance conditions linked to the Group's results;
- 13.98 euros per option for options subject to performance conditions linked to the share price trend for the 2011 plan (13.72 euros per option in 2010).

These amounts are expensed over the option's vesting period. The amounts that will be recognized in future periods in respect of the granted options totaled 9,949 thousand euros as of December 31, 2011 (7,942 thousand euros as of December 31, 2010).

The 2011 plan options granted to corporate officers and Executive Committee members cannot be exercized in whole or in part unless the Company meets certain performance conditions:

- all the options granted to executive corporate officers;
- for any other beneficiaries of more than 1,500 options, up to 50% of the options granted beyond this threshold.

The total number of stock options granted to Jean-Claude Buono between November 2001 and December 2007, as Management Board member, or as Senior Executive Vice-President, not exercized as of December 31, 2011 amounted to 125,769 options (adjusted) at an average price of 65 euros. Jean-Claude Buono was appointed as a Director at the combined Annual General Meeting of May 7, 2008.

No options were granted to other non-executive Directors under these plans.

Note 28 – Commitments

Commitments are given in the normal course of the Group's business.

(in millions of euros)	2010	2011
Firm purchase orders for fixed assets	955.7	924.9
Lease commitments which cannot be terminated	464.8	481.6
Other commitments related to operating activities	263.9	303.8
Commitments relating to operating activities	**1,684.4**	**1,710.3**
Commitments relating to financing operations and consolidation scope	**58.0**	**71.4**
TOTAL	**1,742.4**	**1,781.7**

On May 1, 2010, the Group acquired a 13% share of Exeltium S.A.S. for 23.8 million euros.

Exeltium and EDF entered into an industrial partnership agreement under which Exeltium can acquire rights to a portion of EDF's electronuclear production. In consideration, Exeltium and its shareholder clients signed long-term electricity supply contracts. The contract signed by Air Liquide has a 20-year term and can be suspended after 10 years. This contract provides a long-term view over the price of the electricity to be supplied. This project has received the European Commission's approval.

The Group's energy purchase commitments amounted to 2,137 million euros as of December 31, 2011 (1,417 million euros as of December 31, 2010). These amounts comprise the energy purchase commitments relating to Exeltium contract.

Almost all of these commitments are covered by mutual commitments received from clients in connection with long-term gas supply contracts.

Confirmed credit lines and the amount of asset-backed loans are shown in note 23.

Operating leases

Assets used in Industrial activities are leased under an operating lease when the acquisition of such assets does not present any economic benefits. The primary assets included are utility vehicles and transport equipment.

The Group has neither contingent rental commitments, nor sublease contracts.

Future minimum lease payments payable as of December 31, 2011 under operating leases which cannot be terminated are as follows:

(in millions of euros)	2010	2011
Due within 1 year	127	139
Due in 1 to 5 years	253	249
Due after 5 years	85	94
TOTAL	**465**	**482**

Note 29 – Contingent liabilities

To the best of the Group's knowledge, there is no exceptional event, litigation or environmental-related issue that has impacted in the recent past, or is likely to substantially impact its financial situation or profitability.

In September 2010, the Brazilian competition authority (CADE) fined the major industrial gas companies operating in Brazil, including Air Liquide Brazil, for unfair trade practices prior to 2004. Air Liquide Brazil has been fined for an amount of 197.6 million Brazilian reals (approximately 82 million euros at the rate prevailing as of December 31, 2011).

Air Liquide Brazil is vigorously contesting this decision, and consequently has filed an application to annul or, alternatively, reduce the fine before the Brasilia Federal Court. At this stage, the Group considers that Air Liquide Brazil's position will probably prevail and consequently no provision has been recognized.

Note 30 – Greenhouse gas emission rights

As with the Kyoto Protocol, the European directive establishing a quota system for greenhouse gas emissions in the European Union is intended to reduce the emissions of these gases. Implementation for CO_2 in the industrial sector began on January 1, 2005. In 2004, each country incorporated the directive into its legislation and set quotas for the facilities concerned. The annual quotas allocated to Air Liquide (approximately 1.2 million tons of CO_2 per year for the period from 2005 to 2007) had covered the emissions of 2007.

For the second period (2008 to 2012) of this directive, the allowances allocated to Air Liquide (around 3.3 million tons of CO_2 per year) covered the emissions of 2009, 2010 and 2011.

No asset or liability was recognized as of December 31, 2011.

Note 31 – Post-balance sheet events

There were no significant post-balance sheet events.

Main consolidated companies and foreign exchange rates

L'Air Liquide S.A. owns directly or indirectly financial investments in its subsidiaries and mainly receives from its subsidiaries dividends, technology royalties and service fees. L'Air Liquide S.A assumes treasury centralization for some French subsidiaries.

In 2010, L'Air Liquide S.A. assumed a part of the Group's operating activities in France. In 2011, following resolutions voted during the Extraordinary General Meetings of May 4, 2011 and of May 6, 2011 respectively for L'Air Liquide S.A. and the involved subsidiaries, the operating activities formerly owned by L'Air Liquide S.A. were transferred to French specialized subsidiaries owned 100% by the Group.

MAIN CHANGES OCCURING IN 2011

(in millions of euros)	**Impact on 2011 revenue**
Total scope impact	53.7
A) Acquisitions and disposals	
Change in scope impacts in 2011	
Acquisitions:	
• Adep Assistance acquired by Air Liquide Santé International (France)	20.8
• Licher MT GmbH acquired by Vitalaire Gmbh (Germany)	5.8
• Other	23.5
Disposals:	
• Lamers High Tech Systems B.V (Netherlands) by Air Liquide B.V. (Netherlands) and Air Liquide Electronics Systems (France)	(45.7)
• A-TEC Co., Ltd K.K. by Air Liquide Japan Ltd (Japan)	(16.3)
• Other	(1.6)
Change in scope impacts in 2010	
Acquisitions:	
• Air Liquide Yeosu acquired by Air Liquide Korea (South Korea)	34.2
• Air Liquide Acetylene B.V. acquired by Air Liquide B.V. (Netherlands)	3.7
• Other	20.0
Disposals:	
• Other	(12.3)
B) Changes in consolidation method	
• Shuaiba Oxygen Company K.S.C.C. (Kuwait): from proportionate method to full consolidation	6.1
• L'Air Liquide Ghana Ltd (Ghana): from equity method to full consolidation	5.9
• Air Liquide Syria (Syrian Arab Republic): from equity method to full consolidation	1.9
• Other	7.7

(in millions of euros)

C) Companies created and newly consolidated in the scope without scope impact on revenue
Europe
• Air Liquide Offshore S.A. (France)
• Air Liquide Turkey (Turkey)
• Air Liquide Ukraine (Ukraine)
Americas
• Air Liquide Mexico (Mexico)
Asia-Pacific
• Air Liquide Malaysia (Malaysia)
Middle East and Africa
• Air Liquide Grande Industrie Madagascar (Madagascar)
D) Mergers, acquisitions and disposals without scope impact on revenue
Europe
• Contribution and merger of Société Industrielle des Gaz de l'Air (France) in Air Liquide France Industrie (France)
• Contribution and merger of Air Liquide Stockage (France) in Air Liquide France Industrie (France)
• Merger of Hydrofel (Belgium) in Air Liquide Industrie Belgium S.A. (Belgium)
• Contribution of Sorgal (France), Sudac Air Services (France), Air Liquide Innovation (France) and Air Liquide Hydrogène (France) by Air Liquide S.A. (France) to Air Liquide France Industrie (France)
• Contribution of Air Liquide Advanced Technologies (France), Air Liquide Electronics Materials (France), Air Liquide Electronics Systems (France), Air Liquide Engineering (France), Cryolor (France) and Cryopal (France) by L'Air Liquide S.A. (France) to Air Liquide International (France)
• Contribution of Air Liquide Bulgaria EOOD (Bulgaria), Air Liquide CZ, s.r.o. (Czech Republic), Air Liquide Polska Sp (Poland), Air Liquide Ipari Gaztermelo Kft (Hungary), Air Liquide Romania S.r.l (Romania), Air Liquide Slovakia, s.r.o. (Slovakia), Air Liquide Katowice Sp (Poland), Air Liquide Russie S.A. (France), Air Liquide Turkey (Turkey) and Air Liquide Ukraine S.A. (Ukraine) by Air Liquide International (France) to Air Liquide Eastern Europe (France)

CURRENCY RATES

Primary currency rates used

Average rates

Euros for 1 currency	2010	2011
USD	0.76	0.72
CAD	0.73	0.73
Yen (1.000)	8.62	9.03

Closing rates

Euros for 1 currency	2010	2011
USD	0.75	0.77
CAD	0.75	0.76
Yen (1.000)	9.20	9.98

Main consolidated companies

EUROPE

FRANCE

	Company	%	
	Air Liquide Finance	100%	
	Air Liquide Participations	100%	
	Air Liquide Santé (International)	100%	
	– Air Liquide Santé Domicile	100%	
1	– Air Liquide Santé France	100%	
	• Air Liquide Santé Services S.A.	100%	
	• Omasa France	100%	E
	– Btl S.A.	66%	
	• Hydenet S.A. (France)	65.96%	
	• Laboratoires Anios S.A. (France)	66%	
	• Unident S.A. (Switzerland) and Unident SARL (France)	66%	
	• Farmec Nuova S.r.l. (Italy)	52.80%	
	– Pharmadom (Orkyn')	100%	
2	– Air Liquide Medical Systems S.A.	100%	
	– Celki International Ltd (Hong Kong) and its subsidiaries	100%	
	– VitalAire	100%	
	• DinnoSanté	100%	
	– ADEP Assistance	100%	
	Air Liquide Services	100%	
	– Kéops (Canada)	100%	
	– Groupe Athelia (France)	100%	
	AXANE	100%	
	Aqualung International (Europe, Japan, United States) and its subsidiaries	98.36%	
	Chemoxal (China, France, Europe and United States) and its susbsidiaries, including:	100%	
	– Société d'Exploitation de Produits pour les Industries Chimiques	99.98%	
	Société Anonyme Française Péroune	99.94%	E
	Air Liquide France Industrie	99.99%	
	– Belle Étoile Utilité	99.99%	
	– Sorgal	99.98%	E
	– Sudac Air Services	100%	
	– Air Liquide Innovation	100%	
	– Air Liquide Hydrogène	100%	
	• Belle Étoile Hydrogène	100%	
	– Société Industrielle de Cogénération de France	100%	
	• Cogenal	100%	
	• Figenal	60%	
	• Laméra Energies	50%	P
	- Laméra Utilités	50%	P
	Société Immobilière de L'Air Liquide	99.99%	

	Company	%
	Air Liquide Welding S.A.	100%
	– Air Liquide Welding France (France)	100%
	– Fluigétec (France)	100%
	– Oerlikon Schweisstechnik GmbH (Germany)	100%
	– Fro S.r.l. (Italy)	100%
	– Isaf S.p.A. (Italy)	100%
	– Oerlikon Schweisstechnik AG (Switzerland)	100%
	– Air Liquide Welding UK Limited (United Kingdom)	100%
	AL-RE	100%
	Hélium Services	100%
	– Air Liquide Offshore S.A.	100%
	Air Liquide Advanced Technologies	100%
	– GIE Cryospace	55%
	Air Liquide Electronics Materials	100%
	Air Liquide Electronics Systems	100%
	Air Liquide Engineering	100%
	Cryolor	100%
	Cryopal	100%

EUROPE EXCLUDING FRANCE

	Company	%	
	Air Liquide Industriegase GmbH & Co. KG (Germany)	100%	
3	– Air Liquide Deutschland GmbH (Germany)	100%	
	• Air Liquide Electronics GmbH (Germany)	100%	
	• Air Liquide Medical GmbH (Germany)	100%	
	• AST Service GmbH (Germany)	100%	
	• Buse Gase GmbH & Co. KG (Germany)	51%	
	• Cryotherm GmbH & Co. KG (Germany)	100%	
	• EVC Dresden-Wilschdorf GmbH & Co. KG (Germany)	40%	
	• INTEGA GmbH (Germany, Hungary and Portugal) and its subsidiaries	100%	
	• Schülke & Mayr GmbH (Germany) and its subsidiaries	100%	
	• TGHM GmbH & Co. KG (Germany)	50%	P
	• Zweite EVC Dresden-Wilschdorf GmbH & Co. KG (Germany)	50%	
	• VitalAire GmbH (Germany)	100%	
	- Fabig-Peters Medizintechnik GmbH & Co. KG (Germany)	100%	
	- Holm Medizintechnik GmbH (Germany)	100%	
	- Jonas Medizintechnik Handels GmbH (Germany)	100%	
	- Nord Service Projects GmbH (Germany)	100%	
	- Renz Medizintechnik Handels GmbH (Germany)	100%	
	- Werner & Müller Medizintechnik Service GmbH (Germany)	100%	
	- Zuther & Hautmann GmbH & Co. KG (Germany)	100%	
	- Licher MT GmbH (Germany)	100%	
	– Lurgi GmbH (Asia, Europe) and its subsidiaries	100%	

	Company	%
4	Air Liquide Danmark A.S. (Denmark)	100%
	Oy Polargas A.B. (Finland)	100%
	Air Liquide Eastern Europe (France)	100%
	– Air Liquide Bulgaria EOOD (Bulgaria)	100%
	– Air Liquide CZ, s.r.o. (Czech Republic)	100%
	– Air Liquide Polska Sp (Poland)	100%
	– Air Liquide Ipari Gaztermelo Kft (Hungary)	100%
	– Air Liquide Romania S.r.l (Romania)	100%
	– Air Liquide Slovakia, s.r.o. (Slovakia)	100%
	– Air Liquide Katowice Sp (Poland)	79.25%
5	– Air Liquide Austria (Austria)	100%
	– Air Liquide Russie S.A. (France)	100%
	• Air Liquide OOO (Russia)	100%
	- Air Liquide Ryazan OOO (Russia)	100%
	- Sever Liquide Gas OOO (Russia)	100%
	• CJSC Air Liquide Severstal (Russia)	75%
	– Air Liquide Turkey (Turkey)	100%
	– Air Liquide Ukraine S.A. (Ukraine)	100%
	Air Liquide Eurotonnage (France)	100%
6	– Air Liquide Industries Belgium (Belgium)	100%
	• Hydrowal (Belgium)	100%
7	– Air Liquide Large Industry S.A. (Belgium)	100%
	Air Liquide Hellas (Greece)	99.78%
	– Allertec S.A. (Greece)	50.89%
	Air Liquide Progetti Italia S.p.A. (Italy)	100%
8	Air Liquide Industrie B.V. (Netherlands)	100%
	– Air Liquide Nederland B.V. (Netherlands)	100%
	• Air Liquide B.V. (Netherlands)	100%
	- Scott Specialty Gases Netherlands B.V. (Netherlands)	100%
	- VitalAire B.V. (Netherlands)	100%
	• Comcare Medical B.V. (Netherlands)	100%
	- Air Liquide Acetylene B.V. (Netherlands)	100%
	• Oxylux S.A. (Luxembourg)	100%
	– Air Liquide Technische Gassen B.V. (Netherlands)	100%
	– Air Liquide Warmtekracht B.V. (Netherlands)	100%
	– Loofbeen B.V. (Netherlands)	100%
	– Maasvlakte Energie B.V. (Netherlands)	100%
	Air Liquide Norway (Norway)	100%
9	Sociedade Portuguesa do Ar Liquido (Portugal)	99.93%
	– Air Liquide Medicinal S.A. (Portugal)	99.85%
	Carba Holding AG (Switzerland)	100%
10	– Carbagas S.A. (Switzerland)	100%
	Air Liquide UK Ltd (United Kingdom)	100%
	– Air Liquide Ltd (Royaume-Uni)	100%
	• Air Liquide South East Ltd (United Kingdom)	100%

	Company	%
	Air Liquide Belge S.A. (Belgium)	99.95%
11	– Air Liquide Belgium S.A. (Belgium)	99.97%
12	– Air Liquide Benelux S.A. (Belgium)	99.97%
	– Air Liquide Medical S.A. (Belgium)	99.95%
	– Fléron Gaz Médicaux Services (Belgium)	99.95%
	Air Liquide Italia S.p.A. (Italy)	99.77%
	– ITO Service S.r.l. (Italy)	69.84%
	– Fier Gas Tecnici S.p.a. (Italy)	58%
	– VitalAire Italia S.p.A. (Italy)	99.77%
	– Air Liquide Sanità Service S.p.A. (Italy)	99.77%
	– Air Liquide Italia Service S.r.l. (Italy)	99.77%
	– Tecno Gas S.r.l. (Italy)	50.88%
	Air Liquide Luxembourg S.A. (Luxembourg)	99.97%
	AL Air Liquide España S.A. (Spain)	99.89%
	– Air Liquide Medicinal SL (Spain)	99.89%
	Air Liquide Gas A.B. (Sweden)	100%
	– Aiolos Medical A.B. (Sweden)	100%

Industrial Merchant
Large Industries
Healthcare
Electronics
Other: Gas related activities and Holdings
Companies newly consolidated in the 2011 scope are shown in blue.

L'AIR LIQUIDE S.A. 100%

AIR LIQUIDE INTERNATIONAL 100%

AIR LIQUIDE INTERNATIONAL CORP. (United States) 100%

AMERICAS

	Air Liquide Argentina (Argentina)	100%	
	Arliquido Comercial Ltda (Brazil)	100%	
	– Air Liquide Brasil Ltda (Brazil)	100%	
	Air Liquide Chile S.A. (Chile)	100%	
	Air Liquide Dominicana S.A. (Dominican Republic)	100%	
	Société des Gaz Industriels de la Guadeloupe (Guadeloupe)	95.88%	
13	Air Liquide Spatial (Guyana)	98.80%	
	Société Guyanaise de L'Air Liquide (Guyana)	97.04%	
	Société Martiniquaise de L'Air Liquide (Martinique)	95.87%	
	Air Liquide Panama (Panama)	100%	
	La Oxigena Paraguaya S.A. (Paraguay)	87.89%	
	Air Liquide Trinidad and Tobago Ltd (Trinidad and Tobago)	100%	
	Neal & Massy Gas Products Limited (Trinidad and Tobago)	42.71%	E
	American Air Liquide, Inc. (United States) and its main subsidiaries :	100%	
14	– American Air Liquide Holdings, Inc. (United States)	100%	
	• Air Liquide Canada, Inc. (Canada) and its subsidiaries, including:	100%	
	- Vitalaire Canada, Inc. (Canada)	100%	
	• Air Liquide Mexico (Mexico)	100%	
	• Air Liquide Advanced Technologies U.S. LLC (United States)	100%	
	• Air Liquide America L.P. LLC (United States)	100%	
	• Air Liquide America Specialty Gases LLC (United States)	100%	
	• Air Liquide Electronics U.S. LP (United States)	100%	
	• Air Liquide Healthcare America Corporation (United States)	100%	
	• Air Liquide Helium America, Inc. (United States)	100%	
	• Air Liquide Industrial U.S. LP (United States)	100%	
	• Air Liquide Large Industries U.S. LP (United States)	100%	
	• Air Liquide Process & Construction, Inc. (United States)	100%	
	• Air Liquide USA LLC (United States)	100%	
	• ALIG Acquisition LLC (United States)	100%	
	• Lurgi, Inc. (United States)	100%	
	Air Liquide Uruguay (Uruguay)	93.70%	

MIDDLE EAST AND AFRICA

	Air Liquide Engineering Southern Africa Ltd (South Africa)	100%	E

15	Société d'Installations et de Diffusion de Matériel Technique S.P.A. (Algeria)	100%	E
	Société Camerounaise d'Oxygène et d'Acétylène (Cameroon)	100%	E
	Société Congolaise des Gaz Industriels (Congo)	100%	
	Air Liquide Afrique (France)	100%	
	– Société Béninoise des Gaz Industriels S.A. (Benin)	99.97%	E
	– Société Burkinabe des Gaz Industriels S.A. (Burkina Faso)	64.88%	E
	– Air Liquide Proprietary Limited (South Africa)	99.91%	
16	• Air Liquide Botswana Proprietary Limited (Botswana)	99.91%	
	• Fedgas Proprietary Limited (South Africa)	99.91%	
17	– Société d'Oxygène et d'Acétylène de Madagascar (Madagascar)	73.73%	E
	– Air Liquide Grande Industrie Madagascar (Madagascar)	99.76%	
	– Air Liquide Namibia Proprietary Limited (Namibia)	100%	
	– Société Sénégalaise d'Oxygène et d'Acétylène (Senegal)	80.17%	E
	– Société Togolaise des Gaz Industriels (Togo)	70.58%	E
	Air Liquide Middle East (France)	100%	
	– Air Liquide Alexandria for Medical & Industrial Gases S.A.E (Egypt)	100%	
	– Air Liquide El Soukhna for Industrial Gases (Egypt)	100%	
	– Air Liquide Misr (Egypt)	100%	
	– Shuaiba Oxygen Company K.S.C.C. (Kuwait)	49.62%	
	– Société d'Oxygène et d'Acétylène du Liban S.A.L. (Lebanon)	49.93%	P
	– Air Liquide Maroc S.A. (Morocco)	74.80%	
	– Air Liquide Sohar Industrial Gases LLC (Oman)	50.11%	
	– Gasal Q.S.C. (Qatar)	40.00%	E
	– Air Liquide Arabia LLC (Saudi Arabia)	55%	
	– Air Liquide Syria LLC (Syrian Arab Republic)	99%	
	– Air Liquide Middle East & North Africa FZCO (United Arab Emirates)	100%	
	• Pure Helium Egypt Ltd. (Egypt)	100%	
	• Air Liquide Al-Khafrah Industrial Gases LLC (Saudi Arabia)	75%	
	• Helium Saudi Ltd. (Saudi Arabia)	100%	
	• ORCA Industrial Gases (United Arab Emirates)	49%	
	• Pure Helium Gulf FZE (United Arab Emirates)	100%	
18	Société Gabonaise d'Oxygène et d'Acétylène (Gabon)	87.14%	
	L'Air Liquide Ghana Ltd (Ghana)	100%	
	Société Ivoirienne d'Oxygène et d'Acétylène (Ivory Coast)	72.08%	
	Société Malienne des Gaz Industriels (Mali)	99.97%	
19	Société Marocaine de Technique et d'Industrie (Morocco)	99.99%	
	Air Liquide Nigeria plc (Nigeria)	61.11%	E
	Air Liquide Tunisie (Tunisia)	59.17%	

ASIA-PACIFIC

20	Daesung Industrial Gases (South Korea)	40%	E

	Air Liquide China Holding Co., Ltd (China) and its main subsidiaries, including:	100%	
	– Air Liquide Cangzhou Co., Ltd (China)	100%	
	– Air Liquide Changshu Co., Ltd (China)	100%	
	– Air Liquide Dalian Co., Ltd (China)	100%	
	– Air Liquide Dongying Co., Ltd (China)	100%	
	– Air Liquide Qingdao 2 Co., Ltd (China)	100%	
	– Air Liquide Rizhao Co., Ltd (China)	100%	
	– Air Liquide Tangshan Co., Ltd (China)	100%	
	– Air Liquide Tianjin Yongli Co., Ltd (China)	55%	
	– Air Liquide TPCC Gases Co., Ltd (China)	50%	
	– Air Liquide Wuxi Industrial Gas Co., Ltd (China)	100%	
	– Air Liquide Yulin Co., Ltd (China)	100%	
	– Air Liquide Zhangjiagang Co., Ltd (China)	100%	
	– Air Liquide Zhangjiagang Industry Gas Co., Ltd (China)	100%	
	– Beijing Hi-Tech Air Gases Co., Ltd (China)	50%	P
	– SCIPIG (China)	50%	P
	Air Liquide Engineering Services Asia Co., Ltd (China)	100%	
	Air Liquide Hangzhou Co., Ltd (China)	100%	
21	Air Liquide Shanghai Co., Ltd (China)	100%	
	– Wuxi High Tech Gases Co., Ltd (China)	50%	P
22	Air Liquide Shanghai International Trading Co., Ltd (China)	100%	
23	Air Liquide Tianjin Co., Ltd (China)	100%	
	Société d'Oxygène et d'Acétylène d'Extrême-Orient (France)	100%	
	– P.T. Air Liquide Indonesia (Indonesia)	100%	
	– Air Liquide Malaysia (Malaysia)	100%	
	– Air Liquide Philippines Inc. (Philippines) and its subsidiaries	100%	
	– Singapore Oxygen Air Liquide Pte Ltd (Singapore) and its subsidiaries	100%	
	– Brunei Oxygen Ltd (Sultanate of Brunei)	50%	E
	– Air Liquide Thailand Ltd (Thailand)	100%	
	– Air Liquide Vietnam Co., Ltd (Vietnam)	100%	
	Gaz de Polynésie (French Polynesia)	100%	
	Air Liquide Engineering India Pvt. Ltd. (India)	100%	
	Air Liquide India Holding Pvt. Ltd. (India)	100%	
	– Pure Helium India Pvt. Ltd. (India)	97.50%	
	Air Liquide Réunion (La Réunion)	95.01%	
	Esqal (New Caledonia)	99.97%	
	Air Liquide Engineering South Asia (Singapore)	100%	
24	Air Liquide Korea (South Korea)	100%	
25	Air Liquide Electronics Systems Asia (Taiwan)	100%	E
26	Air Liquide Far Eastern Ltd (Taiwan)	65%	

27	Air Liquide Australia Ltd (Australia) and its main subsidiaries, including:	100%	
	– Air Liquide Healthcare P/L (Australia)	100%	
	– Air Liquide W.A. Pty Ltd (Australia)	60%	
	– Air Liquide New Zealand Ltd (New Zealand)	100%	
	Air Liquide Asia - Pacific (Japan)	100%	
	– Air Liquide Japan Ltd (Japan) and its main subsidiaries, including :	100%	
	• Toshiba Nano Analysis K.K. (Japan)	51%	
	• Vital Air Japan K.K. (Japan)	100%	

AIR LIQUIDE GROUP'S INTEREST, AS OF DECEMBER 31, 2011 IN:

1 **Air Liquide Santé France (France):**
100% including 89.88% held by Air Liquide Santé (International) and 10.12% by Air Liquide S.A..

2 **Air Liquide Medical Systems S.A. (France):**
100% including 91.49% held by Air Liquide Santé (International) and 8.51% by Air Liquide Santé France.

3 **Air Liquide Deutschland GmbH (Germany):**
100% including 92.48% held by Air Liquide Industriegase GmbH & Co. KG and 7.52% by Air Liquide International.

4 **Air Liquide Danmark A.S. (Denmark):**
100% including 43.01% held by Air Liquide International Corp. and 56.99% by Air Liquide International.

5 **Air Liquide Austria (Austria):**
100% including 99% held by Air Liquide Eastern Europe and 1% by Air Liquide International.

6 **Air Liquide Industries Belgium (Belgium):**
100% including 53.51% held by Air Liquide Eurotonnage and 46.49% by Air Liquide International.

7 **Air Liquide Large Industry S.A. (Belgium):**
100% including 74.26% held by Air Liquide Eurotonnage and 25.74% by Air Liquide International.

8 **Air Liquide Industrie B.V. (Netherlands):**
100% including 55.37% held by Air Liquide Eurotonnage and 44.63% by Air Liquide International.

9 **Sociedade Portuguesa do Ar Liquido (Portugal):**
99.93% including 74% held by Air Liquide International and 25.93% by L'Air Liquide S.A.

10 **Carbagas S.A. (Switzerland):**
100% including 70% held by Carba Holding AG and 30% by Air Liquide International.

11 **Air Liquide Belgium S.A. (Belgium):**
99.97% including 50.01% held by Air Liquide Belge S.A. (99.95% held by the Group) and 49.99% by Air Liquide International.

12 **Air Liquide Benelux S.A. (Belgium):**
99.97% including 50.01% held by Air Liquide Belge S.A. (99.95% held by the Group) and 49.99% by Air Liquide International.

13 **Air Liquide Spatial (Guyana):**
98.80% including 54.79% held by Air Liquide International, 30% held by Société Guyanaise de l'Air Liquide (97.04% held by the Group) and 14.93% by Air Liquide Italia S.p.A. (99.77% held by the Group).

14 **American Air Liquide Holdings, Inc. (United States):**
100% including 97.33% held by American Air Liquide, Inc. and 2.67% held by Carba Holding AG.

15 **Société d'Installations et de Diffusion de Matériel Technique S.P.A. (Algeria):**
100% including 80% held by Air Liquide International and 20% by Air Liquide Afrique.

16 **Air Liquide Bostwana Proprietary Limited (Bostwana):**
99.91% including 97% held by Air Liquide Proprietary Limited (99.91% held by the group) and 3% by L'Air Liquide S.A.

17 **Société d'Oxygène et d'Acétylène de Madagascar (Madagascar):**
73.73% including 66.74% held by Air Liquide Afrique and 7.36% by Air Liquide Réunion (95.01% held by the Group).

18 **Société Gabonaise d'Oxygène et d'Acétylène (Gabon):**
87.14% including 80% held by Air Liquide International and 7.14% by Société Congolaise des Gaz Industriels.

19 **Société Marocaine de Technique et d'Industrie (Morocco):**
99.99% including 49.99% held by Air Liquide International and 50% by Air Liquide Maroc.

20 **Daesung Industrial Gases (South Korea):**
40% including 20% held by L'Air Liquide S.A. and 20% by Air Liquide Japan Ltd.

21 **Air Liquide Shanghai Co., Ltd (China):**
100% including 89.42% held by Air Liquide International, 5.68% by Air Liquide China, and 4.90% by Air Liquide Japan Ltd.

22 **Air Liquide Shanghai International Trading Co., Ltd (China):**
100% including 90% held by Air Liquide International and 10% by Air Liquide China Holding Co.,Ltd.

23 **Air Liquide Tianjin Co., Ltd (China):**
100% including 90% held by Air Liquide International and 10% by Air Liquide China Holding Co.,Ltd.

24 **Air Liquide Korea (South Korea):**
100% including 50% held by Air Liquide International and 50% by Air Liquide Japan Ltd.

25 **Air Liquide Electronics Systems Asia (Taiwan):**
100% including 60.42% held by Air Liquide Electronics Systems and 39.58% by Air Liquide International.

26 **Air Liquide Far Eastern Ltd (Taiwan):**
65% including 32.83% held by Air Liquide International and 32.17% by Air Liquide Japan Ltd.

27 **Air Liquide Australia Ltd (Australia):**
100% including 79.74% held by Air Liquide International Corp. and 20.26% by Air Liquide International.

Companies marked with **P** are consolidated by proportionate method and those marked with **E** by the equity method. Other companies are fully consolidated.

The total Group interest is given after the name of each company.

Voting rights are not different from the percentages of ownership held.

Remuneration of Statutory Auditors and their network

Fees reported in 2010 and 2011 by the Air Liquide Group for engagements awarded to the Statutory Auditors related to audit services were as follows:

	2011							
(in thousands of euros)	**Ernst & Young**		**Mazars**		**Autres**		**Total**	
Statutory audit, certification, review of individual and consolidated financial statements	5,203	75.9%	4,180	90.8%	625	35.8%	10,008	75.8%
Issuer	752		497				1,249	
Fully consolidated subsidiaries	4,451		3,683		625		8,759	
Other statutory audit engagements	814	11.9%	378	8.2%	149	8.5%	1,341	10.2%
Issuer	403		289		0		692	
Fully consolidated subsidiaries	411		88		149		649	
TOTAL OF AUDIT SERVICES	**6,017**	**87.8%**	**4,558**	**99.0%**	**774**	**44.3%**	**11,349**	**85.9%**

	2010							
(in thousands of euros)	**Ernst & Young**		**Mazars**		**Autres**		**Total**	
Statutory audit, certification, review of individual and consolidated financial statements	5,095	69.1%	3,745	93.4%	638	56.7%	9,478	75.8%
Issuer	851		582		0		1,433	
Fully consolidated subsidiaries	4,244		3,163		638		8,045	
Other statutory audit engagements	812	11.0%	127	3.2%	59	5.3%	998	8.0%
Issuer	241		71		0		312	
Fully consolidated subsidiaries	571		56		59		686	
TOTAL OF AUDIT SERVICES	**5,907**	**80.1%**	**3,872**	**96.6%**	**697**	**62.0%**	**10,476**	**83.8%**

Statutory Auditors' Report on the consolidated financial statements

This is a free translation into English of the Statutory Auditors' Report on the consolidated financial statements issued in the French language and it is provided solely for the convenience of English speaking users.

The Statutory Auditors' Report includes information specifically required by French law in such reports, whether qualified or not. This information is presented below the audit opinion on the consolidated financial statements and includes an explanatory paragraph discussing the auditors' assessment of certain significant accounting and auditing matters. These assessments were considered for the purpose of issuing an audit opinion on the consolidated financial statements taken as a whole and not to provide separate assurance on individual account balances, transactions, or disclosures.

This report also includes information relating to the specific verification of information given in the Group's management report.

This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

To the Shareholders,

In compliance with the assignment entrusted to us by your Annual Shareholders' Meeting, we hereby report to you, for the year ended December 31, 2011, on:

- the audit of the accompanying consolidated financial statements of L'Air Liquide;
- the justification of our assessments;
- the specific verification required by French law.

These consolidated financial statements have been approved by the Board of Directors. Our role is to express an opinion on these financial statements based on our audit.

I. OPINION ON THE CONSOLIDATED FINANCIAL STATEMENTS

We conducted our audit in accordance with professional standards applicable in France; those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. An audit includes verifying, by audit sampling and other selective testing procedures, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used, the significant estimates made by the management, and the overall financial statements presentation. We believe that the evidence we have gathered in order to form our opinion is adequate and relevant.

In our opinion, the consolidated financial statements present a true and fair view of the assets and liabilities, the financial position of the Group as of December 31, 2011 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards, as adopted by the European Union.

II. JUSTIFICATION OF ASSESSMENTS

In accordance with the requirements of article L. 823-9 of French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we bring to your attention the following matters:

- goodwill are subject to impairment tests performed in accordance with the principles set out in paragraph 5.f of the consolidated financial statements relating to accounting policies. We have reviewed the soundness of the chosen approach and the assumptions used for these impairment tests and we carried out the assessment of the reasonableness of these estimates, and have ensured that the information given in the note 10.2 to the consolidated financial statements is appropriate;
- we have reviewed the methodology used to recognize "provisions, pensions and other employee benefits", as well as the assumptions used for their estimation. We ensured that such provisions were recognized in accordance with the principles set out in paragraphs 11.a and 11.b of the consolidated financial statements relating to accounting policies and that the information given in the notes 22 and 23 to the consolidated financial statements is appropriate.

These assessments were made as part of our audit of the consolidated financial statements taken as a whole and therefore contributed to the formation our audit opinion expressed in the first part of this report.

III. SPECIFIC VERIFICATION

As required by law we have also verified in accordance with professional standards applicable in France the information presented in the Group's management report.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

Courbevoie and Paris-La Défense, March 1, 2012

The Statutory Auditors

MAZARS		ERNST & YOUNG et Autres	
Lionel Gotlib	Daniel Escudeiro	Jean-Yves Jégourel	Emmanuelle Mossé

STATUTORY ACCOUNTS OF THE PARENT COMPANY

Balance sheet

For the year ended December 31

	As of December 31, 2010	As of December 31, 2011		
(in millions of euros)	Net	Gross	Depreciation, amortization and provision	Net
Assets				
Intangible assets	**41.8**	**222.9**	**178.8**	**44.1**
Tangible assets				
Land	28.8	5.7		5.7
Real estate units – Additional value arising from revaluation				
Buildings	27.7	31.3	22.5	8.8
Plant, machinery and equipment	59.2	31.7	25.9	5.8
Recyclable sales packaging	4.2	3.8	1.3	2.5
Other tangible assets	15.0	54.5	39.8	14.7
Tangible assets under construction	6.4	6.0		6.0
Payments on account – tangible assets	1.1			
	142.4	**133.0**	**89.5**	**43.5**
Financial Investments				
Equity investments	9,131.3	9,577.6	27.3	9,550.3
Loans to equity affiliates	1.4	1.5		1.5
Other long-term investment securities	89.9	69.7	9.7	60.0
Loans	33.0	30.7		30.7
Other long-term investments	97.0	99.6		99.6
	9,352.6	**9,779.1**	**37.0**	**9,742.1**
Total non-current assets	**9,536.8**	**10,135.0**	**305.3**	**9,829.7**
Inventories and work-in-progress				
Raw materials and other supplies	6.8	1.7		1.7
Work-in-progress	11.7	22.0		22.0
Semi-finished and finished goods	37.2	11.0	1.6	9.4
	55.7	**34.7**	**1.6**	**33.1**
Prepayments and advances paid to suppliers	**6.8**	**2.4**		**2.4**
Trade receivables				
Trade receivables and related accounts	318.5	24.2		24.2
Other receivables	704.9	605.1	10.3	594.8
	1,023.4	**629.3**	**10.3**	**619.0**
Company treasury shares	**11.4**	**31.3**		**31.3**
Other short-term financial investments	**26.8**	**25.1**		**25.1**
Cash	**2.9**	**0.1**		**0.1**
Prepayments and miscellaneous	**3.5**	**3.5**		**3.5**
	1,130.5	**726.4**	**11.9**	**714.5**
Loan issue premiums	**3.5**	**2.8**		**2.8**
Bond redemption premiums	**43.5**	**37.8**		**37.8**
Unrealized foreign exchange losses	**0.5**	**0.6**		**0.6**
TOTAL ASSETS	**10,714.8**	**10,902.6**	**317.2**	**10,585.4**

(in millions of euros)	As of December 31, 2010 Before approval of the financial statements	As of December 31, 2011 Before approval of the financial statements	As of December 31, 2011 After approval of the financial statements
Liabilities and shareholders' equity			
Shareholders' equity			
Share capital	1,562.5	1,561.0	1,561.0
Additional paid-in capital	170.3	122.6	122.6
Revaluation reserve	25.5	25.4	25.4
Reserves:			
• Legal reserve	145.3	156.2	156.2
• Tax-driven reserves	307.8	307.8	307.8
• General reserve	1.2	1.2	1.2
• Contingency reserve	69.5	69.5	69.5
• Depreciation or amortization fund	2.3	2.3	2.3
• Translation reserve	7.7	7.7	7.7
Retained earnings	587.7	719.6	1,263.8
Net profit for the year	822.2	1,273.3	
Sub-total			**3,517.5**
Accelerated depreciation	46.1	11.2	11.2
Other tax-driven provisions			
	3,748.1	**4,257.8**	**3,528.7**
Provisions			
Provisions for contingencies	22.6	10.4	10.4
Provisions for losses	33.4	13.8	13.8
	56.0	**24.2**	**24.2**
Liabilities			
Other bonds	1,578.0	1,577.9	1,577.9
Bank borrowings	596.9	447.1	447.1
Other borrowings	1,477.5	1,483.2	1,483.2
Prepayments received from customers	64.7	35.5	35.5
Trade payables and related accounts	272.1	91.6	91.6
Tax and employee-related liabilities	506.3	141.0	141.0
Amounts payable in respect of fixed assets and related accounts	4.8	2.3	2.3
Other amounts payable	2,382.2	2,501.9	2,501.9
Dividends			729.1
Deferred income and miscellaneous	**26.8**	**21.3**	**21.3**
	6,909.3	**6,301.8**	**7,030.9**
Unrealized foreign exchange gains	**1.4**	**1.6**	**1.6**
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	**10,714.8**	**10,585.4**	**10,585.4**

Income statement

For the year ended December 31

(in millions of euros)	2010	2011
Operating revenue		
Sales of:		
• Goods	1,093.6	28.4
• Services and related activities	512.7	230.4
Net revenue	**1,606.3**	**258.8**
Change in inventories of goods and services	5.9	15.9
Production of assets capitalized	8.6	15.6
Operating subsidies	3.8	3.3
Provision reversals	12.9	4.9
Expense reclassifications	1.3	10.5
Other revenues	321.2	383.3
Sub-total	**353.7**	**433.5**
Total I	**1,960.0**	**692.3**
Operating expenses		
Purchases of raw materials and other supplies	205.0	16.1
Change in inventories of raw materials and supplies	(2.6)	(0.9)
Other purchases	484.4	114.8
External charges	461.2	183.9
Duties and taxes other than corporate income tax	39.0	22.3
Wages, salaries and provisions for paid vacation	268.2	171.9
Social security contributions and similar charges	212.6	72.5
Depreciation, amortization and impairment losses:		
• On non-current assets: depreciation, amortization and impairment losses	36.2	23.0
• On current assets: charges to provisions	7.1	0.7
For contingencies and losses: charges to provisions	11.5	2.2
Other charges	6.8	1.6
Total II	**1,729.4**	**608.1**
Net operating profit / (loss) (I - II)	**230.6**	**84.2**

(in millions of euros)	**2010**	**2011**
Financial income		
Financial income from equity affiliates	746.1	909.0
Revenues from other marketable securities and long-term loans	10.5	15.7
Other interest and similar income	0.1	
Reversals of impairment and provisions	2.6	0.5
Foreign exchange gains	5.2	2.7
Capital gains on short-term financial investments	0.1	0.2
Total III	**764.6**	**928.1**
Financial expenses		
Amortization, impairment and provisions	6.2	10.9
Interest and similar charges	172.5	164.8
Foreign exchange losses	4.8	2.3
Total IV	**183.5**	**178.0**
Net profit / (loss) from financial items (III - IV)	**581.1**	**750.1**
Net profit / (loss) from ordinary activities before tax (I - II + III - IV)	**811.7**	**834.3**
Exceptional income		
Exceptional income from non-capital transactions	18.2	444.3
Exceptional income from capital transactions	236.4	344.4
Reversals of impairment and provisions	11.3	71.6
Total V	**265.9**	**860.3**
Exceptional expenses		
Exceptional charges on non-capital transactions	3.5	16.3
Exceptional charges on capital transactions	225.3	372.8
Exceptional depreciation, amortization, impairment and provisions	8.8	3.8
Total VI	**237.6**	**392.9**
Net exceptional items (V - VI)	**28.3**	**467.4**
Statutory employee profit-sharing	**3.2**	**3.6**
Corporate income tax	**14.6**	**24.8**
NET PROFIT FOR THE YEAR	**822.2**	**1,273.3**

Notes

1 PRELIMINARY NOTE: EVOLUTION OF THE ORGANIZATION OF OPERATING ACTIVITIES AND TECHNOLOGICAL POLES IN FRANCE

In the Group's main operating regions, including in France, a governance system for operations is being implemented *via* large subsidiaries by type of business. The aim is to facilitate, in particular, the achievement of strategic orientations, implement the action plans, manage risks and be geographically close to the business.

Within this context, pursuant to the resolutions voted by the Extraordinary Shareholder's Meetings on May 4, 2011 for L'Air Liquide S.A. and May 6, 2011 for the subsidiaries, the French operations and technology departments previously held by L'Air Liquide S.A. were contributed to specialized French subsidiaries wholly-owned by the Group:

- contribution to Air Liquide France Industrie of the Industrial gases business;
- contribution to Air Liquide Advanced Technologies of the design and production of equipment for the aerospace, aeronautics and cryogenics fields;
- contribution to Cryopal of the production and marketing of cryogenics reservoirs;
- contribution to Air Liquide Engineering of the technical assessment activities conducted at the Blanc-Mesnil site;
- contribution to Air Liquide Services of the development, installation and operation of industrial information systems.

Each contribution was made at the net book value of the assets contributed and the liabilities assumed, based on L'Air Liquide S.A.'s financial statements as of December 31, 2010. The total net assets contributed equal to 185.5 million euros and break down as follows:

(in millions of euros)	Air Liquide France Industrie	Air Liquide Advanced Technologies	Cryopal	Air Liquide Engineering	Air Liquide Services
Assets contributed					
Intangible and tangible assets	104.3	0.3	2.3	1.3	1.2
Financial investments	163.5	1.5			0.2
Current assets	331.8	47.6	10.6	0.6	8.8
Liabilities assumed					
Provisions for contingencies and losses	(19.5)	(6.4)	(1.2)		(0.8)
Debts	(410.1)	(36.6)	(6.4)	(0.1)	(7.4)
CONTRIBUTIONS AS OF JANUARY 1, 2011	**170.0**	**6.4**	**5.3**	**1.8**	**2.0**

As consideration for the contributions, new shares were issued by the beneficiaries to L'Air Liquide S.A. for a total amount of 185.5 million euros.

Furthermore, the Company also contributed to its subsidiary Air Liquide International, wholly-owned by the Group, the shares of the following entities:

- 99.81%-held Air Liquide Cryogenic Services;
- 99.99%-held Air Liquide Electronics Materials;
- 99.99%-held Air Liquide Electronics Systems;
- 99.99%-held Air Liquide Engineering;
- 99.99%-held Air Liquide Advanced Technologies;
- 99.99%-held Cryopal;
- 99.99%-held Cryolor.

The contributions were made at the net book value of the existing shares, based on L'Air Liquide S.A.'s financial statements as of December 31, 2010, plus the net book value of the Air Liquide Engineering, Air Liquide Advanced Technologies and Cryopal shares issued following the previously described contributions. The total net assets contributed amounted to 69.5 million euros.

In return, L'Air Liquide S.A. received new shares from Air Liquide International in the amount of 69.5 million euros.

The effective date of these contributions from a tax and accounting perspective is January 1, 2011. Their impacts are described in the notes to the statutory accounts.

2 ACCOUNTING POLICIES

2.1. General principles

The balance sheet and income statement of L'Air Liquide S.A. have been prepared in accordance with the French General Chart of Accounts (*Plan Comptable Général*) and the French Commercial Code.

2.2. Non-current assets

A. Intangible assets

Internally generated intangible assets primarily include the development costs of information management systems. They are capitalized only if they generate probable future economic benefits. Internal and external costs corresponding to detailed application design, programming, the performance of tests and the drafting of technical documentation intended for internal or external use are capitalized.

Significant maintenance and improvement costs are added to the initial cost of assets if they specifically meet the capitalization criteria.

Other intangible assets include separately acquired intangible assets such as software, licenses, certain businesses and intellectual property rights and are measured at acquisition cost.

Intangible assets are amortized according to the straight-line method over their estimated useful lives.

B. Tangible assets

Land, buildings and equipment are recognized at historical cost, with the exception of items of property, plant and equipment acquired prior to December 31, 1976 which are stated at their revalued amount on this date, under the provisions of Law 76-1232 of December 29, 1976. Interim interest expense is not included in the cost.

Where appropriate, the costs of dismantling or retiring an asset are added to the initial cost of the asset and a provision is recognized to cover such costs.

Where components of a tangible asset have different useful lives, they are accounted for separately and depreciated over their own useful lives.

Depreciation is computed according to the straight-line method over their estimated useful lives as follows:

- buildings: 20 years;
- cylinders: 10 to 20 years;
- plants: 15 to 20 years;
- pipelines: 15 to 35 years;
- other equipment: 5 to 15 years.

Land is not depreciated.

C. Impairment of intangible and tangible assets

The Company assesses at each closing date whether there is any indication of impairment loss of intangible and tangible assets. If such indications exist, an impairment test is performed to assess whether the carrying amount of the asset exceeds its present value, which is defined as the higher of its fair value less costs to sell and its value in use.

In assessing value in use, the estimated future cash flows are discounted to their present value as this would be done for an investment decision.

When the present amount of an asset is lower than its net carrying amount, an impairment loss is recognized in the income statement. When the present value exceeds the carrying amount, the previously recognized impairment is reversed to the income statement.

D. Equity investments

Equity investments are recognized at their initial amount on the entry date, with the exception of those subject to a revaluation as provided by Law 76-1232 of December 29, 1976. Acquisition costs that are not representative of market value are expensed.

When the carrying amount, determined using the criteria normally adopted for the measurement of equity investments (capital value, net asset value), is lower than the gross amount, an impairment loss is recognized for the difference.

E. Treasury shares

When the Company purchases its own shares, they are recognized at cost as treasury shares in other long-term investment securities. The gains or losses on disposals of treasury shares contribute to the net profit for the year.

However, shares allocated for the purpose of implementing plans for free grants of shares are reclassified to a "Short-term financial investments – Company treasury shares" caption at the balance sheet value on the date of allotment.

A provision is recorded over the rights vesting period to cover the future charge relating to the remittance of current shares when the performance criteria can be determined with certainty. Conversely, the amount corresponding to the maximum performance level is presented in off-balance sheet commitments.

When the purchase cost of shares is higher than their valuation based on the average share price during the last month of the fiscal year, treasury shares earmarked for cancellation or allocated for the purpose of implementing plans for free grants of shares are not impaired.

2.3. Inventories and work-in-progress

Raw materials, supplies and goods are primarily measured at weighted average cost.

Work-in-progress and finished goods are measured at production cost calculated using a standard cost adjusted for annual cost variances. Production costs include direct and indirect production expenses.

A provision is recognized for inventories and work-in-progress when the estimated realizable amount is lower than cost.

Regarding the costs of research carried out under contracts signed with the French State or third parties, those costs assumed by the Company give rise to an impairment loss at year-end.

2.4. Trade and other current receivables

Trade and other current receivables are measured at historical cost less provisions.

Provisions are recognized when it becomes probable that the amount due will not be collected and the loss can be reasonably estimated. Allowances are valued by taking into account historical losses, age and a detailed risk estimate.

2.5. Foreign currency transactions

Foreign currency transactions are translated at the exchange rate prevailing on the transaction date, with the exception of forward hedging transactions that are translated at the hedging rate.

At year-end, the difference arising from the translation of receivables and payables, not subject to a forward hedge and denominated in a foreign currency, are recognized in suspense accounts in assets and liabilities ("Unrealized foreign currency gains or losses").

When the forecasted date for settlement of hedged transactions is brought forward or deferred, changes in fair value of the hedging instruments (difference between the initial forward price and the adjustment forward price) are recognized in suspense accounts in the balance sheet ("differences offset by foreign exchange hedges") until the hedges are fully settled.

Unrealized foreign exchange losses are subject to a contingency provision.

2.6. Provisions

Provisions are recognized when:

- the Company has a present obligation as a result of a past event;
- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation;
- a reliable estimate can be made of the amount of the obligation.

A provision for onerous contracts is recognized when the expected benefits from the contract are lower than the cost of meeting the obligations under the contract.

2.7. Financial instruments

Gains or losses relating to financial instruments used in hedging transactions are determined and recognized in line with the recording of income and expenses on the hedged items.

When the financial instruments used do not constitute hedging transactions, the losses resulting from their year-end fair value measurement are recognized in the income statement. Pursuant to the prudence principle, unrealized gains are not recognized in the income statement.

2.8. Post-employment benefits

The Company applies CNC recommendation 2003-R01 related to the recognition and measurement of retirement benefits and similar obligations.

The Company provides its employees with various pension plans, termination benefits, jubilees (awards based on years of service) and other post-employment benefits for both active employees and retirees. These benefits are covered in two ways:

- by so-called defined contribution plans;
- by so-called defined benefit plans.

Defined contribution plans are plans under which the employer's sole obligation is to pay regular contributions. The employer does not grant any guarantee on the future level of benefits paid to the employee or retiree ("means-based obligation"). The annual pension expense is equal to the contribution paid during the fiscal year which relieves the employer from any further obligation.

Defined benefit plans are those by which the employer guarantees the future level of services defined in the agreement, most often depending on the employee's salary and seniority ("result-based obligation"). Defined benefit plans can be:

- either financed by contributions to a fund specialized in managing the contributions paid;
- or managed internally.

The Company grants both defined benefit and defined contribution plans.

In the case of defined benefit plans, retirement and similar obligations are measured by independent actuaries, according to the projected unit credit method. The actuarial calculations mainly take into account the following assumptions: salary increases, employee turnover, retirement date, expected salary trends, mortality, inflation and appropriate discount rates.

Actuarial gains and losses exceeding the greater of 10% of the obligations or 10% of the fair value of plan assets at the beginning of the reporting period are amortized over the expected average working lives of the plan participants.

In accordance with the option offered by CRC recommendation 2003-R01, the Company maintained its previous practices: obligations related to retirement termination benefits and jubilees are accrued whereas retirement obligations related to defined benefit plans are not recorded but are disclosed in the notes.

2.9. Revenue recognition

A. Revenue from the sale of goods and services

Revenue from the sale of goods is recognized when the risks and rewards of ownership have been transferred to the buyer.

Revenue associated with delivery of services is recognized depending on the stage of completion of the project at the balance sheet date, when this can be reliably measured.

B. Engineering and Construction contracts

Revenue from construction contracts, its related costs and margin are recognized using the completed contract method.

When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognized as an expense immediately.

2.10. Tax consolidation

L'Air Liquide S.A. has set up a tax consolidation group with the French subsidiaries that it holds by more than 95%, directly or indirectly, as defined by Article 223 A of the French General Tax Code.

Each company calculates its tax provision as if it was taxed separately. L'Air Liquide S.A., as head of the tax consolidation group, recognizes as an expense the tax corresponding to its own profits and recognizes in a balance sheet current tax account the impact of restatements and eliminations performed when determining taxable profit as a whole and the tax deferrals of subsidiaries with losses.

2.11. Research and Development expenditures

Development costs shall be recognized as assets if and only if the Company can demonstrate all of the following:

- the project is clearly identified and the related costs are individualized and reliably monitored;
- the technical feasibility of completing the intangible asset so that it will be available for use or sale is demonstrated;
- there is a clear intention to complete the intangible asset and use or sell it;
- it is probable that the project will generate future economic benefits for the Company.

It is considered that the conditions required by accounting standards for the capitalization of development costs are not met, since expenditures do not systematically result in the completion of an intangible asset that will be available for use or sale.

As a result, the development costs incurred by the Company in the course of its Research and Development projects are expensed as incurred.

3 NOTES TO THE STATUTORY ACCOUNTS

The amounts in the column "Contributions as of January 1, 2011" represent the book value of the contributed items as mentioned in the Note 1.

3.1. Intangible and tangible assets

Changes in gross value break down as follows:

(in millions of euros)	Gross value as of December 31, 2010	Contributions as of January 1, 2011	Additions	Disposals	Gross value as of December 31, 2011
Intangible assets					
Concessions, patents, licenses	83.8	(3.6)	8.6	(0.1)	88.7
Other intangible assets	143.6	(20.7)	14.4	(3.1)	134.2
TOTAL	**227.4**	**(24.3)**	**23.0**	**(3.2)**	**222.9**
Tangible assets					
Land	47.2	(41.4)		(0.1)	5.7
Real estate units – Additional value arising from revaluation	1.4	(1.4)			
Buildings	87.8	(55.5)	1.0	(2.0)	31.3
Plant, machinery and equipment	301.4	(271.0)	2.5	(1.2)	31.7
Recyclable sales packaging	5.8	(1.6)		(0.4)	3.8
Other tangible assets	65.1	(18.2)	8.1	(0.5)	54.5
Tangible assets under construction	6.4	(5.7)	5.7	(0.4)	6.0
Payments on account – tangible assets	1.1	(0.5)		(0.6)	
TOTAL	**516.2**	**(395.3)**	**17.3**	**(5.2)**	**133.0**

Changes in depreciation and impairment losses break down as follows:

(in millions of euros)	Depreciation, amortization and impairment losses as of December 31, 2010	Contributions as of January 1, 2011	Depreciation and amortization	Decreases, disposals, scrappings	Depreciation, amortization and impairment losses as of December 31, 2011
Intangible assets	185.6	(18.6)	11.9	(0.1)	178.8
Tangible assets	373.8	(291.6)	11.1	(3.8)	89.5
TOTAL	**559.4**	**(310.2)**	**23.0**	**(3.9)**	**268.3**

3.2. Financial investments

Changes in gross value break down as follows:

(in millions of euros)	Gross value as of December 31, 2010	Contributions as of January 1, 2011	Equity investments received as of January 1, 2011	Increases	Decreases	Gross value as of December 31, 2011
Equity investments						
Companies operating in France	7,064.2	(250.2)	255.0	392.0		7,461.0
Companies operating outside of France	2,116.6					2,116.6
Total	**9,180.8**	**(250.2)**	**255.0**	**392.0**		**9,577.6**
Loans to equity affiliates	1.4			0.1		1.5
Other long-term investment securities	104.5			409.8	(444.6)	69.7
Loans	35.5	(2.0)		0.3	(3.1)	30.7
Other long-term investments	97.1	(1.0)		3.7	(0.2)	99.6
TOTAL	**9,419.3**	**(253.2)**	**255.0**	**805.9**	**(447.9)**	**9,779.1**

Notes:

- *The contributions as of January 1, 2011 correspond mainly to the financial investments contributed to the subsidiaries Air Liquide France Industrie (180.1 million euros), Air Liquide Advanced Technologies (0.5 million euros) and Air Liquide International (69.6 million euros). The breakdown of those investments is provided below.*
- *Equity investments received as of January 1, 2011 correspond to the shares of Air Liquide France Industrie (170.0 million euros), Air Liquide Advanced Technologies (6.4 million euros), Cryopal (5.3 million euros), Air Liquide Engineering (1.8 million euros), Air Liquide Services (2.0 million euros) and Air Liquide International (69.5 million euros) received in consideration of the contributions described in Note 1.*
- *The increase in equity investments is due to the capital increase of the subsidiary Air Liquide International for 392.0 million euros.*
- *The change in other long-term investment securities corresponds to:*
  - *the acquisition and sale of Company treasury shares under the liquidity contract implemented pursuant to the 4th resolution of the Combined Annual Shareholders' Meetings of May 5, 2010 and May 4, 2011, for 316.2 million euros and -314.2 million euros respectively;*
  - *the acquisition of Company treasury shares pursuant to the 4th resolution of the Combined Shareholders' Meetings of May 5, 2010 and May 4, 2011 for 93.0 million euros;*
  - *the cancellation of 1,200,000 shares pursuant to the 10th resolution of the Combined Shareholders' Meeting of May 4, 2011 in the amount of -100.6 million euros;*
  - *the reclassification of 300,000 Company treasury shares in "Short-term financial investments - Company treasury shares" caption in the amount of -23.6 million euros. This operation followed the Chairman and Chief Executive Officer's decision, as delegated by the Board of Directors, to allocate the shares for the implementation of plans for free grants of shares;*
  - *the disposal of securities of the Compagnie M.I.29 corporation for -6.1 million euros.*
- *At the 2011 year-end:*
  - *the "Other long-term investment securities" caption includes a total of 645,369 treasury shares valued at an average price of 91.76 euros, i.e. a total amount of 59.2 million euros, of which 505,093 shares allocated for the purpose of share exchanges or as payment in connection with possible external growth transactions and 140,276 shares held under the liquidity contract;*
  - *the "Other long-term investments" caption mainly includes the receivable linked to the refund claim of the equalization charge paid for the years 2000 to 2004 for 71.7 million euros and the interest on arrears for 26.5 million euros.*

In accordance with the provisions of Article L. 233-6 of the French Commercial Code, the Company performed the following transactions in 2011:

- contribution to its subsidiary Air Liquide France Industrie of the following companies:
  - 99.99%-held Air Liquide Hydrogène,
  - 99.99%-held Société Industrielle de Cogénération de France (SICOGEF),
  - 99.99%-held Sudac Air Service,
  - 99.76%-held Carbo 2,
  - 99.99%-held Carbonique Française Azote et Produits Chimiques (CAPEC),
  - 99.99%-held Baikowski Soudage,
  - 99.98%-held Sorgal,
  - 100%-held Air Liquide Stockage,
  - 99.58%-held Société Industrielle des Gaz de l'Air,
  - 99.99%-held Air Liquide Innovation;
- contribution to its subsidiary Air Liquide Advanced Technologies of the 55%-held S.C.I. Les Herbages;
- contribution to its subsidiary Air Liquide International of companies as detailed in Note 1.

3.3. Shareholders' equity

As of December 31, 2011, the share capital comprised 283,812,941 shares each with a par value of 5.50 euros.

The portion of share capital arising from the special revaluation reserve totals 71.4 million euros.

(in millions of euros)	As of December 31, 2010 (before appropriation of earnings)	Appropriation of 2010 net profit *	Other changes	As of December 31, 2011 (before appropriation of earnings)
Share capital [(a)]	1,562.5		(1.5)	1,561.0
Additional paid-in capital [(a)]	170.3		(47.7)	122.6
Special revaluation reserve	25.5		(0.1)	25.4
Reserves:				
• Legal reserve	145.3	10.9		156.2
• Tax-driven reserves	307.8			307.8
• General reserve	1.2			1.2
• Contingency reserve	69.5			69.5
• Depreciation or amortization fund	2.3			2.3
• Translation reserve	7.7			7.7
Retained earnings [(a) (b)]	587.7	127.1	4.8	719.6
Net profit for the year	822.2	(822.2)	1,273.3	1,273.3
Accelerated depreciation [(d)]	46.1		(34.9)	11.2
TOTAL	**3,748.1**	**(684.2)** [(C)]	**1,193.9**	**4,257.8**

* *Following the decision made at the Combined Annual Shareholders' Meeting of May 4, 2011.*

(a) *The change in the "Share capital", "Additional paid-in capital", and "Retained earnings" captions results from the following transactions:*

- *Capital increases of 5.1 million euros resulting from the exercize of 917,848 subscription options.*
  The "Additional paid-in capital" caption increased by the amount of the premiums related to these share capital increases, i.e. 46.4 million euros less the capital increase costs i.e. -0.1 million euros;
- *Capital decrease in the amount of -6.6 million euros decided at the Board of Directors meeting of May 4, 2011, by cancelling 1,200,000 treasury shares. The "Additional paid-in capital" caption was reduced by the amount of premiums related to these shares, i.e. -94.0 million euros.*

(b) *The change in "Retained earnings" also includes the difference between the estimated loyalty dividend and the loyalty dividend actually paid and the cancellation of the dividend pertaining to treasury shares.*

(c) *Amounts distributed.*

(d) *The change in "Accelerated depreciation" caption results from the reversal of accelerated depreciation, no longer required, following the contributions of May 6, 2011 in the amount of -34.4 million euros and the reversal of accelerated depreciation performed under normal depreciation and amortization policies in an amount of -0.5 million euros.*

3.4. Impairment, allowances and provisions

A. Impairment and allowances

Impairment and allowances are recognized when the asset's carrying amount is lower than its entry value.

Impairment and allowances break down as follows:

(in millions of euros)	December 31, 2010	Contributions as of January 1, 2011	December 31, 2011
Plant, machinery and equipment	0.4	(0.4)	
Equity investments	49.5	(18.4)	27.3
Other long-term investment securities	14.6		9.7
Loans	2.5		
Other long-term investments	0.1	(0.1)	
Inventories and work-in-progress	3.0	(1.3)	1.6
Trade receivables and related accounts	11.5	(11.5)	
Other receivables	6.1		10.3
TOTAL	**87.7**	**(31.7)**	**48.9**

The net change in impairment and allowances is represented by contributions for -31.7 million euros, charges for 6.2 million euros, utilizations for -9.3 million euros and cancellations for -4.0 million euros.

Charges mainly relate to impairments of current accounts for 4.0 million euros and Company treasury shares for 1.4 million euros.

Utilizations primarily correspond to impairments of other long-term investment securities for -6.1 million euros and loans for -2.5 million euros.

Cancellations mainly stem from impairments of equity investments for -3.9 million euros.

B. Provisions

Provisions mainly include:

- third parties or employees contingencies and litigation provisions;
- provisions for repair charges and for jubilee awards and vested rights with regard to retirement benefits.

Provisions break down as follows:

(in millions of euros)	December 31, 2010	Contributions as of January 1, 2011	December 31, 2011
Provisions for contingencies	22.6	(10.5)	10.4
Provisions for losses	33.4	(17.4)	13.8
TOTAL	**56.0**	**(27.9)**	**24.2**

The net change in provisions for contingencies and losses is represented by contributions for -27.9 million euros, charges for 5.0 million euros, utilizations for -8.5 million euros and cancellations for -0.4 million euros.

The contributions mainly correspond to provision for vested rights with regard to retirement termination benefits (-15.3 million euros) and provisions for industrial and commercial contingencies and litigation and probable losses due to the launch of new businesses (-10.0 million euros).

Charges mainly relate to third party contingencies and litigation provisions (2.3 million euros), foreign exchange risks (0.6 million euros) and jubilee awards and vested rights with regard to retirement termination benefits (2.1 million euros).

Utilizations primarily stem from provisions for jubilee awards and vested rights with regard to retirement termination benefits (-4.1 million euros) and third party contingencies provisions (-4.1 million euros).

The provision for vested rights with regard to retirement termination benefits totaled 13.0 million euros (28.8 million euros in 2010).

3.5. Debt maturity analysis, prepayments and deferred income

	December 31, 2010	Contributions as of January 1, 2011	December 31, 2011		
(in millions of euros)	Gross	Gross	Gross	≤ 1 year	> 1 year
Assets					
Loans to equity affiliates	1.4		1.5		1.5
Loans	35.5	(2.0)	30.7	0.7	30.0
Other long-term investments	97.1	(1.0)	99.6	1.4	98.2
SUB-TOTAL	**134.0**	**(3.0)**	**131.8**	**2.1**	**129.7**
Trade receivables and related accounts [(a)]	330.0	(304.0)	24.2	24.2	
Other receivables	711.0	(60.7)	605.1	596.7	8.4
Prepayments and miscellaneous	3.5	(0.9)	3.5	3.5	
SUB-TOTAL	**1 044.5**	**(365.6)**	**632.8**	**624.4**	**8.4**
TOTAL	**1 178.5**	**(368.6)**	**764.6**	**626.5**	**138.1**
(a) Including notes receivable	*3.5*	*(3.5)*			

	December 31, 2010	Contributions as of January 1, 2011	December 31, 2011			
(in millions of euros)	Gross	Gross	Gross	≤1 year	>1 to ≤ 5 years	> 5 years
Liabilities						
Other bonds [(d)]	1,578.0		1,577.9	34.0	1,087.1	456.8
Bank borrowings [(a) (e)]	596.9		447.1	135.9		311.2
Other borrowings	1,477.5		1,483.2	40.4	42.8	1,400.0
Payments received from customers	64.7	(51.2)	35.5	35.1	0.4	
Trade payables and related accounts [(b)]	272.1	(231.2)	91.6	91.6		
Tax and employee-related liabilities [(f)]	506.3	(53.2)	141.0	141.0		
Amounts payable in respect of fixed assets and related accounts [(c)]	4.8	(2.1)	2.3	2.3		
Other amounts payable	2,382.2	(94.1)	2,501.9	2,495.4	6.5	
Deferred income and miscellaneous	26.8	(26.7)	21.3	21.3		
TOTAL	**6,909.3**	**(458.5)**	**6,301.8**	**2,997.0**	**1,136.8**	**2,168.0**
(a) Including current bank loans and credit balance bank accounts	*0.7*		*1.1*	*1.1*		

(b) Including notes payable.

(c) Including notes payable on non-current assets.

(d) Since 2008, all new bonds issued as part of the EMTN program include a change of control clause.

(e) Including commercial papers in an amount of 311.2 million euros (461.2 million euros in 2010). The maturity date indicated is the date of the confirmed credit lines.

(f) A 424.4 million euros exceptional income (see Note 3.14) explains the decrease of the tax and employee-related liabilities.

3.6. Accrued income and accrued expenses

(in millions of euros)	December 31, 2010	December 31, 2011
Accrued income		
Accrued income included in the following balance sheet items:		
Other long-term investments	94.7	98.1
Trade receivables and related accounts	7.2	0.7
Other receivables	17.1	10.1
TOTAL	**119.0**	**108.9**
Accrued expenses		
Accrued expenses included in the following balance sheet items:		
Other bonds	34.1	34.0
Bank borrowings	4.8	4.8
Other borrowings	0.7	0.8
Trade payables and related accounts	81.3	46.8
Tax and employee-related liabilities	74.4	36.9
Amounts payable on fixed assets and related accounts	1.2	0.1
Other amounts payable	23.1	10.1
TOTAL	**219.6**	**133.5**

3.7. Prepayments, deferred income and bond redemption premiums

A. Prepayments and deferred income

"Prepayments income" and "Deferred income" captions include income and expense items recorded during the period but related to a subsequent period.

B. Bond redemption and loan issue premiums

The change in these accounts corresponds to:

- amortization of the premiums and issue expenses related to bonds maturing in March 2013, June 2014 and June 2015;
- spread of a 43.8 million euros premium and 1.6 million euros issue expenses related to the bond exchange occurred in 2010 on the duration of the new bond *i.e.* until October 2018.

3.8. Items concerning related undertakings

(in millions of euros)	December 31, 2010 Gross	December 31, 2010 Including related undertakings	December 31, 2011 Gross	December 31, 2011 Including related undertakings
Balance sheet				
Trade receivables and related accounts	330.0	99.3	24.2	22.6
Other receivables	711.0	674.0	605.1	582.0
Other borrowings	1,477.5	1,400.2	1,483.2	1,400.4
Trade payables and related accounts (including amounts payable on fixed assets)	276.9	176.8	93.9	47.8
Other amounts payable	2,382.2	2,344.0	2,501.9	2,481.4
Income statement				
Financial expenses	183.5	83.3	178.0	91.2
Financial income	764.6	752.5	928.1	920.3

3.9. Company treasury shares

At the 2011 year-end, the "Company treasury shares" caption consisted of 396,048 shares allocated for the implementation of any conditional grants of shares to employees in the amount of 31.3 million euros.

3.10. Off-balance sheet commitments

Off-balance sheet commitments break down as follows:

(in millions of euros)	December 31, 2010	Contributions as of January 1, 2011	December 31, 2011
Commitments received			
Endorsements, securities and guarantees received	0.3		
TOTAL	**0.3**		
Commitments given			
Endorsements, securities and guarantees given [(a)]	842.6	(6.5)	798.4
To Air Liquide Finance and Air Liquide US LLC on transactions performed [(b)]	2,336.8		2,636.9
TOTAL	**3,179.4**	**(6.5)**	**3,435.3**

(a) Guarantees given mainly included the joint and several liability guarantee of the subsidiary Air Liquide France Industrie in connection with energy purchases and the guarantee of obligations of the Air Liquide Arabia and Air Liquide Engineering subsidiaries under new Middle Eastern projects.

(b) To distinguish its industrial activities from the financing activity, L'Air Liquide S.A. has a wholly-owned French subsidiary Air Liquide Finance, which conducts the cash and interest rate risk financing and management activity for the Group.

In so far, Air Liquide Finance set up the wholly-owned Air Liquide US LLC subsidiary, in order to borrow on the US market.

Insofar as the sole activity of Air Liquide Finance and Air Liquide US LLC is the Group's financing, L'Air Liquide S.A. is required to guarantee any issuances performed by these companies.

3.11. Financial instruments

Unsettled derivatives as of December 31, 2011 break down as follows:

	December 31, 2010		December 31, 2011	
(in millions of euros)	Carrying value	Fair value difference	Carrying value	Fair value difference
Foreign exchange risk				
Currency forwards	34.8	(2.0)	47.7	(1.8)
TOTAL	**34.8**	**(2.0)**	**47.7**	**(1.8)**
Interest rate risk				
Interest rate swaps	72.5	(2.4)	72.5	(0.3)
TOTAL	**72.5**	**(2.4)**	**72.5**	**(0.3)**

The fair value difference represents the difference between the derivative's valuation and the value of the contract determined at the closing year-end exchange rate.

In so far as these instruments are all allocated to hedging transactions, the fair value differences had no impact on the financial statements for the 2011 and 2010 year-ends.

3.12. Net revenue breakdown by geographical area

(in millions of euros)	2010	2011
France	1,495.6	244.7
Abroad	110.7	14.1
TOTAL	**1,606.3**	**258.8**

3.13. Expense reclassifications

In 2011, expense reclassifications mainly include the reclassification to exceptional items of expenses related to the reorganization costs of our IT systems for 6.7 million euros, the hive-down of the Company's operating activities for 1.8 million euros and donations and expenses following the earthquake and tsunami in Japan for 1.1 million euros.

In 2010, expense reclassifications mainly included the reclassification to exceptional items of expenses related to the hive-down of the Company's operating activities for 1.0 million euros.

3.14. Exceptional income and expenses

Exceptional income and expenses in 2011 primarily include:

- a gain of 424.4 million euros arising from the change in the organization of L'Air Liquide S.A. described in Note 1 and its accounting impacts in connection with the tax consolidation of L'Air Liquide S.A. and its French consolidated subsidiaries. This gain had no impact on the Group's consolidated tax position or the profit or loss of the relevant subsidiaries;
- the reversal of accelerated depreciation, no longer required, following the contributions of May 6, 2011 in an amount of 34.4 million euros;
- the impact of neutralizations related to the tax consolidation regime for 19.9 million euros (14.3 million euros in 2010);
- a reversal of equity investments impairment (net of impairments and disposal gains) for equity investments for 3.8 million euros (14.7 million euros in 2010);
- reorganization costs of our IT system in an amount of -6.7 million euros;
- expenses related to the hive-down of the Company's operating activities in an amount of -2.7 million euros (-1.0 million euros in 2010);
- gains (net of losses) on the sale of Company shares under the liquidity contract for 0.2 million euros (4.2 million euros in 2010).

In addition, exceptional income and expenses included in 2010:

- an impairment charge for other long term investment securities for -2.5 million euros;
- an exceptional income due to invoicing of lost sales packaging in an amount of 3.0 million euros.

3.15. Impacts of operations technology departments contributions on operating profit or loss

The 2010 restated operating profit or loss includes the transactions maintained in L'Air Liquide S.A. following the contributions of the operations technology departments performed on May 6, 2011 and described in Note 1.

In 2010, the contribution of activities was reflected according to the same timetable and under the same conditions as in 2011. Thus, contracts set up or terminated in 2011 following the new organization (royalties, reinvoicing of employee expenses, pensions, incentive agreements, etc.) were valued in the same manner in the 2010 restated accounts.

(in millions of euros)	2010 as published	Impacts of contributions	2010 restated	2011 as published
Net revenue	1,606.3	(1,359.3)	247.0	258.8
Others revenues	353.7	25.4	379.1	433.5
TOTAL REVENUES (I)	**1,960.0**	**(1,333.9)**	**626.1**	**692.3**
Purchases	686.8	(591.4)	95.4	130.0
Personnel expenses	480.8	(249.1)	231.7	244.4
Other expenses	507.0	(321.6)	185.4	207.8
Depreciation and variation of provisions	54.8	(28.5)	26.3	25.9
TOTAL EXPENSES (II)	**1,729.4**	**(1,190.6)**	**538.8**	**608.1**
NET OPERATING PROFIT (I - II)	**230.6**	**(143.3)**	**87.3**	**84.2**
Average number of salaried employees	*4,888*	*(3,447)*	*1,441*	*1,525*

3.16. Retirement and similar plans

The Company and a number of subsidiaries in France under the same Group agreement grant:

A. Group retirement benefit guarantee agreement

Additional benefits to retirees (4,515 retirees as of December 31, 2011) and to employees over 45, or with more than 20 years of service as of January 1, 1996 (164 employees as of December 31, 2011). These benefits provide a supplemental retirement income based on final pay, which is paid in addition to other normal retirement benefits. This plan was terminated on December 31, 1995. The annual amount paid with respect to this plan cannot exceed 12% of payrolls' total or 12% of pre-tax profits' total for the companies involved. As from 2011, these 12% fractions are reduced in proportion to the number of plan beneficiaries for the year compared with the number of plan beneficiaries of the previous year. The contributions amounted to 13.2 million euros in 2011 (38.7 million euros in 2010) after reinvoicing subsidiaries. Excluding the potential impacts of the actuarial value, the annual contributions paid to retirees and those eligible as of December 31, 2011, amounts to 609.3 million euros (556.1 million euros for retirees and 53.2 million euros for active employees).

Based on the assumptions used for the valuation of the retirement obligations, up to 376.9 million euros will be recharged to the subsidiaries of L'Air Liquide S.A. included within the scope of the Group agreement when benefits are paid to the retirees.

B. Externally funded plan

An externally funded defined contribution plan for other employees not in the plan mentioned above (1,091 employees as of December 31, 2011) with at least one year of service. Contributions to this plan are jointly paid by the employer and employee. For 2011, employer contributions (net of reinvoicing) amounted to 6.0 million euros (7.4 million euros in 2010).

C. Retirement termination benefits and jubilees

The corresponding obligations are provided for in the amount of 13.0 million euros (net of tax) and 0.7 million euros, respectively.

D. Calculation of actuarial assumptions and methods

The calculations with respect to the Group's retirement benefit guarantee agreement, retirement termination benefits and jubilees are performed by independent actuaries using the projected unit credit method.

Actuarial gains and losses exceeding the greater of 10% of the obligations related to retirement termination benefits and unrecognised past service costs non vested are amortized over the expected average working lives of the plan participants. As of December 31, 2011, the amounts stand at 9.2 million euros.

The actuarial assumptions (turnover, mortality, retirement age, salary increase) vary according to demographic and economic conditions.

The discount rates used to determine the present value of obligations are based on Government bonds or High-quality Corporate bonds, with the same duration as the obligations at the valuation date (4.90% as of December 31, 2011).

E. Evolution of retirement obligations and similar benefits

Company obligations with respect to pension plans and similar benefits break down as follows:

(in millions of euros)	Defined benefit plan	Retirement indemnities	Jubilees	Total
Obligations as of December 31, 2010	**636.9**	**62.2**	**2.5**	**701.6**
Contributions as of January 1, 2011		(29.8)	(1.5)	(31.3)
Obligations as of January 1, 2011 after contributions	**636.9**	**32.4**	**1.0**	**670.3**
Service cost	2.7	1.5		4.2
Interest cost	30.1	1.3		31.4
Employee contributions				
Plan amendments				
Curtailment / Settlement				
Transfers [a]		(7.0)	(0.3)	(7.3)
Acquisition / (Divestiture) / Merger				
Benefit payments	(45.2)	(1.2)		(46.4)
Actuarial (gains) / losses	(15.2)	2.0		(13.2)
OBLIGATIONS AS OF DECEMBER 31, 2011	**609.3 [b]**	**29.0**	**0.7**	**639.0**

(a) Corresponds to employee transfers to Air Liquide Engineering and Air Liquide Electronics Materials on May 7, 2011.

(b) Up to 376.9 million euros will be reinvoiced to the subsidiaries of L'Air Liquide S.A. included within the scope of the Group agreement.

3.17. Statutory employee profit-sharing

The statutory employee profit-sharing was calculated under the terms and conditions of the agreement concluded on July 19, 2011, effective date January 1, 2011. These measures were registered with the French Labor Ministry on August 10, 2011.

3.18. Corporate income tax

Corporate income tax totaled 24.8 million euros, compared to 14.6 million in 2010.

It breaks down as follows, after allocation of add-backs, deductions and tax credits relating to profits:

(in millions of euros)	2010	2011
Net profit from ordinary activities before tax	13.5	21.3
Net profit from exceptional items		
Additional contributions [(a)]	1.1	3.5
TOTAL	**14.6**	**24.8**

(a) 3.3% social security contribution on earnings and in 2011, a 5% exceptional contribution.

In accordance with the provisions of Article 223 *quater* (iv) of the General Tax Code, it should be noted that depreciation and amortization and lease payments considered as non-deductible under Article 39.4 of the same code amounted to 0.3 million euros (0.5 million euros in 2010).

The Company adopted the tax consolidation regime to determine corporate income tax.

3.19. Deferred taxes

Deferred taxes arise from the timing differences between the tax regime and the accounting treatment of income and expenses. According to the nature of the differences, these deferred taxes, which, pursuant to the provisions of the chart of accounts are not recorded, will increase or decrease the future tax expense.

Deferred taxes as of December 31, 2011 are estimated as follows:

(in millions of euros)	December 31, 2010	December 31, 2011
Deferred tax assets (decrease in future tax expense)	11.6	6.5
Deferred tax liabilities (increase in future tax expense)	15.2	13.9

The decrease in deferred tax assets is mainly due in an amount of -5.7 million euros to contributions as described in Note 1.

The decrease in deferred tax liabilities is explained by the add-back to 2010 taxable income of the spread of the premium arising from the bond exchange.

Deferred taxes were calculated taking into account the 3.3% social security contribution on earnings and in 2011, a 5% exceptional contribution *i.e.* a general rate of 36.10% (34.43% in 2010).

3.20. Remuneration paid to members of Executive Management and the Board of Directors

The remuneration (short-term benefits: fixed and variable portions, benefits in-kind, retirement termination benefits, Directors' fees) paid by the Company to members of Executive Management and the Board of Directors respectively, amounts to:

(in millions of euros)	2011
Remuneration of the Board of Directors	0.7
Remuneration of Executive Management	4.0
TOTAL	**4.7**

During 2011, the Company paid to third parties the total amount of 466,296 euros.

For Benoît Potier and Pierre Dufour: with respect to supplemental retirement benefits (defined contribution plans): 186,948 euros for each one and with respect to death and disability benefits: 63,953 euros and 28,447 euros respectively.

3.21. Average number of employees

The monthly average number of employees was:

	2010	2011
Engineers and executives	2,065	1,083
Supervisory staff	2,217	370
Employees	93	12
Laborers	513	60
TOTAL	**4,888**	**1,525**

Note:

Due to the spin-offs of activities as detailed in the Note 1, on May 7, 2011, 2,412 employees were transferred to Air Liquide France Industrie, 371 employees to Air Liquide Advanced Technologies, 106 employees to Cryopal, 76 employees to Air Liquide Services, 54 employees to Air Liquide Electronics Materials and 683 employees to Air Liquide Engineering.

3.22. Subsidiaries and affiliates information

(in thousands of euros)	Share capital as of December 31, 2011	Other equity as of December 31, 2011	% share holding
A. Detailed information on affiliates whose carrying amounts exceed 1% of the capital of the Company required to publish its financial statements			
I - Subsidiaries (more than 50% of capital held by the Company)			
a) Companies operating in France			
Air Liquide International [(a)] – 75, quai d'Orsay – 75007 Paris	2,817,555	4,872,721 [(b)]	99.99
Air Liquide France Industrie – 6, rue Cognacq-Jay – 75007 Paris	72,268	341,290	99.99
Air Liquide Finance – 6, rue Cognacq-Jay – 75007 Paris	72,000	6,325	99.99
Air Liquide Santé (International) – 75, quai d'Orsay – 75007 Paris	33,347	21,459	99.99
Chemoxal [(a)] – 75, quai d'Orsay – 75007 Paris	30,036	3,380	99.99
Société Immobilière de L'Air Liquide – 75, quai d'Orsay – 75007 Paris	50	(4,492) [(b)]	99.99
b) Companies operating outside of France			
Air Liquide Industriegase GmbH & Co. KG – Hans-Günther-Sohl-Strasse 5 – 40235 Düsseldorf – Germany	10	2,617,800	100.00
II – Affiliates (10 to 50% of capital held by the Company)			
a) Companies operating in France			
Air Liquide Santé France – 6, rue Cognacq-Jay – 75007 Paris	10,403	17,196	10.12
b) Companies operating outside of France – None			
B. General information on other subsidiaries and affiliates			
I – Subsidiaries not included in I			
a) French subsidiaries (together)			
b) Foreign subsidiaries (together)			
II – Affiliates not included in II			
a) French companies (together)			
b) Foreign companies (together)			

(a) Holding company.

(b) Air Liquide International and Société Immobilière de L'Air Liquide pay a portion of their dividend in the form of an interim dividend.

(c) Net amount: 14,661 thousands of euros.

Carrying amount of shares held after the revaluations of 1976, 1978 and 1979							
Gross	Net	Including revaluation difference	Loans and advances granted by the Company and not repaid	Guarantees and endorsements given by the Company	2011 net revenue	Net profit (or loss) for 2011	Dividends collected by the Company during 2011
6,878,916	6,878,916	21,186			493	764,105	592,353 (b)
285,126	285,126				1,157,403	161,256	
72,901	72,901			2,582,815		30,672	39,300
110,808	110,808	6,301	76,272		18,472	75,808	80,511
30,326	30,326					28,434	19,696
16,107	16,107	16,068			8,865	5,325	5,385 (b)
2,106,474	2,106,474				72,611	185,546	150,000
20,388	20,388		30,806		208,745	21,161	2,369
46,164	19,596	2,267	22,001 (c)	1,906			16,004
341	341						
8,734	7,977		30,221				3,239

Statutory Auditors' Report on the annual financial statements

This is a free translation into English of the Statutory Auditors' Report on the financial statements issued in French and it is provided solely for the convenience of English speaking users.

The Statutory Auditors' Report includes information specifically required by French law in such reports, whether modified or not. This information is presented below the audit opinion on the financial statements and includes an explanatory paragraph discussing the auditors' assessments of certain significant accounting and auditing matters. These assessments were considered for the purpose of issuing an audit opinion on the financial statements taken as a whole and not to provide separate assurance on individual account balances, transactions, or disclosures.

This report also includes information relating to the specific verification of information given in the management report and in the documents addressed to shareholders.

This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

To the Shareholders,

In compliance with the assignment entrusted to us by your Annual Shareholders' Meeting, we hereby report to you, for the year ended December 31, 2011, on:

- the audit of the accompanying annual financial statements of L'Air Liquide S.A.;
- the justification of our assessments;
- the specific verifications and information required by French law.

These annual financial statements have been approved by the Board of Directors. Our role is to express an opinion on these financial statements based on our audit.

I - OPINION ON THE FINANCIAL STATEMENTS

We conducted our audit in accordance with the professional standards applicable in France. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit involves performing procedures, by audit sampling and other selective testing methods, to obtain audit evidence about the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used, the significant estimates made by the management, and the overall financial statements presentation. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2011 and the results of its operations for the year then ended, in accordance with the accounting rules and principles applicable in France.

Without qualifying our opinion, we draw your attention to the matter set out in Note 1 to the financial statements regarding:

- the description and the impact on the annual financial statements of the contribution of French operations and technology departments, previously owned by L'Air Liquide to wholly owned French subsidiaries.

II - JUSTIFICATION OF ASSESSMENTS

In accordance with the requirements of Article L. 823-9 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we bring to your attention the following matters:

Investments are valued in accordance with the methods described in the Note 2.2.D to the annual financial statements. We assessed the approach and the estimates used by the Company were reasonable, and checked the depreciation computation, if any.

These assessments were thus made in the context of the performance of our audit of the financial statements of the Company taken as a whole and, therefore, contributed to the formation of our audit opinion expressed in the first part of this report.

III - SPECIFIC VERIFICATION AND INFORMATION

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by French law.

We have no matters to report as to the fair presentation and the consistency with the financial statements of the information given in the management report of the Board of Directors and in the documents addressed to shareholders with respect to the financial position and the financial statements.

Concerning the information given in accordance with the requirements of Article L. 225-102-1 of French Commercial Code (*Code de commerce*) relating to remunerations and benefits received by the Directors and any other commitments made in their favour, we have verified its consistency with the financial statements, or with the underlying information used to prepare these financial statements and, where applicable, with the information obtained by your Company from companies controlled by it. Based on this work, we concur with the accuracy and fair presentation of this information.

In accordance with French law, we have ensured that the required information concerning the purchase of investments and controlling interests and the names of the principal shareholders and holders of the voting rights has been properly disclosed in the Directors' Report.

Courbevoie and Paris-La Défense, March 1, 2012

The Statutory Auditors

MAZARS		ERNST & YOUNG et Autres	
Lionel Gotlib	Daniel Escudeiro	Jean-Yves Jégourel	Emmanuelle Mossé

Five-year summary of Company's results

(Articles R. 225-83 and R. 225-102 of the French Commercial Code)

	2007	2008	2009	2010	2011
I - Share capital at the end of the year					
a) Share capital *(in euros)* [(a) (b) (c)]	1,313,645,905	1,435,072,914	1,453,398,947	1,562,523,012	1,560,971,176
b) Number of outstanding ordinary shares	238,844,710	260,922,348	264,254,354	284,095,093	283,812,941
c) Number of shares with loyalty dividend entitlement [(d)]	61,587,166	67,969,494	66,269,428	71,940,478	78,070,815
d) Convertible bonds					
II - Operations and results of the year *(in millions of euros)*					
a) Net revenue [(e)]	1,585.0	1,697.5	1,559.8	1,606.3	258.8
b) Net profit before tax, employee profit-sharing, depreciation, amortization and provisions	657.3	819.7	889.5	909.8	1,342.3
c) Corporate income tax [(e)]	8.3	8.9	9.4	14.6	24.8
d) Employee profit-sharing for the year	2.7	3.3	3.1	3.2	3.6
e) Net profit after tax, employee profit-sharing and depreciation, amortization and provisions	574.1	695.1	816.2	822.2	1,273.3
f) Distributed profit	551.0	602.0	609.2	684.2	729.1
III - Per share data *(in euros)*					
a) Net profit after tax, employee profit-sharing, but before depreciation, amortization and provisions					
• over the number of ordinary shares outstanding	2.71	3.10	3.32	3.14	4.63
• over the adjusted number of shares [(f)]	2.29	2.91	3.14	3.17	4.65
b) Net profit after tax, employee profit-sharing and depreciation, amortization and provisions					
• over the number of ordinary shares outstanding	2.40	2.66	3.09	2.89	4.49
• over the adjusted number of shares [(f)]	2.04	2.51	2.92	2.92	4.50
c) Dividend allocated to each share					
• over the number of ordinary shares outstanding	2.25	2.25	2.25	2.35	2.50
• over the adjusted number of shares [(g)]	1.91	2.11	2.11	2.35	2.50
d) Loyalty dividend					
• over the number of beneficiary shares	0.22	0.22	0.22	0.23	0.25
• over the adjusted number of shares [(g)]	0.19	0.21	0.21	0.23	0.25
IV - Employees working in France [(e)]					
a) Average number of salaried employees during the year	4,969	5,124	5,103	4,888	1,525
b) Total payroll for the year *(in millions of euros)*	244.1	260.4	266.3	259.8	172.9
c) Amounts paid with respect to employee benefits during the year (social security, staff benefits, etc.) *(in millions of euros)*	197.7	211.8	214.1	221.1	72.5

(a) Using the authorization granted by the 8th resolution of the Combined Annual Shareholders' Meeting of May 10, 2006, the 8th resolution of the Combined Annual Shareholders' Meeting of May 9, 2007 and the 10th resolution of the Combined Annual Shareholders' Meeting of May 4, 2011, the Board of Directors made the following decisions:

- *in its meeting of February 26, 2007, capital decrease by cancellation of 789,000 treasury shares;*
- *in its meeting of November 8, 2007, capital decrease by cancellation of 3,512,650 treasury shares;*

- *in its meeting of February 14, 2008, capital decrease by cancellation of 2,916,350 treasury shares;*
- *in its meeting of May 4, 2011, capital decrease by cancellation of 1,200,000 treasury shares.*

(b) *Using the authorization granted by the 18th resolution of the Combined Annual Shareholders' Meeting of May 7, 2008, the Board of Directors decided in its meeting of May 7, 2008, the granting for no consideration of one new share for 10 existing shares (ranking for dividends as of 01/01/2008), and the granting for no consideration of a 10% bonus for shares held in registered form from December 31, 2005 to June 6, 2008 (ranking for dividends as of 01/01/2008).*

Using the authorization granted by the 19th resolution of the Combined Annual Shareholders' Meeting of May 5, 2010, the Board of Directors decided in its meeting of May 5, 2010, the granting for no consideration of one new share for 15 existing shares (ranking for dividends as of 01/01/2010), and the granting for no consideration of a 10% bonus for shares held in registered form from December 31, 2007 to May 27, 2010 (ranking for dividends as of 01/01/2010).

(c) *Using the authorizations granted by the resolutions of the Combined Annual Shareholders' Meeting of April 30, 2002, the Combined Annual Shareholders' Meeting of May 12, 2004 and the Combined Annual Shareholders' Meeting of May 9, 2007,*

- *the Board of Directors noted in its meeting of February 14, 2011 the issuance of 64,698 shares arising from:*
  - *the exercize of 38,425 options, in accordance with the deliberations of the Management Board on April 8, 2004. These shares were subscribed at the price of 48.86 euros, i.e. with a premium of 43.36 euros (ranking for dividends as of 01/01/2011);*
  - *the exercize of 14,178 options, in accordance with the deliberations of the Management Board on March 21, 2005. These shares were subscribed at the price of 53.36 euros, i.e. with a premium of 47.86 euros (ranking for dividends as of 01/01/2011);*
  - *the exercize of 10,081 options, in accordance with the deliberations of the Management Board on March 20, 2006. These shares were subscribed at the price of 64.97 euros, i.e. with a premium of 59.47 euros (ranking for dividends as of 01/01/2011);*
  - *the exercize of 1,295 options, in accordance with the deliberations of the Management Board on March 20, 2006. These shares were subscribed at the price of 66.18 euros, i.e. with a premium of 60.68 euros (ranking for dividends as of 01/01/2011);*
  - *the exercize of 377 options, in accordance with the deliberations of the Management Board on July 9, 2008. These shares were subscribed at the price of 78.63 euros, i.e. with a premium of 73.13 euros (ranking for dividends as of 01/01/2011);*
  - *the exercize of 342 options, in accordance with the deliberations of the Management Board on June 15, 2009. These shares were subscribed at the price of 60.84 euros, i.e. with a premium of 55.34 euros (ranking for dividends as of 01/01/2011).*
- *the Board of Directors noted in its meeting of May 4, 2011 the issuance of 498,167 shares arising from:*
  - *the exercize of 320,500 options, in accordance with the deliberations of the Management Board on April 8, 2004. These shares were subscribed at the price of 48.86 euros, i.e. with a premium of 43.36 euros (ranking for dividends as of 01/01/2011);*
  - *the exercize of 140,789 options, in accordance with the deliberations of the Management Board on March 21, 2005. These shares were subscribed at the price of 53.36 euros, i.e. with a premium of 47.86 euros (ranking for dividends as of 01/01/2011);*
  - *the exercize of 36,878 options, in accordance with the deliberations of the Management Board on March 20, 2006. These shares were subscribed at the price of 64.97 euros, i.e. with a premium of 59.47 euros (ranking for dividends as of 01/01/2011).*
- *the Board of Directors noted in its meeting of February 16, 2012 the issuance of 354,983 shares arising from:*
  - *the exercize of 1,244 options, in accordance with the deliberations of the Management Board on November 30, 2004. These shares were subscribed at the price of 50.66 euros, i.e. with a premium of 45.16 euros (ranking for dividends as of 01/01/2011);*
  - *the exercize of 117,176 options, in accordance with the deliberations of the Management Board on March 21, 2005. These shares were subscribed at the price of 53.36 euros, i.e. with a premium of 47.86 euros (ranking for dividends as of 01/01/2011);*
  - *the exercize of 163,019 options, in accordance with the deliberations of the Management Board on March 20, 2006. These shares were subscribed at the price of 64.97 euros, i.e. with a premium of 59.47 euros (ranking for dividends as of 01/01/2011);*
  - *the exercize of 12,903 options, in accordance with the deliberations of the Management Board on March 20, 2006. These shares were subscribed at the price of 66.18 euros, i.e. with a premium of 60.68 euros (ranking for dividends as of 01/01/2011);*
  - *the exercize of 60,641 options, in accordance with the deliberations of the Management Board on May 9, 2007. These shares were subscribed at the price of 77.86 euros, i.e. with a premium of 72.36 euros (ranking for dividends as of 01/01/2011).*

(d) *Beginning December 31, 1995, shareholders holding their shares in registered form for at least two years at the period-end, and who will retain these shares in this form until the dividend payment date, will receive a dividend with a 10% bonus compared to the dividend paid to other shares.*

The difference between the loyalty dividend calculated on the number of shares outstanding as of the period-end and the loyalty dividend actually paid shall be allocated to retaining earnings.

(e) *In 2011, as decided by the L'Air Liquide S.A. Extraordinary Shareholders' Meeting as of May 4, 2011, the operational and the technological activities were contributed to specialized and wholly-owned subsidiaries.*

(f) *Adjusted to take into account, in the weighted average, the capital increases performed via capitalization of reserves or additional paid-in capital, cash subscriptions and treasury shares.*

(g) *Adjusted to take into account the capital increases performed via capitalization of reserves or additional paid-in capital.*

Annual General Meeting 2012 5

BOARD OF DIRECTORS' REPORT ON THE RESOLUTIONS PRESENTED TO THE 2012 COMBINED SHAREHOLDERS' MEETING 262

Results for the fiscal year 262

Information on share capital 262

Investments and acquisition of controlling interests 262

Resolutions within the authority of the Ordinary Shareholders' Meeting 263

Resolutions within the authority of the Extraordinary Shareholders' Meeting 266

COMBINED SHAREHOLDERS' MEETING – MAY 9, 2012 268

Ordinary Shareholders' Meeting 268

Extraordinary Shareholders' Meeting 272

Ordinary Shareholders' Meeting 276

STATUTORY AUDITORS' REPORTS 277

Statutory Auditors' Special Report on related-party agreements and commitments 277

Statutory Auditors' Report on the reduction in capital 281

Statutory Auditors' Report on the issue of ordinary shares or marketable securities reserved for employees members of the Company's savings plan 282

Statutory Auditors' Report on the issue of ordinary shares or marketable securities reserved for a category of beneficiaries 283

BOARD OF DIRECTORS' REPORT ON THE RESOLUTIONS PRESENTED TO THE 2012 COMBINED SHAREHOLDERS' MEETING

Results for the fiscal year

Attached to this report are the financial statements of L'Air Liquide S.A. that have been prepared by applying the methods provided for by law and the standards of the French General Chart of Accounts (pages 234 to 237).

Due to contributions in 2011 of the operational and the technological activities to specialized and wholly-owned subsidiaries, revenue for the fiscal year ended December 31, 2011 amounted to 258.8 million, compared to 1,606.3 million euros in 2010, down by 84%.

The income from French and foreign equity securities amounted to 909.9 million euros, compared to 746.1 million euros in 2010.

L'Air Liquide S.A. net profit for the fiscal year ended December 31, 2011 amounted to 1,273.3 million euros, compared to 822.2 million euros in 2010.

In 2011 net profit is impacted by exceptional items.

Consolidated revenue for 2011 amounted to 14,456.9 million euros, compared to 13,488.0 million euros in 2010, up by 7.2%. On a comparable basis (excluding foreign exchange impact and natural gas prices impact), the increase is 6.4%.

Consolidated net profit, after deduction of minority interests, amounted to 1,534.9 million euros, compared to 1,403.6 million euros in 2010, an increase of 9.4% (a 9.6% increase excluding the foreign exchange impact).

These results are described in detail in the Management Report and the financial statements.

Information on share capital

AMOUNT OF SHARE CAPITAL HELD BY EMPLOYEES

Please refer to the chapter "Additional Information" of this Reference Document (page 287).

CROSSING OF SHARE CAPITAL AND VOTING RIGHTS THRESHOLDS IN 2011

Please refer to the chapter "Additional Information" of this Reference Document (page 287).

Investments and acquisition of controlling interests

In accordance with the provisions of article L. 233-6 of the French Commercial Code, the shareholders are informed that L'Air Liquide S.A. performed the following transactions in 2011:

- contribution to its subsidiary Air Liquide France Industrie of the following companies:
  - 99.99%-held Air Liquide Hydrogène,
  - 99.99%-held Société Industrielle de Cogénération de France (SICOGEF),
  - 99.99%-held Sudac Air Service,
  - 99.76%-held Carbo 2,
  - 99.99%-held Carbonique Française Azote et Produits Chimiques (CAPEC),
  - 99.99%-held Baikowski Soudage,
  - 99.98%-held Sorgal,
  - 100%-held Air Liquide Stockage,
  - 99.58%-held Société Industrielle des Gaz de l'Air,
  - 99.99%-held Air Liquide Innovation;
- contribution to its subsidiary Air Liquide Advanced Technologies of the 55%-held S.C.I. Les Herbages;
- contribution to its subsidiary Air Liquide International of the following companies:
  - 99.81%-held Air Liquide Cryogenic Services,
  - 99.99%-held Air Liquide Electronics Materials,
  - 99.99%-held Air Liquide Electronics Systems,
  - 99.99%-held Air Liquide Engineering,
  - 99.99%-held Air Liquide Advanced Technologies,
  - 99.99%-held Cryopal,
  - 99.99%-held Cryolor.

Resolutions within the authority of the Ordinary Shareholders' Meeting

We ask you, after you have reviewed:

- the Report of the Board of Directors on the operation and management of the Company and its Group during the 2011 fiscal year;
- the Company's financial statements, income statement, balance sheet and notes thereto;
- the Group's consolidated financial statements;
- the Reports of the Statutory Auditors;

to approve the Company's financial statements and the consolidated financial statements for the year ended December 31, 2011 as presented, as well as the transactions set out in these financial statements or mentioned in these reports.

Your Company's net profit allows the Board to propose the payment of a dividend of 2.50 euros for each of the shares entitled to a dividend, it being specified that in the event of a change in the number of shares entitled to a dividend compared to the 283,812,941 shares making up the share capital as of December 31, 2011, the dividend overall amount would be adjusted accordingly and the amount appropriated to the retained earnings account would be determined on the basis of the dividend effectively paid.

The proposed dividend amounted to 2.50 euros, corresponding to a 6.4% increase compared to the 2010 dividend.

The dividend payment date will be set for May 16, 2012.

In accordance with the provisions of Article 243 *bis* of the French Tax Code, it is specified that this dividend is in its entirety eligible for the 40% allowance referred to in paragraph 2° of section 3 of Article 158 of the French Tax Code.

In addition, shareholders who had held their shares in registered form for at least two years as of December 31, 2011 and who retain such shares in registered form up to the dividend payment date, shall be entitled, for such shares (*i.e.* a total number of 78,070,815 shares at December 31, 2011), to a loyalty dividend of 10% compared with the dividend paid to the other shares, or a total dividend of 2.75 euros. In accordance with the provisions of Article 243 *bis* of the French Tax Code, it is specified that this dividend is also in its entirety eligible for the 40% allowance referred to in paragraph 2° of section 3 of Article 158 of the French Tax Code.

The difference between the loyalty dividend calculated on the number of shares known to exist at December 31, 2011 and the loyalty dividend actually paid will be allocated to the retained earnings account.

We also ask you to take due note of distributable earnings for the year. Such amount includes profits for 2011 of 1,273,315,319 euros plus available retained earnings at December 31, 2011 of 719,564,738 euros, *i.e.* a total of 1,992,880,057 euros.

We propose that you appropriate the distributable earnings for fiscal year 2011, *i.e.* 1,992,880,057 euros, as follows:

Retained earnings	1,263,830,001 euros
Dividend (including the loyalty dividend)	729,050,056 euros

5

DIVIDEND DISTRIBUTION

In accordance with French law, we wish to remind you that the distributions made in respect of the last three fiscal years were as follows:

2008	Total amount distributed [(a)] *(in euros)*	Number of shares [(b)]	Dividend distributed in its entirety eligible for the 40% allowance referred to in Article 158.3.2° of the French Tax Code *(in euros)*
Ordinary dividend	587,075,283	260,922,348	2.25
Loyalty dividend	14,953,289	67,969,494	0.22
2009			
Ordinary dividend	594,572,297	264,254,354	2.25
Loyalty dividend	14,579,274	66,269,428	0.22
2010			
Ordinary dividend	667,623,469	284,095,093	2.35
Loyalty dividend	16,546,310	71,940,478	0.23

(a) Theoretical values based on the number of shares as of December 31 of each fiscal year.
(b) Number of shares expressed historically as of December 31 of each fiscal year.
The amounts effectively paid after each adjustment total:
- 2008: 602,950,665 euros for 261,657,353 shares;
- 2009: 606,804,564 euros for 263,543,383 shares;
- 2010: 679,501,164 euros for 282,504,369 shares.
The adjustment arises from the existence of treasury shares, from the final determination of the loyalty dividend taking into account shares sold between January 1 and the dividend ex-date, and from the exercise of options and (in 2009 and 2010) the share capital increase reserved for employees, carried out over this same period.

COMPANY SHARE BUYBACKS

A. Information on the completion of the Company's share buyback program (pursuant to article L. 225-211 of the French Commercial Code as amended by regulation no. 2009-105 of January 30, 2009)

The Combined Shareholders' Meeting of May 4, 2011 authorized the Board, for a period of eighteen months, in accordance with Articles L. 225-209 *et seq.* of the French Commercial Code and the directly applicable provisions of EC regulation no. 2273/2003 of December 22, 2003, to allow the Company to repurchase its own shares in order to:

- either cancel them;
- retain them for the purpose of tendering them within the scope of an exchange offer or for payment in external growth transactions, in accordance with recognized market practices and applicable regulations;
- tender them following the exercise of rights attached to marketable securities conferring entitlement to Company shares by redemption, conversion, exchange, presentation of a warrant or any other means;
- implement (i) any share purchase option plans or (ii) plans for the free grant of shares, or (iii) any employee share ownership transactions reserved for members of a company savings plan, performed through the transfer of shares acquired previously by the Company, or providing for a free grant of shares in respect of a contribution in shares by the Company and/or to replace the discount, or (iv) allocation of shares to employees and/or executive corporate officers of the Company and affiliated companies, in accordance with the laws and regulations in force;
- maintain an active market in the Company's shares pursuant to a market liquidity contract in accordance with an Ethics Charter recognized by the French financial markets authority (*Autorité des marchés financiers*).

The maximum purchase price was set at 165 euros per share and the maximum number of shares that can be bought back at 10% of the total number of shares making up the share capital as of December 31, 2010, that is 28,409,509 shares for a maximum total amount of 4,687,568,985 euros, subject to the legal limits.

These shares could be purchased at any time, excluding the periods for takeover bids on the Company's share capital, and by all available means, either on or off a stock exchange, in private transactions, including the purchase of blocks of shares, or through the use of option mechanisms, and, if applicable, by all third parties acting on behalf of the Company, in accordance with the last paragraph of Article L. 225-206 of the French Commercial Code.

Pursuant to this authorization, the following instruments were set up:

- a liquidity contract which led to the following movements during the 2011 fiscal year:
  - 3,434,080 shares were purchased for a total price of 316,204,208 euros, or an average purchase price of 92.08 euros,

- 3,406,304 shares were sold for a total price of 314,362,564 euros, or an average purchase price of 92.29 euros;

- in the 1st quarter of 2011, pursuant to the previous delegation authorized by the Combined Shareholders' Meeting of May 5, 2010, one million shares were bought back for a total price of 92,962,320 euros, *i.e.* an average share price of 92.96 euros. No share buybacks were carried out between May 2011 and the 2011 year-end pursuant to the delegation granted by the Combined Shareholders' Meeting of May 4, 2011.

The total cost of the buybacks was thus limited to 409,166,528 euros.

- In addition, during the fiscal year the Company also carried out a share tender to certain beneficiaries of plans for the free grant of shares (2009 CGSE Plan) in the amount of 47,700 treasury shares.

The total amount of the transaction fees (exclusive of taxes) was 0.5 million euros.

As of December 31, 2011, the Company directly owns 901,141 shares at an average purchase price of 86.22 euros, *i.e.* a balance sheet value of 77,692,976 euros and, in respect of the liquidity contract, 140,276 shares at an average purchase price of 91.31 euros, *i.e.* a balance sheet value of 12,808,104 euros. These shares, each with a par value of 5.50 euros, represent 0.37% of the Company's share capital.

Furthermore, for the liquidity contract, marketable securities in the amount of 25,138,214 euros were recorded on the Company's balance sheet.

As of December 31, 2011, shares directly owned by the Company (901,141 shares, representing 0.32% of the share capital) are allocated for the purpose of share exchanges or as payment in connection with possible external growth transactions (505,093 shares) and for the purpose of the implementation of any conditional grants of shares to employees (396,048 shares).

B. Proposed resolution

As the authorization granted by the Ordinary Shareholders' Meeting of May 4, 2011 was partially used, the Board proposes to replace it with a new authorization to allow the Company to repurchase its own shares in order to:

- cancel them, subject to the adoption of the eighth resolution;
- retain them for the purpose of tendering them within the scope of an exchange offer or for payment in external growth transactions, in accordance with recognized market practices and applicable regulations;
- tender them following the exercise of rights attached to marketable securities conferring entitlement to Company shares by redemption, conversion, exchange, presentation of a warrant or any other means;
- implement (i) share purchase option plans or (ii) plans for free grant of shares, or (iii) employee share ownership transactions reserved for members of a company savings plan, performed under the terms and conditions set forth in Articles L. 3331-1 *et seq.* of the French Labor Code through the transfer of shares acquired previously by the Company under this resolution, or providing for a free grant of shares in respect of a contribution in shares by the Company and/or to replace the discount, or (iv) allocations of shares to employees and/or officers of the Company and its affiliated companies, in accordance with applicable legal and regulatory provisions;
- maintain an active market in the Company's shares pursuant to a liquidity contract in accordance with an Ethics Charter recognized by the French financial markets authority (*Autorité des marchés financiers*).

The maximum purchase price will be set at 165 euros (excluding acquisition costs) per share with a par value of 5.50 euros per share, and the maximum number of shares that can be bought back at 10% of the total number of shares making up the share capital on December 31, 2011, or 28,381,294 shares with a par value of 5.50 euros, for a maximum total amount of 4,682,913,510 euros, subject to the legal limits.

These shares may be purchased at any time, excluding the periods for takeover bids on the Company's share capital, and by all available means, either on or off a stock exchange, in private transactions, including the purchase of blocks of shares, or through the use of derivative financial instruments, and, if applicable, by all third parties acting on behalf of the Company, in accordance with the last paragraph of Article L. 225-206 of the French Commercial Code.

Shares bought back may be assigned or transferred in any manner on or off a stock exchange or through private transactions, including the sale of blocks of shares, in accordance with the applicable regulations.

Dividends on own shares held by the Company shall be allocated to retained earnings.

This authorization shall be granted for a period of eighteen months starting from the date of this Shareholders' Meeting. It supersedes the authorization granted by the Ordinary Shareholders' Meeting of May 4, 2011 with respect to the non-utilized portion of such authorization.

APPOINTMENT OR RENEWAL OF THE TERMS OF OFFICE OF THE BOARD DIRECTORS

The terms of office of Mrs. Karen Katen, Professor Rolf Krebs and Mr. Jean-Claude Buono are due to expire at the date of this Shareholders' Meeting.

As Mrs. Karen Katen agrees to the renewal of her term of office, we propose a resolution with a view to re-electing her as member of the Company's Board of Directors for a period of four years.

Mrs. Karen Katen will continue to provide her managerial and operational experience acquired in over thirty years at the Pfizer Group and her excellent knowledge of the Healthcare sector in North America and the rest of the world.

The Board of Directors notes Professor Rolf Krebs and Mr. Jean-Claude Buono's decision of not seeking the renewal of their term of office. The Board of Directors wishes to extend its warmest thanks to Professor Rolf Krebs and Mr. Jean-Claude Buono for their significant personal contribution to the work of the Air Liquide's Board of Directors over the last years.

APPOINTMENT OF A DIRECTOR

Upon the recommendation of the Appointments and Governance Committee, the Board of Directors proposes the appointment of Mr. Pierre Dufour as Director for a period of four years. Mr. Pierre Dufour will bring to the Board his deep knowledge of the engineering and gas businesses and his extensive international experience.

APPROVAL OF A RELATED PARTY COMMITMENT

The **7th resolution** concerns the renewal of the commitment relating to the termination indemnity to the benefit of Mr. Pierre Dufour decided in connection with the renewal of his term of office as Senior Executive Vice President by the Board of Directors on May 4, 2011.

This commitment, subject to performance conditions, is limited to the cases of forced departure following a change of strategy or a change of control. The indemnity may not exceed 24 months of fixed or variable remuneration (maximum amount including any indemnity, even a non-competition indemnity payable following a breach of the employment contract); the Board specified that its payment will be excluded if, on the date of forced departure, Mr. Pierre Dufour is entitled to claim in the short term his full-rate pension entitlements.

This commitment is outlined in the Statutory Auditors' special report on related party agreements and commitments (see 2011 Reference Document page 277) and the Company's website, www.airliquide.com.

In accordance with Article L. 225-42-1, al. 4 of the French Commercial Code, this commitment is submitted to the approval of the Shareholders' Meeting.

Resolutions within the authority of the Extraordinary Shareholders' Meeting

CANCELLATION OF SHARES PURCHASED BY THE COMPANY *VIA* A REDUCTION IN SHARE CAPITAL

To recap, in 2011 1,200,000 shares with a total par value of 6,600,000 euros were cancelled by the Board of Directors on May 4, 2011 (see on page 264 *Information on the completion of the Company's share buyback program*).

You are asked to authorize the Board of Directors to cancel, *via* its decisions alone, on one or more occasions, and within the limit of 10% of the Company's share capital per twenty-four month period, any or all of the shares bought back by the Company within the scope of the authorization adopted by this Ordinary Shareholders' Meeting in its fourth resolution and of those shares bought back within the scope of the authorization adopted by the Ordinary Shareholders' Meetings of May 4, 2011 and May 5, 2010, and to reduce the share capital by this amount to fully compensate any potential dilution resulting from diverse capital increases.

The difference between the carrying amount of the cancelled shares and their par value will be allocated to any reserve or additional paid-in capital accounts.

This authorization shall be granted for a period of twenty-four months starting from the date hereof and supersedes the authorization granted by the Extraordinary Shareholders' Meeting of May 4, 2011 in its tenth resolution.

SHARE CAPITAL INCREASE BY CAPITALIZATION OF ADDITIONAL PAID-IN CAPITAL, RESERVES, PROFITS, OR OTHER AMOUNTS

The Combined Shareholders' Meeting of May 5, 2010 had authorized the Board of Directors, for a period of 26 months, to decide to increase share capital on one or more occasions, by capitalization of additional paid-in capital, reserves, profits or other amounts in view of the attribution of free shares to the shareholders and/or an increase in the par value of existing shares, for a maximum par value amount of 250 million euros

This authorization was partially used in 2010: the Company attributed one free share for 15 former shares following a share capital increase by capitalizing a total amount of 99.43 million euros deducted from the "Additional paid-in capital" heading, thus creating 18,078,440 new shares, including the 10% increase (1 free share for 150 former shares) provided for in the Articles of Association for shares which have been held in registered form for at least two years at the start date of the attribution.

The purpose of the proposed resolution is to renew this authorization, thus enabling the Company to allot one free share for 10 former shares on May 31, 2012.

Therefore, in accordance with the ninth resolution, you are asked to delegate the Board of Directors with the option of sub-delegation, the authority to decide one or more capital increases by capitalizing additional paid-in capital, reserves, profits or other amounts, whose capitalization will be possible under the law and the Articles of Association through an attribution of free shares to the shareholders and/or an increase in the par value of existing shares.

The total amount of share capital increases likely to be performed may not exceed 250 million euros, this limit being separate and independent from the limit provided for in the seventeenth resolution adopted by the Shareholders' Meeting of May 4, 2011, and may not in any event whatsoever exceed the amount of the reserve, additional paid-in capital or profit accounts referred to above which exist at the time of the capital increase.

This delegation of authority strips of all legal effect the delegation granted to the Board of Directors pursuant to the nineteenth resolution of the Extraordinary Shareholders' Meeting of May 5, 2010, for the amount of the non-utilized portion of such delegation.

SHARE CAPITAL INCREASES RESERVED FOR EMPLOYEES

The Shareholders' Meeting of May 4, 2011 delegated to the Board of Directors the authority to increase share capital for a maximum par value amount of 30.25 million euros, and a maximum of 5.5 million shares, for Group employees belonging to a Group or Company savings plan. This delegation was not used.

In accordance with legal provisions, these resolutions are submitted again for the vote of the shareholders. The two resolutions proposed to the Shareholders' Meeting are identical to those approved on May 4, 2011.

Shareholders, having read the Board of Directors' Report and the Statutory Auditors' Special Report, are therefore asked to delegate to the Board of Directors the authority to decide one or more share capital increases, at the time or times and in the proportions that it deems appropriate, *via* the issuance of ordinary shares of the Company, as well as any other marketable securities granting access, immediately or in the future, to the Company's share capital, reserved for:

- under the 10th resolution, the members, from the Company and the French or foreign companies which are affiliated to it within the meaning of Article L. 225-180 of the French Commercial Code and Article L. 3344-1 of the French Labor Code, of a Company or Group savings plan (directly or through a Company mutual fund or all other structures or entities permitted by applicable legal or regulatory provisions). The delegation shall be valid for a period of twenty-six months starting from the date of this Shareholders' Meeting;
- under the 11th resolution, a category of beneficiaries, defined as any financial institution or subsidiary of such an institution mandated by Air Liquide, which would subscribe to shares, or other marketable securities issued by the Company pursuant to the 11th resolution, with the sole intent to enable employees and corporate officers of foreign companies, affiliated to the Company within the meaning of Article L. 225-180 of the French Commercial Code and Article L. 3344-1 of the French Labor Code, to benefit from a plan with an economic profile comparable to an employee share ownership scheme that would be set up in connection with a share capital increase performed in accordance with the 10th resolution of this Shareholders' Meeting, assuming the implementation of an identical employee share ownership scheme for the benefit of the employees and corporate officers of the aforementioned foreign companies would conflict with local legal, regulatory or tax constraints. The delegation shall be valid for a period of eighteen months starting from the date of this Shareholders' Meeting.

The total amount of share capital increases likely to be performed in accordance with these two resolutions may not exceed a maximum par value amount of 30.25 million euros, corresponding to the issue of a maximum of 5.5 million shares (amounts identical to those approved in 2011). Furthermore, the total maximum amount of share capital increases likely to be performed on the basis of these two resolutions shall be deducted from the overall limit stipulated in paragraph 2° of the 17th resolution adopted by the Shareholders' Meeting of May 4, 2011 relating to the overall limit for share capital increases likely to be performed with delegation to the Board of Directors. In the event that they are used, the proposed resolutions will automatically result in the cancellation of the shareholders' preferential subscription rights in favor of the above-mentioned beneficiaries.

The subscription price of the shares that would be issued pursuant to these two resolutions may not exceed the average, determined in accordance with Article L. 3332-19 of the French Labor Code, of the opening trading prices for the Company's share during the twenty stock market trading days preceding the date of the decision setting the opening date for the subscription to a share capital increase made on the basis of the 10th resolution, or be more than 20% lower than such average, bearing in mind that the shareholders will officially authorize the Board of Directors, if deemed appropriate, to reduce or cancel the aforementioned discount, in view in particular of the legal, regulatory and tax constraints under the applicable foreign law, where applicable. In accordance with Article L. 3332-21 of the French Labor Code, the Board of Directors may provide for the allotment, on a bonus basis, to the beneficiaries referred to in the 10th resolution, of shares to be issued or already issued or other securities granting access to the Company's share capital to be issued or already issued, in respect of (i) the contribution that could be paid in accordance with the regulations governing Company or Group saving plans, and/or (ii) where appropriate, the discount.

Should the beneficiaries referred to in the 10th resolution not subscribe to the entire share capital increase within the allotted deadlines, the share capital increase would only be performed for the amount of the shares subscribed, and the non-subscribed shares may be offered again to the beneficiaries concerned within the scope of a subsequent share capital increase.

Finally, the shareholders shall grant full powers to the Board of Directors, with the option of sub-delegation under the conditions determined by law, to set, within the limits described above, the various terms and conditions governing the implementation of the two proposed resolutions.

COMBINED SHAREHOLDERS' MEETING – MAY 9, 2012

Ordinary Shareholders' Meeting

Resolutions 1 and 2 Approval of the financial statements for the year

Purpose

Having reviewed the Reports of the Board of Directors and the Statutory Auditors, shareholders are asked in the **1st and 2nd resolutions** to approve the company financial statements and consolidated financial statements of Air Liquide for the year ended December 31, 2011.

FIRST RESOLUTION

(Approval of the Company financial statements for the year ended December 31, 2011)

The shareholders, deliberating according to the *quorum* and majority required for Ordinary Shareholders' Meetings, after having reviewed:

- the Reports of the Board of Directors and the Statutory Auditors;
- the Company's financial statements, income statement, balance sheet and notes thereto,

approve the Company's financial statements for the year ended December 31, 2011 as presented, and approve the transactions reflected in these financial statements or mentioned in these reports.

The shareholders set the amount of net earnings for the year at 1,273,315,319 euros.

SECOND RESOLUTION

(Approval of the consolidated financial statements for the year ended December 31, 2011)

The shareholders, deliberating according to the *quorum* and majority required for Ordinary Shareholders' Meetings, after having reviewed:

- the Reports of the Board of Directors and the Statutory Auditors;
- the Group's consolidated financial statements,

approve the consolidated financial statements for the year ended December 31, 2011 as presented.

Resolution 3 Appropriation of 2011 earnings and setting of the dividend

Purpose

In the **3rd resolution**, shareholders are asked to take due note of the distributable earnings for the year and approve the appropriation of earnings and **the distribution of a dividend of 2.50 euros per share**, payable on **May 16, 2012**.

This amount corresponds to an increase of 6.4% compared to the dividend paid in respect of fiscal year 2010.

A loyalty dividend of 10%, *i.e.* **0.25 euro per share**, shall be granted to shares which have been held in registered form since December 31, 2009, and which shall remain held in this form continuously until May 16, 2012, the dividend payment date. As of December 31, 2011, 27.5% of the shares making up the share capital are likely to benefit from this loyalty dividend.

With a **pay-out ratio of 47.5% of the Group's net income**, the dividend proposed to shareholders is an integral part of Air Liquide's policy to reward and grow shareholder portfolios in the long term.

THIRD RESOLUTION

(Appropriation of 2011 earnings and setting of the dividend)

The shareholders, deliberating according to the *quorum* and majority required for Ordinary Shareholders' Meetings, after having noted that, considering the fiscal year 2011 earnings of 1,273,315,319 euros and the retained earnings of 719,564,738 euros as of December 31, 2011, distributable earnings for the year total 1,992,880,057 euros, approve the proposals of the Board of Directors regarding the appropriation of earnings. The shareholders hereby decide to appropriate distributable earnings as follows:

Retained earnings	1,263,830,001 euros
Dividend (including the loyalty dividend)	729,050,056 euros

Hence, a dividend of 2.50 euros shall be paid on each of the shares conferring entitlement to a dividend, it being specified that in the event of a change in the number of shares conferring entitlement to a dividend compared to the 283 812 941 shares making up the share capital as of December 31, 2011, the overall dividend amount would be adjusted accordingly and the amount appropriated to the "Retained earnings" account would be determined on the basis of the dividend effectively paid.

The dividend payment date will be set for May 16, 2012:

- for directly registered shares: directly by the Company, based on the means of payment indicated by the holders;
- for indirectly registered shares, as well as for bearer shares which are registered in shareholder accounts: by the authorized intermediaries to whom the management of these shares has been entrusted.

The dividend distributions made with respect to the last three fiscal years are as follows:

2008	Total amount distributed [(a)] *(in euros)*	Number of shares concerned [(b)]	Dividend distributed in its entirety eligible for the 40% allowance referred to in Article 158.3.2° of the French Tax Code *(in euros)*
Ordinary dividend	587,075,283	260,922,348	2.25
Loyalty dividend	14,953,289	67,969,494	0.22
2009			
Ordinary dividend	594,572,297	264,254,354	2.25
Loyalty dividend	14,579,274	66,269,428	0.22
2010			
Ordinary dividend	667,623,469	284,095,093	2.35
Loyalty dividend	16,546,310	71,940,478	0.23

(a) Theoretical values calculated based on the number of shares as of December 31 for each fiscal year.

(b) Number of shares expressed historically as of December 31 for each fiscal year.
The amounts paid after adjustment were as follows:

- fiscal year 2008: 602,950,665 euros for 261,657,353 shares;

- fiscal year 2009: 606,804,564 euros for 263,543,383 shares;

- fiscal year 2010: 679,501,164 euros for 282,504,369 shares.

The adjustment arises from the existence of treasury shares, from the final determination of the loyalty dividend taking into account shares sold between January 1 and the dividend ex-date, and from the exercise of options and (in 2009 and 2010) the share capital increase reserved for employees, carried out over this same period.

Pursuant to the provisions of the Articles of Association, a loyalty dividend of 10%, *i.e.* 0.25 euro per share with a par value of 5.50 euros, shall be granted to shares which have been held in registered form since December 31, 2009, and which shall remain held in this form continuously until May 16, 2012, the dividend payment date.

In accordance with the provisions of Article 243 *bis* of the French Tax Code, it is specified that the ordinary and loyalty dividends are also in their entirety eligible for the 40% allowance referred to in section 2° of paragraph 3 of Article 158 of the aforementioned code.

The amount of the loyalty dividend, for the 78,070,815 shares which have been held in registered form since December 31, 2009, and which remained held in this form continuously until December 31, 2011, totaled 19,517,703 euros.

The total loyalty dividend corresponding to those shares out of the aforementioned 78,070,815 shares that will have been sold between January 1, 2012 and May 16, 2012, the dividend payment date, shall be deducted from such amount.

Resolution 4 Buyback by the Company of its own shares

Purpose

The **4th resolution** renews the authorization granted to the Board to allow the Company to buy back its own shares.

The maximum purchase price is set at 165 euros (unchanged amount) per share and the maximum number of shares that can be bought back is limited to 10% of the total number of shares comprising the share capital as of December 31, 2011, *i.e.* 28,381,294 shares for a maximum total amount of 4,682,913,510 euros.

The objectives of the share buyback program are detailed in the **4th resolution** and the program description available on the Company's website www.airliquide.com prior to the Shareholders' Meeting.

The shares purchased may be cancelled in order to offset in the long term the dilutive impact for shareholders of the implementation of stock option plans or Conditional Share Grants to Employees, or employee share ownership transactions.

In 2011, the buyback program resulted in the purchase of 1 million shares and the cancellation of 1.2 million shares. Furthermore, under the liquidity contract, 3.43 million shares were purchased and 3.41 million were sold.

As of December 31, 2011, the Company held 0.9 million shares (outside of the liquidity contract) for the purpose of exchange or payment in the context of external growth transactions and the implementation of Conditional Share Grants to Employees. **These shares represent 0.32% of the Company's share capital.** They do not have any voting rights and their related dividends are allocated to retained earnings.

FOURTH RESOLUTION

(Authorization granted to the Board of Directors for a period of 18 months to allow the Company to trade in its own shares)

The shareholders, deliberating according to the *quorum* and majority required for Ordinary Shareholders' Meetings, after having reviewed the Report of the Board of Directors, in accordance with Articles L. 225-209 et seq. of the French Commercial Code and the directly applicable provisions of European Commission regulation no. 2273/2003 of December 22, 2003, authorize the Board of Directors to allow the Company to repurchase its own shares in order to:

- cancel them, subject to the adoption of the eighth resolution;
- retain them for the purpose of tendering them within the scope of an exchange offer or for payment in external growth transactions, in accordance with recognized market practice and applicable regulations;
- tender them following the exercise of rights attached to marketable securities conferring entitlement to Company shares by redemption, conversion, exchange, presentation of a warrant or any other means;
- implement (i) any share purchase option plans or (ii) plans for free grants of shares, or (iii) any employee share ownership transactions reserved for members of a company savings plan, performed under the terms and conditions set forth in Articles L. 3331-1 et seq. of the French Labor Code through the transfer of shares bought back previously by the Company under this resolution, or providing for a free grant of shares in respect of a contribution in shares by the Company and/or to replace the discount; or (iv) share grants to employees and/or executive corporate officers of the Company or affiliated companies, in accordance with the laws and regulations in force;
- maintain an active market in the Company's shares pursuant to a market liquidity contract in accordance with an Ethics Charter recognized by the French financial markets authority (*Autorité des marchés financiers*).

The shareholders set the maximum purchase price at 165 euros (excluding acquisition costs) per share with a par value of 5.50 euros and the maximum number of shares that can be bought back at 10% of the total number of shares comprising the share capital at December 31, 2011, *i.e.* 28,381,294 shares with a par value of 5.50 euros, for a maximum total amount of 4,682,913,510 euros, subject to the legal limits.

These shares may be purchased at any time, excluding the periods for takeover bids on the Company's share capital, and by all available means, either on or off a stock exchange, in private transactions, including the purchase of blocks of shares, or through the use of option mechanisms, and, if applicable, by all third parties acting on behalf of the Company, under the terms and conditions stipulated in the last paragraph of Article L. 225-206 of the French Commercial Code.

Shares bought back may be commuted, assigned or transferred in any manner on or off a stock exchange or through private transactions, including the sale of blocks of shares, in accordance with the applicable regulations.

Dividends on own shares held by the Company shall be allocated to retained earnings.

This authorization is granted for a period of eighteen months starting from the date of the Shareholders' Meeting. It supersedes the authorization granted by the fourth resolution of the Ordinary Shareholders' Meeting of May 4, 2011 with respect to the non-utilized portion of such authorization.

The shareholders give full powers to the Board of Directors, with the possibility of delegating such powers, to implement this authorization, place orders for trades, enter into all agreements, perform all formalities and make all declarations with regard to all authorities and, generally, do all that is necessary for the execution of any of the Board's decisions made in connection with this authorization.

The Board of Directors shall inform the shareholders of any transactions performed in accordance with applicable regulations.

Resolutions 5 and 6 Appointment or renewal of terms of office of Directors

Purpose

The Board of Directors currently comprises 13 members, 10 of whom are independent as defined by the Board's internal regulations. The terms of office of Mrs. Karen Katen, Professor Rolf Krebs and Mr. Jean-Claude Buono expire at the end of this Shareholders' Meeting.

Upon the recommendation of the Appointments and Governance Committee, the **5th resolution** concerns the **renewal**, for a period of 4 years, of **the term of office** of Mrs. Karen Katen, member of the Company's Board of Directors since May 2008. Mrs. Karen Katen will continue to provide her managerial and operational experience acquired in over thirty years at the Pfizer Group and her excellent knowledge of the Healthcare sector in North America and the rest of the world.

The Board of Directors notes the decision of Professor Rolf Krebs and Mr. Jean-Claude Buono to not seek the renewal of their term of office.

Upon the recommendation of the Appointments and Governance Committee, shareholders are asked by virtue of the **6th resolution to appoint**, for a period of 4 years, Mr. Pierre Dufour, Senior Executive Vice-President of the Group. Mr. Pierre Dufour will bring to the Board his deep knowledge of the engineering and gas businesses and his extensive international experience.

Following this renewal and this appointment, the Board of Directors will comprise twelve members, nine of whom will be independent according to the internal regulations. In particular, the Board will notably be composed of 3 women and 5 non-French members.

FIFTH RESOLUTION

(Renewal of the term of office of Mrs. Karen Katen as Director)

The shareholders, deliberating according to the *quorum* and majority required for Ordinary Shareholders' Meetings, after having reviewed the Report of the Board of Directors, decide to renew the term of office of Mrs. Karen Katen as a Director for a term of four years, which will expire at the end of the Ordinary Shareholders' Meeting for 2016, called to approve the financial statements for the fiscal year ending December 31, 2015.

SIXTH RESOLUTION

(Appointment of Mr. Pierre Dufour as Director)

The shareholders, deliberating according to the *quorum* and majority required for Ordinary Shareholders' Meetings, after having reviewed the Report of the Board of Directors, decide to appoint Mr. Pierre Dufour as Director for a term of four years, which will expire at the end of the Ordinary Shareholders' Meeting for 2016, called to approve the financial statements for the fiscal year ending December 31, 2015.

Resolution 7 Approval of a related party commitment

Purpose

The **7th resolution** concerns the renewal of the commitment relating to the termination indemnity to the benefit of Mr. Pierre Dufour decided in connection with the renewal of his term of office as Senior Executive Vice President by the Board of Directors on May 4, 2011.

This commitment, subject to performance conditions, is limited to the cases of forced departure following a change of strategy or a change of control. The total indemnity may not exceed 24 months of fixed or variable remuneration (maximum amount including a non-competition indemnity payable total following a breach of the employment contract); the Board specified that its payment will be excluded if, on the date of forced departure, Mr. Pierre Dufour is entitled to claim in the short term his full-rate pension entitlements.

This commitment is outlined in the Statutory Auditors' Special Report on related party agreements and commitments (see 2011 Reference Document) and the Company's website, www.airliquide.com.

In accordance with Article L. 225-42-1, *al.* 4 of the French Commercial Code, this commitment is submitted to the approval of the Shareholders' Meeting.

SEVENTH RESOLUTION

(Approval of the commitment referred to in Articles L. 225-38 and L. 225-42-1 of the French Commercial Code and the Statutory Auditors' Special Report, relating to Mr. Pierre Dufour)

The shareholders, deliberating according to the *quorum* and majority required for Ordinary Shareholders' Meetings, duly note that the Special Report provided for by the laws and regulations currently in force on the commitment referred to in Articles L. 225-38 and L. 225-42-1 of the French Commercial Code undertaken in favor of Mr. Pierre Dufour, has been submitted to them.

The shareholders approve the commitment and the report prepared with regard to such commitment pursuant to Articles L. 225-38 and L. 225-42-1 of the French Commercial Code.

Extraordinary Shareholders' Meeting

Resolution 8 Authorization to reduce the share capital by cancellation of treasury shares

Purpose

As is the case each year, we ask you, in the **8th resolution**, to authorize the Board of Directors to cancel any or all of the shares purchased in the share buyback program and reduce share capital under certain conditions, particularly in order to fully offset any potential dilution resulting from diverse capital increases.

The difference between the carrying amount of the cancelled shares and their par value will be allocated to reserves or additional paid-in capital accounts. This authorization granted to the Board of Directors will be for a period of 24 months.

EIGHTH RESOLUTION

(Authorization granted to the Board of Directors for a period of 24 months to reduce the share capital by cancellation of treasury shares)

The shareholders, deliberating according to the *quorum* and majority required for Extraordinary Shareholders' Meetings, after having reviewed the Report of the Board of Directors and the Statutory Auditors' Special Report, authorize the Board of Directors to cancel, *via* its decisions alone, on one or more occasions, and within the limit of 10% of the Company's share capital per twenty-four month period, any or all of the shares bought back by the Company within the scope of the authorization adopted by this Ordinary Shareholders' Meeting in its fourth resolution and of those shares bought back within the scope of the authorizations adopted by the Ordinary Shareholders' Meetings of May 4, 2011 and May 5, 2010 and to reduce the share capital by this amount.

The difference between the carrying amount of the cancelled shares and their par value will be allocated to any reserve or additional paid-in capital accounts.

This authorization is granted for a period of twenty-four months starting from the date of this Shareholders' Meeting. It supersedes the authorization granted by the Extraordinary Shareholders' Meeting of May 4, 2011 in its tenth resolution with respect to the non-utilized portion of such authorization.

Full powers are granted to the Board of Directors to implement this authorization, deduct the difference between the carrying amount of the shares cancelled and their par value amount from all reserve and additional paid-in capital accounts, and with the possibility of sub-delegation, to carry out the necessary formalities to implement the reduction in capital which shall be decided in accordance with this resolution and amend the Articles of Association accordingly.

Resolution 9 Share capital increase by capitalizing additional paid-in capital, reserves, profits or other amounts

Purpose

The Combined Shareholders' Meeting of May 5, 2010 had granted the Board of Directors the authorization, for a period of 26 months, to increase share capital, on one or more occasions, by capitalizing additional paid-in capital, reserves, profits or other amounts with a view to attributing free shares to shareholders.

This authorization was partially used in 2010: the Company attributed 1 free share for 15 former shares following a share capital increase by capitalizing a total amount of 99.43 million euros deducted from the "Additional paid-in capital" heading, thus creating 18,078,440 new shares, including the 10% loyalty bonus (1 free share for 150 former shares).

The purpose of the **9th resolution** is to renew this authorization in order to, among others, allow the Company to attribute one bonus share for 10 former shares as of May 31, 2012.

Shares which have been held in registered form for at least 2 years at the start date of the attribution will be entitled to a 10% supplementary loyalty bonus attribution.

NINTH RESOLUTION

(Delegation of authority granted to the Board of Directors for a period of 26 months in order to increase the share capital by capitalization of additional paid-in capital, reserves, profits, or other amounts in view of the attribution of free shares and/or an increase in the par value of existing shares, for a maximum par value amount of 250 million euros)

The shareholders, deliberating according to the *quorum* and majority required for Extraordinary Shareholders' Meetings, after having reviewed the Board of Directors' report and in accordance with Articles L. 225-129-2 and L. 225-130 of the French Commercial Code:

- delegate to the Board of Directors, with the option of sub-delegation, the authority to decide one or more capital increases, under terms and conditions and at times it shall determine, by capitalizing additional paid-in capital, reserves, profits or other amounts, whose capitalization will be possible under the law and the Articles of Association through an attribution of loyalty shares to the shareholders and/or an increase in the par value of existing shares;
- the delegation thereby granted to the Board of Directors is valid for a period of twenty-six months starting from the date of this Shareholders' Meeting;
- decide that the total amount of share capital increases likely to be performed may not exceed 250 million euros, this limit being separate and independent from the limit provided for in paragraph 2° of the seventeenth resolution voted by the Shareholders' Meeting of May 4, 2011, or any resolution that may replace it, and may not in any event whatsoever exceed the amount of the additional paid-in capital, reserve, profit or other accounts referred to above which exist at the time of the capital increase (it being specified that these amounts do not include additional shares to be issued, in accordance with applicable legal and regulatory provisions, and when relevant, contractual stipulations providing for other adjustments, to preserve the rights of holders of securities or other rights conferring access to share capital);
- decide that, should the Board of Directors use this delegation, in accordance with Article L. 225-130 of the French Commercial Code, fractional shares shall not be transferable and the corresponding securities shall be sold; the sums resulting from such sale shall be allocated to the holders of rights under the applicable regulatory conditions;
- take due note that this delegation strips of all legal effect the delegation granted to the Board of Directors pursuant to the nineteenth resolution of the Extraordinary Shareholders' Meeting of May 5, 2010, for the amount of the non-utilized portion of such delegation;
- grant full powers to the Board of Directors, with the option of sub-delegation under the conditions set by law, to implement this delegation and notably determine the issuance terms and conditions, deduct from one or more available

reserve accounts the costs relating to the corresponding capital increase and if deemed appropriate, deduct all sums necessary to bring the legal reserve up to at least ten percent of the new share capital after each issuance, take due note of the completion of all capital increases resulting therefrom, perform all necessary amendments to the Articles of Association and, generally, carry out all the formalities necessary to perform the capital increases.

Resolutions 10 and 11 Share capital increases reserved for employees

Purpose

At the end of 2011, the share capital held by employees and former employees of the Group is estimated at 2.2%, of which 1.6% (within the meaning of Article L. 225-102 of the French Commercial Code) corresponds to shares subscribed by employees during employee reserved capital increases operations or held through mutual funds. The Group wishes to continue increasing the involvement of employees in its development. These operations contribute significantly to increasing employee motivation and sense of belonging to the Group.

In accordance with the law, you are again asked to approve the share capital increases reserved for members of a Company or Group savings plan, authorized during the Shareholders' Meeting of May 4, 2011. The total amount of share capital increases likely to be performed under these resolutions remains unchanged at 30.25 million euros, corresponding to the issue of a maximum of 5.5 million shares, or 1.94% of share capital as of December 31, 2011. This amount shall be deducted from the maximum par value amount of 390 million euros, or approximately 25% of the share capital, as stipulated in the 17th resolution adopted by the Extraordinary Shareholders' Meeting of May 4, 2011, relating to the overall limit for share capital increases likely to be performed with delegation to the Board of Directors.

The **10th resolution** specifies the terms and conditions of the share capital increases reserved for members of a Company or Group savings plan; it is supplemented in the **11th resolution** by a comparable scheme for the employees and corporate officers of the Group's foreign companies who could not take advantage of the share ownership scheme set up in accordance with the **10th resolution**.

The subscription price of the shares to be issued pursuant to the two proposed resolutions shall be defined in accordance with the French Labor Code and may hence be subject to a maximum discount of 20%.

The delegations granted in the **10th** and **11th resolutions** will be valid for periods of 26 and 18 months, respectively. They shall result in the waiver by shareholders of their preferential subscription rights in favor of the beneficiaries.

TENTH RESOLUTION

(Delegation of authority granted to the Board of Directors for a period of 26 months to perform share capital increases reserved for members of a company or group savings plan)

The shareholders, deliberating according to the *quorum* and majority required for Extraordinary Shareholders' Meetings, after having reviewed the Report of the Board of Directors and the Statutory Auditors' Special Report, deliberating pursuant to Articles L. 225-129-6 and L. 225-138-1 of the French Commercial Code and Articles L. 3331-1 *et seq.* of the French Labor Code:

1. delegate to the Board of Directors the authority to decide to increase share capital, on one or more occasions, at the time or times and in the proportions that it deems appropriate, *via* the issuance of ordinary shares of the Company as well as any other marketable securities granting access, immediately or in the future, to the Company's share capital, reserved for employees who contribute to a Company or Group savings plan;
2. decide that the total amount of share capital increases likely to be performed under this resolution may not exceed a maximum par value amount of 30.25 million euros, corresponding to the issue of a maximum of 5.5 million shares, it being specified that this amount does not include additional shares to be issued, in accordance with applicable legal and regulatory provisions, and when relevant, contractual stipulations providing for other adjustments, to preserve the rights of holders of marketable securities or other rights conferring access to share capital and that the total amount of share capital increases performed under this resolution and the eleventh resolution may not exceed the aforementioned par value amount of 30.25 million euros;
3. decide that the maximum par value amount of share capital increases performed on the basis of this delegation shall be deducted from the overall limit stipulated in paragraph 2° of the seventeenth resolution voted by the Extraordinary Shareholders' Meeting of May 4, 2011;
4. decide that the beneficiaries of these capital increases will be, directly or through a Company mutual fund or all other structures or entities permitted by applicable legal or regulatory provisions, the members, within the Company and the French or foreign companies which are affiliated to it within the meaning of Article L. 225-180 of the French Commercial Code and Article L. 3344-1 of the French Labor Code, of a Company or Group savings plan;

5. decide to cancel the preferential subscription rights of shareholders to the new shares or other marketable securities granting access to capital and to the marketable securities to which the latter would confer entitlement, which shall be issued in favor of the members of a Company or Group savings plan in accordance with this resolution;
6. decide that the subscription price may not exceed the average, determined in accordance with Article L. 3332-19 of the French Labor Code, of the opening trading prices for the Company's share during the twenty trading days preceding the date of the decision setting the opening date for the subscription period, or be more than 20% lower than such average, bearing in mind that the shareholders officially authorize the Board of Directors, if deemed appropriate, to reduce or cancel the aforementioned discount, in view in particular of the legal, regulatory and tax constraints under the applicable foreign law, where applicable;
7. decide, in accordance with Article L. 3332-21 of the French Labor Code, that the Board of Directors may provide for the attribution for no consideration, to the aforementioned beneficiaries, of shares to be issued or already issued or other securities granting access to the Company's capital to be issued or already issued, in respect of (i) the contribution that could be paid in accordance with the regulations governing Company or Group saving plans, and/or (ii) where appropriate, the discount;
8. also decide that, should the beneficiaries not subscribe to the entire capital increase within the allotted deadlines, the capital increase would only be performed for the amount of the shares subscribed, and that the non-subscribed shares may be offered again to the beneficiaries concerned within the scope of a subsequent capital increase;
9. grant full powers to the Board of Directors with the option of sub-delegation under the conditions set by law, to determine, within the limits described above, the various terms and conditions of the transaction and particularly:
   - define the criteria which the companies must meet in order for their employees to be entitled to benefit from the capital increases,
   - determine a list of these companies,
   - set the terms and conditions of the share issue, the characteristics of the shares, and, where appropriate, the other marketable securities, determine the subscription price calculated based on the method defined above, set the terms and conditions and deadline for fully paying up the subscribed shares; deduct from the "Additional paid-in capital" account all costs relating to these capital increases and, if deemed appropriate, all sums necessary to bring the legal reserve up to one tenth of the new share capital after each share issue; and generally complete, directly or through an authorized representative, all the transactions and formalities relating to the share capital increases performed under this resolution and, where appropriate, take any measures with a view to listing the shares issued pursuant to this resolution for trading on the Euronext Paris exchange,
   - set the opening and closing dates for the subscription period, record the completion of the corresponding capital increase and amend the Articles of Association accordingly;
10. decide that the delegation granted to the Board of Directors under this resolution is valid for a period of twenty-six months starting from the date of this Shareholders' Meeting and strips of all legal effect the delegation granted to the Board of Directors pursuant to the nineteenth resolution of the Extraordinary Shareholders' Meeting of May 4, 2011, for the amount of the non-utilized portion of such delegation.

ELEVENTH RESOLUTION

(Delegation of authority granted to the Board of Directors for a period of 18 months to perform share capital increases reserved for a category of beneficiaries)

The shareholders, deliberating according to the *quorum* and majority required for Extraordinary Shareholders' Meetings, after having reviewed the Report of the Board of Directors and the Statutory Auditors' Special Report, pursuant to Articles L. 225-129 to L. 225-129-2 and Article L. 225-138 of the French Commercial Code:

1. delegate to the Board of Directors the authority to decide to increase share capital, on one or more occasions, at the time or times and in the proportions it shall deem appropriate, via the issuance of ordinary shares of the Company as well as any other marketable securities conferring entitlement, immediately or in the future, to the Company's share capital, reserved for the category of beneficiaries defined hereafter;
2. decide that the total amount of share capital increases likely to be performed under this resolution may not exceed a maximum par value amount of 30.25 million euros, corresponding to the issue of a maximum of 5.5 million shares, it being specified that this amount does not include additional shares to be issued, in accordance with applicable legal and regulatory provisions, and when relevant, contractual stipulations providing for other adjustments, to preserve the rights of holders of marketable securities or other rights conferring access to share capital and that the total amount of share capital increases performed under this resolution and the tenth resolution may not exceed the aforementioned par value amount of 30.25 million euros;
3. decide that the maximum par value amount of share capital increases performed on the basis of this delegation shall be deducted from the overall limit stipulated in paragraph 2° of the seventeenth resolution voted by the Extraordinary Shareholders Meeting of May 4, 2011;

4. decide to cancel the preferential subscription rights of shareholders to the shares or marketable securities and to the marketable securities to which the latter would confer entitlement, which shall be issued pursuant to this resolution and to reserve the right to subscribe them to the category of beneficiaries meeting the following characteristics: any financial institution or subsidiary of such an institution mandated by the Company and which would subscribe to shares, or other marketable securities issued by the Company pursuant to this resolution, with the sole intent to enable employees and corporate officers of foreign companies, affiliated to the Company within the meaning of Article L. 225-180 of the French Commercial Code and Article L. 3344-1 of the French Labor Code, to benefit from a plan with an economic profile comparable to an employee share ownership scheme that would be set up in connection with a share capital increase performed in accordance with the tenth resolution submitted to the vote of this Shareholders' Meeting, assuming the implementation of an identical employee share ownership scheme for the benefit of the employees and corporate officers of the aforementioned foreign companies would conflict with local legal, regulatory or tax constraints;
5. decide that the unit price for the issue of the shares to be issued pursuant to this resolution shall be determined by the Board of Directors based on the Company's share price; this issue price shall be equal to the average of the opening trading prices for the share during the twenty trading days preceding the date of the Board of Directors' decision setting the opening date for the period of subscription to a share capital increase performed on the basis of the tenth resolution, with the possibility of reducing this average by a maximum discount of 20%; the amount of this discount shall be determined by the Board of Directors within the aforementioned limit;
6. decide that the Board of Directors shall have full powers, under the terms and conditions set forth by law and within the limits defined above, with the option of sub-delegation, so as to implement this delegation and particularly in order to:
   - set the date and price for the issue of shares to be issued in accordance with this resolution as well as the other terms and conditions governing the issue,
   - determine the beneficiary (or list of beneficiaries) for the cancellation of the preferential subscription right within the above-defined category, as well as the number of shares to be subscribed by such beneficiary (or each beneficiary),
   - where appropriate, determine the characteristics of the other marketable securities granting access to the Company's share capital under the applicable legal and regulatory conditions,
   - record the completion of the share capital increase, complete, directly or through an authorized representative, all the transactions and formalities involving the share capital increases and on its sole decision and if it deems appropriate, deduct the share capital increase costs from the amount of additional paid-in capital relating to such increases, amend the Articles of Association accordingly and perform all the necessary formalities, and where appropriate, take any measures with a view to listing the shares issued pursuant to this resolution for trading on the Euronext Paris exchange;
7. decide that the delegation granted to the Board of Directors under this resolution is valid for a period of eighteen months starting from the date of this Shareholders' Meeting and strips of all legal effect the delegation granted to the Board of Directors pursuant to the twentieth resolution of the Extraordinary Shareholders' Meeting of May 4, 2011, for the amount of the non-utilized portion of such delegation.

Ordinary Shareholders' Meeting

Resolution 12 Powers

Purpose

The **12th resolution** is a standard resolution required for the completion of publications and legal formalities.

TWELFTH RESOLUTION

(Powers for formalities)

Full powers are granted to a holder of a copy or extract of the minutes of this Shareholders' Meeting to perform all official publications and other formalities required by law and the regulations.

STATUTORY AUDITORS' REPORTS

Statutory Auditors' Special Report on related-party agreements and commitments

This is an unofficial translation into English of the Statutory Auditors' Special Report on related-party agreements and commitments that is issued in the French language and provided solely for the convenience of English-speaking readers. This report should be read in conjunction with, and construed in accordance with French law and professional auditing standards applicable in France. It should be understood that the agreements and commitments reported on are only those provided for by the French Commercial Code and that the report does not apply to those related-party transactions described in IAS 24 or other equivalent accounting standards.

To the Shareholders,

In our capacity as Statutory Auditors of your Company, we hereby report on the agreements and commitments with related parties.

We are required to inform you, based on the information provided to us, of the characteristics and principal terms and conditions of those agreements and commitments of which we have been informed or which we discovered at the time of our engagement, without expressing an opinion on their usefulness and appropriateness. It is your responsibility, pursuant to Article R. 225-31 of the French Commercial Code, to assess the benefits resulting from the conclusion of these agreements and commitments prior to their approval.

Furthermore, we are required, where applicable, to inform you in accordance with Article R. 225-31 of the French Commercial Code (*Code de commerce*) relating to the performance, during the past fiscal year, of the agreements and commitments already approved by an Annual Shareholders' Meeting.

We performed those procedures which we considered necessary to comply with professional guidance issued by the national auditing body (*Compagnie nationale des Commissaires aux comptes*) relating to this type of engagement. These procedures consisted in verifying that information provided to us is consistent with the documentation from which it has been extracted.

AGREEMENTS AND COMMITMENTS SUBMITTED FOR APPROVAL OF THE ANNUAL SHAREHOLDERS' MEETING

Agreements and commitments authorized during the year

In accordance with Article L. 225-40 of the French Commercial Code (*Code de commerce*), we have been advised of the following commitment which received the prior authorization of the Board of Directors.

With Mr. Pierre Dufour, Senior Executive Vice-President

Termination indemnities

The Board of Directors decided that, in the event of the forced departure of Mr. Dufour (removal from office, non-renewal of his duties, request for resignation) from his corporate office as Senior Executive Vice-President,

(a) related to a change of strategy; or

(b) that takes place within 24 months following the acquisition of control of Air Liquide by a person acting alone or several persons acting in concert,

the Company undertakes to pay Mr. Dufour a fixed aggregate indemnity in full discharge equal to 24 months' gross fixed and variable remuneration, the calculation being based on the average monthly amount of gross fixed and variable remuneration received by Mr. Dufour during the 24 months prior to departure. It is specified that the indemnities referred to in paragraphs (a) and (b) may not be received concurrently.

Payment of the indemnity due in respect of a forced departure as mentioned above is subject to compliance with conditions related to Mr. Dufour's performance assessed in light of the Company's own performance, defined as of the date hereof as follows:

Entitlement to the indemnity will depend on, and the amount of the indemnity paid will be adjusted on the basis of, the average of the annual variance between the Return on capital employed after tax (ROCE) and the Weighted Average Cost of Capital (WACC) assessed on the basis of accounting net equity and calculated over the last three financial years prior to the financial year in which the departure occurs. These performance conditions will be re-examined, notably at the time of each renewal of Mr. Dufour's term of office and, where applicable, during the course of his term of office.

Average variance (ROCE – WACC)	Percentage of the indemnity due
≥ 200 bp [(a)]	100%
≥ 100 bp and < 200 bp	66%
≥ 50 bp and < 100 bp	50%
≥ 0 bp and < 50 bp	33%
< 0	0

(a) bp: basis points

Any statutory indemnity or indemnity provided for by the collective bargaining agreement that may be paid, where applicable, to Mr. Dufour on account of termination of his employment contract, and any non-competition indemnity due in respect of such termination, shall not be subject to the above-mentioned conditions.

The sum of any indemnity paid in respect of termination of his employment contract and the indemnity payable to him in the event of forced departure many not exceed 24 months' remuneration.

No indemnity will be paid if the beneficiary has the possibility to apply for a full-rate pension within a short time of the date of forced departure.

This commitment became effective on May 4, 2011 at the time of renewal of the term of office of Mr. Dufour as the Company's Senior Executive Vice-President. It cancels and supersedes the decision made by the Board of Directors on February 13, 2009 on the same subject as from its effective date.

AGREEMENTS AND COMMITMENTS ALREADY APPROVED BY AN ANNUAL SHAREHOLDERS' MEETING

Agreements and commitments approved during prior years

a) the performance of which continued during the past year

Pursuant to Article R. 225-30 of the French Commercial Code, we have been informed that the performance of the following agreements and commitments, already approved by Annual Shareholders' Meetings during prior periods, continued during the past fiscal year.

With Mr. Benoît Potier

Pension plan

Mr. Potier benefits from the pension schemes applicable to senior management executives and members of the executive management consisting of defined-contribution plans for the part of the remuneration which amounts to less than twenty-four times the French social security ceiling and a supplementary defined-benefit scheme for the portion of remuneration exceeding twenty-four times the French social security ceiling.

Pursuant to the defined benefit scheme, the total pension benefits, for all types of pension schemes combined, may not exceed 45% of the average of the three highest total amounts of annual remuneration for each of the last five years. For this calculation, the average of the variable parts of remuneration taken into account may not exceed 100% of the average of the fixed remuneration amounts. In the event that this limit is reached, the amount paid under the defined benefit scheme would be reduced accordingly.

The contributions paid by the Company in 2011 under the defined-contribution plans totaled €186,948.

Death, disability and related benefits scheme

As a corporate officer, Mr. Potier benefits from the death, disability and related benefits scheme for senior management executives and members of the executive management whose total remuneration exceeds eight times the French social security ceiling. This scheme guarantees payment of a lump-sum amount in the event of death or permanent total disability.

The contributions paid by the Company in this respect in 2011 totaled €63,953.

Unemployment insurance

As a corporate officer, Mr. Potier benefits from the guarantee covering corporate officers subscribed by the Company.

The contributions paid by the Company in this respect in 2011 totaled €7,338.

With Mr. Pierre Dufour

Pension plan

Mr. Dufour benefits from the pension schemes applicable to senior management executives and members of the executive management consisting of defined-contribution plans for the part of the remuneration which amounts to less than twenty-four times the French social security ceiling and a supplementary defined-benefit scheme for the portion of remuneration exceeding twenty-four times the French social security ceiling.

Pursuant to the defined benefit scheme, the total pension benefits, for all types of pension schemes combined, may not exceed 45% of the average of the three highest total amounts of annual remuneration for each of the last five years. For this calculation, the average of the variable parts of remuneration taken into account may not exceed 100% of the average of the fixed remuneration amounts. In the event that this limit is reached, the amount paid under the defined benefit scheme would be reduced accordingly.

The contributions paid by the Company in 2011 under the defined-contribution plans totaled €186,948.

Death, disability and related benefits scheme

As a corporate officer, Mr. Dufour benefits from the death, disability and related benefits scheme for senior management executives and members of the executive management whose total remuneration exceeds eight times the French social security ceiling. This scheme guarantees payment of a lump-sum amount in the event of death or permanent total disability.

The contributions paid by the Company in this respect in 2011 totaled €28,447.

b) which were not implemented during the past year

Furthermore, we have been informed of the continuance in effect of the following agreements and commitments, already approved by the Annual Shareholders' Meeting during prior fiscal years, which have not been implemented during the last fiscal year.

With Mr. Benoît Potier

Termination indemnities

In the event of the forced departure of Mr. Potier (removal from office, non-renewal of his duties, request for resignation) from his corporate offices as Chairman and Chief Executive Officer related to a change of strategy or a change in control, the Company undertook to pay Mr. Potier an indemnity equal to twenty-four months' gross fixed and variable remuneration, the payment of which is subject to compliance with performance conditions assessed in the light of the Company's performance.

If the forced departure occurs during the twenty-four months prior to the date when Mr. Potier's term of office as Chairman and Chief Executive Officer expires as a result of the statutory age limit, the amount of the indemnity will be capped at the number of months' gross remuneration between the date of forced departure and the date on which the statutory age limit will be reached. No indemnity will be paid if, on the date of forced departure, the beneficiary asks for the payment of his pension rights.

This commitment did not have any effect during the fiscal year.

Indemnity to compensate for the loss of pension rights in respect of the corporate office

In the event of termination of his corporate office on the Company's initiative before he reaches fifty-five years of age and except in the event of gross misconduct or gross negligence, the Board of Directors has awarded Mr. Potier an indemnity to compensate for the loss of his rights under the supplementary defined-benefit pension plan applicable to senior management executives and members of the executive management of the Company. Payment of this indemnity is subject to compliance with conditions related to Mr. Potier's performance assessed in light of the Company's own performance.

This undertaking will lapse in 2012 on Mr. Potier's fifty-fifth birthday.

This commitment did not have any effect during the fiscal year.

With Mr. Pierre Dufour

Amendment to the employment contract

Following his appointment as Senior Executive Vice-President, the Board of Directors authorized the signature of an amendment to Mr. Dufour's employment contract in order to adjust the duties and terms and conditions of remuneration applicable to Mr. Dufour as an employee. It is stipulated in this amendment that should Mr. Dufour cease to be a corporate officer, he shall be reinstated in full in his position as an employee. In consideration thereof, the fixed and variable portions of his remuneration shall be reinstated in the same proportions as those existing before he assumed the duties of corporate officer.

This commitment did not have any effect during the fiscal year.

Agreements and commitments authorized during the year

We have furthermore been informed of the implementation, during the past fiscal year, of the following agreements and commitments, already approved by the Annual Shareholders' Meeting of May 4, 2011, on the basis of the Statutory Auditors' Special Report dated March 9, 2011.

With Air Liquide International

Within the scope of the grouping together of the operational businesses and technology divisions in France leading to a reorganization of the portfolio of the Group's subsidiaries, your Company made a contribution in kind to its subsidiary Air Liquide International, with retroactive effect as of January 1, 2011, of the following shares:

- 3,194 ordinary shares representing 99.81% of the ordinary shares of Air Liquide Cryogenic Services;
- 638,460 ordinary shares representing 99.99% of the ordinary shares of Air Liquide Electronics Materials;
- 754,987 ordinary shares representing 99.99% of the ordinary shares of Air Liquide Engineering;
- 437,780 ordinary shares representing 99.99% of the ordinary shares of Air Liquide Electronics Systems;
- 1,733,702 ordinary shares representing 99.99% of the ordinary shares of Air Liquide Advanced Technologies;
- 371,595 ordinary shares representing 99.99% of the ordinary shares of Cryopal;
- 194,993 ordinary shares representing 99.99% of the ordinary shares of Cryolor.

Net assets contributed amounted to €69,530,053 and were made in consideration of 3,629,378 Air Liquide International shares.

Courbevoie and Paris-La Défense, March 1, 2012

The Statutory Auditors

MAZARS		ERNST & YOUNG et Autres	
Lionel Gotlib	Daniel Escudeiro	Jean-Yves Jégourel	Emmanuelle Mossé

Statutory Auditors' Report on the reduction in capital

This is a free translation into English of a report issued in French and is provided solely for the convenience of English-speaking readers. This report should be read in conjunction with, and is construed in accordance with, French law and professional auditing standards applicable in France.

To the Shareholders,

In our capacity as Statutory Auditors of your Company and in compliance with article L. 225-209 of the French Commercial Code (*Code de commerce*) in respect of the reduction in capital by the cancellation of repurchased shares, we hereby report on our assessment of the terms and conditions for the proposed reduction in capital.

Your Board of Directors requests that it be authorised, for a period of 24 months, to proceed with the cancellation of shares the Company was authorised to repurchase, representing an amount not exceeding 10% of its total share capital, by periods of 24 months in compliance with the article mentioned above.

We have performed those procedures which we considered necessary in accordance with professional guidance issued by the national auditing body (*Compagnie nationale des Commissaires aux comptes*) for this type of engagement. These procedures consisted in verifying that the terms and conditions for the proposed reduction in capital, which should not compromise equality among the shareholders, are fair.

We have no matters to report as to the terms and conditions of the proposed reduction in capital.

Courbevoie and Paris-La Défense, March 1, 2012

The Statutory Auditors

MAZARS		ERNST & YOUNG et Autres	
Lionel Gotlib	Daniel Escudeiro	Jean-Yves Jégourel	Emmanuelle Mossé

Statutory Auditors' Report on the issue of ordinary shares or marketable securities reserved for employees members of the Company's savings plan

This is a free translation into English of a report issued in the French language and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

To the Shareholders,

In our capacity as Statutory Auditors of your Company and in compliance with articles L. 228-92 and L. 225-135 and following of the French Commercial Code (*Code de commerce*), we hereby report on the proposal to grant your Board of Directors the ability to decide, on the issue of ordinary shares and marketable securities, conferring entitlement, now or in the future, to the Company's share capital, with cancellation of preferential subscription rights. These increases are reserved to the employees who contribute to a savings plan set up by the Company or affiliated companies as defined by article L. 225-180 of the French Commercial Code (*Code de commerce*), an operation upon which you are called to vote.

The maximum par value of the capital increase may result from this issue amounts to 30,250,000 euros, corresponding to the issue of a maximum of 5,500,000 shares, provided that:

- the total amount of share capital increases to be performed under the tenth resolution and the eleventh may not exceed the aforementioned par value amount of 30,250,000 euros;
- the maximum per value amount of share capital increases likely to be performed on the basis of the tenth resolution and the eleventh resolution shall be deducted from the overall limit stipulated in the second part of the seventeenth resolution to the Shareholders' Meeting of May 4, 2011 that is to say 390,000,000 of euros.

This operation is submitted for your approval in accordance with articles L. 225-129-6 of the French Commercial Code (*Code de commerce*) and L. 3332-18 and following of French Labour Law (*Code du travail*).

Your Board of Directors proposes that, on the basis of its report, it be authorized for a period of twenty-six months, with the option of sub delegation, to decide on whether to proceed with one or several increases in capital and proposes to cancel your preferential subscription rights to the ordinary shares and marketable securities conferring entitlement to the Company's share capital. If necessary, it will determine the final conditions for these operations.

It is the responsibility of the Board of Directors to prepare a report in accordance with articles R.225-113 and following of the French Commercial Code (*Code de commerce*). It is our responsibility to report on the fairness of the financial information taken from the financial statements, on the proposed cancellation of preferential subscription rights and on other information relating to the share issue, provided in this report.

We have performed the procedures which we considered necessary in accordance with the professional guidance issued by the national auditing body (*Compagnie nationale des Commissaires aux comptes*) relating to this operation. These procedures require that we perform the necessary procedures to verify the contents of the Board of Director's report relating to this operation and on the methods for determining the issue price of the ordinary shares and of the marketable securities conferring entitlement to the Company's share capital, to be issued.

Subject to a subsequent examination of the conditions for the issue that may be decided, we have nothing to report on the methods for determining the issue price of the ordinary shares and of the marketable securities conferring entitlement to the Company's share capital, to be issued, provided in the Board of Directors' report.

As the final conditions for the increase in capital have not yet been determined, we cannot report on these conditions and, consequently, on the proposed cancellation of preferential subscription rights.

In accordance with article R. 225-116 of the French Company Law (*Code de commerce*), we will prepare an additional report, if necessary, when your Board of Directors will exercise this delegation.

Courbevoie and Paris-La Défense, March 1, 2012

The Statutory Auditors

MAZARS		ERNST & YOUNG et Autres	
Lionel Gotlib	Daniel Escudeiro	Jean-Yves Jégourel	Emmanuelle Mossé

Statutory Auditors' Report on the issue of ordinary shares or marketable securities reserved for a category of beneficiaries

This is a free translation into English of a report issued in the French language and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

To the Shareholders,

In our capacity as Statutory Auditors of your Company and in compliance with articles L. 228-92 and L. 225-135 and following of the French Commercial Code (*Code de commerce*), we hereby report on the proposal to grant your Board of Directors the ability to decide, on the issue of ordinary shares and marketable securities, conferring entitlement, now or in the future, to the Company's share capital, with cancellation of preferential subscription rights, reserved for the employees who contribute to a savings plan set up by the Company or affiliated companies, an operation upon which you are called to vote.

This operation is reserved under the conditions fixed in the eleventh resolution, to any financial institution or subsidiary of such an institution mandated by your Company for the exclusive purpose of allowing employees and executives of foreign companies, related to the Company defined in Articles L. 225-180 of the French Company Law (*Code de commerce*) and L. 3344-1 of the French Labour Code (*Code du travail*), to benefit an economically device comparable to a share ownership scheme that would be implemented under the 11th resolution of this Shareholders' Meeting, when implementing such a scheme would run into legal, regulatory or tax authorities.

The maximum par value of the capital increase may result from this issue amounts to 30,250,000 euros, corresponding to the issue of a maximum of 5.5 million shares, provided that:

- the total amount of share capital increases to be performed under the tenth resolution and the eleventh may not exceed the aforementioned par value amount of 30,250,000 euros;
- the maximum per value amount of share capital increases likely to be performed on the basis of the tenth resolution and the eleventh resolution shall be deducted from the overall limit stipulated in the second part of the seventeenth resolution to the Shareholders' Meeting of May 4, 2011 that is to say 390,000,000 euros.

Your Board of Directors proposes, on the basis of its report, that it be granted the ability, and to sub-delegate it, for a period of eighteen months, to decide on one increase in capital and to cancel your preferential subscription rights to the ordinary shares and marketable securities. If necessary, it will determine the final conditions for this operation.

It is the responsibility of Board of Directors to prepare a report in accordance with articles R.225-113 and following of the French Commercial Code (*Code de commerce*). It is our responsibility to report on the fairness of the financial information taken from the financial statements, on the proposed cancellation of preferential subscription rights and on other information relating to the share issue, provided in this report.

We have performed the procedures which we considered necessary in accordance with the professional guidance issued by the national auditing body (*Compagnie nationale des Commissaires aux comptes*) relating to this operation. These standards require that we perform the necessary procedures to verify the contents of the Board of Director's report relating to this operation and on the methods for determining the issue price of the ordinary shares and of the marketable securities conferring entitlement to the Company's share capital, to be issued.

Subject to a subsequent examination of the conditions for the operation that may be decided, we have nothing to report on the methods for determining the issue price of the ordinary shares and of the marketable securities conferring entitlement to the Company's share capital, to be issued, provided in the Board of Directors report.

As the final conditions for the increase in capital have not yet been determined, we cannot report on these conditions and, consequently, on the proposed cancellation of preferential subscription rights.

In accordance with article R. 225-116 of the French Commercial Code (*Code de commerce*), we will prepare an additional report, if necessary, when using this delegation by your Board of Directors.

Courbevoie and Paris-La Défense, March 1, 2012

The Statutory Auditors

MAZARS		ERNST & YOUNG et Autres	
Lionel Gotlib	Daniel Escudeiro	Jean-Yves Jégourel	Emmanuelle Mossé

Additional information

6

SHARE CAPITAL 286

Trends in share capital over the past three years 286

Changes in share capital ownership over the last three years 287

Share capital and voting rights for the last three years 287

Amount of share capital held by employees 287

Delegations of authority granted at the Shareholders' Meeting 288

GENERAL INFORMATION 290

General information 290

Articles of association 290

Dividends 297

Management of the Company 297

Property, plant and equipment 297

Document accessible to the public 298

Incorporation by reference 298

TRADE PAYABLES 299

FACTORS THAT MAY HAVE AN IMPACT IN THE EVENT OF A TAKEOVER BID 300

Board of Directors' powers 300

Agreements that may be modified or terminated in the event of a change of control of the Company 300

Agreements providing indemnities for board members or employees if they resign or are dismissed without good and sufficient cause or if their employment ends due to a takeover bid 301

PERSON RESPONSIBLE FOR THE REFERENCE DOCUMENT 302

Person responsible for the Reference Document 302

Certification by the person responsible for the Reference Document 302

CROSS-REFERENCE TABLE 303

CROSS-REFERENCE TABLE FOR THE FINANCIAL ANNUAL REPORT 307

GLOSSARY 308

Financial glossary 308

Technical glossary 311

SHARE CAPITAL

Trends in share capital over the past three years

Issue date	Type of transaction	Number of shares issued	Aggregate number of shares	Capital increase	Issue premiums and reserves	Share capital
(in euros, except for shares)						
February 13, 2009	Exercise of share subscription options	57,828	260,947,525	318,054.00	2,694,354.76	1,435,211,387.50
May 7, 2009	Exercise of share subscription options	683,931	261,631,456	3,761,620.50	32,547,284.02	1,438,973,008.50
May 7, 2009	Share capital increase reserved for employees	999,229	262,630,685	5,495,759.50	43,457,905.33	1,444,468,767.50
November 17, 2009	Exercise of share subscription options	1,509,603	264,140,288	8,302,816.50	72,434,991.84	1,452,771,584.00
February 12, 2010	Exercise of share subscription options	142,557	264,282,845	784,063.50	6,924,704.50	1,453,555,647.50
May 25, 2010	Exercise of share subscription options	484,866	264,767,711	2,666,763.00	23,696,699.54	1,456,222,410.50
May 25, 2010	Free share attribution (1 for 15)	17,651,181	282,418,892	97,081,495.50	(97,081,495.50)	1,553,303,906.00
May 25, 2010	Free share attribution loyalty bonus (1 for 150)	427,259	282,846,151	2,349,924.50	(2,349,924.50)	1,555,653,830.50
December 9, 2010	Exercise of share subscription options	426,941	283,273,092	2,348,175.50	20,201,739.90	1,558,002,006.00
December 9, 2010	Share capital increase reserved for employees	712,958	283,986,050	3,921,269.00	49,340,211.86	1,561,923,275.00
February 14, 2011	Exercise of share subscription options	173,741	284,159,791	955,575.50	8,037,099.31	1,562,878,850.50
May 4, 2011	Exercise of share subscription options	498,167	284,657,958	2,739,918.50	22,828,176.20	1,565,618,769.00
May 4, 2011	Cancellation of shares	(1,200,000)	283,457,958	(6,600,000)	(94,044,685.22)	1,559,018,769.00

Note: Between May 4 and December 31, 2011, 354,983 options were exercised, giving rise to an outstanding capital as at December 31, 2011 of 1,560,971,175.50 euros, divided up into 283,812,941 shares.

Changes in share capital ownership over the last three years

	2009	2010	2011
Individual shareholders	38%	36%	37%
French institutional investors	26%	23%	21%
Foreign institutional investors	36%	40%	42%
Own shares held by the Company (directly and indirectly)	>0%	<1%	>0%

THRESHOLD NOTIFICATIONS IN 2011

- On November 16, 2011 MFS Asset Management reported that it had breached the 2% threshold as fixed under the Company's articles of association and held 2.03% of the capital of the Company as of this date.
- On November 23, 2011 Natixis Asset Management reported that it had breached the 2% threshold and held 2.00% of the capital of the Company as of this date.
- On December 7, 2011 Natixis Asset Management reported that it had reduced its position below the 2% threshold and held 1.90% of the capital of the Company as of this date.
- On December 31, 2011 no shareholder had notified holding 5% or more of the capital and voting rights.

Share capital and voting rights for the last three years

	Number of shares comprising share capital	Theoretical number of voting rights (including treasury shares)	Actual number of voting rights (excluding treasury shares)
2009	264,254,354	264,254,354	262,934,791
2010	284,095,093	284,095,093	282,755,469
2011	**283,812,941**	**283,812,941**	**282,693,265**

There are no double voting rights.

To the best of the Company's knowledge, there are no shareholders' agreements or joint or concerted action agreements.

The portion of the L'Air Liquide S.A. share capital comprising the directly registered shares owned by the main shareholders and pledged is not material.

Amount of share capital held by employees

Since 1986, L'Air Liquide S.A. has given the employees of certain Group companies the possibility to subscribe to capital increases reserved for them. At the end of 2011, the share of capital held by employees and former employees of the Group is estimated at 2.2%, of which 1.6% that is 4,415,684 shares (in the meaning of Article L. 225-102 of the French Commercial Code) correspond to shares subscribed by employees during employee reserved capital increase operations or held through mutual funds.

Delegations of authority granted at the Shareholders' Meeting

Type of authorization	Purpose of the authorization	Validity of the delegation	Maximum amount	Utilization in 2011
Share buyback	Purchase own shares for the purpose of: • cancelling them; • retaining them for the purpose of a share exchange or payment as part of an external growth strategy, in accordance with applicable regulations; • tendering them following the exercise of rights attached to marketable securities conferring entitlement to Company shares by redemption, conversion, exchange, presentation of a warrant or any other means; • implementing (i) share purchase option plans, or (ii) free share attribution plans, or (iii) any employee share ownership transactions in favor of its employees or those of its subsidiaries, or (iv) allocations of shares to employees and/or corporate officers of the Company and affiliated companies, in accordance with applicable legal and regulatory provisions the laws and regulations in force; • maintaining an active market in the Company's shares pursuant to a liquidity contract in accordance with an Ethics Charter recognized by the French financial markets authority (*Autorité des marchés financiers*).	Granted during the Shareholders' Meeting on May 4, 2011* For a period of 18 months Maximum price: 165 euros	10% of share capital, or 28,409,509 shares, for a maximum par value amount of 4,687,568,985 euros	**Treasury shares:** 47,700 Company treasury shares were tendered in connection with the 2009 CGSE Plan ("France" Plan). In the 1st quarter of 2011, pursuant to the preceding delegation authorized by the Shareholders' Meeting of May 5, 2010, 1 million treasury shares were purchased at an average price of 92.96 euros. No treasury shares were purchased between May 2011 and December 31, 2011 pursuant to the delegation granted by the Shareholders' Meeting of May 4, 2011. Considering these transactions, as of December 31, 2011, the Company owned 901,141 shares at an average price of 86.22 euros, *i.e.* a balance sheet value of 77,692,976 euros. **Liquidity contract changes:** 3,434,080 shares purchased at an average price of 92.08 euros and 3,406,304 shares sold at an average price of 92.29 euros. As of December 31, 2011, under the liquidity contract, the balance sheet value of the 140,276 shares held was 12,808,104 euros (see Information on the completion of the Company's share buyback program page 264).
Cancellation of shares purchased by the Company	Reduce the number of outstanding shares and improve basic earnings per share.	Granted during the Shareholders' Meeting of May 4, 2011* For a period of 24 months	10% of share capital	1.2 million shares were cancelled in May for a total carrying amount of 100,644,685 euros (or an average price of 83.87 euros). (see Information on the completion of the Company's share buyback program on page 264).
Share capital increase	Increase share capital by the issuance of shares or marketable securities conferring entitlement, immediately or in the future, to the Company's capital, with retention of the shareholders' preferential share subscription rights.	Granted during the Shareholders' Meeting of May 4, 2011 For a period of 26 months	For a maximum par value amount of 390 million euros	This authorization was not used in 2011.
Share capital increase	To be able to increase the amount of shares or marketable securities issued with retention of the shareholders' preferential share subscription rights in the event of oversubscription.	Granted during the Shareholders' Meeting of May 4, 2011 For a period of 26 months	To be deducted from the aforementioned overall limit of 390 million euros	This authorization was not used in 2011.

* *Renewal proposed at the Shareholders' Meeting of May 9, 2012.*

Type of authorization	Purpose of the authorization	Validity of the delegation	Maximum amount	Utilization in 2011
Share capital increase	Increase share capital by capitalization of additional paid-in capital, reserves, profits, or other items amounts in view of the attribution of free shares and/or an increase in the par value of existing shares.	Granted during the Shareholders' Meeting of May 5, 2010 * For a period of 26 months	For a maximum par value amount of 250 million euros	This authorization was not used in 2011.
Share capital increase	Increase share capital by the issuance of shares intended to be subscribed by employees of the Company and affiliated companies, members of a company or group savings plan, by cancelling the shareholders' preferential share subscription rights to the issued shares. Increase share capital by the issuance of shares intended to be subscribed to by employees and corporate officers of Group companies abroad, by cancelling the shareholders' preferential share subscription rights to the issued shares.	Granted during the Shareholders' Meeting of May 4, 2011* For a period of 26 months Granted during the Shareholders' Meeting of May 4, 2011* For a period of 18 months	A par value amount of 30.25 million euros and a maximum of 5.5 million shares	These authorizations were not used in 2011.
Bond issuance	Issue one or more bonds.	Granted during the Shareholders' Meeting of May 7, 2008 For a period of 5 years	8 billion euros	As of December 31, 2011, the outstanding amount of L'Air Liquide S.A. bond issues totaled 1.6 billion euros and 4.0 billion euros for the Air Liquide Group.
Issuance of share subscription warrants	Issue free share subscription warrants in the event of a takeover bid for the Company.	Granted during the Shareholders' Meeting of May 4, 2011 For a period of 18 months	A par value amount of 515.4 million euros	This authorization was not used in 2011.
Allotment of share subscription options	Grant to employees and/or corporate officers of the Company or of French and foreign subsidiaries, or some of them, options conferring entitlement to subscribe to shares of the Company to be issued to increase the share capital or options conferring entitlement to purchase the Air Liquide shares bought back by the Company.	Granted during the Shareholders' Meeting of May 5, 2010 For a period of 38 months	2% of the Company's capital on the date the options are granted	675,680 Air Liquide share subscription options were allotted by the Board of Directors on October 14, 2011.
Conditional Grant of Shares to Employees (CGSE)	Subject to certain requirements, allot free shares to employees and corporate officers of the Group (but excluding corporate officers of the Company) either from existing shares or *via* new issues.	Granted during the Shareholders' Meeting of May 5, 2010 For a period of 38 months	0.5% of the Company's capital on the date of decision to allot free shares	106,658 free shares subject to performance requirements were allotted by the Board of Directors on October 14, 2011.

* *Renewal proposed at the Shareholders' Meeting of May 9, 2012.*

GENERAL INFORMATION

General information

Law applicable to L'Air Liquide S.A.
French law.

Incorporation and expiration dates
The Company was incorporated on November 8, 1902, for a set term expiring on February 17, 2028.

Business and Company register
552 096 281 RCS Paris

APE code: 2011Z

Consulting legal documents
The articles of association, Minutes of Shareholders' Meetings and other Company documents may be consulted at Company headquarters.

Fiscal year
The Company's fiscal year starts on January 1, and ends on December 31, of the same year.

Address and phone number of the head office
75, quai d'Orsay, 75007 Paris – +33 (0)1 40 62 55 55

Articles of association

SECTION I

NAME – PURPOSE – HEAD OFFICE – TERM

Article 1: Form and name

The Company is a joint stock company, with a Board of Directors. This company will be governed by the laws and regulations in force and these articles of association.

The Company's name is "L'Air Liquide, *Société anonyme pour l'Étude et l'Exploitation des procédés Georges Claude*".

Article 2: Purpose

The Company's corporate purpose includes:

- the study, exploitation, sale of the patents or inventions of Messrs. Georges and Eugène Claude pertaining to the liquefaction of gases, the industrial production of refrigeration, liquid air and oxygen, and the applications or utilizations thereof;
- the industrial production of refrigeration, of liquid air, the applications or uses thereof, the production and liquefaction of gases, and in particular oxygen, nitrogen, helium and hydrogen, the applications and uses thereof in all forms, pure, in blends and combinations, without any distinction as to state or origin, in all areas of application of their physical, thermodynamic, chemical, thermochemical and biological properties, and, in particular, in the domains of propulsion, the sea, health, agri-business and pollution;
- the purchase, manufacturing, sale, use of all products pertaining directly or indirectly to the aforementioned corporate purpose, as well as all sub-products resulting from their manufacturing or their use, of all machines or devices used for the utilization or application thereof and, more specifically, the purchase, manufacturing, sale, use of all products, metals or alloys, derived or resulting from a use of oxygen, nitrogen and hydrogen, pure, blended or combined, in particular of all oxygenated or nitrogenous products;
- the study, acquisition, direct or indirect exploitation or sale of all patents, inventions or methods pertaining to the same corporate purposes;
- the exploitation, directly or through the incorporation of companies, of all elements connected, directly or indirectly, with the Company's purpose or likely to contribute to the development of its industry;
- the supply of all services, or the supply of all products likely to develop its clientele in the industry or health sectors.

The Company may request or acquire all franchises, perform all constructions, acquire or lease all quarries, mines and all real property, and take over all operations connected with its corporate purpose, sell or lease these franchises, merge or create partnerships with other companies by acquiring company shares or rights, through advances or in any appropriate manner. It may undertake these operations either alone or jointly.

Lastly, and more generally, it may carry out all industrial, commercial, real estate, personal or financial operations pertaining directly or indirectly to the corporate purposes specified above.

Article 3: Head office

The Company's head office is located at 75, quai d'Orsay, Paris.

It may be transferred upon a Board of Directors' decision to any other location in Paris or a neighboring department, subject to the ratification of such decision by the next Ordinary General Shareholders' Meeting, and anywhere else by virtue of a decision by an Extraordinary Shareholders' Meeting.

Article 4: Term

The Company's term has been fixed at 99 years beginning on February 18, 1929, except in the event of early dissolution or extension.

SECTION II

SHARE CAPITAL – SHARES – IDENTIFICATION OF SHAREHOLDERS

Article 5: Share capital

The share capital has been set at 1,561,436,464.50 euros divided into 283,897,539 fully paid-up shares of a par value of 5.50 euros each.

Share capital is increased under the conditions stipulated by law either by issuing ordinary or preferred shares, or by raising the par value of existing shares. It may also be increased by exercising the rights attached to marketable securities granting access to share capital, under the conditions stipulated by law.

In accordance with prevailing legal provisions, unless otherwise decided by the Shareholders' Meeting, the shareholders have, in proportion to the amount of shares they own, a preferential subscription right to the shares issued in cash in order to increase share capital.

The share capital may also be reduced under the conditions stipulated by law, in particular, by reducing the par value of the shares, or by reimbursing or redeeming shares on the stock exchange and by canceling shares, or by exchanging existing shares for new shares, in an equivalent or lesser number, with or without the same par value, and with or without a cash balance to be paid or received. The Shareholders' Meeting may always compel the shareholders to sell or purchase existing shares to permit the exchange of existing shares for new shares, with or without a cash balance to be paid or received, even if such reduction is not a result of losses.

Article 6: Shares

If the new shares are not fully paid up upon issuance, calls for payment shall be performed, on dates set by the Board of Directors, by means of announcements posted one month in advance in one of the Paris official legal publications chosen for the legal publication of the Company's deeds.

Shares not fully paid up shall be held as registered shares until they are fully paid up.

Each payment on any subscribed shares will be registered in an account opened in the name of the subscriber.

All late payments shall automatically bear interest, for the benefit of the Company, as of the due date, without any formal notice or legal action, at the legal interest rate, subject to any personal action that the Company may take against any defaulting shareholder and the compulsory execution measures provided by law.

Article 7: Type of shares

Paid-up shares are registered as registered shares or bearer shares depending on the choice of the shareholder.

The provisions of the aforementioned paragraph also apply to other securities of any nature issued by the Company.

Article 8: Rights and obligations governing shares

Shareholders shall not be liable above the amount of their subscription.

Share ownership automatically binds shareholders to the articles of association and the decisions of the Shareholders' Meetings.

Any share grants entitlement, during the Company's term, as in the event of liquidation, to the payment of an identical net amount for any distribution or redemption.

Shares are freely transferable under the conditions provided by law.

Article 9: Identification of shareholders

The Company may avail itself at any time of the legal and statutory provisions in force permitting the identification of the owners of shares conferring immediately or in the future the right to vote in Shareholders' Meetings, as well as the number of shares they own.

In addition to the legal obligations to notify the Company, any person, acting alone or jointly, coming in direct or indirect possession of a fraction of the Company's capital or voting rights equal to or greater than 2%, or a multiple of 2% of capital or voting rights (including above the 5% threshold), is required to inform the Company within fifteen days as of the date on which the threshold is exceeded and, as the case may be, independently of the effective transfer date of share ownership. The person shall state the number of shares and marketable securities granting entitlement to capital that he or she owns on the date of notification. Any decrease below the 2% threshold or a multiple of 2% of capital or voting rights shall be notified in the same manner.

In the event of a failure to meet this additional notification obligation, one or several shareholders, owning a fraction of the Company's capital or voting rights amounting to at least 2%, may, at a Shareholders' Meeting, request that the shares exceeding the fraction which should have been reported, be stripped of their voting rights for any Shareholders' Meeting held until the end of a two-year period following the date on which the notice is rectified. The request is recorded in the minutes of the Shareholders' Meeting.

Article 10: Co-ownership and usufruct

As all shares are indivisible from the point of view of the Company, all joint owners of shares are required to be represented vis-à-vis the Company by a single owner selected from among them or proxy under the conditions provided by law.

The voting right attached to the share is exercised by the beneficial owner at both Ordinary and Extraordinary Shareholders' Meetings. However, the bare-owner shall be entitled to attend all Shareholders' Meetings. He or she may also represent the beneficial owner at Shareholders' Meetings.

The heirs, creditors, trustees or successors of a shareholder may not, on any grounds whatsoever, call for the affixing of seals on the Company's assets and securities, request the distribution thereof, or interfere in any manner whatsoever in its administration.

In order to exercise their rights, they must consult the Company's records and decisions of the Shareholders' Meetings.

SECTION III

MANAGEMENT OF THE COMPANY

Article 11: Composition of the Board of Directors

The Company is managed by a Board of Directors, comprising a minimum of three members and a maximum of fourteen members (unless temporarily waived in the event of a merger), physical persons or legal entities.

The members of the Board of Directors are appointed by the Ordinary Shareholders' Meeting for a term of four years expiring at the close of the Shareholders' Meeting held to approve the financial statements for the previous year and which is held in the year during which the mandate expires. As an exception to this rule, the members of the first Board of Directors who exercised functions as members of the Supervisory Board in the Company under its former mode of administration shall be appointed for a period equal to the remaining term of their mandate as members of the Supervisory Board.

The members of the Board of Directors may be re-elected.

Each Director must own at least 500 registered shares in the Company during the term of his functions. If, on the date of his appointment, a Director does not own the required number of shares or if, during his term, he ceases to own them, he is deemed to have resigned with immediate effect if he has not rectified the situation within a period of three months.

In the event of a vacancy of one or more seats due to death or resignation, the Board of Directors may, between two Shareholders' Meetings, make temporary appointments. Provisional appointments made by the Board of Directors are subject to the approval of the next Ordinary Shareholders' Meeting. If the number of Directors falls below the legal minimum, the remaining Directors must immediately convene an Ordinary Shareholders' Meeting in order to make up the numbers of the Board.

No individual over the age of 70 shall be appointed as a member of the Board of Directors if his appointment increases the number of the members of the Board of Directors who have passed this age to over one third. If during their term, the number of the members of the Board of Directors who have passed 70 years of age exceeds one third of the Board's members, the oldest member of the Board of Directors who has not carried out management functions in the Company is deemed to have resigned at the end of the Annual Shareholders' Meeting held following the occurrence of this event.

During the Company's term, Directors are appointed and their mandates renewed under the conditions provided by law.

They may be dismissed by the Ordinary Shareholders' Meeting at any time.

Article 12: Organization and management of the Board of Directors

The Board of Directors elects from among its members who are individuals, a Chairman. It determines his remuneration and sets his term of office which may not exceed his term of office as Director. The Chairman may be re-elected.

The Chairman of the Board of Directors performs the duties entrusted to him by law. He chairs the Board of Directors, organizes and manages its work and reports on such work to the Shareholders' Meeting. He ensures that the Company's bodies operate properly and, in particular, that the Directors are able to fulfill their assignments.

The Board may also appoint from among its members one or more Vice-Chairmen, whose term of office shall be determined within the limit of their term as Director and whose role it is, subject to the legal provisions applicable in the event of the temporary impediment or death of the Chairman, to convene and chair Board meetings or chair Shareholders' Meetings in accordance with these articles of association when the Chairman is impeded.

No Director who does not also assume the role of Chief Executive Officer may be appointed as Chairman of the Board of Directors after the age of 68. If, during the term of office, this age limit is reached, the Chairman's mandate shall terminate at the close of the Shareholders' Meeting held to approve the financial statements for the year during which he has reached the age of 68. If the Chairman of the Board of Directors also assumes the role of Chief Executive Officer, the applicable age limit is that applicable to the Chief Executive Officer.

The Chairman and each Vice-Chairman may be dismissed by the Board of Directors at any time. They may also be re-elected.

The Board may appoint a secretary who need not be a shareholder or one of its members.

Article 13: General Management

Management organization

In accordance with the law, the Company's General Management is assumed either by the Chairman of the Board of Directors or by any other physical person, Director or not, appointed by the Board of Directors and who assumes the role of Chief Executive Officer.

The choice between either of the two General Management organizations described above is made by the Board of Directors. The Board of Directors makes its decision relating to the choice of General Management organization under the *quorum* and majority conditions stipulated in Article 14 of these articles of association. The shareholders and third parties are informed of the Board of Directors' decision under the conditions stipulated by the regulations in force.

The choice made by the Board of Directors remains valid until it decides otherwise.

The Board of Directors will review, as necessary, the choice made each time the mandate of the Chairman of the Board of Directors or the Chief Executive Officer comes up for renewal.

Chief Executive Officer

If the Company's Chief Executive Officer is assumed by the Chairman of the Board of Directors, the following provisions relating to the Chief Executive Officer are applicable.

The Board of Directors sets the term of office and determines the remuneration of the Chief Executive Officer.

No individual over the age of 63 may be appointed as Chief Executive Officer. If, during the term of office, this age limit is reached, the Chief Executive Officer's mandate shall terminate at the close of the Shareholders' Meeting held to approve the financial statements for the year during which he has reached the age of 63.

The Chief Executive Officer may be dismissed at any time by the Board of Directors. The discharge of a Chief Executive Officer who does not assume the role of Chairman may give rise to damages if decided without reasonable cause.

The Chief Executive Officer may always be re-elected.

Powers of the Chief Executive Officer

The Chief Executive Officer is vested with the broadest powers to act in all circumstances on behalf of the Company within the limit of the Company's corporate purpose, the articles of association, and subject to the powers expressly granted by law to Shareholders' Meetings and the Board of Directors.

The Board of Directors is responsible for defining the decisions of the Chief Executive Officer that require its prior approval. The Board of Directors' prior approval should be sought particularly for external acquisitions or sales of interests or assets, and for investment commitments, in each case under the conditions and exceeding the amounts corresponding to an efficient operation of the Company as set by the Board of Directors. It should also be sought for financing operations of any amount likely to substantially alter the Company's financial structure and for any decision likely to substantially alter the Company's strategic orientations determined by the Board of Directors.

Senior Executive Vice-Presidents

On the Chief Executive Officer's proposal, whether he be Chairman of the Board of Directors or any other person, the Board of Directors may appoint one or more physical persons as Senior Executive Vice-Presidents to assist the Chief Executive Officer.

The maximum number of Senior Executive Vice-Presidents is set at three.

In accordance with the Chief Executive Officer, the Board of Directors determines the scope and term of the powers granted to the Senior Executive Vice-Presidents and sets their remuneration.

The Senior Executive Vice-Presidents have the same powers as the Chief Executive Officer *vis-à-vis* third parties.

In the event of impediment of the Chief Executive Officer or the cessation of his functions, the Senior Executive Vice-Presidents shall maintain, unless decided otherwise by the Board of Directors, their functions and powers until a new Chief Executive Officer is appointed.

The Senior Executive Vice-Presidents may be dismissed at any time by the Board of Directors, at the Chief Executive Officer's proposal. They are subject to the age limit provided by law.

Senior Executive Vice-Presidents may be re-elected.

Article 14: Board of Directors' Meetings and deliberations

The Board of Directors meets as often as the interest of the Company so requires, by notice from its Chairman or in the case of impediment, from the oldest Vice-Chairman, if one or more Vice-Chairmen have been appointed, at the head office or in any other location indicated in the Notice of Meeting.

The agenda is set by the Chairman and may only be finalized at the time of the Meeting.

Directors representing at least one third of members of the Board of Directors may, while specifying the meeting's agenda, ask the Chairman to summon the Board if it has not met for more than two months.

Likewise, the Chief Executive Officer, if he does not chair the Board of Directors, may ask the Chairman to summon the Board of Directors on any specified agenda.

The Chairman is bound to the requests made to him.

In the event that the Chairman is impeded or fails in performing the aforementioned tasks, the oldest Vice-Chairman, if one or more Vice-Chairmen have been appointed, shall have the authority to call the Board and set the meeting's agenda at the request of at least one third of members of the Board of Directors or the Chief Executive Officer, as the case may be. In the absence of a Vice-Chairman, the minimum of one third of members of the Board of Directors or the Chief Executive Officer, depending on the case, shall have the authority to call the Board and set the meeting's agenda.

Notices may be made by all means, including verbally.

The presence of one half of the members of the Board of Directors is required for the validity of the Board's decisions.

Decisions are made by a simple majority of the votes of the members present or represented. In the event of a tie, the Chairman shall have the casting vote.

The Board of Directors will set its internal rules that it may amend by simple resolution.

The Board of Directors may stipulate in its internal rules that the members of the Board of Directors who take part in the Board's Meeting by videoconference or telecommunications in accordance with the conditions provided by the regulations in force shall be considered as present for calculating the *quorum* and voting majority of the members, for all decisions in which the law does not exclude such possibility.

Article 15: Powers of the Board of Directors

The Board of Directors determines the orientations of the Company's activities and ensures their implementation.

Subject to the powers expressly attributed to Shareholders' Meetings by law and these articles of association and in accordance with the corporate purpose, the Board deals with any issues concerning the smooth running of the Company and manages corporate business pursuant to its decisions.

The Board of Directors may conduct controls and verifications as it deems appropriate.

The Board is authorized to issue bonds pursuant to a delegation granted by the Ordinary Shareholders' Meeting.

It may also decide to create committees of its members responsible for analyzing issues which it itself or its Chairman submits thereto for review. The Board determines the composition and powers of the committees which conduct their activities under its responsibility.

Issues related to the performance, remuneration and, where appropriate, the renewal of the term of office of the Chairman and Chief Executive Officer, or the Chief Executive Officer, shall be decided by the Board of Directors as and when required, and at least once a year, after analysis by the committee(s) of the Board of Directors that deal with appointment and remuneration issues.

Article 16: Remuneration

The Ordinary Shareholders' Meeting may allocate to the members of the Board of Directors, as remuneration for their activity, a fixed annual amount in Directors' fees. The Board of Directors is free to distribute the overall sum thus allocated among its members. It may also allocate a greater amount to the Directors who are members of committees set up within the Board than that allocated to the other Directors.

The Board may allocate exceptional sums to remunerate assignments or mandates entrusted to the members of the Board.

SECTION IV

STATUTORY AUDITORS

Article 17: Audit of the Company

At the Ordinary Shareholders' Meeting, the shareholders appoint, under the conditions and with the assignments set by law, the principal and deputy Statutory Auditors.

SECTION V

SHAREHOLDERS' MEETINGS

Article 18: Shareholders' Meetings

The Shareholders' Meeting is comprised of all the shareholders, regardless of the number of shares they own, provided that all shares are fully paid up and that they are not stripped of voting rights.

The following persons may take part in the Shareholders' Meetings:

- the owners of shares registered in the share account at least three days prior to the scheduled date of the meeting;
- the owners of bearer shares for which proof of registration of their shares under the conditions stipulated by prevailing regulations is provided at least three days prior to the meeting.

The owners of registered shares or bearer shares must furthermore have filed a proxy form, an absentee ballot form, or a single document presented in lieu thereof, or if the Board of Directors has so decided, a request for an admission card, three days prior to the meeting.
However the Board of Directors shall always have the right, if it deems suitable, to shorten these periods. It shall also be entitled to authorize the sending of the proxy and absentee ballot forms by electronic mail to the Company in accordance with the legal and regulatory conditions in force.

The electronic signature can, when used, take the form of a process that satisfies the conditions defined in the first sentence of section 2 of Article 1316-4 of the French Civil Code.

The Shareholders' Meeting, duly constituted, represents all of the shareholders.

Ordinary and Extraordinary Shareholders' Meetings, and where necessary, Special Shareholders' Meetings are convened, meet and deliberate under the conditions provided by law and these articles of association.

Meetings take place at the head office or at any other place designated by the author of the notice, even outside of the head office or the head office's department.

Shareholders' Meetings are chaired by the Chairman of the Board of Directors or, in his absence, by the Vice-Chairman or the oldest Vice-Chairman of the Board, if one or more Vice-Chairmen have been appointed, or otherwise by a Director specifically appointed for this purpose by the Board. In the event of impediment of the Vice-Chairman or Vice-Chairmen when Vice-Chairmen have been appointed or if the Board has not appointed a Director, the shareholders shall themselves appoint the Chairman.

The two members of the Shareholders' Meeting with the highest number of votes and having accepted the position act as ballot inspectors for the Shareholders' Meeting. The officers of the meeting appoint a secretary who need not be a shareholder.

In the event that the meeting is convened by a Statutory Auditor or by a judicial representative, the Shareholders' Meeting is chaired by the author of the notice.

Upon the decision of the Board of Directors published in the Notice of Meeting or notice of convocation to rely on means of telecommunication, the shareholders who take part in the Shareholders' Meeting by videoconference or using telecommunications means permitting their identification in accordance with the conditions provided by prevailing law, shall be considered as present for calculating the *quorum* and voting majority.

Article 19: Powers of Shareholders' Meetings

Ordinary and Extraordinary Shareholders' Meetings, and where necessary, Special Shareholders' Meetings allow shareholders to exercise the powers defined by law and these articles of association.

During the Ordinary Shareholders' Meeting, shareholders decide or authorize the issue of bonds secured, where necessary, by specific collateral in accordance with prevailing laws and regulations and authorizes the Chairman to grant such collateral. This may delegate to the Board of Directors the competence and powers necessary to issue such bonds, in one or more installments, within a period set by it, and to determine the terms and conditions of the issuance of such bonds. The guarantees set up subsequent to the issue of the bonds are granted by the Chairman of the Board of Directors upon the Board's authorization.

SECTION VI

INVENTORY – RESERVES – DISTRIBUTION OF PROFITS

Article 20: Fiscal year

The fiscal year begins on January 1 and ends on December 31.

Article 21: Inventory, distribution of profits

The Company's net proceeds, established in the annual inventory, after deducting overheads and other costs, including all amortization, depreciation and provisions, constitute the net profits.

From these profits, less, as the case may be, previous losses, a deduction of at least 5% is first of all made to create the reserve required by law. This deduction ceases to be mandatory when the reserve amounts to 10% of the share capital. It is resumed if this reserve is ever used.

The distributable profits are made up of the annual net profits, less previous losses, as well as the sums to be placed on reserve pursuant to law, plus the profit carried forward.

From these profits, a deduction is made of the amount necessary to pay the shareholders, as a first dividend, 5% of the sums paid-up on their shares, and not amortized, and 5% of the sums from premiums on shares issued in cash, and appearing in a "share premium" account, without it being possible, if the profits of a given year do not permit this payment, for the shareholders to claim such amounts from the profits of subsequent years.

The Shareholders' Meeting may decide to earmark any portion of the available surplus of said profits it wishes for the creation of general or special providence or reserve funds, under any name whatsoever or even simply as an amount carried forward.

The balance constitutes a surplus fund which is intended for the distribution of the second dividend as well as the amount provisionally assessed as necessary to pay a 10% increase to the registered shares satisfying the following conditions.

Starting on January 1, 1996, the shares registered at December 31 of each year in registered form for at least two years, and which remain registered until the date of the payment of the dividend, will entitle their owners to collect a dividend per share which is 10% higher, rounded down if necessary to the lower centime, than the dividend per share distributed in respect of other shares, provided that the amount of the dividend per share prior to any increase is at least equal to the amount of the dividend per share prior to any increase distributed in the preceding year, adjusted to take into account the change in the number of shares from one year to the next resulting in a capital increase by capitalizing premiums, reserves or profits or a share split.

In the event that, starting on January 1, 1996, the Board of Directors, with the approval of the shareholders decide to increase the capital by capitalizing reserves, profits or premiums, the registered shares held for at least two years on the date on which the attribution process begins will entitle their owners to an attribution of shares which is 10% higher than the attribution made in favor of other shares, and according to the same procedure.

The new shares created in this manner will be comparable in all respects to the existing shares from which they are issued, for calculating the entitlement to the higher dividends and the higher attributions.

The increases defined in each of the two preceding paragraphs may be modified or eliminated by simple decision during the Extraordinary Shareholders' Meeting, according to the procedures it determines.

Pursuant to law, the number of shares eligible for these increases shall not for any given shareholder exceed 0.5% of the Company's share capital.

The Shareholders' Meeting held to approve the financial statements for the year shall have the possibility of granting to each shareholder, for all or part of the dividend or interim dividends, an option for payment of the dividend or interim dividends in either cash or shares.

SECTION VII

LIQUIDATION

Article 22: Liquidation

At the expiration of the Company's term, or in the event of early dissolution, the shareholders determine the method of liquidation, in accordance with the conditions stipulated by law. It appoints and determines the powers of one or more liquidators.

The liquidators may, pursuant to a decision of the shareholders transfer to another company or sell to a company or to any other entity or person, all or part of the assets, rights and obligations of the dissolved company.

The duly constituted Shareholders' Meeting retains the same prerogatives during the liquidation as during the Company's term. In particular, it has the power to approve the accounts of the liquidation and to grant a discharge thereof.

After the Company's commitments have been settled, the net proceeds from the liquidation are used first to fully redeem the shares, and the surplus is then distributed equally among them.

SECTION VIII

DISPUTES

Article 23: Disputes

All disputes which may arise during the Company's term or liquidation, either between the shareholders and the Company or among the shareholders themselves, regarding Company affairs, are settled in accordance with law and submitted to the jurisdiction of the competent Paris courts.

For this purpose, in the event of disputes, all shareholders shall elect domicile in Paris, and all summonses and notices are duly served at this domicile.

Failing election of domicile, summonses and notices are validly served at the Office of Public Prosecution of the French Republic at the High Court of Paris.

Dividends

Year	Paid	Ordinary dividend [a] Loyalty dividend [b]	Number of shares	Distribution (in euros)
2009 [e]	May 17, 2010	2.25 [a]	263,543,383	592,972,612
		0.22 [b]	62,872,510	13,831,952
				606,804,564
2010 [e]	May 16, 2011	2.35 [a]	282,504,369	663,885,267
		0.23 [b]	67,895,204	15,615,897
				679,501,164
2011 [c] [d]	May 16, 2012	2.50 [a]	283,812,941	709,532,352
		0.25 [b]	78,070,815	19,517,704
				729,050,056

(a) Ordinary dividend paid on all shares.
(b) Loyalty dividend paid only on registered shares held continuously for two full calendar years.
(c) Subject to the approval at the General Shareholders' Meeting on May 9, 2012.
(d) For 2011, amounts distributed are theoretical values calculated based on the number of shares as of December 31, 2011.
(e) For 2009 and 2010, amounts actually paid.

Management of the Company

Pursuant to the statements made to the Company by each corporate officer, the Company confirms that corporate officers do not have any family ties with another corporate officer and have not been convicted of fraud at least during the last five years.

No incrimination and/or official public sanction has been pronounced against them by statutory or regulatory authorities (including professional organizations) and they have not been prevented by a court from acting in their capacity as a member of an administration, management or supervisory body or interfering in the management or carrying out of business of an issuer during at least the last five years. They have no potential conflicts of interest with L'Air Liquide S.A. No arrangements or agreements have been made with the significant shareholders, customers, suppliers or others, pursuant to which the persons mentioned above have been chosen as corporate officers.

There exist no restrictions accepted by these persons as to the transfer, within a certain lapse of time, of their interest in the capital of L'Air Liquide S.A. except for the rules on preventing insider trading and the obligation set forth in the Articles of Association requiring the members of the Board of Directors to own at least 500 registered shares of the Company during the term of their office and the obligation to hold shares imposed on executive corporate officers. Corporate officers have not been associated with any bankruptcy, any receivership or liquidation during the last five years.

COMPLIANCE WITH CORPORATE GOVERNANCE RULES

The Company complies with all aspects of the recommendations set forth in the AFEP/MEDEF Code of corporate governance (see Report from the Chairman of the Board of Directors page 104), except for the points described in the Chairman's Report (see pages 104 *et seq.*) and the Report on remunerations (see pages 120 *et seq.*) summarized in a table on page 132.

Property, plant and equipment

The Group's facilities and establishments are located in 80 countries around the world, with extremely diversified production capacities and characteristics.

No material tangible fixed asset exists at Group level.

Document accessible to the public

In accordance with Annex I of the European Regulation (EC) 809/2004, documents, or copies of the documents listed below may be consulted during the period of the Reference document's validity at Shareholders Services located at the head office of Air Liquide (75, quai d'Orsay, 75007 Paris) and, if applicable, on the Company's Internet website (www.airliquide.com), subject to the documents made available at the Company's head office or Internet site under the applicable laws and regulations:

- the Company's Articles of Association;
- all reports, letters and other documents, historical financial information, evaluations and official assertions and declarations prepared by an expert at the Company's request, some of which are included or referred to in this Reference Document;
- historical financial information of the Group, for each of the two fiscal years preceding publication of this Reference document.

Incorporation by reference

Pursuant to article 28 of EC Regulation no. 809/2004, the following information is included in this Reference Document:

- the consolidated and parent company financial statements for the year ended December 31, 2009, accompanied by the Statutory Auditor's Reports which appear on pages 207 and 226, respectively, of the 2009 Reference Document filed on March 23, 2010 with the French financial markets authority (AMF) under number D. 10-0143;
- the financial information shown on pages 4 to 39 of the 2009 Reference Document filed on March 23, 2010 with the French financial markets authority (AMF) under number D.10-0143;
- the consolidated and parent company financial statements for the year ended December 31, 2010, accompanied by the Statutory Auditor's Reports which appear on pages 213 and 232, respectively, of the 2010 Reference Document filed on March 24, 2011 with the French financial markets authority (AMF) under number D. 11-0176;
- the financial information shown on pages 4 to 43 of the 2010 Reference Document filed on March 24, 2011 with the French financial markets authority (AMF) under number D. 11-0176.

The sections not included in these documents serve no useful purpose to investors or are already covered in this Reference Document.

TRADE PAYABLES

Pursuant to article D. 441-4 of the French Commercial Code, you will find below a breakdown by maturity date of the trade payables balance of L'Air Liquide S.A. as of December 31, 2010 and December 31, 2011.

		Maturity				
(in millions of euros)	**Balance**	**Past due**	**of which ≤ 30 days**	**of which > 30 days and ≤ 45 days**	**of which > 45 days and ≤ 60 days**	**of which > 60 days**
2010						
Trade payables and related accounts	272.1	14.4	107.5	121.0	27.0	2.2
Amounts payable in respect of fixed assets and related accounts	4.8	0.2	2.5	1.5	0.5	0.1
TOTAL	**276.9**	**14.6**	**110.0**	**122.5**	**27.5**	**2.3**
2011						
Trade payables and related accounts	91.6	6.1	35.6	35.0	14.4	0.5
Amounts payable in respect of fixed assets and related accounts	2.3	0.3	1.6	0.3	0.1	
TOTAL	**93.9**	**6.4**	**37.2**	**35.3**	**14.5**	**0.5**

FACTORS THAT MAY HAVE AN IMPACT IN THE EVENT OF A TAKEOVER BID

Pursuant to Article L. 225-100-3 of the French Commercial Code, the factors that may have an impact in the event a takeover bid are set forth below.

Board of Directors' powers

Pursuant to the provisions of the 16th resolution passed by the Extraordinary Shareholders' Meeting of May 4, 2011, the Board of Directors benefits from an 18-month delegation of authority in order to issue free share subscription warrants if a takeover bid is launched on the Company. The par value amount of the share capital increase that would result from the exercise of these warrants may not exceed 515.4 million euros (subject to adjustments). This authorization expires in November 2012 and its renewal will not be proposed at the Shareholders' Meeting of May 9, 2012.

It is furthermore specified that the share buyback authorization currently granted to the Company excludes any buybacks during a period of bidding on the Company's shares.

Some provisions relating to the stock options plans regulations are also applicable in the event of a takeover bid launched on the Company's shares (see page 136).

Agreements that may be modified or terminated in the event of a change of control of the Company

Several bond issues under the Group's EMTN program include a clause providing that, under certain circumstances, the early repayment of such bonds may be requested in the event of a change of control of the Company:

- bond issued in July 2007 maturing in July 2017 (500 million euros);
- bond issued in October 2007 maturing in March 2013 (295.75 million euros);
- private placement issued in January 2008 maturing in January 2038 (15 billion yen);
- bond issued in November 2008 maturing in November 2012 (468.75 million euros);
- bond issued in June 2009 maturing in June 2015 (255.85 million euros);
- bond issued in June 2010 maturing in June 2020 (500 million euros);
- bond issued in October 2010 maturing in October 2018 (456.75 million euros).
- private placement issued in December 2011 maturing in December 2019 (15.5 billion yen);

Two bond issues outside of the Group's EMTN program include a clause providing that, under certain circumstances, the early repayment of such bonds may be requested in the event of a change of control of the Company:

- bond issued in September 2011 maturing in September 2016 (1,750 million Renminbis);
- bond issued in September 2011 maturing in September 2018 (850 million Renminbis);

Some credit agreements of the Group include a clause providing that, under certain circumstances, the early repayment of the advances made under those credit agreements may be requested in the event of a change of control of the Company.

Agreements providing indemnities for board members or employees if they resign or are dismissed without good and sufficient cause or if their employment ends due to a takeover bid

The indemnities granted to the Company's corporate officers in the event of a termination of their office are detailed on pages 128 *et seq.* of this Reference Document.

PERSON RESPONSIBLE FOR THE REFERENCE DOCUMENT

Person responsible for the Reference Document

Benoît Potier, Chairman and CEO of L'Air Liquide S.A.

Certification by the person responsible for the Reference Document

I hereby attest, after having taken all reasonable measures for such purpose, that the information contained in this Reference Document reflects, to the best of my knowledge, the current situation and does not omit any information that could alter its scope.

I certify that, to the best of my knowledge, the financial statements have been prepared in accordance with applicable accounting standards and give a true and fair view of the assets and liabilities, and of the financial position and results of the Company and of its consolidated subsidiaries, and that the Management Report of the Annual Financial Report defined on 4 to 50, 52 to 96, 102 to 132, 134 to 153, 262, 264, 265, 286 to 289 and 299 to 301 provide a true and fair view of the evolution of the business, results and financial condition of the Company and of its consolidated subsidiaries, and a description of the main risks and uncertainties the Company and its consolidated subsidiaries are subject to.

I have obtained a work completion letter from the Statutory Auditors indicating that they have, in accordance with French professional standards, verified the information on the financial position and the financial statements and have reviewed all of the information presented in the Reference Document.

The Statutory Auditors' Report on the annual financial statements for fiscal year 2011, available in the Reference Document pages 256 and 257, contains an observation.

Paris, March 16, 2012

Benoît Potier

Chairman and CEO

CROSS-REFERENCE TABLE

The cross-reference table identify the main information required by Regulation n° 809/2004 of the European Commission dated April 29, 2004 (the "Regulation"). The table indicates the pages of this Reference Document where is presented the information related to each item. The table indicates, when required by the Regulation, the pages of the Reference Document related to the year ended December 2010, filed on March 24, 2011 under the number D. 11-0176 (the "DDR 2010"), and the pages of the Reference Document related to the year ended December 2009, filed on March 23, 2010 under the number D. 10-0143 (the "DDR 2009"), which are incorporated by reference in this document.

N°	Items of the Annex I of the Regulation	Pages
1.	**Persons responsible**	
1.1.	Indication of persons responsible	302
1.2.	Declaration by persons responsible	302
2.	**Statutory Auditors**	
2.1.	Names and addresses of the auditors	152
2.2.	Indication of the removal or resignation of auditors	N/A
3.	**Selected financial information**	
3.1.	Historical financial information	4 to 7, 26 to 37, 42 to 44
3.2.	Financial information for interim periods	N/A
4.	**Risk factors**	**21 to 25, 114 to 119, 212 to 221**
5.	**Information about the issuer**	
5.1.	History and development of the issuer	10 to 12
5.1.1	The legal and commercial name of the issuer	290
5.1.2	The place and the number of registration	290
5.1.3	The date of incorporation and the length of life of the issuer	290, 291
5.1.4	The domicile and legal form of the issuer, the legislation under which the issuer operates, its country of incorporation, and the address and telephone number of its registered office	290, 291
5.1.5	The important events in the development of the issuer's business	10 to 12, 27, 28
5.2.	Investments	
5.2.1	Principal investments realised	4, 36, 37, 160, 176 4, 29, 30, 140, 156 of DDR 2010 4, 27, 28, 136, 153 of DDR 2009
5.2.2	Principal investments in progress	38 to 41, 224
5.2.3	Principal future investments on which the management bodies have already made firm commitments	38 to 41
6.	**Business overview**	
6.1.	Principal activities	
6.1.1	Nature of the issuer's operations and its principal activities	4, 5, 13 to 20, 26 to 35, 176 to 178 5, 9 to 12, 20 to 28, 156 to 158 of DDR 2010 5, 10 to 13, 21 to 25, 153 to 155 of DDR 2009

N°	Items of the Annex I of the Regulation	Pages
6.1.2	New products	45, 46, 90 to 94
6.2.	Principal markets	4, 5, 13 to 21, 26 to 35, 47, 48, 176 to 178 5, 9 to 13, 20 to 28, 35, 36, 156 to 158 of DDR 2010 5, 10 to 14, 21 to 25, 32, 33, 153 to 155 of DDR 2009
6.3.	Exceptional factors	N/A
6.4.	Dependence on patents or licences, industrial, commercial o financial contracts or new manufacturing processes.	21
6.5.	Basis for statements made by the issuer regarding its competitive position	21
7.	**Organizational structure**	
7.1.	Brief description of the Group	1, 13 to 21
7.2.	List of significant subsidiaries	226 to 230
8.	**Property, plants and equipment**	
8.1.	Material tangible fixed assets	186, 297
8.2.	Environmental issues that pay affect the utilisation of the tangible fixed assets	71 to 85, 225
9.	**Operating and financial review**	
9.1.	Financial condition	4 to 7, 26 to 37, 42 to 44, 157 to 259 4, 5, 20 to 34, 42, 43, 137 to 234 of DDR 2010 4, 5, 21 to 31, 38, 39, 133 to 229 of DDR 2009
9.2.	Operating results	
9.2.1	Significant factors materially affecting the issuer's income from operations	26 to 35, 178 to 182
9.2.2	Disclosure of material changes in net sales or revenues	26 to 35, 178
9.2.3	Policies or factors that have materially affected, or could materially affect, directly or indirectly, the issuer's operations	27, 28, 47 to 49
10.	**Capital resources**	
10.1.	Issuer's capital resources	6, 7, 42 to 44, 160, 161, 192, 206 to 221
10.2.	Sources and amounts of the issuer's cash flows	36, 37, 160, 161
10.3.	Information on the borrowing requirements and funding structure	42 to 44, 206 to 210
10.4.	Restrictions on the use of capital resources	N/A
10.5.	Anticipated sources of funds	36, 37, 42 to 44
11.	**Research and Development, patents and licences**	**45, 46, 90 to 94**
12.	**Trend Information**	
12.1.	The most significant recent trends in production, sales and inventory, and costs and selling prices since the end of the last financial year	50
12.2.	Known trends, uncertainties, demands, commitments or events that are reasonably likely to have a material effect on the issuer's prospects.	50
13.	**Profit forecasts or estimates**	
13.1.	Statement setting out the principal assumptions upon which the issuer has based its forecast or estimate	N/A
13.2.	Report prepared by independent accountants or auditors	N/A
13.3.	Preparation of the forecast or estimate	N/A
13.4.	Statement on the correctness of a forecast included in the prospectus	N/A

N°	Items of the Annex I of the Regulation	Pages
14.	**Administrative, management, and supervisory bodies and Senior Management**	
14.1.	Composition – Statements	102, 103, 143 to 151
14.2.	Conflicts of interests	104 to 106, 132
15.	**Remuneration and benefits**	
15.1.	Remuneration and benefits in kind	108, 120 to 126, 222, 223, 252
15.2.	Pension, retirement or similar benefits	127 to 132, 222, 223, 252
16.	**Board practices**	
16.1.	Current term office	102, 143 to 151
16.2.	Contracts providing benefits upon termination of employment	131
16.3.	Information about Audit and Remuneration Committee	109 to 113, 132
16.4.	Statement related to corporate governance	104, 297
17.	**Employees**	
17.1.	Number of employees	66, 67, 179
17.2.	Shareholdings and stock options	124 to 126, 134, 136 to 138, 223
17.3.	Arrangements involving the employees in the capital of the issuer	135 to 142, 192 to 196, 267, 274 to 276, 287
18.	**Major shareholders**	
18.1.	Identification of the main shareholders	287
18.2.	Voting rights	287
18.3.	Ownership and control	287
18.4.	Arrangements which may result in a change in control of the issuer	287
19.	**Related party transactions**	**221**
20.	**Financial information concerning the issuer's assets and liabilities, financial position and profits and losses**	
20.1.	Historical financial information	4 to 7, 26 to 37, 42 to 44, 157 to 259 4, 5, 20 to 34, 42, 43, 137 to 234 of DDR 2010 4, 5, 21 to 31, 38, 39, 133 to 229 of DDR 2009
20.2.	Pro forma financial information	N/A
20.3.	Financial statements	157 to 259 137 to 234 of DDR 2010 133 to 229 of DDR 2009
20.4.	Auditing of historical annual financial information	
20.4.1	Statement indicating that the historical financial information has been audited	232, 233, 256, 257, 302 213, 232, 292 of DDR 2010 207, 226, 283 of DDR 2009
20.4.2	Indication of other information which has been audited	97, 98, 133, 277 to 283
20.4.3	Source of the data when financial data in the registration document is not extracted from the issuer's audited financial statements	N/A
20.5.	Age of latest financial information	December 31, 2011
20.6.	Interim and other financial information	N/A
20.6.1	Quarterly or half yearly financial information	N/A
20.6.2	Interim financial information	N/A

N°	Items of the Annex I of the Regulation	Pages
20.7.	Dividend policy	295, 296
20.7.1	Amount of dividends	6, 7, 9, 26, 55, 183, 258, 263, 264, 268, 269, 297
20.8.	Legal and arbitration proceedings	24, 197, 225
20.9.	Significant change in the issuer's financial or trading position	225
21.	**Additional information**	
21.1.	Share capital	
21.1.1	Amount of issued capital	162, 192, 258, 286, 287
21.1.2	Shares not representing capital	N/A
21.1.3	Shares held by or on behalf of the issuer itself	162, 192, 279
21.1.4	Convertible securities, exchangeable securities or securities with warrants	N/A
21.1.5	Information about and terms of any acquisition rights and or obligations over authorised but unissued capital or an undertaking to increase the capital	291, 292
21.1.6	Information about any capital of any member of the Group which is under option or agreed conditionally or unconditionally to be put under option and details of such options including those persons to whom such options relate	124 to 126, 135 to 142, 192 to 196, 223, 267, 274 to 276
21.1.7	History of share capital	162, 163, 286, 287 142, 143, 278, 279 of DDR 2010 138, 139, 270, 271 of DDR 2009
21.2.	Memorandum and Articles of Association	
21.2.1	Description of issuer's objects and purposes	290
21.2.2	Provisions of the issuer's articles of association, statutes, charter or bylaws with respect to the members of the administrative, management and supervisory bodies	292 to 294
21.2.3	Description of the rights, preferences and restrictions attaching to each class of the existing shares	291, 292
21.2.4	Description of actions to change the rights of holders of the shares	291, 292
21.2.5	Description of the conditions governing the manner in which annual general meetings and extraordinary general meetings of shareholders are called	295
21.2.6	Description of any provision that would have an effect of delaying, deferring or preventing a change in control of the issuer	300, 301
21.2.7	Description of the conditions governing the ownership threshold above which shareholder ownership must be disclosed	291, 292
21.2.8	Description of the conditions governing changes in the capital	291, 292
22.	**Material contracts**	**224**
23.	**Third party information and statement by experts and declarations of any interest**	
23.1.	Statement or report attributed to a person acting as an expert	N/A
23.2.	Information sourced from third parties	N/A
24.	**Documents on display**	**298**
25.	**Information on holdings**	**226 to 230, 254, 255**

CROSS-REFERENCE TABLE FOR THE FINANCIAL ANNUAL REPORT

In order to facilitate the reading of this document, the cross-reference table, hereafter, allows to identify in this Reference Document, the information which constitutes the Annual Financial Report having to be published by the listed companies in accordance with article L. 451-1-2 of the French Monetary and Financial Code and article 222-3 of the French Market Authorities' General Regulations.

1.	Company annual financial statements	234 to 259
2.	Consolidated financial statements	157 to 233
3.	Management report (within the meaning of the French Monetary and Financial Code)	4 to 50, 52 to 96, 102 to 132, 134 to 153, 262, 264, 265, 286 to 289, 299 to 301
4.	Statement of the persons responsible for the Annual Financial Report	302
5.	Statutory Auditors' Report on the Company's annual financial statements and the Consolidated financial statements	232, 233, 256, 257
6.	Fees of the Statutory Auditors	153, 231
7.	Report of the Chairman of the Board of Directors on the internal control procedures	114 to 119
8.	Statutory Auditors' Report on the Report of the Chairman of the Board of Directors on internal control procedures	133

GLOSSARY

Financial glossary

A

Adjusted price
Share price adjusted to take account of changes in capital (issue of new shares, share split, etc.). The adjusted share price is used to produce meaningful comparisons of price changes over time.

AMF (*Autorité des marchés financiers*, the French financial markets authority)
The AMF governs and oversees the conduct and professional ethics of the markets and protects the interests of investors and shareholders.

B

Bearer share
Share held in a security account at the shareholder's financial broker.

Bond
Tradable debt security issued by a public or private company, a group, an association or a government. Bonds carry fixed interest for a specific period and are redeemable on maturity.

C

CAC 40 (*Cotation assistée en continu* – Continuous Automated Trading)
The flagship stock market index of NYSE Euronext in Paris, the CAC 40 tracks the evolution of a selection of 40 stocks registered on this stock market. A committee of NYSE Euronext specialists regularly revises its composition to ensure that it remains representative. Air Liquide has been included in the CAC 40 since its inception in 1988.

Capital employed
Balance sheet capital corresponding to financial resources used by a company to develop its business. It is the sum of equity, minority interests and net debt.

Capital gain
Gain realized on the sale of a security, that is, the difference between its sale price and its original purchase price, or book value.

Cash flow
This indicator provides the exact measure of annual cash flow that the Company is able to generate from its operations, independently of the evolution of the working capital requirement which can be seasonal or erratic. This indicator is before tax, dividends and cost of financing.

Conditional Grant of Shares to Employees (CGSE)
Means of remuneration that grants free shares of the Company to all the employees or a specific employee category. The employee only becomes the owner of the shares after a given acquisition period and according to the plan's conditions. If the acquisition period is shorter than four years, the law provides that the employee must keep his/her shares for a minimum additional two year period.

Custody fees
Fees charged by a financial intermediary for maintaining a share account. They generally represent a percentage of the portfolio or a set fee per line of shares held. Air Liquide's Shareholder Services provide this service free of charge for shares held in a direct registered account.

D

Deferred settlement service (SRD)
Fee-based service available for the most traded stocks through which settlement for orders or delivery of shares is deferred to the last trading day of the month. Air Liquide shares are eligible for this service.

Diluted Earnings per share (Diluted EPS)
Net profit Group share divided by the average weighted number of shares which would be outstanding, assuming conversion of all potential shares (exercise of share subscription options, definitive grant of free shares, etc.). The equivalent accounting term is diluted net profit by share.

Directly registered shares
Directly registered shares are managed by Air Liquide and registered in its accounts. They are held in a securities account opened at Air Liquide.

Dividend
The part of a company's net profit distributed to shareholders. Shareholders vote the dividend at the Annual General Meeting after approval of the financial statements and the allocation of earnings proposed by the Board of Directors.

E

Earnings per share (EPS)
Net profit Group share divided by the average weighted number of shares outstanding. The equivalent accounting term is net profit per share.

Euronext Paris
Name of the firm which organizes, manages and develops the securities market in Paris, and acts as market regulator (financial transactions, monitoring of companies listed on the stock market) with the delegated authority of the AMF.

Euro stoxx 50
Stock Exchange index composed of 50 of the highest capitalizations and most actively traded stocks listed in the eurozone.

F

Fractional right
Part of a share that cannot be distributed in the case of a free share attribution or subscription if the number of shares held is not a multiple of the transaction. Example: in a 1 for 10 free share attribution, a shareholder holding 68 shares is allocated 6 new shares and 8 fractional rights.

Free float
The part of a company's capital publicly available and tradable on the stock markets. The higher the free float, the greater the liquidity of the shares. Nearly 100% of Air Liquide's capital is floated.

Free share attribution
Transaction by which the Company issues new shares by capitalizing undistributed earnings at no cost to shareholders, and allocates new shares in proportion to the number of shares already held. Air Liquide allocates regularly such free shares.

G

Goodwill
Difference between the purchase price of a company and its net tangible assets on the day of the acquisition.

I

IFRS (International Financial Reporting Standards)
International accounting standards with effect from January 1, 2005, conceived by the International Accounting Standards Board, or IASB, for quoted companies to harmonize the presentation and increase the transparency of their financial statements.

Indirectly registered shares
Indirectly registered shares are registered in the Air Liquide accounts and held in a securities account at the shareholder's financial broker.

ISIN code (International Securities Identification Number)
Code used to identify financial products quoted on the spot market on the stock exchanges (Air Liquide ISIN code: FR0000120073).

L

Liquidity
Ratio of the volume of shares traded over the total number of shares outstanding, which make up the capital.

Loyalty bonus
The loyalty bonus increases the dividend distributed and the number of free shares attributed by 10% for registered shares held for more than two full calendar years and subject to the conditions defined by Air Liquide's articles of association.

Loyalty dividend
Pursuant to Air Liquide's articles of association, a dividend premium of 10%, granted to loyal shareholders for registered shares held continuously for more than two full calendar years and until the date of the payment of the dividend.

M

Market capitalization
A company's market value equal, at any given time, to the quoted share price multiplied by the total number of shares outstanding.

Market sheet
The market sheet presents all the buy and sell orders for a share, as well as the latest orders executed. Investors can only have access to the five best offers (sales) and the five best demands (purchases).

N

Net Profit (Group share)
Profit or loss made by the Company. It is calculated by adding operating income recurring, other non recurring operating expenses, net finance costs, other net financial expenses, share of profit of associates, profit (loss) from discontinued operations, then subtracting Company tax and minority interests.

O

OPCVM (*Organisme de placement collectif en valeurs mobilières* – pooled investment funds)
A savings product that makes it possible to hold part of a collective marketable security portfolio handled by a professional, like SICAVs (open-ended investment companies) or FCPs (mutual funds).

Operating income recurring
Annual sales minus the cost of producing, distributing and selling products and the depreciation or amortization on capital expenditures. It provides an operating performance indicator before financing and taxes.

P

Par value
The issue price of a share as defined in a company's articles of association. A company's total capital is the par value of the share multiplied by the total number of shares outstanding.

PER (Price Earnings Ratio)
The ratio of the market price of a share over earnings per share.

Preferential subscription right
Tradable right giving shareholders priority in subscribing to a number of new shares in proportion to the number of shares already held in the event of a share issue. This is a negotiable right in the Stock Exchange. In exceptional cases, the Company may ask its shareholders to suspend their subscription right at an Extraordinary Shareholders' Meeting.

Q

Quorum
Minimum percentage of shares with voting rights required to be present or represented for a General Shareholders' Meeting to be validly constituted.

R

Registered share
Share registered in the Air Liquide accounts.

Retained earnings
Undistributed profit, held by the Company until further decision.

ROCE (Return on capital employed)
The ratio of Net Profit before interest expenses and after taxes over average capital employed. It reflects the net return on funds invested by shareholders and those loaned by banks and financial institutions.

ROE (Return on equity)
The ratio of Net Profit over shareholders' equity. It represents the net return on money invested by shareholders.

S

Share
Tradable security representing a portion of a company's capital. The owner of a share, the shareholder, is a part-owner of the Company and enjoys certain rights. Shares can be held as registered or bearer shares.

Share buyback
Transaction by which a company buys its own stock on the market, up to the limit of 10% of its capital. The transaction requires shareholder approval at the Company's General Shareholders' Meeting. Bought back shares are not taken into account in the net earnings per share calculation and do not receive any dividends.

Shareholders' equity
The part of the Company's capital belonging to its shareholders. It includes the value of issued shares, retained earnings and Net Profit for the financial year.

Stock option
A subscription option that offers the right to subscribe, at a price set in advance, for a fixed period, a company's shares.

Share split
Split of a share's par value to improve its liquidity. A share split leads, in the same proportions, to a split in the share's market value and the multiplication of the number of shares comprising the capital. The value is unchanged.

U

Usufruct
The legal right to use and derive profit or benefit from property that belongs to another person, as long as the property is not damaged. The holder of an usufruct has the right to use and enjoy the property, as well as the right to receive profits from the fruits of the property.

V

Volatility
The degree of variation of a share over a given period. It is a risk indicator: the greater the volatility, the higher the risk.

Y

Yield
Ratio of dividend per share over market share price.

Technical glossary

Advanced precursors
The increasing performance of electronic chips requires the use of new materials. These materials are supplied and integrated into the chips by advanced precursors, complex molecules that are generally liquid.

Alternative energy
Energy that represents an alternative to traditional energies, produced by transformation of natural gas or coal using gasification and/or gas cleaning techniques.

ASU
Air Separation Unit.

Carrier Gases
Carrier gases (nitrogen, oxygen, hydrogen, etc.) are used to transport and dilute process gases or to protect semiconductors from minute dust particles.

Fab
Production facility in the Electronics sector.

Fellow
The second highest international level of expertise (among four) in Air Liquide Technical Career Ladder – equivalent to Executive Managers in medium to large size entities.

HyCO unit
Unit that simultaneously produces hydrogen (H_2) and carbon monoxide (CO).

Orders in hand
They represent the contractual value of all Group and third-party engineering and construction contracts managed by the Engineering and Construction entities, excluding projects under warranty, from the signature date.

Orders intake
They represent the sum of all Group and third-party engineering contracts which entered into force during the period.

Renewable energy
Forms of energy whose production does not lead to a decline in resources on a human scale, *e.g.* solar, wind, geothermal and hydroelectric energies.

Take or Pay
Contracts used in Large Industries integrating fixed minimum payments below minimum volume thresholds.

Traditional energy
As opposed to renewable energies, energy whose production exhausts resources by consuming them more quickly than they are created. It is directly produced from fossil fuels: coal, oil, natural gas.

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AIR LIQUIDE™

Company established for the study
and application of processes
developed by Georges Claude
with issued capital of €1,561,436,464.50