CORPORATE SOCIAL RESPONSIBILITY
Chapter 4 of the Document de référence 2012 (*)

(*) This is a free translation into English of the “Chapitre 4. Responsabilité sociale, environnementale et sociétale” of our Document de Référence 2012 issued in French and is provided solely for the convenience of English-speaking readers.
4.1. SOCIAL INFORMATION

The social data provided below reflect consolidated worldwide data for all fully consolidated Group affiliates. Certain indicators pertain to a representative sample comprised of five countries (Brazil, China, France, Germany, and the United States), which account for 59% of the Sanofi workforce.

### 1.A. Total Workforce

The total number of employees contributing to Sanofi's business activity includes employees under contract, temporary employees, and third-party outside sales forces. As of December 31, 2012, the total number of employees reached 119,131, compared with 121,525 as of December 31, 2011, representing a 2% decrease (2,394 employees).

<table>
<thead>
<tr>
<th>Employees under contract as of December 31&lt;sup&gt;st&lt;/sup&gt;</th>
<th>Worldwide</th>
<th>Europe</th>
<th>of which France</th>
<th>North America</th>
<th>Other countries&lt;sup&gt;(1)&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees under contract&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>111,974</td>
<td>113,719</td>
<td>56,265</td>
<td>58,339</td>
<td>28,111</td>
</tr>
<tr>
<td>%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>50.2%</td>
<td>51.3%</td>
<td>25.1%</td>
</tr>
</tbody>
</table>

**Distribution by activity**

<table>
<thead>
<tr>
<th></th>
<th>Worldwide</th>
<th>Europe</th>
<th>of which France</th>
<th>North America</th>
<th>Other countries&lt;sup&gt;(1)&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmaceuticals</td>
<td>83.1%</td>
<td>83.8%</td>
<td>84.5%</td>
<td>84.8%</td>
<td>71.2%</td>
</tr>
<tr>
<td>Human Vaccines (Vaccines)</td>
<td>11.5%</td>
<td>11.3%</td>
<td>10.9%</td>
<td>10.2%</td>
<td>21.6%</td>
</tr>
<tr>
<td>Animal Health</td>
<td>5.4%</td>
<td>5.0%</td>
<td>4.6%</td>
<td>5.0%</td>
<td>7.1%</td>
</tr>
</tbody>
</table>

<sup>(1)</sup> Asia-Pacific, Latin America, Africa, the Middle East and Japan.

<sup>(2)</sup> Employees under contract include all employees who have a contract with Sanofi, including interns and apprentices with contracts. They do not include temporary employees or third-party outside sales forces.
As of December 31, 2012, the total workforce reached 111,974 employees under contract (a 1.5% decrease compared with 2011), including 401 employees from companies that were consolidated or acquired during the year. Employees from the Pharmaceuticals, Human Vaccines (Vaccines) and Animal Health activities accounted for 83.1%, 11.5% and 5.4% of the total workforce, respectively.

In terms of regional distribution, the three countries where Sanofi has the most employees are France (28,111 employees, or 25.1% of the worldwide total), the United States (17,133 employees, or 15.3% of the worldwide total) and Germany (8,362 employees, or 7.5% of the worldwide total). We are continuing to expand our presence throughout the rest of the world, particularly in emerging countries. Sanofi has a total of more than 16,500 employees, or nearly 15% of the total workforce, in China, Brazil and India.

<table>
<thead>
<tr>
<th>Distribution of employees under contract by function and region</th>
<th>Worldwide 2012</th>
<th>Europe 2012</th>
<th>of which France 2012</th>
<th>North America 2012</th>
<th>Other countries(1) 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales forces</td>
<td>28.8%</td>
<td>28.9%</td>
<td>15.7%</td>
<td>6.6%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Research and development</td>
<td>15.2%</td>
<td>16.6%</td>
<td>19.1%</td>
<td>19.6%</td>
<td>25.8%</td>
</tr>
<tr>
<td>Production</td>
<td>40.2%</td>
<td>39.0%</td>
<td>51.0%</td>
<td>49.2%</td>
<td>53.6%</td>
</tr>
<tr>
<td>Marketing and corporate functions</td>
<td>15.7%</td>
<td>15.5%</td>
<td>14.1%</td>
<td>14.3%</td>
<td>14.0%</td>
</tr>
</tbody>
</table>

As of December 31, 2012, our sales forces accounted for 28.8% of employees worldwide, representing a decrease of 10.7% in Europe and 5.3% in North America compared with 2011. This decrease is primarily due to job cuts in response to regulatory constraints in these two regions and the loss of patents on certain flagship medicines. In the rest of the world, however, sales forces increased by 4.1%.

The number of research and development (R&D) employees fell 9.3% compared with 2011. This decrease was the result of a far-reaching transformation project launched in 2009 to adapt Sanofi’s organization to meet future challenges.

Production employees increased 1.4% worldwide and nearly 6% in regions outside Europe and North America.

<table>
<thead>
<tr>
<th>Distribution of employees under contract by gender</th>
<th>Worldwide 2012</th>
<th>Europe 2012</th>
<th>of which France 2012</th>
<th>North America 2012</th>
<th>Other countries(1) 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>45.4%</td>
<td>45.7%</td>
<td>48.8%</td>
<td>49.1%</td>
<td>49.4%</td>
</tr>
<tr>
<td>Men</td>
<td>54.6%</td>
<td>54.3%</td>
<td>51.2%</td>
<td>50.9%</td>
<td>50.6%</td>
</tr>
</tbody>
</table>

The overall proportion of female employees within the Group (45.4%) remained stable compared with 2011. The proportion of female managers totaled 38.7%.

| Distribution of employees under contract by age range | Worldwide 2012 | Worldwide 2011 | |
| --- | --- | --- | |
| Under age 21 | 0.3% | 0.3% | |
| Age 21 to 30 | 18.0% | 18.0% | |
| Age 31 to 40 | 33.6% | 34.4% | |
| Age 41 to 50 | 30.1% | 29.9% | |
| Age 51 to 60 | 16.3% | 15.9% | |
| Over 60 | 1.6% | 1.5% | |

<table>
<thead>
<tr>
<th>Worldwide distribution of employees under contract by seniority</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 35</td>
<td>1.6%</td>
<td>1.6%</td>
</tr>
<tr>
<td>31-35</td>
<td>2.8%</td>
<td>2.6%</td>
</tr>
<tr>
<td>26-30</td>
<td>4.7%</td>
<td>4.7%</td>
</tr>
<tr>
<td>21-25</td>
<td>7.5%</td>
<td>7.2%</td>
</tr>
<tr>
<td>16-20</td>
<td>8.7%</td>
<td>8.7%</td>
</tr>
<tr>
<td>11-15</td>
<td>14.5%</td>
<td>13.3%</td>
</tr>
<tr>
<td>6-10</td>
<td>21.5%</td>
<td>20.9%</td>
</tr>
<tr>
<td>1-5</td>
<td>28.5%</td>
<td>31.9%</td>
</tr>
<tr>
<td>&lt; 1</td>
<td>10.3%</td>
<td>9.1%</td>
</tr>
</tbody>
</table>

(1) Asia-Pacific, Latin America, Africa, the Middle East and Japan.
1.B. New hires and departures

New hires and departures by region

<table>
<thead>
<tr>
<th></th>
<th>Worldwide</th>
<th>Europe</th>
<th>of which France</th>
<th>North America</th>
<th>Other countries(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>11,874</td>
<td>4,706</td>
<td>3,398</td>
<td>948</td>
<td>6,220</td>
</tr>
<tr>
<td>2011</td>
<td>8,659</td>
<td>2,682</td>
<td>1,396</td>
<td>610</td>
<td>4,651</td>
</tr>
<tr>
<td>2012</td>
<td>12,947</td>
<td>4,773</td>
<td>1,962</td>
<td>2,001</td>
<td>4,619</td>
</tr>
<tr>
<td>2011</td>
<td>11,354</td>
<td>2,136</td>
<td>2,135</td>
<td>2,136</td>
<td>4,619</td>
</tr>
</tbody>
</table>

(1) Asia-Pacific, Latin America, Africa, the Middle East and Japan.

In 2012, Sanofi hired nearly 11,900 new employees. The departure of 12,947 employees was primarily due to resignations (27%), layoffs (31%), the expiration of fixed-term contracts (27%) and retirement (8%). Layoffs primarily resulted from the transformation and reorganization of our R&D activities, measures to adapt our industrial facilities in the United States and Europe, the reduction of sales forces in the United States and Europe related to the loss of several patents, and the consolidation of the acquisitions made in 2011.

As of 2012, internal reassignments are no longer counted as new hires or departures. They could not be restated for 2011.

Supporting employees during reorganizations in France

With regard to our reorganization projects in France, we are making every effort to provide Group employees with the best career support possible by offering a variety of support measures negotiated with employee representative bodies.

These measures aim to anticipate changes in Sanofi's business model and the transformation of our functions so that employees are able to handle future career changes and develop new skills in the best possible conditions. They also help prevent layoffs by promoting training, internal hiring and external solutions. Support measures notably include:

- voluntary departure plans: Retirement, early retirement, assistance for employees with an outside business project (starting a business, entrepreneurial start-ups, etc.);
- career development assistance: Training program, GPEC workforce planning agreement (in particular for changes pertaining to certain functions such as that of medical sales representatives), training program for employees whose jobs are impacted by the conversion from chemical industrial activities to new biotechnology activities;
- geographic mobility assistance.

In 2012, Sanofi continued to reorganize activities in France. Our efforts to streamline operations notably included the following:

- completion of the voluntary departure plan initiated in 2010 for commercial activities at Sanofi-Aventis France (SAF): Some 429 employees were granted early retirement and 152 were granted mobility leave to set up a business or take an outside job;
- continuation of operations at various chemical and Industrial Affairs sites:
  - completion of the conversion plan launched in 2008 to migrate the Vitry site toward biotechnology. The 641 employees concerned were all reassigned or benefited from age-related measures;
  - conversion of the Romainville site: Of the 217 employees concerned, 65 benefited from age-related measures, 99 received internal reassignments and 27 will be assigned to new positions by the end of 2013. A total of 26 employees decided to leave the Group;
  - transformation of the Neuville site for production of Sanofi Pasteur's dengue fever vaccine: Some 440 reassignments are planned for late 2013. Solutions for 397 employees have already been found, in large part through training that enables employees to move to new positions.

In February 2012, we opened our new global headquarters in Paris. Employees from corporate functions are now grouped together at five sites in the Paris area, compared with seven previously. This reorganization did not affect any jobs.

On October 11, 2012, we began information and consultation procedures with the employee representative bodies of the entities concerned by the plan to transform Sanofi's operations in France by 2015. The purpose of this plan is to:

- base the Group's long-term viability on new research dynamics. The scope of activities at French R&D sites will be determined, and the sites will be adapted over the next three years to enhance inter-site cooperation and develop scientific, academic and private ties with the wider community, in order to better foster innovation and the discovery of new compounds;
- improve the economic performance of Sanofi Pasteur's industrial units for them to remain competitive in a global vaccine environment that is increasingly competitive in emerging markets;
continue to streamline the organization of corporate functions to adapt them to the Group's diversification and enhance their efficiency.

Sanofi intends to carry out these changes by 2015 exclusively through voluntary measures. The support measures under consideration are being discussed as part of the social dialogue with employee representative bodies, financed entirely by Sanofi. The measures in question include:

- organizing internal reassignments within local job markets and among different local job markets;
- implementing a voluntary measure relating to external mobility;
- adopting transitional measures for employees who are near the end of their careers (early retirement).

For all of the above measures, specific financial incentives will be put in place.

1.C. Compensation

Sanofi's compensation policy is designed to reward individual contributions while also taking overall economic results into account. It aims to promote a culture of performance and encourage the skills required for the Group's development.

The compensation of the Chief Executive Officer and the Chairman of the Board is detailed in Section "1.2. Gouvernement d'entreprise – 5. Rémunérations" in Chapter 1 of our Document de Référence.

1.C.a. The objectives of Sanofi's compensation policy

Sanofi's compensation policy and performance management practices have undergone substantial changes in recent years, particularly with regard to managers, in an effort to better reflect collective and individual contributions to the Group's economic performance. The objectives of Sanofi's compensation policy are thus to:

- Ensure sound alignment with local market practices to ensure competitive compensation in all countries where we operate;
- Maintain a strong connection between company performance and employee contributions to performance, while ensuring that employees are treated equitably;

This policy is based on the principles used by the Board of Directors to determine the compensation of the Chief Executive Officer (see Section 1.2. "Gouvernement d’entreprise – 5. Rémunérations" in Chapter 1 of our Document de Référence).

These principles may essentially be applied to all managers.

Alignment with market practices

Sanofi aims to assess market trends for each component of the compensation mix:

- base compensation: Assessed in terms of absolute value and year-to-year changes;
- employee benefits: Primarily plans providing for retirement contributions, reimbursement of medical expenses, and death and disability benefits;
- short-term variable compensation: Targeted annual variable compensation;
- medium-/long-term variable compensation: Mainly includes stock options and performance shares taking into account potential share dilution, the number of beneficiaries and the grant price.

Market benchmarking is generally performed for each country. We compare our practices against those of our local competitors – first and foremost competitors in the pharmaceutical sector but also competitors in other sectors, depending on the business activities in question.

This alignment with market practices is essential in order to attract and retain the talent required to drive the Group's success.

Benchmarking is performed on an annual basis for both base compensation and short- and medium-/long-term variable compensation. Benchmarking of employee benefits is performed less frequently, given that this component of compensation tends to remain fairly stable over time.

A strong connection between company performance and employee contributions to company performance

A substantial portion of the compensation received by managers is variable. This variable component increases with responsibility, and extra emphasis is placed on the medium-/long-term variable component for senior executives.

These principles are in line with market practices and recognize the potential differences in employees' contributions depending on their level of responsibility.

All variable compensation, whether short-term or medium-/long-term, is subject to the attainment of performance criteria that reflect key factors for the organization's success. Performance indicators, which are generally financial indicators, are always measurable, quantifiable, specified in advance and made known to beneficiaries.
In order to assess employee contributions and set compensation levels accordingly, a comprehensive performance management process was introduced throughout the Group in 2011.

This process involves setting individual objectives and assessing both the progress made toward those objectives and the professional conduct demonstrated in pursuit of them. Individual and team goals are set at the beginning of the year, and progress is assessed at the end of the evaluation period before compensation decisions are made.

**Balance between short-term performance and medium-/long-term performance**

**Short-term performance**

Nearly 30,000 employees are covered by an annual individual variable remuneration (IVR) plan, which is the same across all activities and all countries. Targeted variable remuneration levels are generally based on local market practices. The annual budget available for variable remuneration is determined based on the level of attainment of key performance indicators (KPIs) specified in advance within each organization. Individual IVR bonuses are then determined by supervising managers based on their evaluation of the employee's performance, within the limit of the available budget.

Performance indicators are generally financial indicators such as sales, operating results or cost control. For R&D, other indicators such as progress made on key projects are also used. For Industrial Affairs, performance is measured using a combination of indicators that reflects the difference between budgeted costs and actual costs.

In 2012, two indicators were used to measure Group performance: business net income (see definition in Section "3.1.10. Annexe – définition des données financières" of our Rapport de Gestion included in our Document de Référence) and sales by growth platform.

These Group performance indicators are used for all senior executives in addition to indicators specific to their entity.

At the beginning of the period, Sanofi's Executive Committee reviews all the performance indicators and associated objectives to ensure that they are consistent. The Committee also validates achievements at the end of the period.

**Medium-/long-term performance**

In 2012, performance shares and stock options were granted to nearly 7,600 employees. These grants are conditional on employees' attainment of performance criteria over several financial years (since 2012, defined as three years), and employees must remain employed by Sanofi when shares or options are granted.

The performance criteria are determined by two indicators measured at the Group level: business net income and return on assets (ROA). The first is assessed with regard to the budget established at the beginning of the year, and the second is assessed with regard to a target set by the Board of Directors at the beginning of the period.

One additional performance criterion, total shareholder return, which is assessed against a panel of competitors, is used to determine the compensation of the CEO.

By granting performance shares or stock options and choosing performance criteria, the creation of value becomes a shared interest for beneficiaries and shareholders alike.

For senior executives, the medium-/long-term variable compensation component is comparable to the short-term variable compensation component.

In accordance with market practices, the number of beneficiaries entitled to performance shares and/or stock options is limited in order to ensure that share dilution remains at acceptable levels while offering beneficiaries a competitive compensation mix.

**Employee share ownership and variable collective compensation**

Sanofi regularly establishes employee share ownership plans in an effort to:

- motivate employees and promote employee loyalty;
- foster employees’ sense of unity and belonging to the Group;
- enable employees to take part in Sanofi’s growth and success;
- align employee and shareholder interests.

As of December 31, 2012, 1.31% of Sanofi’s capital was held by employees, representing a market value of €1.3 billion. Employees have primarily become shareholders through the employee savings plan (top-ups), bonus share issues and capital increases reserved for employees.

We have put in place several variable collective compensation plans, which aim to share the rewards of collective achievements among all employees.
Compensation for new hires and severance pay

New hires

Compensation offered to new hires factors in the following:

- standard industry compensation levels and mixes for the position in question;
- the candidate’s professional experience;
- compensation levels and mixes for comparable positions at Sanofi.

In any event, the compensation offered to new hires must meet or exceed the minimums set by relevant laws or collective agreements. New hires are offered the same level of employee benefits as employees in comparable positions at Sanofi.

Severance pay

The amount of severance pay that may be granted upon termination of an employment contract factors in the following:

- the nature and circumstances of the termination;
- any applicable minimum amounts prescribed by law or collective agreements, or pursuant to individual contractual obligations;
- standard industry and company practices for comparable positions and circumstances.

Depending on the country, the conditions that apply to job cuts affecting groups of employees may be negotiated with trade unions or works councils.

Unless required by law or pursuant to an individual contractual obligation, employees who terminate their contract of their own initiative do not receive any severance pay.

Employee benefits

Sanofi strives to ensure that all our employees worldwide receive high-quality benefits that comply with national regulations and are adapted to local cultures. On a regular basis we take part in a comprehensive market survey, conducted in over 60 countries, to ensure that the employee benefits we offer are in line with current local practices.

We also make sure that our employee benefit plans are designed for the long term.

In order to limit employee-related liabilities, Sanofi prefers defined-contribution plans over defined-benefit plans.

As regards "insured" plans, we seek to optimize how we finance employee benefit plans by instituting programs such as insurance pooling.

Sanofi set up an Employee Benefits Steering Committee in 2010. The purpose of the Committee, which is chaired by the Chief Financial Officer and Sanofi’s Human Resources Director, is to:

- review and approve our overall employee benefits strategy;
- review and approve the implementation or modification of all defined-benefit plans, irrespective of their cost;
- review and approve the implementation or modification of all defined-contribution plans exceeding a limit set in advance by the Committee.

1.C.b. The primary indicators relating to Sanofi’s compensation policy

At Sanofi, we provide equitable compensation for our employees in accordance with standard industry practices. In order to ensure the best possible living standards, employee compensation generally exceeds the legal minimum wage in the countries where we operate.

Average wages

A comparison of the legal minimum wage in a given country or business sector with the average gross annual base pay (not including special bonuses, team bonuses, profit-sharing bonuses, etc. paid in addition to wages) of employees earning the lowest 15% of wages at the Sanofi Group shows that Sanofi employees have a substantial advantage in the following countries:

- Brazil: Average wages are twice as high as the legal minimum wage and 30% higher than the minimum wage in the pharmaceutical sector;
- China: Average wages are 70% higher than the legal minimum wage in the five largest cities (the five “first-tier” cities: Shanghai, Hangzhou, Shenzhen, Guangzhou and Beijing);
- France: Average wages are 50% higher than the legal minimum wage (SMIC) and 25% higher than the minimum starting wage in 2012;
- United States: Average wages were three times higher than the legal minimum wage.

In Germany, the average wages of employees earning the lowest 15% of wages are under negotiation with employee representative bodies.
Salary increase budgets

Each year, Sanofi establishes salary increase budgets (the distribution of which may vary depending on the employee categories) taking into account:

- merit increases;
- collective increases in countries where they apply;
- increases for promotions and automatic increases provided for by collective agreements.

The budgets are established based on several criteria:

- market trends anticipated by competitors and reflected in annual compensation surveys;
- inflation forecasts;
- internal economic constraints specific to each country.

Annual salary increase budgets are thus the fruit of compromise taking into account market observations and the cost to be borne by the company. As an example, in 2012, salary budget increases totaled 3% in France, 6.8% in Brazil and 9% in China.

These budgets are comparable to those of our competitors.

Non-discrimination

Sanofi is careful to ensure there is no compensation discrimination based on gender or ethnic origin for a given position at equivalent levels of individual performance.

Where disparities are noted, we may establish specific budgets to balance out compensation levels.

External market competitiveness

It is essential for compensation components (base pay, individual variable compensation, deferred long-term compensation) to be consistent with market practices. Each year Sanofi takes part in compensation surveys in the various countries where we operate. These surveys are conducted by recognized consulting firms (Mercer, Aon Hewitt, Towers Watson, Hay Group, etc.) in order to obtain reliable information on local compensation practices. Collected information makes it possible to position jobs in relation to the market.

Sanofi aims to align average compensation levels with the benchmark market median while allowing for broad variations based on individual performance or an employee's level of command of his/her duties.

Individual Variable Remuneration

The annual individual variable remuneration (IVR) system applies to approximately 30,000 employees in more than 80 countries. The targeted percentage of individual variable remuneration depends on the eligible employee's level of responsibility and industry practices. It ranges from 5% to more than 50% for senior executives.

Sales representatives are covered by a separate compensation system based on the performance of their sales organization.

Variable Collective Compensation

In addition to individual variable remuneration, certain countries and activities have also instituted variable collective compensation.

Since 2007, our Industrial Affairs organization has been developing a performance-based collective compensation system known as the Annual Progress Plan (APP). The plan is intended solely for employees who are not already eligible for another type of variable compensation (individual bonuses or another type of variable collective compensation such as voluntary profit-sharing).

The APP is designed to compensate eligible employees according to the overall performance of their production site with respect to the objectives set at the beginning of the year. As of 2012, the APP is in place at 32 sites in 20 countries.

On average, the amount of compensation represents 5% to 8% of the base pay of each beneficiary.

In addition to the system within Industrial Affairs, other variable collective compensation systems have been instituted in Germany, Brazil and France:

- **In Germany,** an agreement negotiated with the central works council has made it possible to establish a collective profit-sharing incentive system for non-managerial staff managed in conjunction with trade unions under collective agreements (in chemicals manufacturing and pharmaceuticals). The target amount of this incentive represents 6% of base pay, and the final bonus is linked solely to the company's performance.
- **In Brazil,** the aggregate amount of profit-sharing is calculated based on performance indicators and pre-established objectives (sales, market share, etc.). The target amount for each employee totals approximately one month of base pay.
In France, three variable collective compensation plans are in place:

- the first is statutory profit-sharing (participation), which is determined based on the profit generated by all Sanofi’s French entities. This plan uses an exceptional calculation method that is more advantageous for employees than the method prescribed by law;

- the second is a profit-sharing bonus (prime de partage des profits), also required by law, which provides that companies having increased the dividends paid to their shareholders must negotiate an employee bonus with unions. In 2012, this bonus was €620 per person;

- the third is voluntary profit-sharing (intérêissement). It was introduced at Sanofi under a three-year agreement with trade unions. Sanofi’s management and the trade unions determine the key performance indicators (KPIs) to be taken into account and the aggregate amount to be distributed to the employees who worked for Sanofi during the fiscal year in question.

In 2012, the aggregate amount distributed to employees in France under the statutory and voluntary profit-sharing initiatives and the profit-sharing bonus totaled €202.8 million, with individual amounts ranging between €6,120 and €9,337.

The minimum amount of variable collective compensation paid by Sanofi in France represents the equivalent of 3.2 months of base pay for the lowest-paid employees.

Finally, Sanofi also tops up employees' voluntary contributions to the employee savings plan in France.

### Employee benefits

Sanofi seeks to provide all our employees worldwide with high-quality benefits covering health, pension, incapacity, disability and death. Benefits are negotiated to provide coverage that best meets employees' needs, complies with local regulations and is adapted to local cultures. In all countries, employees (as well as, in general, their spouses and children) receive reasonable reimbursements of medical expenses as well as death benefits.

In the vast majority of countries, Sanofi also offers benefits covering temporary or permanent disability.

When possible, Sanofi provides personalized employee benefit programs (medical, dental, vision, etc.) that allow employees to adjust their coverage according to their specific situations and personal needs. These types of programs have been instituted in China and the United States.

In certain countries, medical benefits also include programs focusing on prevention, vaccinations, screening (diabetes, skin cancer, etc.), nutritional advice, well-being, etc.

In addition to medical, disability and death benefits, Sanofi offers retirement benefits in all countries where this is standard industry practice (more than half of the countries where we operate).

We have also established a medical and travel assistance plan for employees whose jobs require them to travel abroad, regardless of the country where they work. This plan also covers emergency evacuations and repatriation.

Finally, several countries offer plans that help employees and their families in their daily lives (employee assistance, subsidized childcare, special rates for various services, gym memberships, etc.).

### 4.1.2. Organization of work

#### 2.A. Organization of working hours

<table>
<thead>
<tr>
<th>Employees under contract as of December 31&lt;sup&gt;st&lt;/sup&gt;</th>
<th>Worldwide</th>
<th>Europe</th>
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</table>

**Distribution by type of employment contract**

| Permanent contracts | 91.1% | 92.8% | 93.8% | 95.0% | 92.7% | 93.8% | 99.8% | 99.7% | 82.4% | 85.2% |
| Fixed-term contracts | 8.9% | 7.2% | 6.2% | 5.0% | 7.3% | 6.2% | 0.2% | 0.3% | 17.6% | 14.8% |
| Permanent/fixed-term ratio | 9.8% | 7.8% | 6.6% | 5.3% | 7.9% | 6.6% | 0.2% | 0.3% | 21.4% | 17.3% |

**Part-time<sup>(2)</sup>**

| 4,655 | 4,516 | 4,356 | 4,254 | 2,945 | 2,805 | 130 | 80 | 169 | 182 |

**Full-time equivalents<sup>(3)</sup>**

| 3,495.7 | 3,131.3 | 3,280.1 | 2,958.6 | 2,325.8 | 2,232.2 | 81.8 | 40.3 | 133.7 | 132.4 |

**Temporary employees**

| 5,288.1 | 5,736.0 | 1,999.3 | 2,081.0 | 1,125.4 | 1,307.0 | 747.1 | 1,076.0 | 2,541.7 | 2,579.0 |

---

(1) Asia-Pacific, Latin America, Africa, the Middle East and Japan.

(2) Part-time: Number of employees working part-time as of December 31<sup>st</sup>.

(3) Full-time equivalents: Concerns only employees working part-time as of December 31<sup>st</sup>.

Sanofi • Document de référence 2012
In the countries where we operate, the average workweek is generally set by law.

Several countries have implemented or enhanced initiatives to improve employees' work-life balance – offering flexible on-site hours and making it possible to work from home.

For example:

- **In Spain**, the *Equilibra* program has a quality-of-life component, which includes the possibility of working from home, instituted in 2012, as well as flexible start/stop times;
- **In Canada**, to maximize employee commitment and efficiency, Sanofi offers certain employees the opportunity to occasionally work outside their usual workplace and recognizes the advantages of teleworking by allowing certain employees to work from home one day a week;
- **In Australia and New Zealand**, the flextime policy has been enhanced and now offers various options such as part-time work, teleworking, flexible hours and the opportunity to acquire additional leave;
- **In Germany**, the work scheduling policy also includes a specific component for employees age 59 and over.
- **In France**, working time is set by law or collective agreements. In 2012, the theoretical average annual working time was 1,561 hours (compared with 1,554 hours in 2011).

### 2.B. Absenteeism

#### 2.B.a. Absenteeism worldwide

As asserted in Sanofi's Social Charter, achieving both improved working conditions and the necessary adaptations of the Group to its environment is a major obligation. The Charter also states that the health and safety of all is an obligation for the Group and employees, and all necessary means must be employed to ensure compliance.

To this end, a "micro-absenteeism" indicator has been instituted within our production sites to measure the relationship between the total number of hours of short absences (3 days maximum) over the course of a given month and the total number of hours typically worked during the same period.

We use the indicator within our Industrial Affairs Department, for our 86 production and distribution sites worldwide. In coming years, it will also be used at the industrial sites of our recently consolidated companies.

The indicator is monitored and managed at the local level and cannot be extrapolated at the global level.

It provides a good indication of employee commitment and the climate in a given affiliate. Micro-absenteeism data makes it possible to detect, region by region, early signs of stress, employee disengagement or the effects of poor working conditions. Micro-absenteeism levels are measured by each site's management on a monthly basis and sent to global Industrial Affairs. Corrective measures are implemented whenever substantial discrepancies are noted.

#### 2.B.b. Absenteeism in France

<table>
<thead>
<tr>
<th>Main causes of absenteeism</th>
<th>France 2012</th>
<th>France 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total days of absence**(1)**</td>
<td>290,124</td>
<td>367,423</td>
</tr>
<tr>
<td>Illness</td>
<td>215,108</td>
<td>284,485</td>
</tr>
<tr>
<td>Occupational and commute-related injuries</td>
<td>9,400</td>
<td>9,856</td>
</tr>
<tr>
<td>Maternity and/or paternity</td>
<td>65,616</td>
<td>73,082</td>
</tr>
</tbody>
</table>

(1) These data take into account Sanofi's new entities in France (Genzyme and Merial). They do not include absences authorized by the company: unpaid leave, parental leave, sabbatical leave, business creation leave, leave for family-related responsibilities and unworked notice periods.
4.1.3. Industrial Relations

In all countries where Sanofi operates, we strive to combine economic and social performance – which we believe are inseparable.

With regard to respect for people, Sanofi's social responsibility is based on the basic principles of the Group's Social Charter, which outlines the rights and duties of all Group employees. The Social Charter addresses Sanofi's key commitments towards its workforce: equal opportunity for all people without discrimination, the right to health and safety, respect for privacy, the right to information and professional training, social protection for employees and their families, freedom of association and the right to collective bargaining, and respect for the principles contained in the Global Compact on labor relations and ILO treaties governing the physical and emotional well-being and safety of children.

The Group's social relations are based on respect and dialogue. In this spirit, the Company's management and employee representatives meet regularly to exchange views, negotiate, sign agreements and ensure that agreements are being implemented.

In this regard, five countries (France, Germany, Brazil, China and the United States), accounting for 59% of the Group's workforce as of December 31, 2012, can be taken as a representative sample. Social dialogue takes place in different ways from one country to the next, as necessitated by specific local circumstances. Depending on the case, social dialogue relating to information, consultation and negotiation processes may take place at the national, regional or company level. It may be organized on an interprofessional or sectoral basis, or both. Social dialogue may be informal or it may be implemented through a specific formal body, or a combination of both methods. Whatever the situation, Sanofi encourages employees to voice their opinions, help create a stimulating work environment and partake in decisions aiming to improve the way we work. These efforts reflect one of the principles of the Social Charter whereby the improvement of working conditions and the Group's necessary adaptation to its environment go hand-in-hand.

3.A. Social dialogue in Europe

Sanofi's European Works Council (EWC), which includes 40 members and 40 alternates, represents employees who work in the 27 countries of the European Union. In 2012, the EWC met in March, May, October and December to discuss the Group's strategic objectives, financial performance and prospects for developing its various activities. The EWC also received regular updates on key topics such as R&D, commercial operations, industrial affairs and corporate social responsibility.

In addition, the EWC was kept abreast of anticipated restructuring measures (plans to close the Fawdon, UK, site in 2015 and to sell the Hlohovec site in Slovakia), including the reasons why these measures are necessary: to give the Group an edge in an increasingly competitive environment by adapting the Group's research and industrial facilities to better suit the demands of biotechnology, and to respond to local regulatory constraints (price regulation, certain drugs excluded from reimbursement, etc.) and the increasing popularity of generic drugs (patents expiring for certain flagship drugs) by adjusting the Group's sales forces.

Interim meetings with EWC officers also provide the body with regular or timely information based on Group updates. The joint working group on employment in Europe also continued its work in 2012. Management presented an overview of job positions within the Group along with the various internal reorientation possibilities for the employees who hold those positions that would enable employees to pursue their professional development and enhance their employability.

Throughout 2012, negotiations were also held with the employee representative bodies in each of the European countries concerned to explain the anticipated changes.

Social dialogue in France: The France Group Committee Council, made up of 25 members, 25 alternates (including representatives from Genzyme and Merial) and labor union representatives, met in March, July, October and December 2012. During those meetings, the committee was kept abreast of the strategy, operations, financial situation and labor changes at Sanofi in France. A plan to adapt the Group's activities in France in 2015 was also presented. The plan is currently in the information and consultation phases at the entities concerned (R&D, Vaccines, Animal Health, Sanofi-Aventis Group and Sanofi Winthrop Industry).

Overview of collective agreements in France

In 2012, two agreements were signed and thirteen amendments were approved by employee representative bodies in France.

The agreements concern disabilities and home working. The amendments primarily relate to the inclusion of Merial and Genzyme in Sanofi's social protection and employee savings plan. Another amendment, relating to special leave, enables employees to donate unused days of leave so that another employee can take care of a child with a serious illness.

A joint working group has also begun to examine the subject of time off to care for dependent relatives.

In addition, special agreements were also signed, depending on the subject in question, by individual sites or Group companies (Sanofi-Aventis Recherche et Développement, Sanofi Winthrop Industrie, Sanofi Chimie, Sanofi-Aventis France, Sanofi Pasteur, Sanofi-Aventis Groupe, Merial and Genzyme).
The Group “arduous work” agreement, signed in 2011, was implemented throughout France in 2012.

In addition, as stipulated at the time the framework agreement on gender equity was signed in November 2011, specific agreements were prepared and signed by each Group entity in 2012. These agreements relate to hiring, training, career paths, working conditions, wages and other elements of compensation, remedies for the disparities observed in these areas, work-life balance, working time organization, and internal and external communication to raise awareness on gender equity.

In pursuing its policy toward seniors and the prevention of psychosocial risks, the Group implemented several initiatives throughout France in 2012. These include:

• Employment for seniors: In the three years since the action plan for over-fifties was implemented in France in 2010, Sanofi has hired 68 employees over 50 years of age, that is, 6.32% of the 1,075 employees hired over that period, in accordance with Sanofi’s commitment to at least 5%.

Concerning the prevention of psychosocial risks, Sanofi continues to roll out initiatives throughout all of its sites in France, sponsored by its Committee for health and labor, which was created in 2010.

The "Stress Observatory" has now been put in place at 92% of our sites. In June 2012, the Observatory's findings were presented at the Group level at a national cross-functional meeting (including HR, HSE, occupational physicians and secretaries from the Committees for Health, Safety and Working Conditions, or CHSCT). At each site, local findings were also presented to each CHSCT concerned and appropriate action plans were subsequently developed and implemented.

Social dialogue in Germany: Employees are represented through the Works Council. Representatives are elected by employees for a four-year term and play an important role in co-managing our organization. In 2012, the Works Council addressed several major issues, including the negotiation of layoff plans for sales organizations, Medical Affairs, Industrial Affairs and R&D, the consolidation of Genzyme and the implementation of a new travel and expense management system (Concur). The Works Council also discussed topics of a more operational nature, such as employee access to social media, the reimbursement of expenses incurred by sales representatives and the employee commitment survey.

Other representative bodies also help foster social dialogue:

• The Sprecherausschuss is a representative body for executive staff, the main purpose of which is to share information.

• The Jugend und Auszubildendenvertretung (JAV) represents members of the organization under the age of 18 and interns under the age of 25. JAV members are elected for a two-year term and work in close collaboration with the Works Council.

• Members of the Schwerbehindertenvertretung, elected for a four-year term, represent disabled employees at the company and defend their interests.

3.B. Le dialogue social dans d'autres pays

In Brazil: Employees are represented by labor unions at the industry branch level. Elected by pharmaceutical company employees for a four- or five-year term, labor union representatives have guaranteed job security and cannot be laid off by the company during their term of office.

Sanofi Brazil currently has 65 employees who are labor union representatives for organizations registered with the Labor Ministry. Their role is to lead collective bargaining negotiations relating to matters such as wages and benefits.

In addition, Brazilian labor law requires companies to establish an internal committee made up of employee representatives elected for a two-year term, to discuss and negotiate specific matters such as the agreement relating to compulsory and voluntary profit sharing or the prevention of occupational accidents.

Sanofi has also developed an in-house program known as the Idealizar Project, which allows all employees to share new ideas for innovation and process improvement. Ideas are examined by an in-house committee, and if an employee's idea is approved, he/she is rewarded for his/her contribution.

This system reflects the socially responsible approach taken by the Group, which encourages employees to anticipate technological developments and change in the broader sense.

In China: Under Chinese law, employees are free to form labor unions, and companies are required to facilitate that process. In accordance with the principle of freedom of association and the right to collective bargaining provided for under Sanofi's Social Charter, Sanofi China has backed the implementation of employee representation at its four industrial sites. At Sanofi Pasteur, employees are represented at all levels of the entity, for both commercial and industrial activities.

Within Commercial Operations, employees are consulted on a project-by-project basis. For example, the 2012 project to create a flexible employee benefits plan stemmed from the findings of the employee commitment survey. During the development phase, a working group comprised of managers and employees was formed and a questionnaire helped shed light on employee preferences with regard to the features of the future plan.

Employees were also consulted at the time that company activities and clubs were introduced. In Shanghai, a team of managers formed a committee to discuss the types of activities to be developed, and employees were then enlisted to manage the various activities.
clubs. At regional offices, local clubs were also created with the help of managers and employees and are run by employee volunteers.

**In the United States:** In the absence of elected employee representatives, various committees enable employees to voice their opinions to management and participate in decision-making processes. For example:

- **WISE (Women Inspiring Sanofi Excellence)** has become an integral part of Sanofi's culture in the United States. By providing a forum for female employees to share their experiences, this committee creates interesting opportunities for the women involved to expand their knowledge and skills and improve the way they work. In view of the commitment, wide-ranging opinions, flexibility and leadership that it encourages, this network is equally beneficial to the women involved and the company itself.

- **The Junior Management Committee (JMC)** is a sort of incubator for new talent. It gives members the opportunity to put forward creative ideas and novel solutions for their business activity, and allows them to gain exposure to and exchange views with senior management. In the same vein, Employee Resource Groups (ERGs), funded by the company and run by employees, are intended to encourage knowledge sharing.

- **The Diversity and Inclusion Council** aims to raise awareness within the company of the importance of the company's policy toward diversity and inclusion, and to help ensure the policy is put into action.

- **Change Agents** (instituted within the Sanofi Pharma sales team) strive to develop new talents in the areas of coaching, engagement, innovation and organizational improvement. They work with executives to assess the changes required in each of the areas assigned to them and offer suggestions for the tools, processes and methods necessary to effect that change, particularly with regard to innovation and reducing costs.

### 4.1.4. Health and safety in the workplace

**4.A. Policy and initiatives in 2012**

Sanofi's occupational health and safety policy is presented in Section 4.2.1. General policy on health, safety and the environment and, more specifically, in sub-sections 1.A. and 1.B.

Several initiatives were launched or pursued in 2012 to ensure comprehensive monitoring.

**4.A.a. Collective agreement**

In France, 2012 was marked by the implementation of the "arduous work" agreement signed in 2011. This agreement bolsters initiatives aimed at preventing occupational health risks among our employees.

### 4.A.b. Initiatives to promote HSE culture

In 2012 we continued a training program designed to strengthen HSE culture at Sanofi as a common value shared by all levels of management and employees. The program emphasizes the need to understand the HSE requirements and HSE risks associated with Sanofi's operations. It also addresses the importance for all employees of integrating and assuming their roles and responsibilities, and being personally involved in developing HSE culture. Since the program was launched, training has been provided to more than 6,000 managers across the Sanofi Group, including 10% in 2012, mainly in Germany, France and the region comprised by India, Bangladesh, Pakistan and North Africa. Overall, the program represents nearly 100,000 hours of training.

**4.A.c. Specific training on industrial hygiene and safety issues at industrial and R&D sites**

- **Industrial hygiene:** Twenty-five percent of our hygienists (in France and China) attended the W201 training program, which is internationally recognized in our industry, and they received certification following an exam at the end of a week-long course conducted by Wesa Inc., an accredited organization. Hygienists in Latin America and India will receive the same training in 2013.

- **Biosafety:** Two programs were developed:
  - Initial training for biologists and HSE team members was endorsed in 2012 for pilot groups in India and France. Training is expected to be provided in the United States and Germany in 2013.
  - Expert training leading to certification was also developed in 2012, with an initial pilot session being held in France. This training is intended for lead biosafety experts at establishments concerned by this type of occupational risk. It will be offered in the United States, France and Germany in 2013.

- With specific regard to safety, a comprehensive and innovative approach was launched for French industrial and R&D sites. The program for site management teams promotes a culture that takes into account the organizational and human factors in safety management systems. This essentially involves taking into consideration working conditions, organization, actual and prescribed...
The program involves two-day training courses for members of the sites' management committees and support for local managers with day-to-day safety management practices, provided by co-development groups run by HSE site directors.

**4.A.d. Road safety training**

In **India**, training sessions on road safety for drivers of scooters, motorcycles and mopeds (the principal mode of transportation in India) were held to improve road safety practices among our sales forces. More than 30% of regional managers attended sessions held in Mumbai, Hyderabad and New Delhi. Moreover, all of the affiliate's instructors also received road safety training. This will allow them to pass on what they have learned to all sales teams in India at a meeting in 2013 that will provide training to 2,000 regional managers and sales representatives.

In **Mexico**, a similar program was launched for automobile drivers to provide training for a team of instructors who will pass on their knowledge to 850 sales team members in 2013. Within Global Operations, these two affiliates account for a majority of road accidents with lost time.

In **Ukraine**, a pilot program for eco-driving training was launched to provide medical sales representatives and regional managers with training on driving techniques based on anticipation, which helps lower fuel consumption. After six months, the program produced the following results:

- A fourfold reduction in accident rates;
- A decrease in fuel consumption of over 10% during the pilot program period.

In light of these extremely encouraging initial results, the program is expected to be expanded to several other affiliates in 2013.

**4.A.e. Preventive health program for employees**

In 2012, Sanofi initiated a preventive occupational health program for employees to promote a healthy lifestyle and prevent or delay the onset of chronic disease. Data from the World Economic Forum (WEF) shows that promoting health in the workplace through programs that target sedentary lifestyles and unhealthy eating habits are effective in reducing certain health risk factors such as obesity, diabetes and cardiovascular disease (report from a 2008 joint WHO/WEF meeting). With this in mind and as a global healthcare company, we would like to use our health expertise to benefit employees through a program that is innovative in both design and evaluation methods.

In 2012, under the leadership of the Occupational Health Department, certain Sanofi sites have already proposed novel solutions adapted to the cultures of our employees, particularly in North and South America, India, China and Europe. The first goal of this new program is to develop a common core focused on three key objectives: 1) a balanced diet, 2) regular physical activity and 3) prevention management. Measures to meet each objective will be developed in conjunction with in-house experts and external partners. They will also be inspired by initiatives that have been successful at certain Sanofi sites to offer employees the most useful advice. The second goal of the program is to use these three key objectives as a basis for coordinating and re-focusing existing programs so that the preventive health program can be implemented at all our sites worldwide.

**4.A.f. Learning from experience (LEX)**

Learning from experience is a continuous improvement approach organized by the HSE Department. This initiative examines past events to analyze how (in ordinary situations or situations involving accidents) practices and prevention systems intended to protect people and property actually operate, and offer suggestions to make them more effective.

Various initiatives were launched in 2012:

- analysis and distribution of LEX reports across all Group entities;
- organization of seminars to exchange learning experiences and good practices in the following areas:
  - biological risk management;
  - machine safety management.

These seminars bring together participants from several sites and functions.
4.B. Health and safety indicators

**Occupational injuries**

<table>
<thead>
<tr>
<th>Lost time injury frequency rate*</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>3.0</td>
<td>3.3</td>
</tr>
<tr>
<td>Worldwide</td>
<td>1.8</td>
<td>1.8</td>
</tr>
</tbody>
</table>

**Distribution of worldwide rate by function:**

<table>
<thead>
<tr>
<th>Function</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Affairs</td>
<td>1.3</td>
<td>1.6</td>
</tr>
<tr>
<td>Vaccines</td>
<td>1.6</td>
<td>1.2</td>
</tr>
<tr>
<td>Research and Development</td>
<td>1.5</td>
<td>0.9</td>
</tr>
<tr>
<td>Global Operations</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>Corporate Functions</td>
<td>1.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Genzyme</td>
<td>2.5</td>
<td>**</td>
</tr>
<tr>
<td>Merial</td>
<td>2.3</td>
<td>2.6</td>
</tr>
<tr>
<td>Temporary employees (worldwide)</td>
<td>2.1</td>
<td>2.0</td>
</tr>
</tbody>
</table>

* Number of accidents resulting in lost time of one day or more within a 12-month period, per million hours worked. For non-mobile personnel, accidents occurring during the home-workplace commute are not included in this indicator. However, they are included for medical sales representatives, in accordance with reporting rules. To obtain comparative data, the figures for 2011 take into account all entities falling within the scope of the Group at the end of 2012 (including Genzyme and Merial).

** Non-consolidated.

At the global level, these data are consolidated for all Group companies, including joint ventures and consolidated companies included in the Group's financial results.

The lost time injury frequency rate for Group employees remained unchanged from 2011, and stands below the pharmaceutical industry average. The global severity rate of lost time injuries remained stable from 2011 to 2012.

The lost time injury frequency rate for the Global Operations Department remained approximately the same from 2011 to 2012. For the second consecutive year, the frequency rate for Industrial Affairs has decreased. Frequency rates for Vaccines and R&D increased while still remaining below the frequency rate for the Group.

In France, the frequency rate for Sanofi employees was 3.0, which represents a decrease from the previous year. This means that out of 200 Group employees, less than one experienced an occupational injury, whereas the French national average is one out of 25 employees (2011 data).

**Occupational illnesses**

Occupational illnesses and their causes are divided into categories according to the CEFIC (European Chemical Industry Council) classification system. More than one occupational illness may be reported for a single individual.

In 2012, 65 occupational illnesses were reported for all sites in France, compared with 69 and 70 illnesses reported for the two previous years. At the global level, 94 occupational illnesses were reported for 2012.

Data are consolidated on the basis of illnesses reported to authorities, not illnesses recognized by authorities. Recognition of the occupational nature of an illness may require lengthy investigations, which may take several years in some cases.

Most illnesses reported within the Group involve musculoskeletal disorders.

### 4.1.5. Training

**5.A. Training policy**

As a key tool for developing skills and talents, training plays an essential role in Sanofi’s human resource management.

Until recently, we applied a clearly decentralized approach to HR management, based on the observation that for training programs to be relevant and effective, they need to be designed as closely as possible to where they are applied in order to respond to actual and identified needs.

However, we now wish to combine the advantages of decentralization with the need to harmonize our practices in a common, comprehensive approach to human resource policies.

Since 2010, the HR function has sought to align major processes throughout our entities worldwide. The One HR concept, which aims to harmonize HR practices across all activities and all affiliates, initially involved devising performance management and workforce development processes.

In 2012, this harmonization led to the implementation of a common performance evaluation system for all Group managers.
It also gave impetus to implementing periodic talent reviews for managers, designed to identify areas of personal development, potential individual career options and succession plans for key positions. The reviews provide valuable opportunities for dialogue between managers and HR directors, allowing them to identify skill areas that need to be reinforced by Sanofi, either through appropriate in-house training or external recruitment. Talent reviews also make it possible to propose targeted development plans to selected individuals.

Workforce planning has been instituted in various forms, in particular within Industrial Affairs, our commercial affiliate in France and the U.S., and throughout Europe, where the Actor of Your Employability initiative is underway.

In the same vein, it is recommended that all employees, regardless of their level, have at least one annual review with their manager to discuss various aspects of their job: performance, fulfillment of responsibilities, skills to be developed, career growth directions, and training requirements.

In 2013, the One HR initiative will be pursued through a common approach to training and enhanced alignment of practices and programs.

5.B. Achievements in 2012

In line with the decentralized approach taken to date, some training programs are developed and organized directly by operational units to respond effectively to their technical and scientific requirements. Following the recent consolidation of such diverse organizations as Genzyme and Merital, existing processes and programs will initially be maintained in order to avoid delaying operational teams.

Similarly, although HR structures in certain countries (the United States and France) have begun aligning their training practices, due to the complex nature of traceability systems for technical and non-technical training programs, the existing range of programs will be maintained, at least for the time being.

Consequently, the number of hours of training as well as costs could not be consolidated at the global level in 2012. This project has been set in motion in order to obtain more information for 2013.

In early 2013, the LEAP Training initiative, which will initially involve the three countries where we have the largest number of employees, is expected to identify key actions to harmonize and streamline training practices.

Pursuing the work already undertaken, the HR function introduced additional initiatives in 2012 to better adapt training efforts to focus on building the skills required for the Group’s development.*

- **Introduction of the Support Function Academies**: Launched in 2011, the academies are designed to guarantee the knowledge and expertise of our support functions (Legal, Finance, Human Resources, Communications, Procurement and HSE) through strategic training programs. Twenty programs have been designed to date, primarily in-house. They have been implemented in France and the United States.

- **Redefined roles for training structures**: The role of training structures is being revised at the Group level in Sanofi’s major countries of operations (France, Germany and the United States). Corporate teams’ missions and the way they interact with regions and operations have been redefined. Existing management training programs have been grouped together under a global framework known as the Leadership Development Offer.

- **Manager training**: HR departments throughout the Group have identified training programs aimed at providing support for managers in order to improve recognition of these programs among regional professional development managers. This diversified offer will be optimized in 2013 to concentrate training efforts on a few key programs.

- **Lean methodology** (improving performance in terms of quality, costs and time): Industrial Affairs has provided training for more than 500 employees during five-day training sessions. In addition, 90 site directors and central team managers took part in a two-day Introduction to Lean and Change Management.

- **The Learning Gateway, a flexible, individualized solution**: In the United States, the Learning Gateway intranet portal was created to allow all employees to identify training that matches their needs and sign up directly for e-learning and face-to-face sessions.

5.C. Investment in training

In 2012, we continued to invest extensively in training across the entire Group. For example, in the four countries with the largest workforces, both in terms of budget (external costs devoted to training) and the number of employees trained:

- **In France**: In 2012, nearly 671,000 hours of training, including HSE training, were provided to 24,146 employees, i.e., 86% of the workforce in France (compared with 82% in 2011). In 2012, the average number of hours of training amounted to 27.8 hours per person, which is less than 2011 (29.5 hours).
In Germany: Nearly 37,000 hours of non-technical training were provided to 3,686 participants. In addition, for industrial and R&D teams, 136,000 hours of quality and HSE training were provided in-house to 6,549 employees. The total training budget represented more than €5.3 million in external costs (in particular for non-technical training).

In the United States: Over US$8 million (excluding sales force training) was invested for just over 8,500 employees (not including Merial, Genzyme and Chattem). Because of the consolidation of Genzyme and Merial in 2011 and the reorganization of corporate functions in 2012, the 2011 and 2012 budgets cannot be compared. Training hours are not monitored indicators in the United States.

In Brazil: A total of €8.6 million was invested to train 4,760 employees, or 94% of Sanofi's workforce in Brazil.

4.1.6. Equal treatment

6.A. Promoting diversity

Since 2011, the Corporate Social Responsibility Direction has been in charge of the Group's diversity policy. Sanofi continues to pursue efforts to promote women and gender balance in the workplace, take into account disability, and integrate young people in the working world. A network of diversity delegates in nearly 50 countries ensures the implementation of the policy through locally adapted initiatives.

In-house communications and diversity awareness among all Sanofi employees continued during events organized for International Women's Day, the National Disability Employment Awareness Week in France, the International Day of Persons with Disabilities and special youth days. Employees can find information on these topics via the Group’s intranet site and in-house newsletters.

In France, 33 HR employees attended diversity and non-discrimination training sessions in 2012 (216 employees have received training since 2008). Training about disability was provided to 74 employees.

In the United States, diversity training was expanded to Sanofi Pasteur through e-learning. A Diversity and Inclusion Council has also been established. It has already met several times to ensure that diversity and gender balance are fully integrated into the Group’s business strategy. The Council has identified three main focus areas: the commitment of leaders, the diversity of candidate pools and widespread employee involvement.*

6.B. Gender equality

Sanofi believes that gender balance is a source of enrichment and performance that must be fully integrated into the Group’s development strategy. The importance of this issue is recognized at the highest levels of the Group. At the meeting of the Women’s Leadership Council (WLC) in 2012, Christopher A. Viehbacher, Sanofi's CEO, expressed his commitment to gender balance across the Group, confirming the message he conveyed in a letter to employees on International Women's Day. The issue of gender equality was also addressed at a meeting of the Group Executive Committee.

As of December 31, 2012, women represented 45.4% of the Group's workforce and 38.7% of managers (see Section "4.1.1. Employment"). At the end of 2012, women represented 17.3% of the Senior Leadership Team, which is composed of 272 senior managers, and 39% of 4,840 key positions* (positions of high responsibility considered to be essential to Sanofi’s strategic objectives).

Several initiatives to promote gender balance were introduced in 2012 for various countries and activities. For example:

- Meetings, debates and opportunities to exchange learning experiences: Interaction between the WLC and the Global Leadership Team in June. The Group’s women’s networks, such as Women in Sanofi Pasteur, the European Sanofi Women’s Network and Sanofi Women Australia/New Zealand network (Swanz), were very active in 2012. The networks, which initiate proposals for the Group, held conferences and meetings on the topic of gender balance, as well as an inter-company women’s network meeting.

- Action programs: Sanofi Pasteur has created a group of 14 leaders to oversee gender balance working groups worldwide. In Japan, a specific committee was created to oversee the implementation of an action plan.

- Measurable progress: With regard to work-life balance in France, management and employee representatives have signed an agreement on teleworking. Other initiatives have been launched by certain Sanofi affiliates, including in Austria, Spain and Australia.
- Support for high-potential female employees: The Catalyzer Mentoring Program was launched to assist some twenty women who have the potential to become senior executives, enabling them to prepare for their future leadership. Mentoring is provided by 17 members from the Group Executive Committee and the Global Leadership Team.
- Participation in symposiums: European round table in Brussels to address gender balance on boards of directors.
- Support for organizations that promote gender balance: For the third consecutive year, Sanofi was a partner of the Women’s Forum for the Economy and Society in Deauville. Since 2010, approximately 100 female employees have attended this event, enabling them to champion gender balance within the Group. Sanofi representatives also participated in similar events in Brazil and Turkey.

6.C. Employment and integration of people with disabilities
Sanofi employs people with disabilities in 20 countries. In 2012, the total number of employees with disabilities (1,901) increased from 2011 (1,758).
In France, the Group employed a total of 1,153 employees with disabilities in 2012, compared with 1,061 in 2011 and 998 in 2010. This represents a small but steady increase, despite retirements during the year.

We bolstered our commitments in this area with the second agreement to promote integration and job retention of people with disabilities (2009-2012). The signatories intend to pursue the full range of initiatives to promote integration and job retention through a third agreement.

This agreement falls within the scope of the French Law of July 10, 1987, amended by the Law of February 11, 2005 “for equal rights, equal opportunity, participation and citizenship of people with disabilities.” For everyone at Sanofi (departments, management, employees, trade unions and employee representative bodies, and in particular the Committee for Hygiene, Safety and Working Conditions, or CHSW), it is intended to impart a sense of responsibility and accountability in terms of how resources and measures are determined and implemented to promote the integration and job retention of disabled persons.

At the global level, our objectives include the following:
- priority support for disabled employees to ensure that they retain their jobs;
- depending on an affiliate's situation, the continued integration of disabled employees, regardless of the nature of their disability (physical, sensory, intellectual, mental or psychological, multiple disabilities or debilitating health condition), in all job openings at Sanofi, with a particular emphasis on work-study contracts;
- heightened information and communication, as well as ongoing efforts to raise awareness about disabilities;
- forging relations with specialized centers and disability-friendly structures;
- ongoing actions to improve accessibility, in particular access to information.

6.D. Preventing discrimination and promoting equal opportunity
The integration of young people of all origins into the working world is an important issue in France and many other countries. Sanofi is committed to contributing as fully as possible to fighting discrimination and promoting equal opportunity. In more than ten countries where the Group operates, we develop partnerships designed to integrate young people into our workforce. Internships, apprenticeships, work-study programs and International Corporate Volunteer Program (VIE) contracts all provide ways for businesses to welcome young people, who can thus discover the working world. Sanofi is active in all these areas. In 2011, we signed a charter to promote the development of work-study programs in France. In 2012, we provided training for approximately 1,222 young people in France.

In several other countries (the United States, Romania, Israel, etc.), Sanofi arranges sponsorships to promote equal opportunity among young people from underprivileged backgrounds. In France, more than 64 employees participated in these sponsorship initiatives. Sanofi also joins forces with organizations such as FACE, which seeks to help people from disadvantaged communities return to employment.
4.1.7. Promotion of and compliance with International Labor Organization (ILO) Conventions

Sanofi’s Social Charter and Code of Ethics (see Section “3.2.1. Rapport du Président – 2.B. Environnement de contrôle” of our Document de Référence; the Code of Ethics is available at www.sanofi.com) set out employees’ fundamental rights in accordance with the relevant ILO conventions:

- freedom of association and recognition of the right to collective bargaining;
- abolition of all forms of forced labor;
- abolition of child labor;
- elimination of discrimination in employment.

In addition to our Social Charter and Code of Ethics, Sanofi has established a Suppliers Code of Conduct, which also refers to the following ILO conventions:

- ILO Convention Nos. 138 and 182 on child labor;
- ILO Convention Nos. 29 and 105 on forced labor;
- ILO Convention Nos. 14 and 106 on weekly rest;
- ILO Convention Nos. 95, 131 and 135 on wages and employee benefits;
- ILO Convention Nos. 87 and 98 on freedom of association, protection of the right to organize and collective bargaining;
- ILO Convention Nos. 100 and 111 on equal opportunity.

These commitments to comply with the fundamental principles and rights in the workplace, with respect to our employees and partners, are in line with Sanofi’s commitment as a member of the United Nations Global Compact since 2003 (see Section 4.3.5. regarding initiatives to promote human rights). Our Code of Ethics encourages employees to inform their superior or the Global Compliance Department of any concerns regarding possible illegal practices or ethical violations if they believe in good faith that a rule or one of the principles laid down in the Code of Ethics has been or is about to be violated.

In addition, a targeted audit program for suppliers has been in place since 2007 (see Section 4.3.3. on subcontractors and suppliers).

4.2. ENVIRONMENTAL INFORMATION

The environmental information presented in this section reflects consolidated data for all our industrial Group chemical, biotechnology, pharmaceutical and vaccine production sites, as well as the main distribution centers and all our research centers.

To assess our performance from one period to another on a comparable basis, 2011 data relates to all Group entities as of the end of 2012, including Genzyme and Merial and excluding sites divested to third parties.

Since 2005, Sanofi has used GREEN, a single tool for collecting and consolidating environmental data based on a standard that specifies the indicators to be monitored. This tool is used to report environmental data for all sites with the abovementioned activities.

4.2.1. General policy on health, safety and the environment

Sanofi’s environmental policy is established by the Group HSE Department, and forms an integral part of Group policy on health, safety and the environment. The Group HSE Department oversees implementation of Sanofi’s HSE policy throughout all our entities and sites worldwide.

Information relating to employee health and safety in 2012 is presented in Section 4.1.4.

1.A. Presentation of Sanofi’s HSE policy

The manufacturing and research operations of Sanofi are subject to increasingly stringent health, safety and environmental (HSE) laws and regulations. These laws and regulations are complex and rapidly changing.

Sanofi has implemented a worldwide master policy on health, safety and the environment to promote the health and well-being of the employees and contractors working on our sites and respect for the environment. We consider this master policy to be an integral part of our commitment to social responsibility. In order to implement this master policy, 78 rules (policies) have been drawn up in the key fields of HSE management (21 rules), good HSE practices in the areas of safety in the workplace (13 rules), process safety (10 rules), industrial hygiene (12 rules), health in the workplace (8 rules) and protection of the environment (14 rules). Standards and methodology handbooks are developed for each of these rules enabling the rules to be implemented at all Group sites and entities worldwide. The Group’s HSE Department verifies compliance with rules defined at the Group level through regular audits at sites and entities. Information relating to the audit process is set out in Section "1.C. Environmental audits and certification" below.
Health

From the development of compounds to the commercial launch of new drugs, Sanofi research scientists continually assess the effect of products on human health, especially that of our employees. This expertise is made available to employees through two committees responsible for chemical and biological risk assessment, making it possible to determine appropriate risk prevention and protection measures for employees. The Group’s COVALIS committee classifies all chemical and pharmaceutical products handled within the Group and establishes workplace exposure limits for each of them. The Group’s TRIBIO committee is responsible for classifying all biological agents according to their degree of pathogenicity and establishing rules for their containment and preventive measures to be respected throughout the Group (see Section “3.1.8. Facteurs de risque – 3. Risques industriels liés à l’environnement” of our Document de Référence).

Appropriate industrial hygiene practices and programs are defined and implemented in each site. These practices essentially consist of containment measures for individual and collective protection against exposure in all workplaces where chemical substances or biological agents are handled. All personnel are monitored with an appropriate initial and routine medical program, focused on the potential occupational health risks linked to their duties.

In addition, a committee has been set up to prepare and support the implementation of the new European Union REACH regulation on Registration, Evaluation, Authorization and Restriction of Chemicals. In compliance with the European regulation on the Classification, Labeling and Packaging of chemical products and substances (CLP), we have registered the relevant hazardous chemical substances with the European Chemicals Agency (ECHA).

Safety

Sanofi has rigorous policies to identify and evaluate safety risks and to develop preventive safety measures and methods for checking their efficacy. These policies are implemented on a worldwide scale to ensure the safety of all employees and to protect their health. Each project, whether in research, development or manufacturing, is subject to evaluation procedures, incorporating the chemical substance and process data communicated by the COVALIS and TRIBIO committees described above. The preventive measures are designed primarily to reduce the number and seriousness of occupational injuries and to minimize exposure involving permanent and temporary Sanofi employees as well as our subcontractors.

Risk assessments of processes and installations are drawn up according to standards and internal guidelines incorporating the best state-of-the-art benchmarks for the industry. These assessments are used to fulfill regulatory requirements and are regularly updated. Particular attention is paid to any risk-generating changes: process or installation changes, as well as changes in production scale or transfers between industrial or research units.

Our laboratories that specialize in process safety testing, which are fully integrated into our chemical development activities, apply methods to obtain the physico-chemical parameters of manufactured chemical substances (intermediate chemical compounds and active ingredients) and apply models to measure the effect of potentially leachable substances in the event of a major accident. In these laboratories the parameters for qualifying hazardous reactions are also determined to define scale-up process conditions while transferring from the development stage to industrial scale. All these data ensure that our risk assessments are relevant.

We believe that the safety management systems implemented at each site, the hazard studies carried out and the risk management methods implemented, as well as our third-party property insurance policies covering any third-party physical damage, are consistent with legal requirements and best practices in the industry.

At the Group level, the French chemical manufacturing sites in Aramon, Neuville-sur-Saône, Sisteron and Vertolaye in France, the plants located in the Industrial Park in Frankfurt, Germany, the chemical production site in Budapest, Hungary, and the Zentiva site in Hlohovec, Slovakia are listed Seveso II (from the name of the European directive relating to potentially dangerous sites, providing a list of activities and substances and the associated classification thresholds). In accordance with French law on technological risk prevention, the French chemical manufacturing sites in Aramon, Neuville-sur-Saône, Sisteron and Vertolaye are subject to more stringent safety inspections due to the toxic or flammable materials stored on the sites and used in their operating processes. As of the end of 2009, the St-Aubin-les-Elbeuf site is no longer concerned by this measure.

Information relating to employee health and safety is presented in Section “4.1.4. Health and safety in the workplace.”

Environment

The main objectives of our environmental policy are to implement clean manufacturing techniques, minimize the use of natural resources and reduce the environmental impact of our activities. In order to optimize and improve our environmental performance, we have a strategy of continuous improvement practiced at all our sites through the annual implementation of HSE progress plans. We believe that this strategy clearly expresses the commitment of both management and individuals to health, safety and the environment.

Our recent efforts in terms of environmental protection have mainly targeted reductions in water and energy consumption, greenhouse gas emissions control, improvements in the performance of water
treatment installations, reduction of volatile organic compound emissions, raw material savings and recycling, and reductions in waste materials or increases in the percentage being recycled.

An internal committee of experts called ECOVAL assesses the environmental impact of the pharmaceutical agents found in products marketed by Sanofi. It has developed an environmental risk assessment methodology, in line with regulatory expectations, and runs programs to collect the necessary data for such assessments. Additional ecotoxicity assessments are being performed on certain substances that predate current regulations, in order to obtain additional information required by regulations introduced after they were launched. These tests have made it possible to supplement or update assessments and determine the environmental risks resulting from their use by patients.

1.C. Environmental audits and certification

As part of a comprehensive system for monitoring legal developments relating to HSE, legal developments relating to the environment are monitored for all of Sanofi's industrial and scientific activities in France. Affiliates with industrial and scientific activities in other countries also monitor legal developments relating to HSE. The Group HSE Department runs audit programs to assess compliance with local administrative and regulatory requirements and the rules and standards prescribed by Sanofi's HSE policy. In 2012, in-house teams carried out 53 complete Health, Safety and Environment (HSE) audits at Group sites and pharmaceutical operations headquarter offices. Nine specialized HSE audits were also conducted by our teams targeting specific areas, such as contractor management and biosafety. Moreover, 163 loss prevention technical visits and 118 specific audits were conducted with the assistance of technical experts from Sanofi's insurers.

In addition to internal verifications and audits, Sanofi sites are also subject to regular inspections by local authorities and regulatory verifications by third parties with respect to specific concerns. To our knowledge, Sanofi is not currently subject to liabilities for non-compliance with current HSE laws and regulations that could be expected to significantly jeopardize our activities, financial situation or operating income. We also believe that we are in substantial compliance with current HSE laws and regulations and that all environmental permits required to operate our facilities have been obtained. Environmental indemnification in 2012 was immaterial.

We are involved in various certification processes relating to safety, the environment and energy. A total of 60 sites worldwide are currently ISO 14001 certified and 31 of these sites are OHSAS certified. Fifteen R&D and production administrative buildings are LEED certified and one administrative building is certified to operate as a HQE site. A certification process focusing on energy management certification (ISO 50001) has been successfully introduced at all Sanofi sites operating at the Höchst industrial platform in Frankfurt.

1.D. HSE Training and communications for employees

Sanofi invests in training that is designed to incorporate environmental protection into all our activities. Training on environmental protection is an integral part of our HSE approach.

When they are hired, all Sanofi employees receive HSE training adapted to their position so they can perform their duties in strict compliance with HSE rules. Depending on their jobs, employees may also take other training modules specifically related to their position (for example, eco-driving for medical and other sales representatives, chemical risks for employees who work with chemical products, etc.).

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In 2012, more than 430,000 hours of HSE training were provided worldwide (including eco-driving training).

In addition, the Group HSE Department established an HSE Academy, which provides HSE culture training modules (including environment and energy modules) for all managers and employees. These modules are currently being implemented across all Group activities (see Section 4.1.4.).

1.E. Measures to prevent environmental risks and pollution

Investments and operating expenses devoted to preventing environmental risks and contamination are included in the investments and expenses incurred in respect of implementation of the Group’s HSE policy. Investments relating to industrial hygiene, safety, working conditions and accessibility for people with disabilities, process safety and the environment amounted to €100 million in 2012, including €40 million for the prevention of environmental risks and contamination. Because new facilities are designed from the outset with prevention in mind, the amount of related investments cannot be specifically determined. HSE operating expenses, including payroll expenses for HSE staff, consumables, energy and labor at treatment installations, the cost of waste treatment and recycling, environmental taxes, studies and audit services totaled €198 million in 2012.

1.F. Provisions for environmental risks and remediation

The applicable environmental laws and regulations may require Sanofi to eliminate or reduce the effects of chemical substance usage and discharge at our various sites. The sites in question may belong to the Group, be currently operational, or they may have been owned or operational in the past. In this regard, Sanofi may be held liable for the costs of removal or remediation of hazardous substances on, under or in the sites concerned, or on sites where waste from activities has been stored, without regard to whether the owner or operator knew of, or under certain circumstances, caused the presence of the contaminants, or at the time site operations occurred, the discharge of those substances was authorized.

As is the case for a number of companies in the pharmaceutical, chemical and intense agrochemical industries, soil and groundwater contamination has occurred at some Group sites in the past, and may still occur or be discovered at others. In Sanofi’s case, such sites are mainly located in the United States, Germany, France, Hungary, the Czech Republic, Slovakia, Brazil, Italy and the United Kingdom. As part of a program of environmental audits conducted over the last few years, detailed assessments of the risk of soil and groundwater contamination have been carried out at current and former Group sites. In cooperation with national and local authorities, Sanofi regularly assesses the rehabilitation work required and carries out such work when appropriate. Long-term rehabilitation work is in progress or planned in Rochester, Cincinnati, Mount Pleasant, East Palo Alto, Ambler and Portland in the United States; Frankfurt in Germany; Brindisi and Garessio in Italy; Dagenham in the United Kingdom; Ujpest in Hungary; Hlohovec in Slovakia; Prague in the Czech Republic; Beaucarne, Valernes, Limay, Rousset, Romainville, Neuville, Vitry and Toulouse in France; and on a number of sites divested to third parties and covered by contractual environmental guarantees granted by Sanofi. An additional phase of work is underway at the Beaucarne site. Sanofi may also have potential liability for investigation and cleanup at several other sites. Sanofi has established provisions for the sites already identified and to cover contractual guarantees for environmental liabilities for sites that have been divested.

Potential environmental contingencies arising from certain business divestitures are described in Note D.22.e) to the consolidated financial statements. In 2012, Sanofi spent €45 million on rehabilitating sites previously contaminated by soil or groundwater pollution. During the year, a comprehensive review was carried out on the legacy of environmental pollution. In light of data collected during this review, we adjusted our provisions to approximately €728 million as of December 31, 2012.

Due to the changes in environmental regulations governing site remediation, Sanofi’s provisions for remediation obligations may not be adequate due to the multiple factors involved, such as the complexity of operational or previously operational sites, the nature of claims received, the rehabilitation techniques considered, the planned timetable for rehabilitation, and the outcome of discussions with national regulatory authorities or other potentially responsible parties, as in the case of multiparty sites. Given the long industrial history of some of our sites and the legacy obligations of Aventis arising from past involvement in the chemical and agrochemical industries, it is impossible to quantify the future impact of these laws and regulations with precision (see Section “3.1.8. Facteurs de risque – 3. Risques industriels liés à l’environnement” of our Document de Référence).

Sanofi has established, in accordance with our current knowledge and projections, provisions for cases already identified and to cover contractual guarantees for environmental liabilities relating to sites that have been divested. These provisions totaled €728 million in 2012, compared with €764 million in 2011. The terms of certain business divestitures, and the environmental obligations and retained environmental liabilities relating thereto are described in Note D.22. to our consolidated financial statements. In accordance with Group standards, these provisions are reviewed twice a year and updated in light of new information, if applicable.
4.2.2. Sustainable use of resources

2.A. Water consumption

Water utilized during manufacturing (for fermentation in particular) and heat exchange processes (cooling without product contact) is essentially drawn from available waterways and groundwater. Specific operating measures aimed at reducing water consumption (moderation and recycling) and the conversion of chemical production facilities to biotechnologies enabled Sanofi to further reduce overall water consumption in our manufacturing and R&D activities by more than 9.7% in 2012.

All activities combined, Sanofi reduced water consumption by 25% between 2005 and 2011. We have taken on the ambitious goal of reducing water consumption by another 25% by 2020 (base: 2010). This goal will be furthered through intermediate steps requiring the preparation of water consumption reduction plans by 2014 and the implementation of these action plans from 2014 to 2020.

2.B. Water supplies and local constraints

Water is needed for many of the steps to produce medicines and vaccines, and Sanofi is committed to responsibly managing this vital resource, particularly in areas where water supplies are limited.

For the last three years, Sanofi has used the Global Water Tool, developed by the World Business Council for Sustainable Development (WBCSD), to assess impact on water resources in relation to water stress levels in relevant drainage basins.

Currently, 42% of Sanofi sites (which account for 65% of our water consumption) are located in areas of moderate to high levels of water stress (distribution based on 2011 data). It should be noted that the drainage basins of the Seine in France and the Main in Germany, where some of our sites with the highest water consumption levels are located (the greater Paris area, the region of Normandy and Frankfurt), are areas of moderate water stress. Stress in these basins is linked to theoretical water consumption resulting from high population density and agricultural activity. We do not believe that our activities have a significant impact on water resources in these areas.

2.C. Energy consumption

Energy is used directly in our processes, to operate environmental protection facilities and for air conditioning in buildings, in order to ensure compliance with good pharmaceutical manufacturing practices and good working conditions for employees. Energy consumption decreased by 2.5% compared with 2011, particularly through energy efficiency measures, the continued reorganization of R&D entities and the conversion of chemical production facilities to biotechnologies.

<table>
<thead>
<tr>
<th>GJ (gigajoules)</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural gas</td>
<td>8,721,345</td>
<td>8,877,661</td>
</tr>
<tr>
<td>Electricity</td>
<td>6,940,957</td>
<td>7,214,812</td>
</tr>
<tr>
<td>Coal</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Liquid hydrocarbon fuel (not including fuel for vehicle fleets)</td>
<td>854,780</td>
<td>836,960</td>
</tr>
<tr>
<td>Renewable fuels</td>
<td>7,009</td>
<td>0</td>
</tr>
<tr>
<td>Other (steam, thermal fluids, cooling water)</td>
<td>1,679,915</td>
<td>1,736,266</td>
</tr>
<tr>
<td>Total</td>
<td>18,204,006</td>
<td>18,665,699</td>
</tr>
</tbody>
</table>

Renewable energy consumption includes, in particular, consumption of renewable heating fluids (geothermal) and electricity from certified renewable sources at 19 of our industrial manufacturing and R&D sites in France (supplier certification of electricity produced from renewable sources, in accordance with French Order No. 2011-1105 of September 14, 2009). Overall renewable energy consumption totaled 687,370 GJ, or 3.8% of our energy consumption, not including the renewable electricity included in our affiliates’ energy mixes.

If we include the renewable electricity comprised in our affiliates’ energy mixes, the proportion of renewable energy increases to 7.7%.
2.D. Measures to improve energy efficiency and the use of renewable energies

The Group applies a comprehensive strategy to address the challenges of climate change and a limited supply of fossil fuels. The Group’s overall strategy is discussed in Section “4.2.3. Climate change”.

Our strategy focuses on three goals:

Reduced consumption

An energy conservation program has been implemented at all our sites with a specific focus on air treatment systems, which ensure high-quality production environments. These systems are some of the largest users of energy, accounting for up to 70% of energy consumption at certain pharmaceutical and vaccine manufacturing sites.

Energy efficiency impacts all our activities, affecting industrial facilities as well as vehicle fleets for medical sales representatives and the mode of transport we use for product distribution.

Optimized consumption

We use the best available equipment at our industrial sites, factoring in the total cost of equipment ownership, particularly for equipment with the highest proportion of energy costs (engines, lighting, etc.). In 2012, Sanofi entered into a master service agreement with Cofely for the construction of high efficiency cogeneration units at Sanofi sites in Europe that will help reduce the sites’ overall primary energy consumption.

Alternative consumption (using renewable energies)

As part of our strategy to reduce greenhouse gas emissions, we conduct regional assessments relating to the use of energy sources that produce the lowest greenhouse gas emissions and the use of renewable energies, based on risk/opportunity analyses (risk of supply shortages versus opportunities offered by government incentives). In particular, Sanofi is gradually discontinuing the use of fuel oil in favor of natural gas (United Kingdom and Mexico). In Hungary, Sanofi has encouraged the implementation of a municipal network of hot water produced by geothermal energy. The site has replaced 40% of its natural gas consumption devoted to hot water production by connecting to the network, making it one of the network’s largest users.

Progress toward these three strategic goals is monitored through extensive, detailed energy consumption measurements that are used to assess our performance.

To coordinate efforts across the entire Group, we created a Climate Change Committee, which is in charge of:

- sharing best practices and knowledge;
- keeping abreast of new regulatory requirements;
- making recommendations to implement goals, function by function;
- monitoring progress toward achieving goals;
- tracking variations in energy prices.

All functions and business units are represented on the Climate Change Committee, including HSE, CSR, R&D, Industrial Affairs, Procurement, Vaccines, Supply Chain, Facility Management, etc.

The Sanofi Energy Network is now fully operational. All our industrial and R&D sites as well as each business function have an Energy Network task force, which is in charge of setting goals and establishing action plans to reduce energy consumption and meet CO₂ emissions objectives. Energy managers and/or energy specialists have also been appointed at each site.

Task forces meet on a regular basis to address technical issues and monitor progress, discuss achievements and provide updated information to all site energy managers and specialists. They also publish technical guides, which are distributed to improve overall understanding of the relevant issues for each site.

2.E. Consumption and optimization of raw materials

Among raw materials, solvents, primarily used for the synthesis and formulation of active pharmaceutical ingredients (essentially solid forms), have the greatest potential environmental impact. We have established recommendations for proper use at the Group level. Selection and replacement criteria for solvents include reducing the risk they may pose to health, safety and the environment.

Solvents used in the production process are either purchased (“consumed” quantities) or regenerated at Sanofi sites.

Sanofi encourages process optimization, regeneration when possible, and incineration with energy recovery in an effort to reduce consumption of non-renewable raw materials.

The conversion of chemical production to biotechnology has led to a substantial decrease (-16.7%) in the quantity of solvents used by Sanofi. The solvent regeneration rate has decreased as a result of the greater proportion of solvents used in pharmaceutical formulation processes (galenic formulation) because quality requirements make it difficult to use regenerated solvents.
2.F. Land use

Land use is not a major issue at Sanofi, as it would be in the case of operations involving quarries, landfills or agriculture. Only our developed property has an impact on land use, and this impact is considered very limited compared with other industries. The limited impact of our activities on land use and any indemnifications resulting therefrom are detailed in Section "4.2.1.F. Provisions for environmental risks and remediation."

4.2.3. Climate change

3.A. Greenhouse gas emissions

Sanofi’s strategy to address energy and climate change challenges focuses on three key areas: energy consumption, greenhouse gas emissions and energy spending. Aware of the risks generated by a dwindling supply of fossil fuels and risks related to climate change (caused when fossil carbon is converted into atmospheric carbon), we have established the goal of reducing CO₂ emissions by 20% by 2020 (20% reduction on scope 1 and 2 emissions in 2020 on a constant structure basis compared with 2010). In 2011, we reached 86% of our previous goal for the 2005-2013 period (two years ahead of schedule), but we shifted our focus following the consolidation of Merial and Genzyme. Our new goal for the reduction of greenhouse gas emissions is being pursued by all our industrial and R&D sites through a specific policy aiming to improve energy efficiency and the use of renewable energies. The measures taken by the Group are detailed in Section "4.2.2.D. Measures to improve energy efficiency and the use of renewable energies."

The combustion of natural gas and liquid hydrocarbons releases carbon dioxide into the atmosphere (direct emissions). The European CO₂ Emissions Credit Trading Scheme (ETS), established in accordance with the Kyoto Protocol, concerns seven of our industrial sites for the 2008-2012 period. In addition, four other industrial sites participate indirectly in the scheme through their energy providers.

Starting in 2013, in accordance with the new rules of the revised EU Directive 2003/87/EC, nine sites will be subject to Phase III of the ETS.

Emissions from vehicles used by medical sales representatives were estimated on the basis of fuel consumption. Corresponding CO₂ emissions decreased by more than 10% in 2012 on a comparable basis. This decrease is a result of the continued implementation of our policy for the use of safer, more fuel-efficient vehicles, and a reduction in the Group’s vehicle fleet.

Electricity consumption generates emissions qualified as indirect for the suppliers that provide electricity for our sites. These emissions are calculated based on emission factors published by the International Energy Agency (for countries other than the United States) and the GHG Protocol (for the United States). Indirect emissions resulting from purchased steam are included in indirect emissions, according to emission factors specific to each site. Although emissions from the transportation of materials are not included in this total, it should be noted that the efforts since 2009 to reduce such emissions were continued in 2012 (development and continued use of barges and maritime shipping as an alternative to road and air transportation).

In line with changes in energy consumption (fossil fuels and electricity), direct and indirect CO₂ emissions decreased by 1.3% and 4.7%, respectively. This decrease reflects our efforts to control energy consumption and opt for energy sources that emit fewer greenhouse gases. Compared with the reference year for Sanofi’s new objective (2010), direct and indirect emissions from manufacturing and research sites (not including vehicle fleets) decreased by 7.2% overall.

<table>
<thead>
<tr>
<th>(Tons)</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvents used</td>
<td>180,576</td>
<td>216,882</td>
</tr>
<tr>
<td>Percentage of regenerated solvents</td>
<td>60%</td>
<td>64%</td>
</tr>
</tbody>
</table>

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Starting in 2013, in accordance with the new rules of the revised EU Directive 2003/87/EC, nine sites will be subject to Phase III of the ETS.

Emissions from vehicles used by medical sales representatives were estimated on the basis of fuel consumption. Corresponding CO₂ emissions decreased by more than 10% in 2012 on a comparable basis. This decrease is a result of the continued implementation of our policy for the use of safer, more fuel-efficient vehicles, and a reduction in the Group’s vehicle fleet.

Electricity consumption generates emissions qualified as indirect for the suppliers that provide electricity for our sites. These emissions are calculated based on emission factors published by the International Energy Agency (for countries other than the United States) and the GHG Protocol (for the United States). Indirect emissions resulting from purchased steam are included in indirect emissions, according to emission factors specific to each site. Although emissions from the transportation of materials are not included in this total, it should be noted that the efforts since 2009 to reduce such emissions were continued in 2012 (development and continued use of barges and maritime shipping as an alternative to road and air transportation).

In line with changes in energy consumption (fossil fuels and electricity), direct and indirect CO₂ emissions decreased by 1.3% and 4.7%, respectively. This decrease reflects our efforts to control energy consumption and opt for energy sources that emit fewer greenhouse gases. Compared with the reference year for Sanofi’s new objective (2010), direct and indirect emissions from manufacturing and research sites (not including vehicle fleets) decreased by 7.2% overall.

<table>
<thead>
<tr>
<th>(Tons CO₂ equivalent)</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel (direct)</td>
<td>501,222</td>
<td>507,973</td>
</tr>
<tr>
<td>Production of electricity and other forms of energy (indirect)</td>
<td>635,807</td>
<td>666,966</td>
</tr>
<tr>
<td>Medical sales representative vehicles (estimated)</td>
<td>144,342</td>
<td>160,945</td>
</tr>
</tbody>
</table>

(1) CO₂e = CO₂ equivalent

In addition to measures taken to reduce our energy consumption (fossil fuels and electricity), measures have also been taken to decrease work-related travel. The installation of videoconferencing rooms allows multi-site meetings to be held without systematically requiring employees to travel. We have also revised our policy on work-related travel to encourage eco-friendly means of transportation when traveling is necessary.
3.B. Adapting to the consequences of climate change

One of the consequences of climate change that could have a material impact on Sanofi’s operations is extreme weather, which presents a risk to both our production facilities and the distribution chain, through delivery of our products to patients. To guard against these risks, our facilities are constructed to the highest standards, using state-of-the-art engineering techniques and taking maximum constraints into account in the design phase. In addition, during site visits, technical experts from the Group’s insurers issue recommendations for dealing with extreme weather conditions, in particular those that generate a flood risk requiring the implementation of an emergency plan.* Risks related to natural disasters are also taken into consideration in Sanofi’s crisis management plan, across all levels of production sites and supply chains.

4.2.4. Pollution and waste management

4.A. Preventive measures to reduce air, water and soil pollutants with a serious impact on the environment

4.A.a. Air emissions

Controlling volatile organic compound (VOC) emissions from drug synthesis and manufacturing activities is a key priority for Sanofi. Steps to control these emissions are integrated into each stage of product development, from research to production:

- reduced use of organic solvents thanks to green chemistry techniques used by our R&D teams;
- reduced point-source emissions through specific adjustments in manufacturing processes and maximum solvent containment;
- because manufacturing processes and equipment are never completely isolated from their environment, residual VOC emissions are captured and treated at special treatment facilities using the best available techniques for the specific physico-chemical properties of the VOCs emitted (cryogenic capture, gas scrubbers, thermal oxidizers, etc.).

VOC emissions are estimated using either the mass balance approach or direct measurement, with approximately 10% uncertainty.

The 13% increase in VOC emissions is linked to the shutdown of a thermal oxidizer for maintenance at a facility where active ingredients are manufactured and an increase in production capacity at two sites, leading to a significant increase in the use of particularly volatile solvents.

<table>
<thead>
<tr>
<th>Tons</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOCs</td>
<td>2.563</td>
<td>2.267</td>
</tr>
</tbody>
</table>

In addition to carbon dioxide (CO₂), local pollutants such as sulfur oxides (SOₓ) and nitrogen oxides (NOₓ) are generated by combustion. Most boilers have been converted from coal or fuel oil (energy sources that emit SOₓ) to natural gas. In particular, the boilers at two sites located in Mexico and the United Kingdom were converted to natural gas in 2012, and the conversion of a boiler at a vaccine production site from fuel oil to natural gas will be completed in 2013.

Only SOx emissions related to coal and fuel oil combustion are presented. Despite efforts at the few Sanofi sites that are equipped with fuel oil-fired boilers (with fuel-oil consumption being reduced through reduced energy consumption) and the conversion of two units to natural gas, SOx emissions increased 6.5% on a comparable basis. This increase is primarily due to the recurrent use of emergency generators at one of our sites in India, caused by an unreliable local electricity supply.

<table>
<thead>
<tr>
<th>Tons of SOx</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct emissions</td>
<td>213</td>
<td>200</td>
</tr>
</tbody>
</table>

Nitrogen oxides are released during the combustion of liquid and gaseous fuels.

NOx emissions from manufacturing processes – of little significance in comparison with emissions from combustion facilities – are not included in the consolidated data. The table below presents annual emission volumes resulting from hydrocarbon combustion, based on emission factors.

<table>
<thead>
<tr>
<th>Tons of NOx</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct emissions</td>
<td>402</td>
<td>404</td>
</tr>
</tbody>
</table>

4.A.b. Wastewater discharge

Industrial effluent wastewater is treated either on site at our facilities or at municipal water treatment plants under agreements signed with plant operators. The data presented correspond to effluents after internal and/or external treatment. Chemical oxygen demand (COD) is the primary environmental indicator of effluents. If no information on external treatment is available, a 50% purification rate is assumed. All internal wastewater treatment plants, regardless of type – membrane bioreactors, conventional biological or physico-chemical – undergo continuous improvement: primary treatment upgrades, sorting at the source and separate treatment for certain waste streams, and the optimization of biological treatment.
with the support of Sanofi’s environmental laboratory teams.

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>COD</td>
<td>3,041</td>
<td>2,974</td>
</tr>
</tbody>
</table>

Nitrogen and total suspended solids (TSS) contained in industrial effluents are also a characteristic of the “environmental load” and make it possible to measure the treatment system’s efficacy before discharge.

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen</td>
<td>352</td>
<td>510</td>
</tr>
<tr>
<td>Total suspended solids</td>
<td>706</td>
<td>543</td>
</tr>
</tbody>
</table>

The 2.3% increase in COD discharges is primarily due to a production increase at one of our sites where the organic compounds processed have a low rate of biodegradability at treatment plants. The increase in volumes of total suspended solids is mainly related to a strong increase in activity at a fermentation site.

Sanofi water experts pursue efforts to reduce wastewater discharge. They evaluate the best available techniques and anticipate their implementation in order to ensure the continued compliance of our treatment facilities. In 2012, we started construction of a wastewater treatment facility at one of our sites in India. By implementing the best available techniques, the facility will meet the highest standards set by the authorities of the state of Gujarat.

At the local level, each site is responsible for determining its own wastewater management program, based on environmental impact assessments and regulatory impact analyses. These programs include:

- characterizing the principal pollutants and sources of wastewater;
- determining the technologies to be implemented depending on the type of wastewater;
- monitoring discharge and facility performance, and reporting these parameters to central organizations.

In response to the emerging issue of pharmaceuticals in the environment (PIE), Sanofi has developed a specific approach piloted by the Sanofi HSE Direction in line with the Group’s HSE Policy and Requirements.

Our approach focuses on four key areas:

- improving the Group’s knowledge about the impact of our products by conducting both mandatory and voluntary environmental risk assessments on new and marketed products under the guidance of the ECOVAL committee;
- developing general knowledge about the issue of pharmaceuticals in the environment through research partnerships with academia (such as the Peres Center for Peace), in close collaboration with stakeholders (pharmaceutical associations);
- analyzing wastewater effluents at our manufacturing sites and assessing their impact on the environment, if necessary by developing ad hoc analytical methods at in-house labs;
- exploring new technologies for treating these types of micro-pollutants.

To promote proper disposal practices, Sanofi also supports take-back programs to collect unused medicines from patients. To this end, Sanofi has developed a list of recommendations for patients, entitled “What to do with your unused medicines.” The Group has set up a system enabling commercial affiliates to share best practices regarding the worldwide implementation of take-back programs for unused medicines or local support for such initiatives.*

4.A.c. Soil contamination

With regard to prevention, in accordance with the Group’s HSE policy and regulatory requirements, all Group sites are equipped with containment systems and/or systems for collecting accidental releases to prevent them from penetrating the soil. All containment systems are built to the highest construction standards and are covered by specific appropriate maintenance programs to ensure the integrity of the sites’ equipment and effluent collection systems. Our sites are also equipped with emergency spill control kits wherever potentially harmful substances are stored or handled.

Sanofi systematically applies a multi-year soil and groundwater preventive monitoring and evaluation program for our properties, both for those with ongoing operations and those being sold. When required, detailed risk evaluations of soil and groundwater contamination are carried out at current or former sites for remediation purposes.

4.B. Waste prevention, recycling and disposal measures

The quantity of hazardous waste produced in 2012 increased by 9.7% compared with 2011. However, the recovery rate (recycling or energy recovery) also increased from 48% to 52%.

As in the past, less than 2% of waste was sent to landfills. This means of disposal is used only as a last resort when local incineration plants are unavailable. It should be noted that the increase in the absolute value of waste sent to landfills is primarily linked to substantial volumes of wastewater treatment sludge from two production sites.

Sanofi • Document de référence 2012
The volume of non-hazardous waste produced in 2012 decreased 8%, with the recovery rate (recycling or thermal recovery) remaining stable compared with 2011. It should be noted that non-hazardous building waste is not included in the data below, even though Sanofi focuses on recovery after treatment.

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recycled non-hazardous</td>
<td>64,359</td>
<td>72,525</td>
</tr>
<tr>
<td>waste</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazardous waste incinerated with thermal recovery</td>
<td>16,673</td>
<td>15,009</td>
</tr>
<tr>
<td>Hazardous waste incinerated without thermal recovery</td>
<td>7,245</td>
<td>8,438</td>
</tr>
<tr>
<td>Non-hazardous waste sent to authorized landfills</td>
<td>18,312</td>
<td>19,862</td>
</tr>
<tr>
<td>Total</td>
<td>106,589</td>
<td>115,834</td>
</tr>
</tbody>
</table>

Reducing the quantities of waste and managing waste are important objectives for Sanofi. The key to our policy is a systematic examination of recycling possibilities before waste is disposed in any other manner.

Each site manages its waste according to following principles:

- reduce waste at the source;
- reuse, recycle or recover on site or with selected subcontractors;
- incinerate with energy recovery wherever possible;
- send waste to landfills as a last resort, provided that the landfill is duly regulated and monitored. Landfills used for hazardous waste are audited annually, and those for non-hazardous landfilling every three years.

Sanofi’s waste management program includes procedures to characterize process streams and properly identify, organize, collect, sort, treat, store, transport and dispose of each type of waste. In addition, we keep records of all waste management documents to ensure traceability through final treatment.

Prior to engaging a new waste contractor, the contractor’s qualifications, competence and compliance with regulations are thoroughly verified.

4.2.5. Protecting biodiversity

Three of our sites (Vertolaye in France, Csanyikvölgy in Hungary and Swiftwater in the United States) are located in special habitat protection areas (e.g., Natura 2000). They are under particular scrutiny as a result of their location.

We continuously seek new ways to limit and lower the environmental impacts of business activities in accordance with the Group CSR and HSE policies. In additional, as a global healthcare leader, Sanofi is aware that natural resources (plants, animals, etc.) from ecosystems are sources of potential innovative new medicines that could prevent or cure diseases. Thus, the Group recognizes the necessity to protect and sustain all natural resources that make up biodiversity.

The Group is also aware that unapproved or substantial removal of natural resources, as well as polluting production activities, may jeopardize the ecology and economy of the affected countries. In its position paper on biodiversity, Sanofi acknowledges that each country has sovereignty over its natural resources and traditional knowledge for their use, and commits to supporting internal and/or external initiatives against biopiracy.*
Sanofi focuses on preventing and managing any of its activities that might have an impact on biodiversity and is implementing processes against biopiracy. This includes:

- controlling the collection and use of natural resources in research projects to discover new commercial drugs;
- understanding the effects of Group activities and medicines on natural resources;
- implementing a fair process for benefit sharing, with conventional knowledge holders, resulting from the marketing of medicines derived from natural resources;
- conserving habitats and species around Group sites throughout the world;
- sourcing biological materials and related services from suppliers who have appropriate environmental and biodiversity preservation standards (including compliance with international standards on biodiversity).

The Group adheres to the global conventions that define biodiversity preservation principles:

- the Convention on Biological Diversity, included in the United Nations Environment Programme (UNEP), signed at the Earth Summit in Rio de Janeiro in 1992. It defines commitments for maintaining the world's ecological systems including the following three main goals:
  - the preservation of biological diversity;
  - the sustainable use of its components;
  - principles with respect to the acquisition and utilization of natural resources, and the fair and equitable sharing of the benefits from their use.

- the Human Rights principles regarding the respect of rights for indigenous people to maintain, control, protect and develop their intellectual property over cultural heritage, traditional knowledge and traditional cultural expressions;

- the United Nations Global Compact and Millennium Development Goals.

In addition, Sanofi is committed to communicating in a transparent manner about the Group's actions and achievements to preserve biodiversity.

### 4.3. INFORMATION ABOUT EXTERNAL COMMITMENTS TO PROMOTE SUSTAINABILITY

#### 4.3.1. Local economic and social impact of Sanofi’s activities

**1.A. Worldwide**

Participating in the local economic development of communities where Sanofi operates is a responsibility that the Group takes seriously. The ways in which the Group contributes to the economic development of these communities include:

- investment choices;
- local job creation, both direct and indirect;
- setting up training and education programs in the healthcare field for local communities;
- decisions about where to locate production sites with the aim of being closer to patients.

Sanofi operates in over 100 countries, with industrial and R&D sites across the globe (see Section 2.4. "Investissements – Principaux établissements" of our Document de Référence). The geographic distribution of our workforce, sales and investments may be found in Section "4.1.1 – Employment" and in note "D.35.3. Information par zone géographique" to the consolidated financial statements included in our Document de Référence.

Sanofi is the largest pharmaceutical group in Africa, with sales of €1 billion in 2012. Today the Group has 4,400 employees in Africa, operating in 51 countries (out of 54). Sanofi operates seven plants in six countries: Algeria, Tunisia, Morocco, Egypt, Senegal and South Africa, as well as an R&D center. Nearly 60% of Sanofi drugs intended for use in Africa are manufactured locally. Over the last five years, we have invested €80 million in our facilities and plan to invest €120 million in the next five years, including €70 million for the construction of a high-tech production and distribution center in Algeria. This plant is expected to create 130 local jobs. Sanofi is also carrying out several strategic projects, such as designing new manufacturing facilities for our products: anti-tuberculosis drugs in South Africa, anti-infectious drugs in Tunisia, injectable medicines in Egypt, and anti-malarials in Morocco. Through Zentiva, Sanofi’s generics division, we have developed our portfolio of generic products in Africa. This development should allow a growing number of patients to gain access to affordably priced medicines.
Sanofi also provides training and educational opportunities, and cooperates locally with healthcare authorities, the medical community, learned societies and healthcare personnel. The Sanofi Pediatrics Initiative, the African Pain Club, and the e-Diabete program are a few examples of programs illustrating the Group’s involvement in the development of healthcare systems in Africa.

Furthermore, the strong presence of Sanofi and the Sanofi Espoir Foundation within local communities is largely exemplified by the following initiatives worldwide:

- programs for long-term access to healthcare;
- health education and raising awareness within communities;
- training healthcare professionals to strengthen local capabilities;
- responses to humanitarian emergencies;
- aid to the most disadvantaged patients.

1.B. In France

Sanofi in France:

- over 28,000 employees, representing one-third of pharmaceutical industry jobs in the country;
- 49 sites in France in 15 regions and 25 administrative districts (départements):
  - 9 R&D sites;
  - 26 production sites;
  - 4 distribution sites;
  - 10 administrative sites;
- Sanofi’s corporate headquarters and the global headquarters of R&D, Industrial Affairs, Sanofi Pasteur (Vaccines) and Merial (Animal Health) activities;
- sales of approximately €3 billion in 2012, i.e., 9% of the Group’s global sales;
- €3.2 billion in industrial and R&D investments over five years, i.e., 45% of total investments worldwide;
- 36.4% of Sanofi R&D expenses worldwide;
- the leading private academic research partner in the life sciences (AVIESAN);
- France’s fifth largest exporter in 2011, with a €7 billion trade surplus for France.

In addition, for over 30 years, Sanofi has operated dedicated entrepreneurial units (Sanofi Développement and an entrepreneurial start-up unit) to support the transformation process at the Group’s 49 sites in France and drive local economic development by promoting sustainable job creation and encouraging individual entrepreneurial initiatives.

Sanofi Développement is in charge of:

- implementation of local economic development initiatives around Sanofi sites in France;
- support for the development and creation of sustainable jobs – in particular by very small businesses and small- and medium-sized enterprises and industries in the industrial sector – and services for businesses;
- management of revitalization agreements.

In 2012, the initiatives of Sanofi Développement focused primarily on seven geographical areas of France impacted by job cuts in the corporate functions and research and development.

Sanofi Développement was active in the following areas: Hérault, Tarn et Garonne, Loiret, Essonne, Val de Marne, Hauts de Seine and Paris. It implemented initiatives to provide aid for local economic development within the scope of a revitalization agreement that Sanofi-Aventis France and the French government entered into in April 2011.

Sanofi Développement set up loans for developing businesses that create new jobs. It organized mentoring and skill-sharing programs and provided subsidies to local economic players to structure local economic development.

Sanofi thus mobilized over €5 million in these areas of France, and Sanofi Développement financed several dozen very small businesses and small- and medium-sized enterprises and industries under development to help them create jobs with fixed-term contracts.

In 2012, 38 businesses received aid for the creation of 247 jobs.

In addition, Sanofi subsidized several economic development programs run by local economic players to bolster the creation of additional indirect jobs. A majority of these projects are related to the social economy – encompassing community, volunteer and non-profit activities – as well as business support networks and projects in the health sector.

In 2012, 26 projects received funding for the creation of 489 jobs.

The entrepreneurial start-up unit assists Sanofi employees who wish to start their own business or acquire an existing company (e.g., very small businesses and small- and medium-sized enterprises and industries).

In 2012, this support was provided to employees with a project to create a new business or acquire an existing one. Some 32 such projects were developed in 2012, primarily in the service sector, business, health and well-being, and the restaurant, hotel and tourism industries.

Moreover, within the scope of a sustained policy to support training and employment for young people through work-study contracts (apprentices and professionals), Sanofi provided work-study contracts to 1,222 interns at our French sites (468 apprentices in Germany) in 2012.
4.3.2. Relations with Stakeholders

2.A. Conditions for stakeholder dialogue

Each day across the globe, all Sanofi entities (commercial affiliates, corporate functions, industrial sites, R&D sites, etc.) interact with stakeholders through the Group’s dedicated departments and organizations: Medical Information, Quality, Purchasing, Finance, CSR, R&D, etc. They engage in different types of interactions to respond to a range of needs:

- to provide reliable, factual information using various communication tools (brochures, dedicated websites, communication campaigns, annual assessments, responses to questionnaires, replies to various requests, etc.), for example: information about the proper use of products marketed by the Group, products under development, financial and extra-financial information, etc.;
- to set up formalized dialogue and consultation processes: CSR committees, the organization of stakeholder surveys, customer satisfaction surveys, employee commitment surveys; the organization of forums, panels of residents of communities surrounding our sites, suppliers, etc.;
- to forge partnerships, particularly in the healthcare field: support for patient associations, humanitarian aid programs, partnerships with the academic world, clinical trial programs, etc.

More specifically with respect to our CSR strategy, within the corporate functions and a number of affiliates, we have established initiatives to create opportunities for formalized dialogue and consultation designed to obtain our stakeholders’ feedback about the Group’s CSR strategy and objectives, to make necessary adjustments, and to shape a concerted vision of the CSR challenges facing Sanofi.

For example, a Sanofi Stakeholder Panel was set up in France in late 2011.* It is made up of individuals from outside the Group who represent the stakeholders with whom the Group interacts on a daily basis: healthcare professionals, patient associations, academics, healthcare experts, NGOs, employers’ associations and trade unions, legislators and investors. In addition to these outside individuals, members of Sanofi France’s Management Committee and corporate functions also participate in the discussions. The purpose of the committee is to discuss all the CSR issues that Sanofi must address, understand public expectations in order to develop an appropriate CSR approach, incorporate CSR into the Group’s strategy, compare sometimes differing expectations, and identify courses of action that may be pursued in common. Two meetings were held in 2012. The first aimed to identify external stakeholders’ expectations regarding the CSR issues to be addressed, while the second focused on discussing the solutions implemented by Sanofi in connection with selected issues identified by the Group’s Management Committee.* In agreement with all participants, discussions are governed by the Chatham House Rule. Meetings are slated to continue over the course of the year in 2013.

The Sanofi CSR Direction organized an international stakeholder consultation (including healthcare professionals, patient associations, academics, non-financial rating agencies, investors and employees) in order to perform a materiality test to identify and assess our CSR challenges, and to define the Group’s CSR priorities.

A number of Sanofi affiliates (in Brazil, the United States, Hungary and Turkey) as well as regional entities (in the intercontinental region) have launched similar initiatives to prioritize the CSR challenges by taking into account local and regional realities. This allows them to identify specific challenges and develop appropriate action plans.

2.B. Health-related partnerships and philanthropy initiatives

2.B.a. Partnerships

The challenges encompassed by Corporate Social Responsibility (CSR), particularly when it comes to ensuring access to healthcare for all patients across the globe, are complex issues that the pharmaceutical industry cannot tackle alone. For this reason, we cooperate with numerous stakeholders – private, public and/or organizations – to pool our expertise and know-how with that of our partners and provide the best possible response to certain major health-related challenges facing society.

Although we outline examples of key initiatives below, they do not represent an exhaustive portrayal of the multitude of projects undertaken by Sanofi (see Section 3.1.3. “Événements marquants de l’année 2012” of our Document de Référence for additional information about the Group’s partnerships).

Partnership to combat Neglected Tropical Diseases (NTDs)

Initiated in 2001 with a program to combat Human African Trypanosomiasis (or sleeping sickness), Sanofi’s partnership with the World Health Organization (WHO) was renewed in 2006 and expanded to include other Neglected Tropical Diseases (NTDs): leishmaniasis, Buruli ulcer, and Chagas disease. In March 2011, Christopher A. Viehbacher, CEO of Sanofi, and Margaret Chan, Director-General of the WHO, renewed their commitment to combat NTDs for five more years. For Sanofi, this commitment covering the period 2001-2016 represents financial support of approximately U.S.$75 million, or U.S.$5 million annually. Since the beginning of this collaboration with the WHO, over 20 million people have undergone screening for sleeping sickness and 170,000 patients have been treated for the disease, which is nearly always fatal if left untreated.
untreated. Thanks to our partnership, reported new cases fell from 30,000 in 2001 to less than 7,200 in 2010, marking progress toward the WHO goal of eradicating sleeping sickness by 2020.

On January 30, 2012, Sanofi signed the London Declaration on NTDs alongside other pharmaceutical groups, representatives of the U.S. and U.K. governments, the Bill & Melinda Gates Foundation, the World Bank, and official representatives from countries where NTDs are endemic. Within the scope of this effort and in addition to the Group’s ongoing partnership with the WHO on NTDs, Sanofi initiated a new partnership with the company Eisai to support the WHO’s Global Program to Eliminate Lymphatic Filariasis by 2020. Through this partnership, 120 million tablets of diethylcarbamazine citrate (DEC) will be donated in 2012 and 2013 – enabling the WHO to provide treatment for 30 million people.

**WIPO Re:Search, a public-private consortium to stimulate research**

To promote innovation and research on NTDs, the World Intellectual Property Organization (WIPO) has brought together a number of partners in the public and private sectors, including Sanofi. WIPO Re:Search is a consortium of public and private sector organizations that share their portfolios of compounds to promote R&D on NTDs, malaria and tuberculosis. Sanofi is one of the founding member companies in the consortium, which celebrated its first year of existence on October 30, 2012. In just one year, its membership has increased significantly, going from 30 to 61 members across the globe. Already this initiative has led to 11 research collaborations, with many other collaborative projects currently under review.

**A partnership to monitor emerging antimalarial drug resistance**

In January 2012, the WorldWide Antimalarial Resistance Network (WWARN) and Sanofi announced an agreement to monitor emerging antimalarial drug resistance. Although effective antimalarial medicines, including an artemisinin derivative, are used broadly worldwide, threats of resistance have begun to appear in Southeast Asia.

If such resistance spreads across the globe, it will represent a major global public health concern because no new family of drugs has been identified to replace currently-used medicines. Given the challenge, Sanofi decided in 2012 to share with WWARN all our efficacy data collected during clinical trials in order to enrich the central database that WWARN is compiling to monitor emerging drug resistance.

**Two major partnerships to combat tuberculosis (TB)**

In April 2012, an innovative partnership was formed by Sanofi, six other pharmaceutical companies (Abbott, AstraZeneca, Bayer, Eli Lilly, GlaxoSmithKline and Merck), four research organizations and the Bill & Melinda Gates Foundation in order to speed up the discovery of essential new tuberculosis treatments. Known as the TB Drug Accelerator (TBDA), the partnership’s long-term goal is to develop a TB drug regimen making it possible to cure patients in only one month. Existing drugs, all discovered at least 50 years ago, must be taken for six months to cure the disease – a lengthy process that contributes to 20%-30% of patients dropping out before completing their treatment.

Within the scope of the partnership, Sanofi and other firms in the pharmaceutical industry will provide access to their compound libraries and will share data with each other and with four research institutes: the Infectious Disease Research Institute, the National Institute of Allergy and Infectious Diseases, Texas A&M University, and Weill Cornell Medical College. The companies will work together to develop the best prospective lead compounds identified through the program, regardless of where the drug originated.

Additionally, on September 20, 2012, Sanofi announced a new collaboration agreement with the Global Alliance for TB Drug Development (TB Alliance) designed to speed up the discovery and development of novel compounds to treat tuberculosis. Under the terms of the agreement, Sanofi and the TB Alliance will collaborate on the optimization and development of several compounds in Sanofi’s library that have demonstrated activity against the bacterium that causes TB. The TB Alliance is a non-profit organization that seeks to accelerate the discovery of faster-acting and affordable tuberculosis medicines.

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(1) Programs that the WHO was able to undertake or extend thanks to Sanofi’s support are described in the activity report for 2006-2011: WHO-Sanofi Collaborative Report: A Partnership to Save Lives 
Sanofi Pasteur supports a public-private initiative to fight HIV

For over 20 years, Sanofi Pasteur has participated in research and development efforts to work for an HIV vaccine, in partnership with numerous government organizations and pharmaceutical laboratories.

During these two decades, we have developed several candidate vaccines that have been studied in clinical trials. A Phase III clinical trial (known as RV144) carried out in Thailand – supported by the U.S. Military HIV Vaccine Research Program and involving Sanofi Pasteur’s ALVAC-HIV® vaccine – has brought new hope to HIV vaccine efforts.

Based on the findings of the trial, conducted in partnership with the U.S. Army, but also with VaxGen – which was transferred during the course of the trial to Global Solutions for Infectious Diseases (GSID) – the National Institutes of Health (NIH), Mahidol University, the National Institute of Allergy & Infectious Diseases (an NIH institute), the Thai Ministry of Health and the Royal Thai Army Medical Department, a new collaboration known as P5 has taken shape to support and confirm the RV144 findings.

On July 20, 2012, Sanofi Pasteur joined an initiative known as Collaboration for HIV/AIDS Immunological Therapy (CHAIT) for the development of an HIV immunotherapy strategy. CHAIT is a partnership of private and public entities (i.e., the Swiss and French Vaccine Research Institutes) with the long-term goal of achieving a "functional HIV cure" by controlling HIV replication without using antiretroviral therapy. Instead, this original approach combines various therapeutic intervention methods, such as vaccines and immunomodulators. Thanks to public-private collaboration, CHAIT benefits from both academic and industrial expertise.

Sanofi Pasteur signs a research cooperation agreement with PATH to improve access to vaccination for the most disadvantaged

Sanofi Pasteur entered into a cooperation and research agreement with the Program for Appropriate Technology in Health (PATH) on November 19, 2012, in order to launch a pilot project to improve the stability of vaccines if the cold chain is broken during transport. Vaccines are currently approved for utilization between 2°C and 8°C, which is guaranteed by strictly respecting the cold chain. For populations living in rural areas of the most disadvantaged countries, where delivery infrastructure is limited and electricity is not always available, vaccine distribution is problematic and expensive.

Partnerships with patient associations

For several years, Sanofi has been committed to working with patient associations all over the world on mutual priorities that benefit patients, thereby discovering improved healthcare solutions for the patient and better taking into account the needs of patients and their families/loved ones throughout the patient's journey. A spirit of partnership guides the collaboration between Sanofi and patient associations, without ever calling into question the associations' independence. The Group encourages open dialogue to listen, to learn and to better understand patients' expectations. Approved in late 2012, the global policy Sanofi adopts is designed to ensure that the Group's relationships with patient associations are ethical, responsible and transparent, and to emphasize that all activities the Group undertakes worldwide must ultimately bring benefit the patient. Committed to the principle of transparency and recognizing our role in building trust in our relationships with stakeholders, including the public, and most importantly the patient as the ultimate recipient of care, we have disclosed the financial amounts given to patient associations based in Europe from 2010 onwards, and those based in Australia, Brazil, Canada, Japan and the United States since 2011 (for the complete list, see the website http://www.sanofi.com).

2.B.b. The Sanofi Espoir Foundation

The Sanofi Group created the Sanofi Espoir Foundation in October 2010 to bolster our commitment to international solidarity, and to clarify its importance as part of our CSR strategy for all our stakeholders. With a budget of €33.7 million over five years, the Foundation’s initiatives are designed to contribute to reducing healthcare inequalities and poverty among the world’s poorest communities, in particular by combating childhood cancer and maternal and child mortality, which hinder development in numerous countries.

In 2012, the Foundation gave its support for the launch and/or development of 60 programs with 43 key partners in 40 countries. Initiatives in response to humanitarian emergencies were organized in eight countries to ensure continuous access to care for injured and displaced persons.

The Foundation also supported the launch of new projects to encourage Sanofi affiliates to develop employee involvement. To strengthen the link between volunteers or future volunteers within the Group and partner organizations, the Sanofi Espoir Foundation and five initial pilot countries – Brazil, China, France, Morocco and the United States – decided to launch the international Be A Volunteer platform for sharing and solidarity.
The platform serves to inform people about volunteering opportunities, publish offers for volunteer assignments proposed by partner organizations (to date over 150 offers have been published), and share feedback from both volunteers and organizations.

In addition, the Sanofi Season of Solidarity was launched during Fall 2012 across 12 pilot countries, representing 70 Group sites. During this annual international event, employee volunteers take part in a number of activities for the benefit of partner organizations (solidarity breakfasts, sales of craft products for the benefit of organizations, collections of toys and various products, recreational activities for children with health difficulties, etc.).

**Fighting childhood cancer in low- and middle-income countries**

The My Child Matters program is a unique initiative developed since 2006 by the Foundation with the Union for International Cancer Control to fight childhood cancer in developing countries. The program’s primary objectives are awareness and information targeting the general public, improved training for healthcare professionals, and ensuring earlier diagnosis, access to care, pain management and palliative care. Since 2006, the Foundation has allocated a budget of €5.1 million for this program. In 2012, 20 projects were ongoing in 16 countries in Asia, Africa and Latin America.

**Reducing maternal and infant mortality**

Reducing maternal and infant mortality is one of the priorities of the Foundation, which supports 11 programs working toward this goal worldwide. For example, since 2011 the Foundation has supported A Call for Life, a project run by the NGO Care, allocating a budget of €893,000 over three years to combat maternal and newborn infant mortality in 35 villages in northern Benin. This pilot program concentrates on four types of action: teaching prevention, improving coverage and the quality of care, better managing emergencies by establishing a community fund, and creating links between individuals in communities and healthcare centers. In 2012, thanks to programs backed by the Foundation, training was provided to 1,350 healthcare professionals, in particular midwives, who are in the frontline when it comes to reducing maternal and infant mortality.

**Responding to humanitarian emergencies**

When a humanitarian disaster occurs, healthcare is one of the most vital needs. In 2012, the Group’s initiatives with partner organizations and hospitals benefitted people living in eight countries: Haiti, Syria, and countries in the Sahel region (Chad, Niger, Mali, Cameroon, Senegal and Burkina Faso).

In accordance with the Foundation’s charter governing donations of medicines and vaccines, 212,000 boxes of drugs and over 645,000 doses of vaccine were donated by the Group in 2012 to allow access to medical care for 2.2 million people living in 31 countries, including 26 emerging or developing countries.

**4.3.3. Subcontractors and suppliers**

As a member of the United Nations Global Compact, Sanofi has pledged to support and apply fundamental principles in the areas of human rights, labor and working conditions, environmental protection and the fight against corruption.

Given that Sanofi purchases goods and services for a value of nearly €13 billion, procurement is a major Corporate Social Responsibility (CSR) issue. As stipulated by our Suppliers Code of Conduct, responsible purchasing is based on the UN Global Compact, the conventions of the International Labor Organization, and our own Code of Ethics. It is part of managing relations with our current and future suppliers and setting the standards with respect to human rights, labor practices, health and safety, protection of the environment and respect for ethics rules.

As the department in charge of overseeing relations with our suppliers, the Sanofi Procurement function has developed a responsible purchasing policy since 2007 based on international CSR standards, as well as a specific methodology and robust program for the large-scale and targeted evaluation of the CSR performance of our suppliers and subcontractors. Evaluating their CSR performance is part and parcel of our assessment of suppliers’ global performance and represents a mandatory step in the supplier selection process and ongoing management of suppliers and subcontractors.

In late 2011, Sanofi overhauled its policy in an effort to enhance its analytical capacity and further integrate the policy into the Group’s procurement risk management model and processes.

Rolled out over the course of 2012, the policy aims to satisfy the Group’s requirements and implement a process of continuous improvement with our suppliers. The new approach is based on a comprehensive, multi-criteria CSR risk analysis (procurement strategies, types of goods and services, and countries of operation) and the recognized expertise of an external partner that has developed a collaborative platform for evaluating and analyzing the CSR performance of Sanofi’s supplier base.*

Over 150 buyers and 300 suppliers took part in the roll out of this new approach. In addition, several initiatives have been launched to promote supplier diversity and to exemplify the Group’s commitment to respecting individuals and their resourcefulness. These initiatives provide an important means of support for the local economies where our sites are located.

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In France, Sanofi adopted a proactive approach by ratifying the Charter of Intercompany Relations. The Group made a commitment to small- and medium-sized enterprises (SMEs), specifically to:

- Respect the commitments set out in the Charter (guarantee fair financial treatment for suppliers, promote cooperation between large contractors and strategic suppliers by helping SMEs, reduce the risks of mutual dependence between contractors and suppliers, incorporate environmental concerns, develop local economic activity, etc.);
- Accept the implementation of a compliance assessment process (performed by an external expert) of our organization and management practices based on the guidelines from the Charter;
- Adopt necessary corrective measures to reach the objectives listed in the Charter.

The Procurement function oversees and coordinates activity plans to support implementation of the Charter, monitoring of related indicators, and corrective actions as necessary.

In addition, to ensure that this commitment is translated into action and preserve independence, in 2012 Sanofi appointed an internal ombudsman within the Corporate Social Responsibility Direction. The primary role of the ombudsman, who may be contacted by a supplier or a purchaser, includes facilitating the resolution of work-related differences between the Group and our suppliers with neutrality, impartiality, and confidentiality; helping the parties identify a solution; defending the agreement, rather than the parties; and communicating issues that arise and their outcomes as part of a continuous improvement approach.

In the United States, Sanofi made a commitment to SMEs, in particular economically or socially disadvantaged firms (minority-owned, disabled-owned, veteran-owned, and HubZone businesses), highlighting the importance for the Group of innovation and diversity among our supplier base.

4.3.4. Fair business practices

4.A. Measures to fight corruption

Today all stakeholders are aware not only of the harmful economic consequences of corruption, but of its potential to impede development, particularly in emerging countries.

Fighting corruption requires international rules adhered to by as many countries as possible, combined with effective anti-corruption legislation enforced nationally. The adoption of the Organization for Economic Cooperation and Development (OECD) and United Nations (UN) conventions against corruption and national laws with very broad coverage, such as the U.S. Foreign Corrupt Practices Act (FCPA) and the U.K. Bribery Act, contributes to achieving this goal.

Consistent with our approach to ethical conduct, Sanofi adheres to the following regulations and principles:

- measures adopted in accordance with the U.S. Sarbanes-Oxley Act (Section 301).

Moreover, in recent years, anti-corruption authorities in several European countries as well as the United States have increased their scrutiny of companies in certain business sectors. As a consequence, healthcare companies have been the focus of particular attention by the authorities over the past few years due to their interactions with a wide range of stakeholders, such as, physicians and government agencies. It is increasingly necessary for multinational companies to take an active part in fighting corruption.

In response to these growing demands, for several years now Sanofi has developed and implemented measures and tools designed to prevent and fight all forms of corruption in all countries where the Group does business.

The corruption prevention program at Sanofi is based on two reference texts:

- the Code of Ethics, on which more than 85,000 employees have received training;
- Sanofi’s anti-corruption policy, which can be accessed by all employees via Sanofi’s intranet and sets out the Group’s expectations regarding the prevention of and fight against corruption.*

The principles contained in these reference documents are promoted across the entire Group by the Global Compliance Organization, present at the corporate, regional, country and functional levels, in particular through training activities. Employees receive anti-corruption training on a regular basis, and an e-learning library with several modules on this subject is available to all employees via the Global Compliance intranet.
An Executive Compliance Committee, which is chaired by the CEO, was created to ensure the effectiveness of all aspects of Sanofi's compliance program, and to facilitate implementation and adherence to the program. The committee plays an executive role to recommend and review the implemented actions to sustain the effectiveness of compliance programs within the Group, and to foster a continued commitment to Group values.

Sanofi affiliates are encouraged to establish local compliance committees to enforce compliance with the Group’s Code of Ethics, policies and procedures, applicable legal and regulatory requirements, and industry standards. Best practices as well as recommendations for the model Local Compliance Committee Charter have been communicated to Group affiliates in all countries.

To increase vigilance about compliance with internal practices in the Group’s Code of Ethics, in 2006, a warning system was established to facilitate reporting for internal controls in the areas of finance, accounting, banking, and fighting corruption and anti-competitive practices.*

One of the key areas to address to prevent corruption is the establishment of a rigorous process for the selection of third parties, since they may represent a potential source of risk for the Group through their interactions with public officials and administrations. With this in mind, Sanofi decided to put in place a process for due diligence of third parties prior to engaging them, taking into account many factors, such as the nature of the business, the local environment, the type of relationship, and the nature and scope of activities to be performed by third parties for Sanofi.

4.B. Measures to protect consumer’s health and safety

For several decades, the pharmaceutical industry has been operating in a highly regulated environment (see Section 2.2.7. "Marchés – 3. Réglementation" of our Document de Référence). Before products can be brought to market, numerous clinical trials and laboratory studies must be conducted to assess and, where applicable, improve their benefit/risk profile. Such trials and studies must be carried out in compliance with Good Clinical Practices and Good Laboratory Practices.

In addition, at each step of product development, it is necessary to adhere to Good Manufacturing Practices, which seek to guarantee that marketed products will meet demanding quality standards.

Compliance with Good Distribution Practices is also essential to ensure quality and guarantee the traceability of products – from the distribution center to the final point of delivery: wholesaler, dispensing pharmacy, hospital pharmacy.

In addition to these Good Practices, a number of other regulations define legal requirements concerning pharmacovigilance, medical information, and sales and promotional practices.

As a global healthcare leader focused on patients’ needs, Sanofi develops, manufactures and markets a wide range of essential healthcare products worldwide, including a broad-based portfolio of prescription medicines, consumer healthcare (OTC) products, animal health products, vaccines and generics.

Patient safety is an absolute priority for Sanofi. With this in mind, the Group’s approach consists of implementing guidelines for quality and continuous improvement to cover each phase of the product’s life cycle, as well as services associated with our products. To reach this goal, we have set up management systems designed to:

- Implement a dedicated quality organization;
- Guarantee the quality of our products in development and on the market;
- Ensure continuity of supplies of our products;
- Optimize our products’ benefit/risk profile by implementing a drug safety monitoring system;
- Actively combat counterfeiting of our products;
- Protect the safety of patients taking part in clinical trials.

Lastly, in adherence to the highest ethical standards in marketing practices, Sanofi is committed to providing all necessary information for the proper use of a medicine and for an informed decision by prescribing physicians and patients.

4.B.a. A dedicated quality organization

Sanofi’s senior management is firmly committed to providing safe and effective products that are developed, manufactured, distributed and marketed in full compliance with regulatory requirements and the Group’s corporate values.

To this end, the Chief Quality Officer (CQO) who reports to the CEO, is in charge of the Global Quality Organization, which encompasses the various existing quality teams in R&D and Industrial Affairs as well as Merial, Genzyme and Sanofi Pasteur. It ensures the consistent implementation of our quality policy throughout the entire life cycle of a product and oversees the application of a consistently high standard of quality worldwide, allowing us to protect patients’ safety and meet stakeholders’ expectations.

To reach this objective, a company-wide Quality Policy, signed by both the CEO and the Chief Quality Officer, is distributed to all employees worldwide (in 11 languages). Quality managers are appointed in each operating entity and each site or affiliate involved in activities that may potentially impact product quality, patient safety or data integrity.
They conduct and coordinate quality and compliance activities, in particular routine audits and health-authority inspection preparedness audits within the Group’s operational units as well as with subcontractors and suppliers. These audits contribute to compliance with regulatory requirements and continuous improvement of our performance.

Each Sanofi division monitors the effectiveness of our quality systems by setting objectives, monitoring performance indicators and organizing periodic reviews involving senior management and internal partners.

4.B.b. Quality of marketed products and products in development

The commercialization of medicines must meet a number of constantly evolving regulatory requirements in order to guarantee optimal product quality.

The quality system put in place by Sanofi guarantees the quality and safety of products marketed by the Group.

This quality system makes it possible to ensure strict application worldwide of the Good Manufacturing Practices set forth by legislation and with Sanofi quality assurance directives, and to ensure that subcontractors meet equivalent levels of quality.

Implementation of the quality system involves the following steps:

- for each product batch, quality controls are performed and documented at every step of production, prior to release;
- each year, product quality reviews are conducted for each product on the market in order to assess the validity of the manufacturing process and ensure continuous improvement;
- a system for monitoring product quality defects reported by patients and healthcare professionals allows for a quick analysis of complaints and the implementation of corrective and preventive actions;
- an audit strategy has been developed and put in place for operations involved in the production of Group products, related systems and any subcontractors that may be involved in these types of operations.*

4.B.c. Continuity of supplies

Compliance with Good Distribution Practices is essential to ensure quality and guarantee the traceability of products from the distribution center to the final point of delivery: wholesaler, dispensing pharmacy, hospital pharmacy.

The role of Sanofi’s Supply Chain Division, which reports to Industrial Affairs, is to guarantee the continuous supply of drugs to patients, without any interruptions. Our goal is to meet a “zero out of stock” objective, meaning that no link in the chain must be missing or defective.

The processes involved in preserving continuity of supplies include the following activities, for which the Supply Chain Division is directly responsible:

- defining product inventory levels, taking into account the criticality, manufacturing times and volatility of products from the viewpoint of commercial forecasts;
- activating back-up solutions as needed for certain products;
- coordinating and supervising crisis situations when necessary.

Sanofi has also developed an audit strategy for operations involved in the distribution of the Group’s products, related systems and subcontractors that may be involved in these operations, in order to monitor compliance of operations with our quality standards and applicable regulations, and to implement a continuous improvement process.

4.B.d. Pharmacovigilance (drug safety monitoring)

The Sanofi Global Pharmacovigilance and Epidemiology (GPE) Department falls under the responsibility of the Chief Medical Officer (CMO), who reports directly to the CEO. The GPE is our center of medical and clinical expertise for safety evaluation and monitoring, as well as the management of risks associated with the use of all Sanofi medicines during their entire life cycle (development, marketing, commercialization). The portfolio overseen by the GPE includes all products from Sanofi’s different entities: Sanofi Pharma, Sanofi Pasteur, Genzyme, Sanofi Fovea, as well as products from our generic medicines and consumer healthcare (OTC) divisions.

The GPE’s activities comply with all applicable regulations and recommendations in force nationally and internationally. Compliance with these rules guarantees that the profession’s highest standards of practice are maintained, thereby improving patient safety. The standards of Good Pharmacovigilance Practices are routinely applied in all settings, whether or not countries have compulsory safety/product development regulations.

These standards also apply to clinical trials and programs that are not directly sponsored by Sanofi and to collaborative projects with NGOs.

The GPE is also in charge of continuous and routine evaluation of the benefit/risk profile of Sanofi products. A specific internal committee, the Benefit/Risk Assessment Committee (BRAC), reviews and assesses a product’s benefit/risk profile during all phases – from preclinical to commercialization – and throughout the product’s entire life cycle on the market.
Sanofi performs systematic and continuous analyses called “signal detection” to identify pharmacovigilance signals and to allow the proactive assessment of potential risks related to product safety. Signal detection makes it possible to establish corrective action plans to minimize risks. Such plans are subject to validation by the healthcare authorities prior to implementation. The system furthermore includes a product alert process that can be set up to manage risks that may require initiating the crisis management procedure under the leadership of the CEO.

All pharmacovigilance data concerning Sanofi products are stored in a company-wide database under the responsibility of the GPE Department.

Sanofi has developed an audit strategy for pharmacovigilance operations and processes by the Group and by subcontractors and potential partners. Audits are designed to monitor operations’ compliance with Group quality standards and applicable regulations, and to implement a continuous improvement process. Audit programs are determined based on an evaluation of potential risks associated with pharmacovigilance operations and are carried out by a specialized in-house quality team working independently of operational teams.

For our Animal Health business, Merial has a Global Pharmacovigilance Department that reports to regulatory affairs within Merial R&D. This department follows policies, procedures and practices to monitor, evaluate and communicate any risks in connection with our Animal Health activity. We maintain quality and consistency across all our pharmacovigilance operations so that, in particular, Merial affiliates and third parties working in collaboration with Merial are able to identify and report any adverse events to the Global Pharmacovigilance Department.

4.B.e. The fight against counterfeit drugs

For several years Sanofi has taken a proactive approach to the fight against counterfeit drugs, a major public health challenge.

The Group has instigated a wide range of initiatives designed to help combat counterfeit drugs worldwide and to eliminate this phenomenon:

- Sanofi’s Central Coordination team upholds this goal by working on a day-to-day basis to investigate every product suspected of being counterfeit. It also supports the efforts of the health authorities, customs officials, and national and international police to ensure patients all over the world have access to quality medicines;
- The Central Anti-Counterfeit Laboratory is equipped with a dedicated team of specialists and state-of-the-art technologies to identify and analyze counterfeit products;
- The Group also uses verification systems and processes designed to improve efforts to combat falsification and rapidly establish product authenticity, such as: anti-counterfeit security labels, tamper-evident packaging, and the Data Matrix identification system (using a two-dimensional barcode), which has been adopted in France and is being extended to other countries.

4.B.f. Safety of patients participating in clinical trials

Clinical trials are required as a mandatory part of the approval process for any new drugs and are also carried out during the commercialization phase to ensure product safety monitoring and the development of new indications.

The purpose of clinical trials is to collect data about the efficacy and safety of products in healthy subjects and patients.

Sanofi organizes clinical trials all over the world, including in developing and emerging countries. We take into account the specific needs of the various populations that participate in these trials.

Sanofi applies all international standards for the implementation and monitoring of clinical trials worldwide: the Declaration of Helsinki, the recommendations of the International Conference on Harmonization (ICH), particularly Good Clinical Practices (GCP). In addition to these international standards, Sanofi complies with all applicable national and international rules and laws, in particular European Directives 2001/20/EC and 2005/28/EC, CFR21 regulations issued by the U.S. Food and Drug Administration (FDA) and regulations issued by the Japanese Ministry of Health, Labor and Welfare (MHLW).

Before a clinical trial can start, it is subject to review by the health authorities and by independent ethics committees representing healthcare professionals and patients in the country where the trial takes place, in compliance with applicable local and international laws and regulations.

Each ethics committee is an independent body entrusted with protecting the rights, safety and well-being of human subjects participating in a clinical trial. The committee expresses an opinion on the trial protocol, the suitability of the investigators involved in the trial, the adequacy of facilities, and on the methods and documents used to inform patients enrolled in trials to obtain their free and informed consent.

Sanofi ensures that all subjects (or their legal representatives) enrolled in clinical trials conducted by the Group give their free and informed consent to participate in the trial. Consent must be given prior to any procedure or intervention required by the study protocol involving the subject and before any data are collected. All documents related to clinical trials, in
particular the informed consent document to take part in the study, must comply with applicable legislation and must provide subjects with exhaustive, easily understandable information. Participants must be clearly informed of their right to access and amend their personal data as defined by applicable law. Sanofi has put in place procedures and tools to protect the confidentiality of personal data collected during clinical trials.

Sanofi is committed to transparency about our medical research and to providing healthcare professionals and patients with all useful information about our development projects and products so that they may make informed medical decisions. Sanofi discloses information about the results of clinical studies via a dedicated website for healthcare professionals and for participants in clinical trials.

Sanofi implements a strategy of audits of our clinical trials, associated systems and subcontractors potentially involved in the conduct of these trials in order to ensure compliance of operations with the Group’s quality standards and applicable legislation, and to implement a continuous improvement process. We determine our audit program based on an evaluation of potential risks identified for clinical research activities. It is designed to ensure adequate coverage of projects and trials conducted in various countries and regions all over the world.

### 4.3.5. Initiatives to support human rights

Respect for human rights is one of the cornerstones of Corporate Social Responsibility for Sanofi. We are convinced that the principles of human rights apply to people, to nations and, by extension, to businesses.

In our Code of Ethics, Social Charter and Suppliers Code of Conduct, we have defined a number of principles to ensure these rights are upheld across all our own operational activities and by our suppliers. In the Sanofi Code of Ethics, we affirm our adherence to the principles of the Universal Declaration of Human Rights, the directives of the Organization for Economic Cooperation and Development (OECD), the principles of the International Labor Organization (ILO) (see Section 4.1.7.), and the International Covenant on Economic, Social and Cultural Rights.

As a member of the UN Global Compact since 2003, we support and apply the core principles relating to human rights. Each year, our CEO and our Senior Vice President of CSR report to the UN Secretary-General on our human rights progress.

In keeping with the Guiding Principles on Business and Human Rights endorsed by the United Nations, Sanofi has adopted a proactive in-house approach to ensure that respect for human rights is incorporated at all levels of the Group’s operations.

Self-assessments of internal practices were thus performed for a selection of key issues facing the Group (respect for human rights includes numerous and diverse topics, such as: non-discrimination, the abolition of forced labor, the abolition of child labor, freedom of association, etc.).

A rigorous supplier evaluation approach targeting our suppliers worldwide has been in place since 2007 (see Section 4.3.3.).

In addition, since 2010, a total of 76 managers and senior executives representing more than 25 functions have received one full day of training about human rights in business. In-house human rights training sessions are organized with the support of outside experts. These experts help prepare the training program, which includes “case study” workshops relating to the human rights issues that Sanofi addresses. The training sessions also provide an opportunity to regularly discuss and share best practices.

In order to bring human rights issues to the attention of as many employees as possible, in 2012 Sanofi began developing a guide containing specific examples of best practices implemented by the Group.* The guide will be distributed to all Sanofi employees in 2013.

Moreover, the Group works alongside other companies, taking an active part in initiatives and working groups on human rights within in the scope of Entreprises pour les Droits de l’Homme (EDH), which Sanofi joined in 2007. The Group is a founding member of EDH alongside seven other French international groups. In addition to bringing together businesses that seek to improve respect for human rights through the application of these principles throughout their activities, EDH is currently developing a guide to help managers understand human rights due diligence as defined by the United Nations (Guiding Principles concerning Business and Human Rights, John Ruggie, 2011).
4.4. HOW CORPORATE SOCIAL RESPONSIBILITY INFORMATION IS REPORTED: METHODOLOGICAL NOTE

Scope of consolidation

Unless otherwise specified:

• HR data are consolidated for all Group companies worldwide that are fully consolidated, regardless of their activity (industrial or research sites, commercial affiliates, administrative headquarters);

• at the end of 2012, health and safety data (occupational accidents and injuries) covered the same scope;

• environmental data (including spending and investments) are consolidated for all industrial and research sites. Environmental impact measured as CO₂ emissions from all company vehicles includes all Pharmaceutical Operations affiliates with the exception of Genzyme. The environmental impact of administrative headquarters locations is not included within this scope.

Data for Merial were included in consolidated Sanofi data as of December 31, 2012. Merial has 17 industrial sites, nine research and development sites and a number of administrative offices, including its headquarters located in Lyon (France) and Duluth (Georgia, U.S.).

Changes in scope

Within the Group, changes in scope (new sites, site closings, transfers of activity) between 2011 and 2012 were analyzed according to predefined rules in order to assess Group performance on a scope that is comparable from one period to the next.

Reporting guidelines

In order to ensure the uniformity and reliability of indicators used for all entities, the Group has implemented standard reporting guidelines covering social factors as well as safety and environmental factors. These documents specify the methodologies to be used for indicator reporting across the entire Group: definitions, methodological principles, calculation formulas and emission factors. In addition, Sanofi has adopted standard data collection tools:

• Social data: As of 2012, Convergence – Sanofi’s global HR data platform – covers almost all of Sanofi’s workforce. The platform was launched in 2011 to facilitate managing personnel, implementing processes, and providing managers and employees with access to a wide array of HR information and tools. In 2012, the quality of Convergence data was enhanced through the implementation of a data control process.

• Safety data: The MSRS system makes it possible to collect safety data for Sanofi for the entire scope in 2012.

• Environmental data: The GREEN tool enabled the consolidation of all 2012 Sanofi data contained in the report.

These tools and guidelines are updated and improved on a regular basis. In particular, the Group carried out a hard close in 2012, leading to minimum estimations of data for the last month, either by prorating data for the year or by applying 2011 data values, depending on the indicators.

Additional information and methodological limits

The methodological principles for certain HSE and labor indicators may have limits due to:

• the absence of definitions recognized on a national and/or international level, in particular concerning the different types of employment contracts;

• the necessary estimates and the representative nature of the measurements taken, or the limited availability of external data required for calculations;

• the practical methods used for data collection and entry.

As a result, we make every effort to list the definitions and methodology used for the following indicators and, where appropriate, the confidence limits involved.

Safety indicators

Occupational injury with lost time frequency rate

The frequency rate of occupational lost time injuries is defined as the number of accidents resulting in lost time of one day or more within a 12-month period, per million hours worked.

For non-mobile personnel, accidents occurring during home-workplace commutes are not included in this indicator. However, they are included for medical sales representatives, in accordance with the reporting rules defined by the Group.

In the event that additional accidents have not yet been recorded at the close of the financial year, or if changes in the qualification of accidents are observed after the financial year has ended, the frequency rate is subsequently corrected.

Motor vehicle accidents

Accidents are considered to be motor vehicle accidents if they occur when the driver is at the wheel of the vehicle (driving or parking the vehicle).
This concerns all traffic accidents occurring with vehicles owned or leased by the Group or owned by the employee if the vehicle is driven on a regular basis for professional purposes (medical sales representatives).

**Environmental indicators**

**CO₂ emissions**

Direct emissions are calculated on the basis of data from the Greenhouse Gas (GHG) Protocol in relation to fuel emission factors. Indirect emissions resulting from other energy sources purchased off-premises and taken into account include the following:

- Emissions in connection with electricity production:
  - For countries other than the United States, emission factors are obtained from the report entitled CO₂ Emissions from Fuel Combustion 2012 - Highlights, published by the International Energy Agency (IEA). Emissions in 2012 were estimated on the basis of the most recent emission factors (end of 2010). For the preceding years, emissions for the year "Y" were calculated on the basis of the emission factor for the year "Y-2."
  - For the United States, the Group refers to GHG Protocol data, which are based on U.S. EPA 2009 data. In the absence of more recent data, the 2009 emission factor is applied to all years (2010, 2011 and 2012) to estimate CO₂ emissions in connection with electricity production in the United States.
- Emissions in connection with the production of steam are calculated on the basis of site-specific factors.
- Emissions resulting from pharmaceutical sales fleet vehicles (medical representatives) were estimated on the basis of fuel consumption using a reporting system that distinguishes the emission factor specific to the type of fuel consumed (gasoline or diesel), or on the basis of mileage (in the absence of fuel consumption data) under the conservative assumption of use vehicles in the Euro 1 category.

**Percentage of renewable electricity**

The percentage of renewable electricity compared to total electricity purchased is calculated using data on the source of electricity in each country where the Group operates, based on U.S. Energy Information Administration data.

**Volatile Organic Compound emissions (VOCs)**

VOCs are estimated either on the basis of mass balance or by direct measurement; the uncertainty resulting from these estimates is of the order of 10%. The classification of volatile organic compounds is based on EU regulations.

**Wastewater discharge**

Data correspond to waste after internal or external treatment. In the event of a lack of information about external treatment, a purification rate of 50% is assumed.

**Waste**

The distinction between hazardous and non-hazardous waste corresponds to that used in European regulations for European Union member countries (Decision 2000/532/EC of May 3, 2000) and that used in local regulations for other countries. It is noted that waste from remediation activities is not included in the published operational total.

**Social indicators**

**Worldwide workforce**

Employees under contract include all employees that have an employment contract (permanent or fixed-term) with a Sanofi Group company as of the last calendar day of the month. Employees under contract are measured in terms of headcount, irrespective of hours worked or their date of hiring during the month.

**Worldwide new hires**

New hires refer to employees hired from outside the Group and do not include movements within the Group, such as international, inter-company or inter-site transfers.

**Worldwide departures**

Departures refer to employees who leave the Group and do not include movements within the Group, such as international, inter-company or inter-site transfers.

For 2012, all intra-Group movements were specifically excluded. For 2011, because data on new hires and departures could not be processed in the same manner as for 2012, the data published includes intra-Group movements. Fixed-term contracts that were converted into permanent contracts were not taken into account for either new hires or departures.

**Percentage of women in key positions**

Data relating to key positions – or positions of high responsibility considered to be essential to Sanofi's strategic objectives – were obtained using eTalent, Sanofi's global talent management system.

**Consolidation and internal controls**

The Corporate HR and HSE Departments are responsible for ensuring that all data are consolidated on the basis of information provided by the industrial and research sites and Group affiliates or administrative headquarters throughout the world.

When sites include more than one function, either environmental impact is attributed to the one with the greatest impact, or impact is shared among the functions. HSE coordinators for each activity perform an initial validation of safety and environmental data.
prior to their consolidation. Corporate HR and HSE also verify data consistency during consolidation.

These validations include data comparisons from previous years as well as careful analysis of any significant discrepancies.

Social data regarding the workforce are compared with consolidated data in the management control database.

To ensure that site representatives have properly understood the HSE indicators, and to ensure that the data reported correspond with those requested, HSE data verification is carried out during in-house audits conducted at Group sites.

**External controls**

In order to obtain an external review of our data’s reliability and the thoroughness of our reporting procedures, we asked our Statutory Auditors to perform specific verification of certain CSR information and data, which are listed in the Statutory Auditors’ assurance report included in Section 4.5 of this document. The report describes the work they performed and includes their comments and conclusions.

Selected HSE and social data published in this report were specifically reviewed by the Statutory Auditors in accordance with the relevant legislation and French professional practices.
4.5. STATUTORY AUDITORS' DISCLOSURE STATEMENT AND ASSURANCE REPORT

This is a free translation into English of the Statutory Auditors' Disclosure Statement and Limited Assurance Report issued in French and is provided solely for the convenience of English-speaking readers. The Disclosure Statement and Limited Assurance Report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

Statutory Auditors' Disclosure Statement and Limited Assurance Report on corporate social responsibility information

Financial year ended December 31, 2012

To the Senior Management of Sanofi:

Further to the request received and in our capacity as Sanofi’s Statutory Auditors, we hereby present our report on the consolidated corporate social responsibility information presented in the Rapport de Gestion (Management Report) prepared for the financial year ended December 31, 2012 in accordance with the provisions of Article L. 225-102-1 of the French Commercial Code.

Responsibility of management

The Board of Directors is responsible for preparing a Rapport de Gestion containing the consolidated corporate social responsibility information required under Article R. 225-105-1 of the French Commercial Code (hereinafter the “Information”), determined according to the guidelines used by the company (the “Guidelines”), which are available from Sanofi upon request and are summarized in the “How corporate social responsibility information is reported: Methodological note” section of the Rapport de Gestion.

Independence and quality control

Our independence is defined by regulatory requirements, the code of ethics of the profession (Code de déontologie) and the provisions of Article L. 822-11 of the French Commercial Code. We maintain a comprehensive system of quality control including documented procedures and policies to ensure compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

Responsibility of the statutory auditors

Based on our work, it is our responsibility to:

• attest that the required Information is included in the Rapport de Gestion or, if it is not included, attest that an appropriate explanation for the omission is provided in accordance with Article R. 225-105 of the French Commercial Code and French Decree No. 2012-557 of April 24, 2012 (Disclosure Statement);
• provide limited assurance on whether the Information is fairly presented, in all material respects, in accordance with the Guidelines. (Limited Assurance Report).

In performing our work, we requested the assistance of our corporate social responsibility experts.

1 / Disclosure Statement

We conducted the work described below in accordance with the professional standards applicable in France:

We compared the Information presented in the Rapport de Gestion against the list provided for by Article R. 225-105-1 of the French Commercial Code;

We verified that the Information covered the scope of consolidation, that is, Sanofi and its affiliates within the meaning of Article L. 233-1, and the companies it controls within the meaning of Article L. 233-3 of the French Commercial Code;

In the event of an omission of certain consolidated information, we verified that explanations were provided in accordance with the provisions of French Decree No. 2012-557 of April 24, 2012.

Based on this review, we attest that the required Information is presented in the Rapport de Gestion.

2 / Limited Assurance Report

Nature and scope of our review

We conducted our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000 and the professional standards applicable in France. We planned and performed the procedures described below to provide limited assurance that the Information is free of any material misstatements that might cause us to believe that the Information has not been fairly presented, in all material respects, in accordance with the Guidelines. A higher level of assurance would have required more extensive procedures.

Our procedures included the following:

• We assessed the Guidelines’ appropriateness with respect to their relevance, completeness, neutrality, understandability and reliability, taking best practices in the industry into consideration where applicable.
We verified that the Group has set up collection, compilation, processing and control processes aimed at ensuring that the Information is exhaustive and consistent. We assessed internal control and risk management procedures relating to the preparation of Information. We conducted interviews with the individuals in charge of social and environmental reporting.

We selected the qualitative information and consolidated quantitative data to be tested and determined the nature and scope of the tests while taking into consideration their importance with regard to the social and environmental consequences associated with the Group's business activity and specific characteristics as well as its corporate social responsibility commitments. This qualitative information and consolidated quantitative data is presented in the table below, and in the body of the *Rapport de Gestion*, the qualitative information is identified by the symbol (*) and is presented in italics.

### Qualitative information:
Selection of qualitative information relating to the 12 topics below:
- Human rights
- Equal treatment
- Measures to fight corruption
- Occupational health and safety policy
- Training
- Pharmaceuticals in the environment
- Climate change
- Biodiversity
- Subcontracting and suppliers
- Patient and consumer safety
- Good corporate governance
- Stakeholder relations

### Consolidated quantitative data:
Social
- Employees under contract worldwide
- Total number of new hires worldwide
- Total number of departures worldwide
- Percentage of women in key positions

Environment
- Air emissions – VOCs
- Air emissions – SOx, NOx
- Greenhouse gas emissions – fuels (direct), and production of electricity and other energy sources (indirect)
- Total energy consumption
- Total volumes of hazardous and non-hazardous waste
- Total water consumption

Safety
- Lost time injury frequency rate worldwide

Concerning the qualitative information that we considered the most important:
- We conducted interviews with:
  - the CSR Excellence Direction, which is in charge of elaborating and implementing the CSR approach;
  - individuals in operational divisions that are involved in implementing the approach, such as Access to Medicines, Pharmacovigilance, R&D, HSE, Legal;
  - individuals involved in implementing the approach in cross-functional departments such as human resources, procurement and global compliance.
- We obtained supporting documentation such as internal procedures, minutes of committee meetings and other meetings, training materials, studies and survey findings that made it possible to support the selected information and assess its fairness.

Concerning the consolidated quantitative data that we considered the most important:
- with regard to the consolidating entity and the controlled entities, we performed analytical procedures and verified, on a sample basis, the calculations and data consolidation;
- with regard to the sites that we selected based on their business activity, their contribution to consolidated indicators, their location, as well as a risk analysis, we carried out the following:
  - we conducted interviews to verify the proper application of procedures;
  - we carried out detailed tests to verify the calculations made and reconcile the data with the substantiating documents.

For social data, we selected a sample of administrative management entities in three countries (Brazil, France and the United States).
For environmental data, we selected a sample of seven industrial and research sites (Aramon, Elbeuf, Framingham, Neuville, Swiftwater, Toronto and Ujpest). For safety data, in addition to these seven sites, we also selected a sample of pharmaceutical operations sites in five countries (China, the United States, France, India and Italy).

The selected sample accordingly represents:

- 40% of the workforce (quantitative social data);
- Depending on the indicators selected, between 12% and 39% of the quantitative environmental data tested (27% on average for the various topics);
- 20% of hours worked and 28% of lost time injuries (quantitative safety data).

• We assessed the fairness and consistency of the other consolidated information published relative to our knowledge of Sanofi and, where applicable, by conducting interviews or consulting documentary sources. With regard to fair business practices, interviews were conducted only at the level of the consolidating entity.

• Finally, where applicable, we assessed the relevance of any explanations relating to the absence of certain information.

Conclusion

Based on our review, no material misstatement has come to our attention that causes us to believe that the Information has not been fairly presented, in all material respects, in accordance with the Guidelines.

Neuilly-sur-Seine (France), March 6, 2013

The Statutory Auditor
Ernst & Young Audit

Christian Chiarasini
Partner in charge of the Sustainability Department of Ernst & Young

Eric Duvaud

The Statutory Auditor
PricewaterhouseCoopers Audit

Xavier Cauchois
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Thierry Raes