Volvo Car Corporation (Volvo Cars) has been reporting on environmental, health and safety aspects of its products and production since the year 2000. In 2003, we produced our first Sustainability Report in line with the international reporting guidelines from the Global Reporting Initiative (GRI). By applying and living up to the GRI’s international guidelines for sustainability reporting, we aim to ensure transparent reporting based on content which is relevant to our stakeholders. Since 2007 we have published two reports each year: the ‘Corporate Report with Sustainability’, and this GRI report. The GRI report, which has a higher degree of detail when it comes to facts about our responsibility and sustainability, allows our stakeholders to more fully understand and evaluate our goals and progress. For 2011, we report at GRI level B (self-declared).

GRI APPLICATION LEVEL

<table>
<thead>
<tr>
<th>Year</th>
<th>C+</th>
<th>B</th>
<th>B+</th>
<th>A</th>
<th>A+</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
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</table>

Mandatory
- Self Declared
- Third Party Checked

Optional
- GRI Declared
CONTENT

SUSTAINABILITY DATA 4–5
GRI INDEX 6–9
COMPANY PROFILE 10–16
MANAGEMENT APPROACH 17–25
General sustainability and economics 17–19
Labour practices and decent working conditions 20–22
Human rights 22–24
Society 24
Product responsibility 25

PERFORMANCE INDICATORS 26–36
Economic performance 26
Environmental performance 26–31
Social performance 31–36

CONTACT

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SE-405 31 Gothenburg
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Email: ewikman@volvocars.com
www.volvocars.com/sustainability
### SUSTAINABILITY DATA

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Engagement Index (%)</td>
<td>76</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>n/a</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Sales (retail deliveries)</td>
<td>445,255</td>
<td>373,525</td>
<td>334,808</td>
<td>374,297</td>
<td>458,323</td>
<td>(+)</td>
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</table>

### ASSUMING SOCIAL RESPONSIBILITY

#### Product Responsibility

<table>
<thead>
<tr>
<th>Safety test results</th>
<th>Share of independent tests where Volvo Cars received the highest rank (%)</th>
<th>89</th>
<th>88</th>
<th>80</th>
<th>70</th>
<th>69</th>
<th>(+)</th>
<th>PR1</th>
</tr>
</thead>
</table>

#### Occupational Health and Safety

<table>
<thead>
<tr>
<th>Health</th>
<th>Sick leave per available hours (%)</th>
<th>4.4</th>
<th>4.5</th>
<th>4.7</th>
<th>5.0</th>
<th>5.5</th>
<th>(+)</th>
<th>LA7</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Occupational injuries</th>
<th>Number of injuries resulting in at least one day of sick leave per 200 000 worked hours</th>
<th>0.7</th>
<th>0.6</th>
<th>0.5</th>
<th>0.9</th>
<th>1.5</th>
<th>(-)</th>
<th>LA8</th>
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</table>

#### Diversity and Equal opportunity

<table>
<thead>
<tr>
<th>Gender balance</th>
<th>Share of women in leading positions (%)</th>
<th>21.0</th>
<th>19.6</th>
<th>18.7</th>
<th>18.5</th>
<th>18.0</th>
<th>(+)</th>
<th>LA13, LA14</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Ratio of basic salary of women to men (bluecollar, average for eight salary grade levels &quot;SGD&quot; - &quot;SGK&quot;)</th>
<th>0.970</th>
<th>0.790</th>
<th>0.994</th>
<th>0.974</th>
<th>n/a</th>
<th>(+)</th>
<th>LA13, LA14</th>
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</table>

<table>
<thead>
<tr>
<th>Ratio of basic salary of women to men (whitecollar, average for five salary grade levels &quot;41-42&quot; - &quot;49-50&quot;)</th>
<th>0.990</th>
<th>1.010</th>
<th>1.034</th>
<th>1.027</th>
<th>n/a</th>
<th>(-)</th>
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#### Employment

<table>
<thead>
<tr>
<th>Total workforce</th>
<th>21,512</th>
<th>19,494</th>
<th>19,650</th>
<th>22,732</th>
<th>24,384</th>
<th>(+)</th>
<th>LA1</th>
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</table>

<table>
<thead>
<tr>
<th>Rate of employee turnover</th>
<th>2.3</th>
<th>3.3</th>
<th>12.8</th>
<th>9.2</th>
<th>9.1</th>
<th>(+)</th>
<th>LA2</th>
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### PROMOTING ECOLOGICAL SUSTAINABILITY

#### Emissions from product

<table>
<thead>
<tr>
<th>Fuel efficiency</th>
<th>Fleet average CO2 in EU (g/km)</th>
<th>151</th>
<th>157</th>
<th>173</th>
<th>182</th>
<th>190</th>
<th>(+)</th>
<th>EN25</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Energy use in car production</th>
<th>Total energy consumption in car production (MWh)</th>
<th>854,936</th>
<th>861,121</th>
<th>713,079</th>
<th>816,581</th>
<th>916,669</th>
<th>(+)</th>
<th>EN16, EN4</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Total energy consumption in car production (MWh/car)</th>
<th>1.30</th>
<th>1.61</th>
<th>1.71</th>
<th>1.59</th>
<th>1.42</th>
<th>n/a</th>
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</thead>
</table>

#### Emissions from production

<table>
<thead>
<tr>
<th>Total carbon dioxide emissions (tonnes)</th>
<th>59,685</th>
<th>67,585</th>
<th>58,980</th>
<th>68,367</th>
<th>126,735</th>
<th>(+)</th>
<th>EN16</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Total carbon dioxide emissions (kg/car)</th>
<th>114</th>
<th>190</th>
<th>158</th>
<th>151</th>
<th>311</th>
<th>n/a</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>NOx emissions (tonnes)</th>
<th>80</th>
<th>85</th>
<th>71</th>
<th>90</th>
<th>101</th>
<th>(+)</th>
<th>EN20</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>SDI emissions (tonnes)</th>
<th>&lt;1</th>
<th>&lt;1</th>
<th>&lt;1</th>
<th>&lt;1</th>
<th>1</th>
<th>(+)</th>
<th>EN20</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>VOC emissions (tonnes)</th>
<th>828</th>
<th>738</th>
<th>527</th>
<th>712</th>
<th>740</th>
<th>(-)</th>
<th>EN20</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>VOC emissions (kg/car)</th>
<th>1.78</th>
<th>1.98</th>
<th>1.80</th>
<th>2.01</th>
<th>1.66</th>
<th>(+)</th>
<th></th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Hazardous waste (tonnes)</th>
<th>11,439</th>
<th>9,087</th>
<th>5,594</th>
<th>9,320</th>
<th>11,395</th>
<th>(–)</th>
<th>EN22</th>
</tr>
</thead>
</table>

---

1) Trend indicates our progress in relation to Volvo Cars’ goals and vision. A plus sign (+) indicates that the company is moving in the right direction toward our goals, a minus sign (-) indicates that actions need to be taken for the company to develop towards our desired direction. (=) no change compared to previous year, n/a not available.

2) Since 2011, new metric replacing Employee Satisfaction.

3) Since 2011, only Sweden, Belgium and China.

4) Since 2011, new salary grades.

5) Since 2010, only Sweden and Belgium.

6) Only production in Torslanda, Sweden and Ghent, Belgium, since 2011.
A. Employee Engagement
Volvo Cars measures employee engagement once a year using a measure called the Engagement Index (EI). The EI goal for 2011 was set to 85, and the global result was 76. Engagement is measured by aspects such as “energy” and “clarity”. The results from 2011 show that 22 percent of all employees are fully engaged, while 1 in 3 employees are disengaged. The long-term EI goal for 2020 is set to 95. In previous years, an Employee Satisfaction Index (ESI) was used to measure employee satisfaction, and the reason for the change is that we want to set goals and measure how we perform in relation to our aspired culture, which is characterised by engagement. See also GRI/ ‘Management Approach: Labour Practices and Decent Working Conditions’.

B. Sales
Volvo Cars saw growth in all sales regions during 2011. Retail sales increased by 20.3 percent to 449,255 units over full year 2010. China showed the largest increase, with 54.4 percent over 2010. North America grew by 22.5 percent, the Nordic region by 13.3 percent, Europe by 13.1 percent and the Overseas region by 35.7 percent compared to 2010. Market shares improved in all regions. Improved sales are driven mainly by strong demand for the 60-series: the Volvo S60 and V60 together with the XC60. Sales of the low-carbon dioxide DRIVe models continue to boost sales in Europe. The year 2020 global sales target is 800,000 and the growth plan for the Chinese market is vital to achieve this goal.

C. Product safety
Volvo Cars’ vision and target for 2020 is that no one should be killed or injured in a new Volvo car. To achieve this goal, Volvo Cars continues its long tradition of research and its efforts to enhance security in and around the cars. Each year extensive independent safety testing is conducted and Volvo Cars is committed to be among the best in the class. In 2011, Volvo Cars received the highest rating in 81 of 91 tests carried out, which is equivalent to about 89 percent of the tests. See also GRI/ ‘Management Approach: Product Responsibility’, and PR1.

D. Employee health and safety
The work environment policy is described in the Volvo Cars Work Environment Directive. One of Volvo Cars’ aims is to achieve world-class performance when it comes to the health and safety of its employees. Sick leave among Volvo Cars’ employees in Sweden and Belgium has been decreasing slowly but steadily over the past few years. In 2011, Volvo Cars recorded the all-time low figure of 4.4 percent sickness absenteeism. We also monitor work-related accidents carefully and follow up all injuries, working to achieve improvement and avoid future occurrences. In 2011, we reached a result of 0.7 LTRC (the number of injuries resulting in at least one day of sick leave per 200,000 hours worked). See also GRI/ ‘Management Approach: Labour Practices and Decent Working Conditions’, and LA7.

E. Diversity
Diversity issues have a high priority at Volvo Cars. Regarding the gender balance in senior positions, the proportion of women in leadership positions reached 21 percent by the end of 2011. The company’s new diversity plans were implemented in 2010 and include a series of activities to accelerate progress towards increased diversity and to utilise the diversity within the company. See also GRI/ ‘Management Approach: Labour Practices and Decent Working Conditions’, and LA13–LA14.

F. Fuel efficiency
Volvo Cars’ development of the powertrain to reduce carbon dioxide emissions has started to pay off. The average emission rate of the company’s car models in Europe has fallen to 151 g CO2/km in 2011, compared to 157 g CO2/km in 2010. Volvo Cars works hard to minimise the energy loss by developing efficient engines, transmissions and electrical systems. We seek perfection in aerodynamic shape while at the same time reducing weight and minimising mechanical losses. Electrification will play a major role in taking on the future carbon dioxide challenges, where the foreseen EU goal of 95 g CO2/km by 2020 is one objective. Another key development in reaching these goals is our new Scalable Product Architecture (SPA) in combination with the new, internally developed engine range, known as VEA (Volvo Environmental Architecture). Volvo Cars’ customers can now choose between a total of seven models with carbon dioxide emissions below 120 g/km – three of them below the 100 g/km mark. See also GRI/ ‘Management Approach: Environment’, and EN26.

G. Environment in production
Volvo Cars has an overall target to continuously reduce our total energy consumption, and our aim is to be climate-neutral. All purchased electricity used by Volvo Cars in Europe originates from renewable sources. Heating originates largely from waste heat and biofuel, via district heating. During 2011, the total energy consumption from direct and indirect energy use was 854,936 MWh, which is slightly less than the previous year. The energy consumption per vehicle decreased by almost 20 percent from 1.61 MWh/vehicle in 2010 to 1.30 MWh in 2011. See also GRI/ ‘Management Approach: Environment’, and EN3–EN4.
## GRI Index

**Key**

- ☀ = indicator completely covered (according to definitions given in the GRI guidelines)
- ◼ = indicator partially covered (according to definitions given in the GRI guidelines)

## PROFILE

### 1. Strategy and analysis

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
<th>Coverage</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Statement from the most senior decision-maker of the organisation.</td>
<td>☀</td>
<td>10</td>
</tr>
<tr>
<td>1.2</td>
<td>Description of key impacts, risks, and opportunities.</td>
<td>◼</td>
<td>10</td>
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</tbody>
</table>

### 2. Organisational profile

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
<th>Coverage</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Name of the organisation.</td>
<td>☀</td>
<td>11</td>
</tr>
<tr>
<td>2.2</td>
<td>Primary brands, products and/or services.</td>
<td>◼</td>
<td>11</td>
</tr>
<tr>
<td>2.3</td>
<td>Operational structure of the organisation.</td>
<td>◼</td>
<td>11</td>
</tr>
<tr>
<td>2.4</td>
<td>Location of organisation’s headquarters.</td>
<td>☀</td>
<td>11</td>
</tr>
<tr>
<td>2.5</td>
<td>Number of countries where the organisation operates.</td>
<td>☀</td>
<td>11</td>
</tr>
<tr>
<td>2.6</td>
<td>Nature of ownership and legal form.</td>
<td>◼</td>
<td>11</td>
</tr>
<tr>
<td>2.7</td>
<td>Markets served.</td>
<td>☀</td>
<td>12</td>
</tr>
<tr>
<td>2.8</td>
<td>Scale of the reporting organisation.</td>
<td>◼</td>
<td>12</td>
</tr>
<tr>
<td>2.9</td>
<td>Significant changes during the reporting period.</td>
<td>☀</td>
<td>12</td>
</tr>
<tr>
<td>2.10</td>
<td>Awards received in the reporting period.</td>
<td>◼</td>
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### 3. Report parameters

<table>
<thead>
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<th>Indicator</th>
<th>Description</th>
<th>Coverage</th>
<th>Page</th>
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<tbody>
<tr>
<td>3.1</td>
<td>Reporting period.</td>
<td>☀</td>
<td>12</td>
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<tr>
<td>3.2</td>
<td>Date of most recent previous report.</td>
<td>◼</td>
<td>12</td>
</tr>
<tr>
<td>3.3</td>
<td>Reporting cycle.</td>
<td>☀</td>
<td>12</td>
</tr>
<tr>
<td>3.4</td>
<td>Contact for questions regarding the report or its contents.</td>
<td>☀</td>
<td>12</td>
</tr>
<tr>
<td>3.5</td>
<td>Process for defining report content.</td>
<td>☀</td>
<td>12</td>
</tr>
<tr>
<td>3.6</td>
<td>Boundary of the report.</td>
<td>☀</td>
<td>13</td>
</tr>
<tr>
<td>3.8</td>
<td>Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities.</td>
<td>◼</td>
<td>13</td>
</tr>
<tr>
<td>3.9</td>
<td>Data measurement techniques and the bases of calculations.</td>
<td>◼</td>
<td>13</td>
</tr>
<tr>
<td>3.10</td>
<td>Explanation of the effect of any re-statements of information provided in earlier reports.</td>
<td>☀</td>
<td>13</td>
</tr>
<tr>
<td>3.11</td>
<td>Significan changes from previous reporting periods.</td>
<td>☀</td>
<td>13</td>
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<tr>
<td>3.13</td>
<td>Policy and current practice with regard to seeking external assurance for the report.</td>
<td>☀</td>
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</table>

### 4. Governance, commitments, and engagement

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
<th>Coverage</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Governance structure of the organisation.</td>
<td>☀</td>
<td>13</td>
</tr>
<tr>
<td>4.2</td>
<td>Indicate whether the Chair of the highest governance body is also an executive officer.</td>
<td>☀</td>
<td>13</td>
</tr>
<tr>
<td>4.3</td>
<td>Number of members of the highest governance body that are independent and/or non-executive members.</td>
<td>☀</td>
<td>13</td>
</tr>
<tr>
<td>4.4</td>
<td>Mechanisms by which shareholders and employees may make recommendations or suggest direction to the highest governance body.</td>
<td>☀</td>
<td>13</td>
</tr>
<tr>
<td>4.5</td>
<td>Linkage between compensation for members of the highest governance body, senior managers, and executives, and the organisation’s performance.</td>
<td>☀</td>
<td>14</td>
</tr>
<tr>
<td>4.6</td>
<td>Processes in place for the highest governance body to ensure conflicts of interest are avoided.</td>
<td>☀</td>
<td>14</td>
</tr>
<tr>
<td>4.7</td>
<td>Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organisation’s strategy on economic, environmental, and social topics.</td>
<td>☀</td>
<td>14</td>
</tr>
</tbody>
</table>
4.8 Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance.

4.9 Procedures of the highest governance body for overseeing the organisation’s identification and management of economic, environmental, and social performance.

4.10 Processes for evaluating the highest governance body’s own performance, particularly with respect to economic, environmental, and social performance.

4.11 Explanation of whether and how the precautionary approach or principle is addressed by the organisation.

4.12 Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organisation subscribes or endorses.

4.13 Memberships in associations.

4.14 List of stakeholder groups engaged by the organisation.

4.15 Basis for identification and selection of stakeholders with whom to engage.

4.16 Approaches to stakeholder engagement.

4.17 Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics and concerns.

**MANAGEMENT APPROACH**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Coverage</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>General sustainability and economic</td>
<td>Management Approach with reference to economic performance, market presence and indirect economic impacts.</td>
<td>![Icon]</td>
<td>17</td>
</tr>
<tr>
<td>Environmental</td>
<td>Management Approach with reference to materials, energy, water, biodiversity, emissions, effluents and waste, products and services, and compliance.</td>
<td>![Icon]</td>
<td>18</td>
</tr>
<tr>
<td>Labour practices and decent work</td>
<td>Management Approach with reference to employment, labour/management relations, occupational health and safety, training and education, and diversity and equal opportunity.</td>
<td>![Icon]</td>
<td>20</td>
</tr>
<tr>
<td>Human rights</td>
<td>Management Approach with reference to investment and procurement practices, non-discrimination, freedom of association and collective bargaining, abolition of child labour, prevention of forced and compulsory labour, complaints and grievance practices, security practices and indigenous rights.</td>
<td>![Icon]</td>
<td>22</td>
</tr>
<tr>
<td>Society</td>
<td>Management Approach with reference to community, corruption, public policy, anti-competitive behaviour and compliance.</td>
<td>![Icon]</td>
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<tr>
<td>Product responsibility</td>
<td>Management Approach with reference to customer health and safety, product and service labelling, marketing communications, customer privacy and compliance.</td>
<td>![Icon]</td>
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</table>
## PERFORMANCE INDICATORS

### Economic

<table>
<thead>
<tr>
<th>Category</th>
<th>Indicator</th>
<th>Description</th>
<th>Coverage</th>
<th>Page</th>
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<tbody>
<tr>
<td>Economic performance</td>
<td>EC1</td>
<td>Direct economic value generated and distributed.</td>
<td></td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>EC2</td>
<td>Financial implications and other risks and opportunities for the organisation’s activities due to climate change.</td>
<td></td>
<td>26</td>
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### Environment

<table>
<thead>
<tr>
<th>Category</th>
<th>Indicator</th>
<th>Description</th>
<th>Coverage</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials</td>
<td>EN1</td>
<td>Materials used by weight or volume.</td>
<td></td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>EN2</td>
<td>Percentage of materials used that are recycled input materials.</td>
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<td>27</td>
</tr>
<tr>
<td>Energy</td>
<td>EN3</td>
<td>Direct energy consumption by primary energy source.</td>
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</tr>
<tr>
<td></td>
<td>EN4</td>
<td>Indirect energy consumption by primary source.</td>
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</tr>
<tr>
<td>Water</td>
<td>EN8</td>
<td>Total water withdrawal by source.</td>
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<tr>
<td>Biodiversity</td>
<td>EN11</td>
<td>Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.</td>
<td></td>
<td>28</td>
</tr>
<tr>
<td>Emissions, effluents, and waste</td>
<td>EN16</td>
<td>Total direct and indirect greenhouse gas emissions by weight.</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>EN19</td>
<td>Emissions of ozone-depleting substances by weight</td>
<td></td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>EN20</td>
<td>NOx, SOx, and other significant air emissions by type and weight.</td>
<td></td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>EN22</td>
<td>Total weight of waste by type and disposal method.</td>
<td></td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>EN23</td>
<td>Total number and volume of significant spills.</td>
<td></td>
<td>29</td>
</tr>
<tr>
<td>Products and services</td>
<td>EN26</td>
<td>Initiatives to mitigate environmental impact of products and services.</td>
<td></td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>EN27</td>
<td>Percentage of products sold and their packaging materials that are reclaimed by category.</td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>Monetary Fines</td>
<td>EN28</td>
<td>Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.</td>
<td></td>
<td>31</td>
</tr>
</tbody>
</table>

### Labour practices and decent work

<table>
<thead>
<tr>
<th>Category</th>
<th>Indicator</th>
<th>Description</th>
<th>Coverage</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>LA1</td>
<td>Total workforce by employment type, employment contract, and region.</td>
<td></td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>LA2</td>
<td>Total number and rate of employee turnover by age group, gender, and region.</td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>Occupational health and safety</td>
<td>LA7</td>
<td>Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities by region.</td>
<td></td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>LA8</td>
<td>Education, training, counselling, prevention, and risk-control programmes in place to assist workforce members, their families, or community members regarding serious diseases.</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>Training</td>
<td>LA10</td>
<td>Average hours of training per year per employee by employee category.</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>Diversity and equal opportunity</td>
<td>LA13</td>
<td>Composition of governance bodies and breakdown of employees per category according to gender and age group.</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>LA14</td>
<td>Ratio of basic salary of men to women by employee category.</td>
<td></td>
<td>33</td>
</tr>
</tbody>
</table>

### Human rights

<table>
<thead>
<tr>
<th>Category</th>
<th>Indicator</th>
<th>Description</th>
<th>Coverage</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human rights</td>
<td>HR2</td>
<td>Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>HR3</td>
<td>Total hours of employee training on policies and procedures concerning aspects of human rights.</td>
<td></td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>HR4</td>
<td>Total number of incidents of discrimination and actions taken.</td>
<td></td>
<td>34</td>
</tr>
</tbody>
</table>
## Society

<table>
<thead>
<tr>
<th>Category</th>
<th>Indicator</th>
<th>Description</th>
<th>Coverage</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-corruption</td>
<td>SO3</td>
<td>Percentage of employees trained in organisation’s anti-corruption policies and procedures.</td>
<td></td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>SO4</td>
<td>Actions taken in response to incidents of corruption.</td>
<td></td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>SO5</td>
<td>Public policy positions and participation in public policy development and lobbying.</td>
<td></td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>SO7</td>
<td>Total number of legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcomes.</td>
<td></td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>SO8</td>
<td>Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.</td>
<td></td>
<td>34</td>
</tr>
</tbody>
</table>

## Product responsibility

<table>
<thead>
<tr>
<th>Category</th>
<th>Indicator</th>
<th>Description</th>
<th>Coverage</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer health and safety</td>
<td>PR1</td>
<td>Life cycle stages in which health and safety impacts of products and services are assessed for improvement.</td>
<td></td>
<td>35</td>
</tr>
<tr>
<td>Product and service labeling</td>
<td>PR5</td>
<td>Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.</td>
<td></td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>PR6</td>
<td>Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.</td>
<td></td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>PR7</td>
<td>Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes.</td>
<td></td>
<td>36</td>
</tr>
</tbody>
</table>
1. STRATEGY AND ANALYSIS

1.1 Statement from the most senior decision-maker of the organisation about the relevance of sustainability to the organisation and its strategy

Moving towards sustainable mobility

Since mid-2011, Volvo Car Corporation has established a new corporate strategy – Designed Around You. This is the now the foundation for our business, products and corporate culture. As a human-centric brand and company, our customers are central in everything we do.

Consumers in general are becoming more responsible and more aware of the choices they make; that they really make a difference when it comes to the environment and a sustainable society. The same goes for our employees; people want to work for a good cause, in a company that cares. Environmental care and social responsibility are natural priorities for us as a company with a global presence. Our cars represent a thoughtful kind of luxury and the way we do business should reflect our commitment to the environment, where we take our responsibility by contributing to society, both globally and locally.

Our responsibility as a company stretches further than our business and employees. Our Code of Conduct is an important document underpinning our commitment to conduct business in a responsible and ethical way. This is expected from all of us in order to reach our company’s objectives.

Volvo Car Corporation supports the United Nation’s initiative the Global Compact, which is a global business initiative on corporate responsibility. We have been a signatory since 2000 and we continue to support the Global Compact’s principles on Human Rights, Labour Standards, Environment and Anti-Corruption.

Volvo Car Corporation is a company in rapid transformation and we want to be part of developing a sustainable society. However, we will never achieve this without partnership, cooperation and political awareness of the challenges facing the automotive industry.

We believe in electric mobility. We and believe this has to be achieved through cooperation between the automotive industry, governments, infrastructure providers, electric energy providers and scientific institutions. In China for example, the government has earmarked 15 billion US dollars to support its domestic vehicle industry’s research and development in the field of electrification.

Important pioneering research into a new Scalable Product Architecture is under development within the R&D, manufacturing and purchasing units at Volvo Car Corporation, along with new fuel-efficient four cylinder engines.

We are also extremely dedicated to continue – being world leaders in automotive safety systems, protecting the driver and passengers as well as pedestrians.

Furthermore, we will continue building on our electrification strategy. Fleets of our all-electric Volvo C30 are now running in Europe and China with successful results. To demonstrate our determination to be a leader in this area, we have launched the Volvo V60 Plug-in Hybrid – the world’s first diesel-powered plug-in hybrid.

European car manufacturers are facing difficult challenges; carbon dioxide legislations requiring electrified cars are implemented without incentives that make these cars affordable for a growing number of consumers. In 2011, fewer than 50,000 battery powered vehicles were sold in Europe, equivalent to a market share of about 0.1 percent.

This figure suggests that the car market will continue to be dominated by traditional combustion engine models and we believe it is far too early to dismiss them. We are continuously improving efficiency. In fact, over the past two years Volvo has reduced carbon dioxide emissions from our diesel and petrol model ranges by 13 percent.

Drive-E is our all-encompassing approach to sustainable driving. It’s the innovative thinking behind a whole range of technologies that give you more power, more efficiency and greater driving enjoyment, while respecting the environment. Drive-E stands for new, efficient and powerful engines, plug-in electric hybrids, high-output batteries, Start/Stop technology, energy recovery systems and even sustainable manufacturing. Sustainable mobility is central to our philosophy of intelligent, thoughtful luxury, and it’s at the heart of every car we make.

We believe that when you combine fuel efficiency, electrification and efficient manufacturing with intuitive, human-focused design and innovative safety systems and solutions, the result is a luxury car brand for the future. We also believe in growth for our company, aiming for a global sales target of 800,000 cars in 2020. New manufacturing plants in China, together with continued investment in our European operation, will help us achieve this.

Aiming to be the Employer of Choice, we realise that none of this can be achieved without the support and commitment of our employees. With passion for cars and customers, we want to move fast, aim high, challenge each other and at the same time show one other and our surrounding environment respect.

Stefan Jacoby
President & CEO

1.2 Description of key impacts, risks, and opportunities

Economic

The year 2011 was the first whole year in which Volvo Cars was an independent company under the ownership of Zhejiang Geely Holding Group, after its acquisition from the Ford Motor Company on 2 August 2010. The acquisition strengthens the Volvo Cars brand in existing European and North American markets and expands its presence in China and other emerging markets.

Volvo Cars has a number of key events and challenges ahead. The financial crisis is far from resolved, and as a result there is still some uncertainty in consumer confidence and car demand. In the short to medium term Volvo Cars’ financial results will be impacted by continued investments in product development, industrial build-up in China and marketing to support the new product launches and new brand direction.

Economic risks to our business include fluctuations in raw materials and fuel prices and currency exchange rates. As an example, raw material prices directly affect our production while fuel prices impact the sales of cars. As fossil fuel prices increase, the demand for our fuel-efficient and electrical car models also increases. As Volvo Cars’ production is still primarily in Sweden and Belgium while the US is our biggest market, we are strongly affected by the instability of currencies.

Following the challenges of the financial crisis, 2010 witnessed a turn-around of the car market. Volvo Cars ended 2010 with global sales up by 11.2% over 2009 figures. This trend continued in 2011, during which Volvo Cars saw growth in all sales regions. Retail sales increased by 20.3% over full year 2010 to 449,255 units. China showed the largest increase with 54.4% over 2010. North America grew by 22.5%, the Nordic region by 13.3%, Europe by 13.1% and the Overseas region by 35.7% compared to 2010. The year 2020 global sales target is 800,000 cars and the growth plan for the Chinese market is vital to achieve this goal.

Sustainable mobility

Mobility is essential to economic development, and it also enhances the quality of a person’s life. However, motor vehicles and other forms of transport have a significant impact on the environment, particularly due to the role of carbon dioxide (CO₂) emissions in climate change. Sustainable mobility can be defined as the ability to meet the needs of society to move freely, gain access, communicate, trade and establish relationships without sacrificing other essential human or ecological values today or in the future.

At Volvo Cars, we take the view that mobility should not be achieved at the expense of the environment or other social values. We include safety in our definition of sustainable mobility and our overriding objective is to develop cars that are both safe and environmentally sound. Solutions are also required for improving air quality, primarily in cities, through a reduction of unhealthy emissions and by helping to reduce the traffic congestion that is the result of increased car usage. We have a long tradition of developing systems and functions for our cars that have benefited society in general. The Lambda sensor (a three-way catalytic converter) and the three-point seat belt are Volvo Cars’ inventions that have become standard in cars worldwide.
Climate change
During the year, Volvo Cars has recorded several milestones associated with 'Drive Towards Zero': our vision for developing cars entirely free from harmful exhaust emissions and environment-impacting CO2. Volvo Cars' customers can now choose between a total of seven models with CO2 emissions below 120 g/km – three of them below the 100 g/km mark. The average emission rate of the company's car models in Europe has fallen to 151 g CO2/km in 2011, which represents the biggest annual decline of all automotive industry companies in the EU. However, we are aware that there is an enormous challenge ahead of us if we are to reach the EU goal of a maximum 95 g CO2/km by 2020. Efficiency and electrification are key to achieving this goal. The new Scalable Product Architecture (SPA) and the new engine range, known as VEA (Volvo Environmental Architecture) are two examples of how we are approaching this objective.

Limiting CO2 emissions and curbing climate change also encompass the environmental effects of our production facilities and logistics flows. Limiting climate change and making the best possible use of the Earth's resources will require innovative cooperation between all stakeholders – locally and globally.

Safety
Road accidents are a serious problem; as many as 50 million people are injured in road accidents annually and approximately 1.3 million die as a result of such accidents. For this reason, we have a strong commitment to continue strengthening our work with safety and product responsibility.

The aim is to offer cars that are safe for all people in all imaginable traffic situations. The key to success in this respect is to design safety systems that are smart and that interact with one another. We base our research on a variety of parameters, including data obtained from actual road accidents, with the future aim of building cars that do not crash. In the shorter perspective the aim is that by 2020 no one should be killed or injured in a new Volvo car. Achieving this will be challenging and part of the solution lies in successful communication between car technology and infrastructure.

For the past few years Volvo Cars, together with several partners, has participated in the ongoing road train project SARTRE – Safety Road Trains for the Environment. Some other highlights during the year include touring the world's motor shows with a Volvo C90 Electric that has undergone a frontal collision test at 64 km/h (40 mph). The company is also taking the next step in active safety by developing a system that alerts and automatically brakes for animals on the road. The new system will be launched on the market in a few years' time. Volvo Cars employees have also received an award from the NHTSA, the American traffic safety administration, for significant contributions to automotive safety.

In-car environment
Other important issues that Volvo Cars emphasises are the reduction of nickel and of allergens in the passenger cabin, and the use of chromium-free leathers. Nickel allergy is one of the most common causes of allergic contact dermatitis in the industrialised world. Volvo Cars has a strict requirement that parts supplied for our car interiors fulfil our nickel standard. This means that for all interior components with metallic appearance in Volvo cars, such as interior door handles, gear levers, keys, Volvo badges in the steering wheel and climate control buttons, nickel leakage has been minimised. This Volvo standard applies to our entire car range. The parts containing nickel have been covered with nickel-free plating, and they have all been tested to ensure that any nickel release is below the strict Volvo level.

There are no societal standards for in-car air, so Volvo Cars has created its own in-car air quality requirements that are used when developing new Volvo models. We have worked for a long time, together with our suppliers, to reduce allergens, and to ensure that all textiles and leather are certified to Deko-Tex Standard 100. Four models with nine different cabin interiors have interior air that is recommended by the Swedish Asthma and Allergy Association. All leather used in Volvo car interiors has been tanned with a chromium-free process, using either natural or synthetic tanning materials. In addition to benefiting those with a chrome allergy, it also reduces the environmental impact of the tanning process.

Human and labour rights
Violations of human and labour rights entail a risk factor in Volvo Cars' supply chain. We believe the best way to generate long-lasting improvement and thereby reduce potential risk is by combining a clear Code of Conduct with continuous dialogue, training and audits. During 2010, we started to update our Code of Conduct and in 2011 it was communicated to employees, suppliers and other business partners.

2. ORGANISATIONAL PROFILE

2.1 Name of the organisation

This report covers Volvo Car Corporation (Volvo Cars) and all of its wholly-owned subsidiaries. Volvo Cars was owned by the Ford Motor Company until 2 August 2010, when it became an independent company under the ownership of Zhejiang Geely Holding Group.

2.2 Primary brands, products and/or services

Volvo Cars produces premium-segment car models in four versions: Sedans (S40, S60, S80), Versatile estates (V50, V60, V70), Cross country vehicles (XC90, XC70, XC60) and Coupes and convertibles (C30, C70).

2.3 Operational structure of the organisation

Volvo Cars is an independent company that has been under the ownership of the Zhejiang Geely Group since 2 August 2010. The 'Volvo' name is owned by Volvo Trademark Holding AB, which is jointly owned by Volvo Cars and AB Volvo. Our cars are marketed and sold by regional market companies and national sales companies through approximately 2,900 local dealers in about 100 countries. Most of the dealerships are independent companies.

Volvo Car Corporation head office, product development, marketing and administration functions are mainly located in Gothenburg, Sweden. Since 2011, Volvo Cars has had offices in Shanghai and Chengdu, China. The new Volvo Cars China headquarters in Shanghai includes a Technology Centre and functions such as sales and marketing, manufacturing, purchasing, product development and all other supporting functions.

Volvo Cars manufactures in four countries in total. The company has own manufacturing and assembly plants in three countries: Sweden (Torslanda, Skövde, Floby and Olofström), Belgium (Ghent) and Malaysia (Kuala Lumpur). Volvo cars are also manufactured at a production plant in China (Chongqing).

The company also manufactures in Uddevalla, Sweden through Pininfarina Sverige. Pininfarina Sverige in Uddevalla is owned jointly by Pininfarina S.p.A of Italy (60%) and Volvo Cars (40%). From 2013, Pininfarina Sverige will be fully owned by Volvo Cars.

The process of establishing a manufacturing plant in Chengdu, 1,600 km west of Shanghai, is ongoing, pending the approval of the Chinese authorities.

2.4 Location of organisation's headquarters

Volvo Cars' head office, product development, marketing and administration functions are located in Gothenburg, Sweden. Since 2011, Volvo Cars China headquarters has been located in Shanghai, supporting the company's China strategy.

2.5 Number of countries where the organisation operates

Volvo Cars manufactures in four countries in total. The company has own manufacturing and assembly plants in three countries: Sweden, Belgium and Malaysia. Volvo cars are also manufactured at a production plant in China, not owned by Volvo Cars.

2.6 Nature of ownership and legal form

Volvo Cars is an independent company under the ownership of the Zhejiang Geely Holding Group. The Volvo brand is owned jointly by Volvo Cars and AB Volvo through Volvo Trademark Holding AB.
2.7 Markets served

Our cars are sold in more than 100 countries. In 2011, retail sales increased by 20.3% to 449,255 units over full year 2010. In 2011 the US was Volvo Cars’ largest market, accounting for approximately 15% of total retail deliveries. Sweden was second (approximately 13%), followed by China (approximately 10%). By taking the third place in the market ranking China overtook the UK, which had been in third place the year before.

2.8 Scale of the reporting organisation

Volvo Cars employed a total of 21,512 people as of 31 December 2011. The company sold a total of 449,255 cars in 2011.

2.9 Significant changes during the reporting period

Being a standalone company from 2 August 2010, and with a new corporate strategy, it has been essential to realign parts of the organisation in order to properly support Volvo Cars’ ambitious growth strategy. Main departments like Marketing, Sales and Customer Service as well as Research and Development have undergone important restructuring. Several new globally experienced members have been recruited to the Executive Management Team to secure the execution of the new business plan and profitable growth.

2.10 Awards received in the reporting period

Selected awards per category and car models are presented below. Full details can be found at our webpage.

Safety
- 2012 Top Safety Pick award: No less than five Volvo models – the C30, S60, S80, XC60 and XC90 – earned a Top Safety Pick in the Insurance Institute for Highway Safety’s (IIHS) award 2012.
- US traffic safety administration NHTSA: Volvo Cars’ employees receive awards for significant contributions to automotive safety.

Quality
- J.D. Power study for the German market: Volvo Cars came first in the brand ranking for 2011.
- The Middle East Motor Awards 2011: The Volvo S60 was crowned Car of the Year.

Design/Environment
- Challenge Bibendum 2011: The Volvo V60 Plug-in Hybrid won the Challenge Bibendum 2011 Design Contest award in the category for vehicles with internal combustion engines.
- Challenge Bibendum 2011: The Volvo C30 Electric came in shared first place in the 130-kilometre rally and also won awards for handling, wheel to wheel CO2 emissions and local emissions.
- Challenge Bibendum 2011: The Volvo V50 DRVe came third in the 300-kilometre rally with awards for fuel efficiency. The V60 Plug-in Hybrid came fifth among the 16 cars in the long rally and was awarded for its acceleration.

Models
- S60
  * Automobile Researchers’ & Journalists’ Conference (RJC), Japan: Volvo S60 awarded the 2012 RJC Import Car of the Year
  * Middle East Motor Awards (MEMA) 2011, Middle East: Volvo S60 awarded the Middle East Car of the Year 2011.
  * International Car of the Year (ICOTY), USA: Volvo S60 awarded the 2011 International Sedan of the Year (USA).

2.11 Significant restructuring

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  * International Car of the Year (ICOTY), USA: Volvo S60 awarded the 2011 International Sedan of the Year (USA).

3. REPORT PARAMETERS

3.1 Reporting period

The report covers the period 1 January to 31 December 2011.

3.2 Date of most recent previous report

The 2010 report was issued in May 2011 and is available at Volvo Cars’ website.

3.3 Reporting cycle

Volvo Cars reports on an annual basis.

3.4 Contact for questions regarding the report or its contents

Erica Wikman, Director Sustainability Communication, by email ewikman@volvocars.com or by telephone +46-(0)31-59 00 00.

3.5 Process for defining report content

We hold a continuous dialogue with stakeholders from groups such as academia, NGOs, government agencies, trade unions, fleet customers and suppliers regarding our responsibility as a company. These stakeholder groups regularly assist us in identifying priority areas through the dialogues held in various ways.

The most recent materiality analysis with the aim of evaluating and defining the sustainability report content was carried out in 2009 alongside a review of the Corporate Report 2008, by consulting key internal and external stakeholders. Those invited to comment were representatives from academia, NGOs, government agencies, trade unions, fleet customers and suppliers. Our respondents were prominent opinion leaders in their own fields – people with considerable expertise in the areas of sustainability and the automotive industry.

Participants were asked to identify issues and rank 33 aspects of sustainability in terms of how important they thought these were for Volvo Cars’ success as a company. Once processed, the opinions of these external respondents were set out alongside Volvo Cars’ internal priorities. Climate change, safety, fuel efficiency, alternative fuels, corporate governance, exhaust emissions and product development were given the highest priority, internally and externally. Sales, working conditions, supplier-related issues, and stakeholder engagement also received very high rankings. The materiality analysis also revealed that our stakeholders do not consider any aspect of sustainability to be unimportant. Consequently, the overall conclusion is that sustainability as a whole matters greatly to Volvo Cars’ stakeholders.
3.6 Boundary of the report

This GRI report deals with Volvo Cars and all wholly owned operations throughout 2011. We report only direct environmental impacts, except in the case of CO₂ from energy production for which we also report indirect emissions from electricity generation and district heating. Financial issues are addressed only briefly since we are an independent company under the ownership of Zhejiang Geely Holding and not a listed company at the stock market. Definitions regarding boundaries for each performance indicator are given in respect to the indicator concerned.

3.8 Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities

The report deals with wholly-owned operations of Volvo Cars. These comprise offices mainly in Sweden, China and Belgium, research and development in Sweden, manufacturing in Sweden, Belgium, and Malaysia, as well as sales companies worldwide. Definitions regarding boundaries for each performance indicator are given in respect to the indicator concerned.

3.9 Data measurement techniques and the bases of calculations

Definitions are provided for all performance indicators reported.

3.10 Explanation of the effect of any re-statements of information provided in earlier reports

The information provided for the reporting years before 2009 was based on Volvo Cars under the ownership of Ford Motor Company. The content of last year’s report, 2010, was subject to the shift in ownership from the Ford Motor Company to Zhejiang Geely Holding Group, which took place on 2 August 2010. The content in this GRI report, covering the reporting year of 2011, is based solely on information under the ownership of Zhejiang Geely Holding Group.

3.11 Significant changes from previous reporting periods

No significant changes. Definitions are provided for all performance indicators reported.

3.13 Policy and current practice with regard to seeking external assurance for the report

The Volvo Cars Corporate Report and the GRI report 2011 have not been verified by a third party. Although we regard third-party verification as an important step towards transparency, we continue to seek an approach that suits Volvo Cars. For us, it is important that third-party verification should reinforce our legitimacy and preserve our owner’s integrity, while reflecting the values represented by our brand.

4. GOVERNANCE, COMMITMENTS, AND ENGAGEMENTS

4.1 Governance structure of the organisation

Needs and expectations regarding corporate behaviour vary with time. Thus, we need to take an operational approach to sustainability. A coordinator is responsible for sustainability strategies and communication and sustainability issues are integrated into our business plan. At the operational level, the appropriate officer or function (e.g. the Health and Safety Director or the Diversity Manager, etc.) is responsible for ensuring that relevant issues are discussed at the level at which decisions on strategies, goals and actions can be taken.

4.2 Indicate whether the Chair of the highest governance body is also an executive officer

The chair of our highest governance body, the Board of Directors, is not an executive officer within Volvo Cars.

4.3 Number of members of the highest governance body that are independent and/or non-executive members

Volvo Cars has since 2 August 2010 been an independent company under the ownership of the Zhejiang Geely Holding Group and is managed by a Board of Directors comprising independent Board members, owner representatives, Volvo Cars and the employee organisations. Meetings are held four times a year and the Board’s main task is to provide a forum for the company’s strategies, business orientation, product plan, major investment plans and budget.

Board of Volvo Cars, as per December 2011:

- Li Shufu, Director and Chairman of the Board (male)
- Hans-Olov Otsson, Director and Vice Chairman of the Board (male)
- Stefan Jacoby, Director & CEO (male)
- Herbert Demel, Director – Independent* (male)
- Winnie Fok, Director – Independent (female)
- Lone Fens Schröder, Director – Independent* (female)
- Håkan Samuelsson, Director – Independent* (male)
- Peter Zhang, Director – Independent* (male)

Employee representatives:

- Sören Carlsson, Swedish Union of Clerical and Technical Employees in Industry (UNIONEN) (male)
- Glenn Bergström, Swedish Metalworkers’ Union (male)
- Marko Peltonen, Swedish Metalworkers’ Union (male)

Deputy employee representatives:

- Björn Otsson, Swedish Metalworkers’ Union (male)
- Magnus Sundemo, The Swedish Association of Graduate Engineers (male)

*Independent means that the relevant Board member is not part of or a representative of the owner organisation, nor a member of the executive/senior management team of Volvo Cars (EMT) nor an employee representative.

4.4 Mechanisms by which shareholders and employees may make recommendations or suggest direction to the highest governance body

The relevant trade unions are represented on the Board of the Volvo Cars. This is one way in which we ensure that employee interests are communicated to the highest governance body.
4.5 Linkage between compensation for members of the highest governance body, senior managers, and executives and the organisation’s performance

Executive compensation at Volvo Cars has four components: fixed salary, bonus, company car and other benefits (e.g. healthcare insurance and pension benefits). Volvo Cars applies global cash-based bonus programmes for all employees. For senior managers and executives, Volvo Short Term Incentive is based both on company and individual performance. One-third of the company performance is a health objective measured through the Global People Survey result and Communicative Leadership Index. The individual performance takes into account behaviour according to the aspired company culture.

4.6 Processes in place for the highest governance body to ensure conflicts of interest are avoided

Volvo Cars regulates the handling of conflicts of interest. The Volvo Cars' Corporate instruction 'Report of financial or other interests' stipulates that conflicts of interests must be reported to the Legal Department. The updated Code of Conduct contains guidelines on how to avoid conflicts of interest that potentially could occur in various situations.

4.7 Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organisation’s strategy on economic, environmental, and social topics

Together, the 13 members of the Board of Volvo Cars form a global board with vast experience of the car industry and business development:

- **Li Shufu** is the Chairman of the board of Volvo Cars and the founder of Zhejiang Geely Holdings.
- **Hans-Olov Olsson** is the Vice Chairman of the Board of Volvo Cars and started his career at Volvo in 1966. From 2000–2005 Olsson was the Managing Director of Volvo Cars. He was responsible for the Ford Motor Company's global marketing between 2005 and 2006.
- **Stefan Jacoby** is the President and CEO of Volvo Cars, and has previously held several senior positions with Volkswagen and Mitsubishi, among others as Managing Director at Volkswagen in the US.
- **Dr. Herbert Demel** is a member of the Volvo Cars' Board of Directors and started his career with Bosch in 1984. He has experience from working with companies such as Audi, Volkswagen and Fiat. Demel is the Executive Vice President of Magna and President for Magna in China, South East Asia, India, Africa and South America.
- **Lone Fonsss Schroder** is a member of the Board of Directors of Volvo Cars and has been employed at the shipping company Möller-Maersk. Schroder was also Managing Director of Wallenius Lines from 2005–2010. She is currently also a Board member of Handelsbanken and has been a board member of Vattenfall.
- **Winnie Kin Wah Fok** is a member of the Volvo Cars’ Board of Directors and has extensive experience of the financial market. Fok has previously worked as an advisor to Investor and is also a Board member of SKF and G4S.
- **Håkan Samuelsson** is a member of the Board and has a background as Managing Director for the truck producer MAN. He also has executive experience working at Scania and is also a Board member of Siemens.
- **Dr. Peter Zhang** is a member of Volvo Cars’ Board of Directors, and comes most recently from Geely Automotive Holdings, Ltd., where he was Vice President from 2007–2010. Zhang has a diverse background and over the past 10 years or so has worked for major multinational companies, such as the BP Group and Shell.
- **Sören Carlsson** is a union representative on Volvo Cars’ Board (Swedish Union of Clerical and Technical Employees in Industry).
- **Glenn Bergström** is a union representative on Volvo Cars’ Board (IF Metall), and has been working with Volvo Cars since 1974.
- **Marko Peltonen** is a union representative on Volvo Cars’ Board (IF Metall).

4.8 Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance

For information on our internally developed codes of conduct and principles, please see the Management Approach section of this report, below.

4.9 Procedures of the highest governance body for overseeing the organisation’s identification and management of economic, environmental, and social performance

As environment and safety are bound up with our company’s core values, these aspects of our products form part of our strategic direction and are discussed as such. Working conditions, health and safety and diversity issues are addressed at our daily operational meetings and considered on a case-by-case basis. Processes for reviewing working conditions, as well as environmental, product safety and legal compliance issues, are part of our business management system.

4.10 Processes for evaluating the highest governance body’s own performance, particularly with respect to economic, environmental and social performance

There is no stated process for evaluating the highest governance body’s work with respect to environmental and social performance. However, managers are evaluated according to criteria including corporate governance and corporate citizenship.

4.11 Explanation of whether and how the precautionary approach or principle is addressed by the organisation

Having signed the UN Global Compact, Volvo Cars supports the precautionary principle. Our decisions are made on the basis of the information available at each particular occasion. Nonetheless, inadequate or unreliable information is often a strong indication that caution is advisable, both from a business perspective and in a broader, societal context.

Internally and in cooperation with stakeholders, we are pursuing a wide range of actions that help us understand and manage the way our products interact with the environment. Our ‘Clean Compartment’ work is an example of efforts in line with the precautionary principle. This reduces health risks for passengers with asthma or allergies by replacing interior trim with materials exceeding the requirements of current legislation. To give another example, our paint shops allow far lower solvent emissions than permitted by law.

4.12 Externally developed economic, environmental and social charters, principles or other initiatives to which the organisation subscribes or which it endorses

In 1999, Volvo Cars was one of the first companies to heed UN Secretary General Kofi Annan’s appeal to become a signatory to the principles of the UN Global Compact. Volvo Cars also contributed to the formulation of the Global Compact's
tenth principle (on corruption) and was represented in New York by its CEO when the principle was formally adopted. Volvo Cars signed the UN Global Compact in June 2000.

Our Code of Conduct stands as a general endorsement of the following human rights frameworks and charters:
- The eight core conventions of the UN agency the International Labour Organisation: Child Labour (138 and 182), Forced Labour and Compulsory Labour (C9 and 105), Equal Remuneration and Discrimination (100 and 111), Freedom of Association and Collective Bargaining (87 and 98)
- The ten principles of the Global Compact
- The Universal Declaration of Human Rights
- UN Convention on the Rights of the Child
- OECD guidelines for multinational companies

For several years, Volvo Cars’ Sustainability Reports and Volvo Cars’ ‘Corporate Report with Sustainability’ have been inspired by the GRI Sustainability Reporting Guidelines.

Volvo Cars has been contributing to the new ISO standard on social responsibility by working with the Swedish ISO Committee’s industry group and by actively disseminating information on the standard. In this way, we have contributed to social responsibility by helping develop guidelines for many players. The new ISO 26000 standard was launched at the end of 2010.

4.13 Memberships in associations

This refers primarily to memberships maintained at the organisational level. Volvo Cars is a member of the Confederation of Swedish Enterprise and the European Automobile Manufacturers Association (ACEA). Volvo Cars also belongs to the Association of Swedish Engineering Industries and BIL Sweden.

4.14 List of stakeholder groups engaged by the organisation

Our most important stakeholders are our customers, employees, suppliers and dealers, our owner (Zhejiang Geely Holding Group), and the communities in which we operate. Public agencies, non-governmental organisations (NGOs) and other interests that influence market structures are also important in this context. Volvo Cars maintains relationships with various stakeholders that influence or are influenced by our operations – from customers and employees to business partners and the communities in which we operate. Each of these groups presents a special responsibility and our aim is to be, and to be perceived as, a responsible player in all of our relationships.

4.15 Basis for identification and selection of stakeholders with whom to engage

Volvo Cars believes in openness and transparency. Consequently, we deliberately choose not to engage with certain groups. However, certain stakeholder groups are prioritised based on the extent to which the company and its products influence them or vice versa.

In addition to employees, customers, owners and suppliers, Volvo Cars has well-developed relations with trade unions, universities and research institutions, the media, non-profit organisations and authorities in other segments of the public sphere.

4.16 Approaches to stakeholder engagement

Knowing what our most important stakeholders think and expect of their relationships with Volvo Cars is the key to our progress as a company. Our aim is to establish open channels and hold regular meetings with all of our major stakeholders. We believe in good relations and mutual understanding between all stakeholders. For this reason, we participate in various networks, seminars and conferences to hear the views of others and to inform them about our work. We also encourage interested parties to contact us, for example through our website or at citizen@volvocars.com

We believe our stakeholder dialogues provide us with:
- A better understanding of how stakeholders in a given region see sustainability issues evolving over the next 15 years and how this may affect the automotive sector and Volvo Cars.
- Opportunities to build new relationships between Volvo Cars and leading opinion makers. The dialogue provides a comprehensive view of stakeholder perspectives on sustainability issues.

Customers
Volvo Cars’ success is built on satisfied customers. When we plan our products and services, we do this on the basis of careful analyses of different customers’ needs and desires. During the development phase of a product, we perform tests on how the proposed solutions are perceived by our consumers. By combining the customer evaluations with our own tests, we work to find a final solution that is best for our customers. When our cars have reached the market, we follow closely how they are received by media, through feedback from dealers, and, most importantly, by holding a dialogue with our customers.

Employees
Good relations between managers and subordinates are fundamental to good relations between the workforce and the company. Regular development meetings between employees and their immediate superiors should be used to develop personal development plans, which can then be monitored and evaluated. Every year Volvo Cars conducts an extensive, anonymous, survey among all employees to determine their attitudes and opinions on issues such as communication, individual development and the work environment. The results are compiled and reported at different levels. The results from a working group are discussed with the employees’ immediate superior, who is also responsible for developing action plans in areas requiring improvement. Since 2011 the survey has included a focus on Employee Engagement, which is recorded as a key performance indicator in our scorecard. To ensure good relations between the company and its employees, we hold regular discussions with organisations representing the workforce. These discussions are conducted at both the local and central level. The Board includes three employee representatives whose role is to ensure that their members’ interests and experiences are represented at the highest level. Engineering and economics undergraduates from universities are surveyed annually to measure their perception of Volvo Cars as a potential future employer.

Dealers
The national sales companies (NSCs) represent the main interface between the dealer network and Volvo Cars. Dealers and sales companies exchange views and information on an ongoing basis, providing us with valuable information on the dealers’ situation and the specific conditions of the local market. In many markets, the dealer network is also represented by a dealer/NSC forum where dealers may present their views to the NSC on key issues, such as dealer agreements and standards. Most issues are dealt with by the NSC, with headquarters being brought in if necessary. Headquarter functions are also indirectly involved in many issues, such as standards. We participate in a syndicated study known as the Dealer Satisfaction Survey, which reports independent information on dealers’ opinions regarding manufacturers and the support they provide. The results of this study may not be disseminated outside the participating companies.

Suppliers
We have approximately 400 major suppliers of direct materials. All of these are important to us and we are anxious to maintain good relations with them. At present, much of our product development is carried out in cooperation with suppliers in joint projects. Daily liaison is essential if we are to understand our suppliers’ expectations of us and vice versa. The negotiations preceding each new agreement with a supplier are also a major opportunity to exchange information and feedback. Another important interface involves our supplier open days, at which all suppliers can exchange information and establish contacts. Volvo Cars was founded in 1927 and some companies have been supplying us since then. We value long-standing relationships and prefer to have one main supplier for each component area.

Owners
Since 2 August 2010 Volvo Cars has been an independent company under the ownership of the Zhejiang Geely Holding Group. Many interfaces exist between the parties in terms of overall strategic issues and joint projects. Zhejiang Geely Holding evaluates Volvo Cars’ performance in both financial and non-financial terms through the Board of Volvo Cars.
Local community
In communities where we are a major employer, we hold regular meetings with local representatives. We inform them of our plans and learn how the community seeks to develop. We also assess opportunities for cooperation.

Non-profit organisations & Authorities
Volvo Cars is represented in a large number of groups and organisations pursuing or monitoring various issues at local, regional and national levels. For Volvo Cars, sustainability reporting is a way of demonstrating transparency and engaging in dialogue with stakeholders. The reporting process provides an annual opportunity for discussion, evaluation and reflection, supporting our efforts to develop our business sustainably. Volvo Cars maintains ongoing dialogue with authorities on various issues that might affect operations, such as the environment and safety, and has, for example, initiated long-term cooperation with the Swedish National Road Administration.

4.17 Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to these

Our latest materiality analysis was performed in 2009, involving both internal and external stakeholders. Internally and externally, the highest priority was given to climate change-related issues such as fuel efficiency, alternative fuels and product development. Besides climate change, other highly important issues were safety and corporate governance. Consequently, these areas are given high priority in our sustainability work and communication. The materiality analysis also revealed that our stakeholders do not consider any aspect of sustainability to be unimportant. The overall conclusion is that sustainability as a whole matters greatly to Volvo Cars’ stakeholders.

Other important issues according to our most important stakeholders are listed below (in order of priority):
- Exhaust emissions
- Economic performance
- Working conditions – suppliers
- Stakeholder engagement
- Quality
- Materials use & waste
- Emissions from production
- Supply chain management
- Public affairs & lobbying
- Corruption and bribery
- Occupational health & safety
- Emerging markets development
- Labour/management relations
- Sales
- Workforce training and benefits
General Sustainability and Economics

For Volvo Cars, sustainable development means seeking to establish a balance between the needs of the company, its customers and future generations. Though Volvo Cars is a relatively small company, our brand is global and so is our influence. Consequently, our business objectives and sustainability commitments should feed into each other.

Our behaviour in society has an influence on how our company and brand are perceived and, by extension, on demand for our cars. People have high expectations of Volvo Cars in terms of environmentally and socially responsible behaviour. Competition is tough, not only for customers, but also for skills. We know that a good reputation makes it easier to recruit and retain personnel.

We also know that an understanding of the long-term challenges facing society is a force for innovation and generates business opportunities. Our decision to commit actively to sustainability is based on the conviction that this will reinforce our competitiveness in both the short and long term. Ultimately, we realise that our stakeholders determine how well we live up to our responsibility. They determine our success by buying our products, working productively and doing business with us.

Goals and performance

The Volvo Cars Scorecard, which presents our performance relating to our key performance indicators, is shown at the very beginning of our GRI Report as well as at www.volvocars.com/sustainability. In addition, each performance indicator shows our performance in each area of sustainability and responsibility.

Our responsibility

One way of describing our responsibility is in terms of three important roles – those of a car-maker, a global company and a local player.

Responsibility as a Car-maker

As a car manufacturer, we provide personal transport solutions that benefit individual freedom and wellbeing, as well as contributing to socio-economic development. However, Volvo Cars also contributes to negative mobility issues, such as congestion, noise and air pollution. It is our responsibility to do our best to minimise the negative impact of our products through sustainable business strategies.

Responsibility as a global company

The reputation of the Volvo Cars brand is one of our greatest assets. It helps us attract expertise from around the world and source the best components to build the highest quality cars. Our supply chain and dealer network provide us with global coverage. As a result, our global responsibility extends to everything that we buy and sell. Through systematic efforts, we seek to ensure that both we and our partners live up to high standards – regardless of geographical location.

Volvo Cars’ commitment to these issues can be seen in the stringent policies in our supplier agreements with regard to environmental controls, the treatment of staff and human rights. Volvo Cars was also one of the first companies to join the United Nation’s Global Compact, an international initiative on corporate standards for human rights, labour conditions, environmental protection and anti-corruption measures.

Responsibility as a local player

Our employees, the communities in which we operate and local authorities are our most important local stakeholders. As an employer, we have a responsibility to provide a safe and healthy work environment. We achieve this through systematic efforts on health and safety, by sharing knowledge and by carefully considering the social and environmental impact of purchasing, production and distribution.

Local environmental impact is an issue that Volvo Cars takes very seriously. All of our production facilities are certified according to the ISO 14001 environmental management system. Examples of environmental measures at our production plants include on-going work to enhance energy efficiency and switching to electricity produced from renewable resources.

Some of the ways in which we identify key issues in our role as a local player are through our employee attitude survey, dialogues with the local community, and cooperation with local authorities.

Our mission

Our mission includes the aim of strengthening our commitment to safety and the environment. As the responsibility of every manager and employee, sustainability is based on our mission and on company-wide guidelines. Above all, it is a mindset whereby we as individuals consider the social and environmental consequences of our day-to-day decisions.

Our company mission requires us to act in an environmentally and socially responsible manner. Among other things, this means we must:

• be a reliable employer and business partner;
• take environmental and social issues into account in purchasing, production and distribution;
• create employment;
• contribute knowledge;
• be honest, transparent and active within the communities in which we operate.

Our organisation

Needs and expectations regarding corporate behaviour vary with time. Thus, we need to take an operational approach to sustainability. In operational terms, business planning forms the base on which we manage our activities. Issues of environment, personnel, safety, purchasing, diversity, etc., are planned and monitored according to the structures, policies and guidelines in our Business Management System. This means that results are communicated to the employees concerned in the course of their ordinary work. The workforce as a whole is kept up-to-date on the company’s programmes through articles in our in-house magazine Agenda, the CEO’s newsletters, and direct email communication with managers; managers in turn are responsible for communicating with their teams. The overall situation is described annually in this report as well as the ‘Corporate Report with Sustainability’.

Volvo Cars’ executive management team consists of 13 members representing all sections of the value chain and certain support functions. A number of councils have been established at the overall company level to monitor and pursue issues related to sustainability.

At the operational level, the appropriate officer or function (e.g. the Health and Safety Director or the Diversity Manager, etc.) is responsible for ensuring that relevant issues are discussed at the level at which decisions on strategies, goals and actions can be taken.

Our decisions in the area of sustainability are supported by a number of company policies. Central among these are the policies on environment, safety and quality. Several of our policies are undergoing updates, or have been updated during the past few years, due to changes in the ownership structures.

Based on the principles of the UN Global Compact and our Code of Conduct, our vision is that good working conditions shall prevail and that human rights shall be respected throughout our value chain. Our suppliers’ compliance with guidelines and principles represents part of our ongoing collaboration. During 2011, Volvo Cars developed our first Code of Conduct as a standalone company. The code sets forth the guiding principles of all employees, all suppliers that Volvo Cars does business with, all dealers that sell the products of Volvo Cars as well as all other representatives that conduct business on behalf of the company. The Code of Conduct was approved by the Board of Directors on 22 February 2011 and is available on www.volvocars.com/sustainability.

The Volvo Cars Scorecard, which presents our performance relating to our key performance indicators, is shown at the very beginning of our GRI Report as well as at www.volvocars.com/sustainability. In addition, each performance indicator shows our performance in each area of sustainability and responsibility.
Management Approach
Environmental

Goals and performance
The Volvo Cars Scorecard, which presents our performance relating to our key performance indicators, is shown at the very beginning of our GRI Report as well as at www.volvo.com/sustainability.

Strategy, policies and focus areas
Volvo Cars’ strategic environmental work is divided into three areas: Product, Operations, and Brand Communication, and applies to the whole company for the period up to 2020. Identified in the strategy are various focus areas, for which goals have been defined in relation to other car-makers. The Volvo Cars Environmental Strategy will be an integrated part of the overall Business Strategy. There is an annual process in place to update the Environmental Strategy according to business development and global challenges to achieve a competitive environmental performance.

For Volvo Cars the strategy is categorised into a number of focus areas, for which the desired goals and key activities are defined.

Operations:
- Zero environmental accidents
- Water conservation and water emission performance (water footprint)
- Climate neutral operations and energy efficiency
- Emissions to air
- Total waste management
- Sustainable transport solutions
- Soil and ground water management (a new strategy area in 2011, previously included in ‘Zero environmental accidents’)

Products:
- Energy consumption
- Emissions
- Alternative fuels
- Interior environment
- Materials & recycling

Example of actions within Operations during 2011
Zero environmental accidents
- Project to improve and specify environmental control in early phases.

Water conservation and water emission performance (Water Footprint)
- Complete analysis of operational blue water footprint performed for all production sites.
- Gap analysis regarding BAT (Best Available Technology) performed for EU production sites.

The sooner the better
Volvo Cars has developed a process that even more clearly involves the environment in the start-up phase of a project. In the very early phases of a project checklists will be used to secure environmental involvement throughout. Volvo Cars strives for continuous improvements, which is also an important objective within the environmental area.

Total Waste Management
- Implementation of a new waste management process at all sites.

Sustainable Transport Solutions
Volvo Cars is attaching ever-greater importance to Logistics and Transport processes. High volume, long distance transportation is particularly suitable for switching to alternative transport modes other than traditional trucks. Truck transportation has been optimised for many years, resulting in a high degree of full loads, a better loading factor (more parts per pallet/rack) and an increased proportion of balanced loads. Volvo Cars is continuously exploring better alternatives and means of cooperation, for example regarding train transport. Our goal is to use sustainable transport solutions not only to connect our stamping facilities with our car plants, but even more to connect operations in the East with those in the West. This effort encompasses both sea and land transport.

Example of issues addressed within Product
Minimising energy loss
There are a number of components within a vehicle that consume energy. At Volvo Cars we work hard to minimise energy loss by developing efficient engines, transmissions and electrical systems. We seek perfection in aerodynamic shape while at the same time reducing weight and minimising mechanical losses, creating a well-balanced product that meets the customer’s expectations.

Scalable Product Architecture (SPA) and Volvo Environmental Architecture (VEA)
Electrification will play a major role in meeting future CO₂ challenges, where the foreseen EU goal of 95 g CO₂/km by 2020 is one objective. Key methods to achieve this include Volvo Cars’ new Scalable Product Architecture (SPA) in combination with the new, internally developed engine range known as VEA (Volvo Environmental Architecture).

Updated Environmental Policy 2012
In March 2012, Volvo Cars adopted an updated environmental policy, which included the following statements:

We shall endeavour to reduce the environmental impact from our products by:
- Continuously improving fuel efficiency of our vehicles
- Developing alternative solutions for vehicle propulsion
- Reducing carbon footprint by use of sustainable materials

We shall endeavour to reduce the environmental impact from our operations by:
- Constantly seeking energy efficient processes
- Decreasing our complete footprint concerning water
- Minimising waste
- Working towards sustainable transport solutions

Operational responsibilities
The Senior Vice President, SVP Manufacturing is the management representative for environmental issues within the Executive Management Team. He is also the chairman of the Environmental Committee, a cross-functional committee that manages the Environmental Strategy and environmental targets related to operations. Product-related issues are governed by the Product Board, headed by the Senior Vice President Research and Development and the Senior Vice President Product Strategy and Vehicle Line Management. The Attribute Managers at R&D have the operative responsibility.

At environmental committee level, common environmental issues covering product, operations and communication are handled, e.g., audits, educations and reports.

Training and awareness
Volvo Cars strives to make environmental issues a natural part of all relevant training and educational initiatives within the company. For example, a specific part of the competence development programme followed by all employees who are training to become production team leaders relates to environmental issues. The expert competence within specific environmental issues is continuously kept up to date.

At the manufacturing site at Torslanda, Volvo Cars has an exhibition about clean compartment that is open to the public. External communication about our work and our environmental performance from the product perspective is conducted continuously through press releases and other communication material available on our website.

During 2011, Volvo Cars, together with other Original Equipment Manufacturers and the Automotive Industry Action Group (AIAG), conducted suppliers’ training in Supply Chain Responsibility in selected countries. Environment is one topic in this training. The training was carried out in India and Turkey during 2011 and training in Mexico and China is planned for the first quarter of 2012.

During 2011, Volvo Cars also held training for our own employees on sustainability and responsibility in general, including information about the supply chain. This training was carried out in Belgium, China, the Czech Republic and Sweden, and about 400 employees took part.

Monitoring and follow-up
Environmental objectives and action plans
Environmental objectives and action plans for operations are continuously followed up and reported in the systematic target-setting process. There is a systematic connection between the management and shop floor level, which stimulates a strong commitment from all employees.
Input materials
Amongst other goals, it is our aim to unify the composition of our car models in 2012 in order to allow for comparison within our portfolio.

Energy and resource efficiency
Limiting CO₂ emissions is a challenge for all stakeholders in the automotive business and for Volvo Cars, being a relatively small player, the challenge is intriguing. Being a global company, we offer products that meet global customers’ demands while being compliant with legal requirements in all markets. This is a great challenge since different countries and regions set up different regulations on energy/fuel use and CO₂ emissions. Planning our product range therefore involves a careful analysis of the need to meet future legal regulations, in combination with a thorough analysis of foreseen customer expectations on our products. This is a demanding task as the automotive industry has very long lead-times, where many years pass between initial planning and the launch of a new product. At Volvo Cars, however, we see this challenge as an opportunity to offer contemporary luxury and driving pleasure with good conscience. Volvo Cars annually monitor and follow up the progress in regard to CO₂ emissions from our products.

Interior environment
To ensure that the materials used inside the vehicles are not harmful to human health or the environment, as well as to avoid using asthma-inducing and allergenic substances in our car interiors, we perform careful measurements in the first few years of the vehicles’ life. We do not perform measurement of interior compartment after several years of vehicle use, because materials do not emit volatile substances after this time.

Volvo Cars cooperate with the Swedish Asthma and Allergy association (AAF) and work continuously to improve the interior of the vehicles. We measure our performance against the World Health Organisation’s recommended levels to make sure that the interiors of the vehicles have an environment as good as the WHO guidelines for outside air quality. We fulfill the AAF demands by ensuring that incoming air fulfills WHO Air Quality Guideline, relating to NO₂, particulate matter, CO, benzene, ozone and SO₂.

Compliance
The Director of Environmental Protection monitors compliance by Volvo Cars’ plants worldwide with applicable environmental legislation.

Procedures related to monitoring and corrective and preventive actions
Volvo Cars has a programme for internal audits concerning the environment, the operational management system and legal compliance as well as dangerous goods, to monitor our operations and thus find scope for improvement.

Environmental management, ISO 14001 & environmental audits
Volvo Cars has been ISO 14001 certified since the early 1990s. As required in the ISO 14001 standard, Volvo Cars has implemented a Business Management System (BMS) where a description of how Volvo Cars manages and runs the business is documented. The environmental focus areas (see above) are an integral part of the ISO 14001 system. There is an annual review process to ensure the BMS is fully up to date. Every year an external auditor performs audits at Volvo Cars to ensure that the standards are met and opportunities for improvement are identified.

Environmental management among suppliers
The total life cycle of our products – from design and production, through handling and use, to end-of-life recycling – must be taken into account to reduce the environmental footprint of our products. All suppliers globally play a major role in the design and production of our cars. As such, every link in the value chain must be aligned to truly ensure environmental care. Approximately 60% (by value) of each car is procured from external sources. Volvo Cars has approximately 400 business partners producing components for the cars, and a further 3,300 delivering other products and services.

During 2010 and 2011, Volvo Cars developed a new Code of Conduct. The Code of Conduct was communicated during 2011 to direct material and indirect material suppliers – via Volvo Cars Supplier Portal, the Volvo Cars Purchasing Terms & Conditions and Volvo Cars’ Environmental Web guide.

During the past year Volvo Cars has worked to establish the new supplier portal for all suppliers, which has the aim of streamlining communication between Volvo Cars and its suppliers. The portal also contains information about Volvo Cars’ demands and expectations in a range of areas, including that of Environment. One of the environmental requirements for suppliers is that suppliers supplying goods to Volvo Cars are required to be third party certified according to the environmental management standard ISO 14001. An Environmental Self-Assessment must also be filled in by each supplier and sent to Volvo Cars upon request. We also communicate and follow up our expectations through the Volvo Cars Quality Award through Excellence (VQE), in which environmental management and performance is one aspect that is evaluated.

Volvo Cars has during 2011 developed a pilot audit project with the help of the company’s new risk assessment model. The project will be launched in the first quarter of 2012, and suppliers will be followed up on a range of areas, of which Environment is one. The outcome of the pilot project will inform the future development of Volvo Cars Purchasing Departments’ strategic work with audit.

In supplier agreements, Volvo Cars reserves the right to conduct an audit upon advance written notice to all units producing goods or services for Volvo Cars, at any time. The company also reserves the right to appoint an independent third party of our choice to conduct audits in order to evaluate compliance with Purchasing Terms & Conditions, the Environmental Web guide and our Code of Conduct.
Management approach
Labour practices and decent working conditions

Goals and performance
The Volvo Cars Scorecard, which presents our performance relating to our key performance indicators, is shown at the very beginning of our GRI Report as well as at www.volvocars.com/sustainability.

Policies
Volvo Cars' policies on labour practices and decent working conditions concern discrimination and bullying in the workplace and the working environment; see below.

Work Environment Directive
1. Summary
The Work Environment Directive describes the valid work environment policy within the company.

2. Purpose
Volvo Cars is a company which, with the active support of its management, focuses on environmental issues with the aim of improving the work environment and health & safety. The aim is that any work the company does should be characterised by respect for human beings and by employee empowerment with the opportunity for constant development. Employee empowerment is an active relationship in every situation. It involves taking responsibility for oneself and for the good of every member of staff. In order to do this, the employees need to be aware of the operating conditions, feel involved in their work and have clearly defined areas of responsibility and authority. This results in greater commitment, while helping to enhance quality, productivity and profitability and guarantee the company's survival and job opportunities. Volvo Cars' products are renowned for their quality, safety and environmental concern, and in these areas we aim to be world-class. It is also the company's aim to attain world-class when it comes to the health and safety of its employees.

3. Concerned
The document applies to all employees within Volvo Cars, (including subsidiaries globally).

4. Directive
4.1 Responsibility
The responsibility of managers and other members of staff must be defined, approved and known. Any delegation by managers to staff members must be documented. Every member of staff must assume personal responsibility for matters relating to health, the work environment and safety. Everyone is obliged to follow all instructions and routines and to be on the alert for possible safety risks and ensure that they are eliminated.

4.2 Quality assurance – internal control
There must be effective systems for handling work environment issues in an active, satisfactory manner in line operations. In matters relating to the work environment, the company must be at the forefront when it comes to complying with the authorities' internal control requirements. Every employee must take into account international guidelines and standards for the work environment and external environment in his/her work.

4.3 Work environment programmes
Plans of action and objectives for the work environment must be approved by the work environment/industrial safety committees organised in the line organisation. Processes, products and working methods which reduce the load on the individual and the environment are to be given precedence over other alternatives. Special attention is to be paid to the work climate, management issues, group interaction and psychosocial questions so that problems can be dealt with at an early stage. The focus should be on prevention so that suitable action can be taken at the earliest opportunity.

4.4 Job adaptation and rehabilitation
The company will work to counteract the exclusion of people from the labour market and to prevent employees being sick-listed on a long-term basis. Adopting a holistic approach to the way staff are recruited, introduced and trained to create a good work environment, produces workplaces which are characterised by care and involvement. This means that managers, employees and trade union representatives feel that they are responsible for helping to adapt jobs and implement rehabilitation programmes at an early stage. Every unit is to have guidelines and support routines in the form of handbooks and documentation. The line organisation is to draw up objectives and plans of action and managers are to follow up the rehabilitation of every individual. The training of key persons in this area takes place continuously.

4.5 Company health care
Company health care is an important resource with unique expertise which must be utilised. Company health care must focus on adapting the work to human abilities and needs and work at company, group and individual level. There must be a holistic approach, with the emphasis on prevention and providing support when it comes to rehabilitation. Company health care and fitness programmes should include activities to stimulate good health and make employees aware of the value of improving their physical and mental health through their own strength and training.

4.6 Future work environment
The company is to work towards long-term plans, follow developments in its spheres of operation and utilise new research and development findings when it comes to the work environment. The company is to follow, and whenever necessary assist in, the work that is done by the authorities on different types of laws and standards, and be prepared to participate in general studies and analyses. When it comes to technological development, the automobile manufacturers are well in the forefront but Volvo Cars' strength and competitive edge is the knowledge that quality cars are built by people with a real commitment, working in a good environment. Focusing on the employees' environment and development, as well as the relationship with the external environment, will make it possible to create real harmony and a secure future at Volvo Cars.

Harassment at work directive
1. Summary
This document describes the directive ‘Harassment at work’.

2. Purpose
The purpose of this document is to ensure that all employees know that Volvo Cars will not tolerate any instance of harassment at work. The document also describes the responsibility of managers and employees in this context and what to do if harassment at work has occurred.

3. Concerned
The document applies to all employees within Volvo Cars (including subsidiaries globally).

4. Directive
4.1 General
Volvo Cars will not tolerate any instance of abusive discrimination against anyone within the company. According to the company work environment directive, its goal is ‘that all work within the company is to be characterised by respect for all humans and by cooperation with opportunities for continuous development’.

All ‘medarbetare’ – a Swedish expression for active and constructive employees – must abide by the company philosophy, which states that abusive discrimination is not acceptable. Showing respect for our fellow humans and staying informed about relevant laws provides us with a framework for good ethics and proper moral standards in dealing with others. It is also important that all ‘medarbetare’ discuss abusive discrimination and its consequences for the individual, the team and the organisation. This directive must be considered a governing document.

4.2 Responsibility
‘The employer must plan and organise work in a manner which, as far as possible, prevents the occurrence of abusive discrimination.’ It is also the responsibility of every employee to actively oppose all abusive discrimination at the workplace.
4.3 Definitions
According to the law, abusive discrimination is ‘recurring deplorable or negatively charged actions aimed at individual employees in an abusive manner, which may result in these individuals becoming ostracised from the workplace community’. These acts may have been carried out by employees or by employers themselves, or any of their representatives.

The following are some examples of abusive discrimination:
• slander or defamation of an employee or his or her family,
• deliberately withholding work-related information or providing misleading information related to work,
• deliberate sabotage or making work more difficult,
• obviously insulting, ostracising, boycotting or disregarding the employee,
• persecution of various kinds, including threats and the instilling of fear, degradation, sexual harassment,
• deliberate insults, exaggerated criticism, or negative treatment or attitudes (ridicule, anti-social behaviour, etc.),
• monitoring the employee without his or her knowledge and with malicious intent,
• degrading ‘administrative punitive sanctions’ which are suddenly directed against an individual employee without any basis in fact, explanation or attempt at jointly solving a possible fundamental problem. The sanctions may, for instance, take the form of groundless withdrawal of use of office space or duties, unexplained transfers or overtime demands, and obvious obstructions in the processing of applications for job training or leave of absence.

4.4 Quality assurance – internal audit
The company must have established procedures within the organisation/unit, which will provide early warning of unsatisfactory working conditions and remedy these. In addition, there should be procedures for identifying problems in work organisation or an unsatisfactory state of affairs in working together, which may give rise to abusive discrimination.

If there are signs of abusive discrimination corrective actions must be taken immediately with subsequent follow-up. In connection with this, an investigation must be made into whether the way the work is organised may have contributed to the problem. Any employee who has been subjected to abusive discrimination must be given immediate help and support. The employer must have special guidelines for this situation.

Abusive discrimination must always be investigated. Responsibility for this rests with the manager or supervisor. The results of the investigation may lead to disciplinary actions. In development chats and in daily work, special attention will be paid to the work climate, management issues, group coordination and psychosocial questions. This policy will take into consideration and reflect EU guidelines and standards regarding abusive discrimination.

4.5 If abusive discrimination has occurred
To obtain help and support contact:
• the immediate supervisor/manager
• the human resources department
• a trade union organisation
• the company health service
• a person one particularly trusts
• a public health doctor or nurse, psychologist or similar professional.

All the above are ethically and morally sworn to secrecy. The company health services must be operated in accordance with scientific and well-tested experience. Their personnel are subject to the same secrecy requirements as the corresponding staff in the public health services.

4.6 Volvo Cars an attractive place to work!
Volvo Cars is a company that views the different skills, experience, ages, gender, and nationalities of their people as an asset. By utilising these differences we can cope with the constant changes within and without the company. Volvo Cars represents reliability, safety, respect for the individual, and the world in which we live. With a secure work environment we can live up to these standards.

Organisational responsibility
The most senior position responsible for labour practices and decent working conditions is the Senior Vice President Human Resources. In Sweden the basic rule is that every citizen (and resident) is aware of, and follows, the laws, ordinances and regulations that affect his/her own organisation. In a legal case, not being aware of an applicable regulation is not considered as an extenuating circumstance. The employer bears the ultimate responsibility that the work environment will not pose a risk of ill health or accidents to employees, and that the working environment is generally good. This means protecting employees’ health by preventing the risk of accidents, work-related ill health, etc.

The employer must create a suitable, structured working environment jointly with employees; including work adaptation and rehabilitation efforts. Safety officers function as representatives of the employees and must work to promote a satisfactory work environment.

Employees participate in work environment matters by, for example, reporting risks, ill health, accidents and potential accidents. This can lead to remedial actions and provides feedback on measures. It is important that employers reach agreement with employees as to how joint action can be achieved on working environment measures. This could entail workplace meetings and joint assessment of the work environment.

The safety officer, a union representative, is involved in the planning and implementation of measures. This involves studying working conditions, planning remedial actions and conducting an annual follow-up. The safety officer is a vital project resource and an agent of change, and must take part in the initial stages of such measures.

Corporate health and safety comprises a professional resource within Volvo Cars to achieve legal compliance and meet Volvo Cars’ goals within this area, primarily concerning preventive measures. These may include investigations, risk assessments, proposals for remedial measures and personnel training. Each division within Volvo Cars is required to employ a health and safety specialist to coordinate and manage its health and safety efforts, including those of the Work Environment Committee. In addition, the company contracts an external health service company with medical and technical professionals who assist with surveys, assessments and advice.

Organisation
The Work Environment Committee
The Work Environment Committee has 12 members and meets at least four times a year. It includes representatives of the company and employee organisations. The committee’s mission is to develop the company’s working environment policy and to ensure compliance. The committee also encourages the line organisations to develop goals and action plans relating to the work environment, and works to enhance cooperation within the company and the industry.

The Safety Review Board
The Safety Review Board (SRB) has full management authority to review and take decisions on all aspects of health and safety within its purview. The intention is to standardise this forum as a management safety tool throughout Volvo Cars. As such, it complements the Work Environment Committee. The Safety Review Board meets once a month. The standing items on the agenda are:
• review of serious incidents,
• review of safety Key Performance Indicators (KPI),
• identification and sharing of best practice.

Safety Review Board meetings are held at two levels: the unit/shop level and site/plant level. Unit/shop meetings provide a preparatory forum for site/plant Safety Review Board meetings.

The Global Diversity Council
The Global Diversity Council consists of eleven Diversity Champions and meets bi-monthly. A Diversity Champion has been appointed for each business area in the company to better integrate diversity work into the company’s operations. Chaired by the Diversity manager, the role of the council is to pursue diversity issues in the company and support Volvo Cars’ diversity efforts, focusing on concrete actions. The steering group consists of the Diversity manager and representatives from the management team, who meet four times a year with the aim of securing continuous improvement of diversity work.
Training and awareness

To complete a task successfully, anyone undertaking that task must have the necessary knowledge and experience. In addition to skill, an adequate knowledge of working environment issues is also required. The employer is responsible for ensuring that those assigned these tasks have sufficient knowledge about the regulations that apply to the working environment and the physical, psychological and social circumstances that may increase the risk of unhealthy consequences and accidents. They should also be knowledgeable on measures for the prevention of unhealthy situations and accidents and should strive to promote a satisfactory work environment.

Within Volvo Cars’ basic work environment, training and supplementary training is offered to safety representatives and first line managers. Middle managers are offered two days of working environment training and senior managers a half-day introduction.

During 2010, Volvo Cars carried out a number of training courses for our employees. Approximately 75 people participated in a training programme for new managers, which included courses on diversity, discrimination law and psychosocial work environment. All managers within Volvo Cars Manufacturing, Torslanda also attended courses on anti-harassment during the year. Also in 2010, Volvo Cars launched a diversity training course for all managers, project leaders and communicators. The full diversity training concept was rolled out in 2011.

Monitoring and follow up

Management system

Volvo Cars has a management system for systematic work with, and follow-up of, working environment issues. All workplaces are screened regularly by managers and Safety Officers and deviations are corrected. Risk assessments on different levels and topics are standard procedures and used throughout the company. Injuries, illnesses and near misses are investigated and reported as soon as possible after they occur. Serious and potentially serious incidents require immediate action, and deeper investigation by the investigation tool 8D is mandatory. This investigation is conducted by the Safety Engineer.

The Green Cross

The Green Cross (GC) tool provides a visual means for following up workplace injuries. This is based on the instructions detailed in our ‘Work Environment Incident Reporting Investigation’ document. The tool consists of a cross, divided into 31 squares corresponding to the days in a month, and a map of the work area. Work injuries per day are marked on the cross. Locations of work injuries and near misses are marked on the map.

The intention is to show at a glance the number of accidents and near misses at a unit. The tool can be used at all levels and departments within the unit. The overall purpose is to ensure that the risk of workplace injuries is minimised through investigations, preventive actions and reporting. The tool can be used by all units within Volvo Cars.

Unit managers decide where the tool is to be implemented within their units and are responsible for implementation and ensuring that the tool is used in accordance with the instructions. Managers at this level who have decided to use the Green Cross are responsible for keeping the tool updated and for following up measures and results. The status of incident reports (number of incidents, number of open and closed investigations) is tracked at daily or weekly Green Cross meetings and/or once a month as a Key Performance Indicator.

All open incident investigations must be kept available close to the map of the work area. Investigations may not be removed and filed until they have been closed. Closed workplace injury/ near miss investigations must be managed in accordance with the instructions.

Global People Survey measures

Diversity and harassment issues are followed up in accordance with our annual employee survey, the Global People Survey (GPS). The GPS includes important measurements and is used as a key indicator to track our progress towards reaching our aspirated culture and key objectives, including being an Employer of Choice.

In previous years, the annual employee survey was called the Volvo Attitude Survey, and the Employee Satisfaction Index (ESI) was used to measure employee satisfaction. In 2011, the survey was renamed the Global People Survey and Volvo Cars shifted from measuring satisfaction among the employees to focusing on employee engagement. The reason for this shift from satisfaction to engagement is that we want to set goals and measure how we perform in relation to our aspirated culture, which is characterised by engagement. Engagement is measured by aspects such as energy and clarity. 'Energy' stands for 'Motivated, proud employees who are enthusiastic about work and the employer' while 'Clarity' stands for 'Employees see the link between corporate goals and individual goals, and understand how they contribute'.

The Net Promoter Score (NPS) has been used for several years. It measures the number of ambassadors within the organisation by asking the question ‘How likely is it that you would recommend Volvo Cars to a friend as a place to work?’ In previous years, the NPS has been reported as a global value, but in 2011 Volvo Cars has chosen to report this value internally per department and at the same time make the result transparent to the whole organisation. In addition to a quantitative answer, each employee gets the opportunity to add a free text comment to motivate their answers. This gives us important information on how we can improve our internal employer brand status.

Key successes and shortcomings

Sick leave among Volvo Cars’ employees in Sweden and Belgium has been falling slowly but steadily over the past few years. In 2010 and 2011 we recorded the all-time low figure of 4.4% sickness absenteeism.

We will also continue to monitor work-related accidents carefully and to follow up all injuries, working to achieve improvement and avoid future occurrences. In 2011, we reached a result of 0.7 LTCR (the number of injuries resulting in at least one day of sick leave per 200,000 hours worked).

Diversity issues have a high priority at Volvo Cars. There is a trend towards better gender balance in leading positions, with the proportion of women in leadership positions increasing from 12% in 2002 to 21% by the end of 2011. The new diversity plans were implemented in 2010 (valid for 2010–2012) and included a series of activities to accelerate progress towards increased diversity and to utilise the diversity within the company. For example, an extensive training programme for managers started in 2010 and will continue during 2011 and early 2012. The diversity and inclusion index was implemented in the attitude survey 2010 and will give measures on both diversity and inclusion.

Management approach

Human rights

Goals and performance

The Volvo Cars Scorecard, which presents our performance relating to our key performance indicators, is shown at the very beginning of our GRI Report as well as at www.volvocars.com/sustainability.

Volvo Cars is aware of its social responsibility and strives always to combine business advantages with social and environmental responsibility. Respecting and honouring human rights are an important part of Volvos Cars and its operations. The provisions and guidelines on human rights found in Volvo Cars’ Code of Conduct, which guides the operations of Volvo Cars, are also expected to be followed by Volvo Cars’ suppliers and dealers, as well as all other representatives that conduct business on behalf of the company.

During 2011, Volvo Cars developed our first Code of Conduct as a standalone company. The code sets forth the guiding principles of all Volvo Cars’ employees, all suppliers the company does business with, all dealers that sell the products of Volvo Cars as well as all other representatives that conduct business on behalf of the company. The Code of Conduct was approved by the Board on 22 February 2011 and is available on www.volvocars.com/sustainability. Volvo Cars also developed its Code of Conduct Handbook containing ethical guidelines for its employees, which was launched in February 2012. The new Volvo Cars Code of Conduct summarises the company’s most fundamental values and rules that apply generally to our global operations. The Code of Conduct rests on international conventions for human rights and labour rights as well as international guidelines for multinational companies.

More specifically the Code of Conduct is set out to comply with the following conventions, laws and guidelines:

• The eight core conventions of the UN agency the International Labour Organisation: Child Labour (138 and 182), Forced Labour and Compulsory Labour (29 and 105), Equal Remuneration and Discrimination (100 and 111), Freedom of Association and Collective Bargaining (87 and 98)

• The ten principles of the Global Compact

• The Universal Declaration of Human Rights

• UN Convention on the Rights of the Child

• OECD guidelines for multinational companies
Diversity and equal opportunity
Volvo Cars recognises diversity and inclusion as crucial for success and is committed to equal opportunity in employment. We believe in people and embrace differences and experiences. Our hiring policies and practices require that there be no discrimination because of gender, ethnicity, religion or other belief, political opinion, disability, sexual orientation, age or other characteristics protected by applicable law. One important principle in our commitment to having a diverse and inclusive workplace is the Company's zero tolerance of harassment. Victims of sexual harassment may report the issue via email through the company’s Supplier Portal. During 2011 Volvo Cars communicated its new Code of Conduct to all employees during 2011. The company also communicated the new Code of Conduct and the company’s revised Supplier Code to all employees as well as for suppliers, dealers and other business partners.

Frederiksvaer, September 2011
The company reserves the right to conduct an audit on advance written notice to all units producing goods or services for Volvo Cars, at any time. The company also reserves the right to appoint an independent third party of its choice to conduct audits in order to evaluate compliance with Purchasing Terms & Conditions, the Company’s Social Responsibility web guide and our Code of Conduct. During 2011 Volvo Cars has developed a pilot audit project based on the company’s new country risk segmentation model. The project will be launched in the first half of 2012, and suppliers will be followed up on a range of areas, including human rights. The outcome of the pilot project will inform the future development of Volvo Cars Purchasing Department’s strategic work with audits.

Another project which Volvo Cars has focused on during 2011 is developing a strategic process for self-assessment of, for example, human rights, for the company’s suppliers.

Volvo Cars has a well established process to report a so-called ‘unusual event’ (a situation that appears to violate the company’s ethical guidelines) to ensure that incidents that violate the Code of Conduct are reported without fear of reprisal. All employees of Volvo Cars have a responsibility and are expected to report any non-compliance with the Code of Conduct to the appropriate representative within the company, i.e., Human Resources, Internal Control, Legal Department or Security Department. On Volvo Cars’ Intranet there is an Incident Reporting Tool available for reporting of unusual events and non-compliance. Volvo Cars has a policy of non-retaliation, which implies that retaliation is forbidden towards any employee who raises an issue in good faith, or who cooperates in a company investigation of an issue. All employees have the right to report any non-compliance anonymously. Suppliers are also able to contact Volvo Cars on sustainability and responsibility issues via email through the company's Supplier Portal. During 2011 Volvo Cars started the process of developing an external whistle-blowing function for employees as well as for suppliers, dealers and other business partners.

Responsibility and implementation
Volvo Cars communicated its new Code of Conduct to all employees during 2011. The company also communicated the new Code of Conduct and the company’s requirement and expectations to its suppliers during the year. Volvo Cars is also a part of a collaboration with other automakers to seek a common approach to working conditions and human rights in the automotive supply chain and the company did, for example, conduct training of its suppliers in India and Turkey during 2011.

All personnel must know and comply with all company directives and legal requirements related to their work. However, governing law, labour contracts, and the application of special directives can vary around the world. For that reason separate regulations may apply that are specific for a country or region. If local law or labour contracts conflict with company directives, then local law and labour contracts take priority. When necessary and appropriate, Volvo Cars establishes and complies with standards of our own, which may go beyond legal requirements. If national or international law, industry standards and this code address the same subject, the stricter regulation shall apply.
Organisational responsibility
The Senior Vice President Purchasing is responsible for supporting and managing social responsibility and environmental issues related to the supply chain. The Senior Vice President Human Resources is responsible for human rights issues concerning employees.

Training and awareness and monitoring and follow-up
A web-based compliance training programme was introduced in May 2011. The programme included a training module on the topic ‘Combating bribery in Business’. This training, which was mandatory for all white-collar employees, aimed to give employees insight and practical examples regarding corruption prevention. By the end of March 2012, more than 8,200 Volvo Car employees had completed the training. In addition to the web-based training, classroom training was provided to all employees in China covering the various aspects of the Code of Conduct, including a brief introduction to the Code of Conduct Handbook.

In 2011 and 2012, training was conducted in Corporate Social Responsibility, sustainability and the Global Compact for the entire Volvo Cars Purchasing department. The purpose of this training is to raise awareness of social responsibility and human rights in general and more specifically in relation to Volvo Cars’ supply chain, as well as to increase employees’ risk awareness within the area. A total of 10 training sessions for the Purchasing Department have taken place in the following locations: Gothenburg (7), Prague (audio/WebEx) (1), Ghent (audio/WebEx) (1) and Shanghai (January 2012) (1). In 2011, 400 employees in the Purchasing Department were trained, representing approximately 80% of the department’s staff. Material from the training has also been distributed to all staff in the Purchasing Department. Volvo Cars will continue to inform and train employees within the department on our work procedures regarding human rights and supply chain in accordance with set strategies.

Management approach
Society
Previously Volvo Cars followed Ford Motor Company’s Code of Conduct including its underlying policies. In February 2011 Volvo Cars’ Code of Conduct was introduced and adopted by the Board of Directors. The Code of Conduct is a policy documents that outlines what Volvo Cars stands for as a company. It also summarises the major company directives and instructions that apply generally to our global operations.

Goals and performance
The Volvo Cars Scorecard, which presents our performance relating to our key performance indicators, is shown at the very beginning of our GRI Report as well as is available to all employees both on the intranet and on www.volvocars.com/sustainability.

Policies
Bribery and corruption
In 2011, we implemented the Volvo Cars Code of Conduct, which includes the company’s policy regarding bribery and corruption and details the rules governing what gifts an employee may accept. The Code of Conduct, which also deals with antitrust laws and equal competition as well as community involvement and non-compliance, is available to all employees both on the intranet and on www.volvocars.com/sustainability. The company’s ethical values are captured in one sentence: ‘Integrity is never compromised’. During 2011 the company worked on developing a more detailed and comprehensive Code of Conduct handbook for employees, with guidelines on what is expected and required of all employees while they work for Volvo Cars. Parts of the handbook focus on integrity, especially with regard to relations with governments, business relations and the use of company information. The Volvo Cars Code of Conduct handbook was launched to all employees of the company in February 2012.

Public policy
Volvo Cars does not have a formal policy on public policy development or lobbying, but its Code of Conduct, states that the name of the company shall not be used in political campaigns or for the benefit of a specific political interest. In our dialogues with various stakeholders, Volvo Cars does not differentiate between authorities and other type of organisations, but acts in the same way to establish access to politicians, authorities and institutions.

Stakeholder dialogues
Our most important stakeholders are our customers, employees, suppliers and dealers, our owner the (Zhejiang Geely Holding Group), and the communities in which we operate. Public agencies, non-governmental organisations (NGOs) and other interests that influence market structures are also important in this context. Volvo Cars maintains relationships with various stakeholders that influence or are influenced by our operations. Each of these groups presents a special responsibility and our aim is to be, and to be perceived as, a responsible player in all of our relationships.

We believe in dialogue with others and therefore participate in various networks, seminars and conferences to hear the views of others and to inform them about our work. We also encourage interested parties to contact us through, for example, our website at www.volvocars.com/sustainability or by email to citizen@volvocars.com.

The main objectives of our stakeholder dialogues are to:
- obtain a better understanding of how stakeholders in a given region see sustainability issues evolving over the next 15 years and how this may affect the automotive sector and Volvo Cars,
- obtain external views on the future of different sustainability issues,
- build new relationships between Volvo Cars and leading opinion-makers.

Volvo Cars is represented in a large number of groups and organisations pursuing or monitoring various issues at local, regional and national levels. We also monitor developments within the EU through our presence in Brussels. For Volvo Cars, sustainability reporting is a way of demonstrating transparency and engaging in dialogue with stakeholders. The reporting process provides an annual opportunity for discussion, evaluation and reflection, supporting our efforts to develop our business sustainably.

Organisational responsibility
The most senior position responsible for policies and procedures related to corruption, anti-competitive behaviour and legal compliance is the Senior Vice President General Counsel. The most senior position responsible for public policy is the Senior Vice President Public Affairs.

Training and awareness
A web-based compliance training programme was introduced during 2011. The programme included a module on the topic ‘Combating bribery in Business’. This training, which was mandatory for all white-collar employees, gives employees insight and practical examples regarding corruption prevention. In addition to the web-based training, classroom training courses were held for all employees in China covering the various aspects of the Code of Conduct, including a brief introduction to the Code of Conduct Handbook. The anti-bribery training course was the first one in a series of three courses in the current compliance training programme which will be conducted during 2011-2012. The other two courses are on Competition Law and Volvo Cars’ Code of Conduct. The compliance training programme will continue after the first three courses, and employees will undergo annual training on issues of corruption prevention, Code of Conduct and similar topics as needs are identified.

Monitoring and follow-up
The company’s Code of Conduct includes policies on bribery and corruption, and public policy. A web-based compliance training programme was introduced during 2011 and during the year all white-collar employees underwent training on bribery prevention. The compliance training programme will continue and all employees will undergo annual training courses on issues such as bribery and corruption, anti-competitive behaviour and compliance. These courses also give details as of who policy violations should be reported to. In addition, Volvo Cars has a well established process to report a so-called ‘unusual event’ to ensure that all incidents are reported without fear of reprisal. Suppliers are also able to contact Volvo Cars on sustainability and responsibility issues by email through the company’s Supplier Portal.

During 2011 Volvo Cars started the process of developing an external ‘whistle-blowing’ function (for employees as well as for suppliers, dealers and other business partners).
Management Approach
Product responsibility

Goals and performance
The Volvo Cars Scorecard, which presents our performance relating to our key performance indicators, is shown at the very beginning of our GRI Report as well as at www.volvocars.com/sustainability.

Product responsibility is shared operationally between Research & Development and Quality. Company policies stipulate the company’s responsibility to ensure adherence to procedures. Volvo Cars’ goal relating to product safety is that in 2020, no one will be killed or injured in a new Volvo.

Quality
Quality is one of six focus areas for Volvo Cars, with the aim of becoming a top tier luxury brand. A new Quality Policy for Volvo Cars has been decided, adherence to this policy will assure that we continuously strive to provide our customers with premium products and services of the highest quality, ensuring sustainable success.

‘Quality Transformation’
Volvo Cars is currently in the midst of a major change process for quality. The aim with ‘Quality Transformation’ is to increase awareness of quality and to make this issue a general concern for everyone. The objective is as simple as difficult: Volvo Cars shall deliver much higher quality, for its cars and at every stage of customer service as well as for all internal deliveries.

‘Quality Transformation’ is the biggest quality-improvement program in the company's history. It is a company-wide initiative to raise the quality of the company's operational performance, both internally and externally. The Quality department has established 14 high-priority areas which together cover most of the company’s operations; from product planning to aftermarket.

Safety policy
‘Cars are driven by people’. The guiding principle behind everything we make at Volvo, therefore, is and must remain: safety. This is our heritage and guiding principle for the future.

Safety is one of the core values of Volvo Cars and one of the fundamentals in the corporate strategy ‘Designed Around You’. Our mission is to strengthen our commitment to and maintain leadership in safety by achieving top performance, in real life situations as well as in official safety ratings.

The safety policy states that we should provide our customers with the highest level of safety and maintain our leadership in safety in the car industry. Safety is one of Volvo Cars’ core values. We work hard to stay at the forefront of the industry by taking an overall approach to safety, which has proven effective to the customer in real traffic situations. We consider numerous aspects of safety and develop them continuously. We created intelligent and innovative solutions aimed at preventing accidents and reducing the consequences when they nonetheless occur. Our strategy includes a comprehensive dialogue with several stakeholder groups in society. We choose to cooperate with the best partners possible when it comes to academic institutions and we maintain a very close dialogue with local authorities around the world.

All cars, accessories and relevant services must not only meet, but exceed, our customers’ expectations when it comes to safety. Our broad in-depth knowledge is the foundation of our development efforts and derives from real traffic situations. We gain our knowledge from both internal and external sources, and apply it to develop advanced and intelligent systems. The objective is to warn drivers of potential accidents and to take action when drivers are not able to. Our know-how also allows us to effectively develop robust and protective designs.

Organisational responsibility
The Senior Vice President Marketing Sales and Service is the most senior position responsible for product and service labelling, marketing sales and service and for marketing communications. The most senior position responsible for customer privacy and legal compliance is the Senior Vice President General Counsel.

Research, training and awareness
To fully understand what makes accidents happen in the first place, Volvo Cars conducts internal and external research projects like the EuroFOT, DRIVE C2X and SAFER, EuroFOT (Field Operational Tests) and DRIVE C2X are examples of projects conducted together with other actors from the automotive industry, while SAFER is a project at Chalmers University of Technology.

In EuroFOT, about 100 Volvo V70 and XC70 cars are equipped with cameras and computers to monitor the driver’s behaviour in order to gain more knowledge about how we react as human beings in complex traffic situations. DRIVE C2X focuses on communication among vehicles (C2C) and between vehicles, a roadside and backend infrastructure system (C2I).

Volvo Cars’ cooperation with Chalmers University of Technology has the aim of sharing our own knowledge about car safety issues and creating a forum where we can gain knowledge ourselves. The platform called SAFER is a place where different stakeholders can channel research issues relating to safety as well as obtain further qualifications within safety research. People from Volvo Cars as well as students, researchers and teachers meet to discuss safety issues at an academic level. External competence development campaigns are also directed towards our dealers and we organise seminars and lectures on how we work with safety issues for journalists and governmental authorities.

Monitoring and follow-up
The customer can monitor our cars’ safety performance in various ways. Three different independent rating programmes help provide the customer with safety information – crash performance based on crash testing and executed by rating institute, field ratings based on real-life accidents, for example provided by insurance companies, and evaluations based on expert opinions.

The Volvo way of working is to enhance and evolve traffic safety based on knowledge and facts about the human being in real traffic situations and to understand how and why the different situations occur. Our own Traffic Accident Research team, established in 1970, has collected accident data from more than 40,000 accidents in Volvo cars in Sweden – valuable information that is applied when designing new Volvo cars. Performing accident reconstructions in our state-of-the-art crash laboratory gives us unique knowledge for further development.

Close collaboration with the Swedish insurance company Volvia also helps provide detailed information about incidents and the outcome of accidents with Volvo cars in Sweden. One of the most important components of our successful safety work is our continuous work process which starts and ends in the real traffic environment.

Knowledge based on holistic view of safety
Our safety philosophy is characterised by a human-centric, holistic view. Safety offers are created in an intelligent and innovative way, enhancing people’s wellbeing by helping to prevent collisions and reduce the consequences when collisions are unavoidable.

Road safety is a product of the road user, together with vehicle characteristics and the traffic infrastructure such as roads, roundabouts, traffic lights and separating roads for motor vehicles, cyclists and pedestrians. Our broad in-depth knowledge gained from both internal and external sources based on real traffic situations forms the foundation of our development. Many of the safety systems presented over the years build on know-how gained from the work carried out for over 40 years by Volvo Cars Accident Research Team by documenting, analysing and reconstructing traffic incidents and accidents involving Volvo cars in Sweden.

Our work to improve vehicle safety is carried out in five phases from normal driving to after collision. These five phases are Normal driving, Conflict, Avoidance, Crash and After collision and are shown in figure, page 39.

Volvo Car Corporation – GRI Report 2011
Economic performance

EC1 Direct economic value generated and distributed

Volvo Cars saw growth in all sales regions during 2011. Retail sales increased by 20.3% to 449,255 units over full year 2010. China showed the largest increase with 54.4% over 2010, North America grew by 22.5%, the Nordic region by 13.3%, Europe by 13.1% and the Overseas region by 35.7% compared to 2010. Market shares improved in all regions. Improved sales are mainly driven by strong demand for the 60-series; the Volvo S60 and V60 together with the XC60 crossover. Sales of the low-CO₂ DRIVe models continue to boost sales in Europe. The year 2020 global sales target is 800 000 sales and the growth plan for the Chinese market is vital to achieve this goal.

**EC1 TOTAL SALES, REVENUES AND EARNINGS BEFORE INTEREST AND TAX**

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total sales (retail deliveries)</td>
<td>449,255</td>
</tr>
<tr>
<td>Revenue (BSEK)</td>
<td>129.5</td>
</tr>
<tr>
<td>Earnings before interest and taxes (MSEK)</td>
<td>1,636</td>
</tr>
</tbody>
</table>

Financial Reporting Structure

The financial statements reflect Volvo Car Group defined as Volvo Car Corporation, its parent company and all subsidiaries. This includes all national sales companies including China, Volvo China Investment Co Ltd, and Volvo Cars Technology Shanghai. Minority interests, such as the manufacturing operations in China, are reflected according to the ownership stake in the business.

Accounting principle

Volvo Car Corporation has transitioned to IFRS accounting principles, with full implementation as of 2012. As a consequence, results are not fully comparable with the operating EBIT announced historically. In prior communication, the operating results excluded special items, adjustments according to IFRS such as capitalization requirements and purchase price adjustments.

For a more detailed financial report, please visit our webpage where the Financial Report 2011 can be downloaded.

EC2 Financial implications and other risks and opportunities for the organisation’s activities due to climate change

Climate change is one of the greatest threats to our planet. It has an impact on society and the natural environment. It is clear that anthropogenic emissions of greenhouse gases must be drastically reduced. Currently, some 24% of global anthropogenic greenhouse gas emissions come from transport. About half of these are from road transport (according to the IEA and the OECD). To be environmentally sustainable, the vehicles of the future will have to be very efficient and capable of running on renewable fuels.

Responding to the challenges of climate change is fundamental to Volvo Cars. The question is given highest priority and is addressed at the senior governance level. Reducing energy consumption and the dependence on fossil fuels is critical to the company’s survival.

For Volvo Cars, there are a number of different dimensions to the issue. Increased awareness and concern among consumers about human-induced climate change, combined with rising fuel prices, has led to greater consumer interest in more fuel-efficient vehicles. Another aspect is the increased demands from decision-makers, with the EU regulations limiting emissions from new cars to no more than 130 g CO₂ per kilometre from 2015, with phase-in requirements from 2012. It is not easy to estimate the future effects and total financial impact on Volvo Cars as a consequence of the changing markets, but the company is prepared to take on the challenge of developing new, efficient techniques. Potential economic risks to our business operations, affecting profitability, include increased raw material prices, rising oil prices and currency exchange fluctuations.

Limiting CO₂ emissions and curbing climate change is a tough challenge, not least for the automotive industry and a company like Volvo Cars. However, we are determined to meet this challenge and we also expect other key players to contribute. Although our environmental improvements and efforts to reduce climate impact focus mainly on vehicle development, they also encompass the environmental effects of our production facilities and logistics flows. Limiting climate change and making the best possible use of the Earth’s resources will require innovative cooperation between all stakeholders – nationally and internationally. Climate change therefore poses a major challenge but also a great opportunity for technical development. We have a long tradition of developing systems and functions for our cars that have benefited society in general. The Lambda sensor (a three-way catalytic converter) and the three-point seat belt are Volvo Cars inventions that have become standard in cars worldwide.

Sustainable mobility can be defined as the ability to meet the needs of society to move freely, gain access, communicate, trade and establish relationships without sacrificing other essential human or ecological values today or in the future. At Volvo Cars we take the view that mobility should not be achieved at the expense of the environment or other social values. We include safety in our definition of sustainable mobility and our overriding objective is to develop cars that are both safe and environmentally sound.

Environmental performance

EN1 Materials used by weight or volume

Our material usage is determined by the design requirements for each and every part in our cars. We use the global Restricted Substance Management Standard (RSMS) to prohibit substances toxic to human health or the environment. In addition to supplier reporting whereby the material content of all parts is detailed on a data sheet, dismantled parts are studied.

One of the overall goals in our work with product material is to reduce the total vehicle weight, partly because this lowers fuel consumption and gives a reduction of the overall CO₂ emissions when the vehicle is in use. In this work, increased use of lightweight metals and composites materials is one approach.

The long-term strategy for reducing material intensity within the operations is to increase the amount of sustainable material; in other words renewable and recycled content.

A Volvo car, model S80, basically consists of the materials shown in tables EN1:1 and EN1:2.

**EN1:1 COMPOSITION OF A VOLVO S80 (KG)**

<table>
<thead>
<tr>
<th>Material Type</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total weight without fuel</td>
<td>1,661</td>
</tr>
<tr>
<td>Metals</td>
<td>1,258</td>
</tr>
<tr>
<td>Thermoplastic resin</td>
<td>183</td>
</tr>
<tr>
<td>Thermosetting resin</td>
<td>33</td>
</tr>
<tr>
<td>Elastomer</td>
<td>70</td>
</tr>
<tr>
<td>Glass fibre</td>
<td>42</td>
</tr>
<tr>
<td>Liquids</td>
<td>36</td>
</tr>
<tr>
<td>Other</td>
<td>39</td>
</tr>
</tbody>
</table>

**EN1:2 COMPOSITION OF METALS OF A VOLVO S80 (KG)**

<table>
<thead>
<tr>
<th>Metal</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al</td>
<td>167</td>
</tr>
<tr>
<td>Mg</td>
<td>7</td>
</tr>
<tr>
<td>Fe</td>
<td>1,040</td>
</tr>
<tr>
<td>Cu</td>
<td>27</td>
</tr>
<tr>
<td>Zn</td>
<td>25</td>
</tr>
<tr>
<td>Pb</td>
<td>18</td>
</tr>
</tbody>
</table>
EN2 Percentage of recycled input materials

Recycled input materials are divided into metallic and non-metallic materials. A Volvo S80 consists of 16 kg recycled non-metallic materials (such as post-industrial plastics in wheel arch liners, the engine cover and sound absorbers).

EN3 Direct energy consumption by primary energy source

In our direct energy consumption, we use energy in the form of natural gas, diesel oil and petrol for direct production purposes. This energy is used to power machines, computers, lighting, tools, ovens and other equipment. Our indirect energy consumption is through purchased electricity and district heating for our facilities.

Volvo Cars has an overall target to continuously reduce our total energy consumption by working systematically on the energy issue. Centrally, we have an expert working solely on Volvo Cars’ energy and climate change related issues. In addition, at each local site one person has been given responsibility for energy issues, coordinating all activities relating to energy use.

An inventory of energy use has been performed at most Volvo Cars buildings and operational processes, as an important step towards reducing energy consumption. To reach this level, remedial programmes have been performed at several sites and information campaigns have been held to educate employees on the importance of energy saving and efficiency. Check lists are to be used at team level, clarifying when and how to turn the various pieces of equipment on and off.

Our aim is to be climate-neutral, and we are getting closer to this goal every year. All the electricity bought and used by Volvo Cars in Europe originates from certified hydropower. Heating at large origins from waste heat and biofuel via district heating. The remaining usage consists of natural gas/liquefied petroleum gas (LP) that is mainly used for the painting furnaces. The transition from LP and natural gas to biogas is planned to take place as soon as possible but at present there are no suppliers that can deliver the quantities we need.

During 2011, the total energy consumption from direct and indirect energy use decreased. Energy purchased for own consumption can mainly be linked to more intensive vehicle production and Volvo Cars’ increased number of produced and sold vehicles. The energy consumption per vehicle fell to 1.30 MWh/vehicle in 2011, compared to 1.61 MWh/vehicle in 2010.

EN3.1(2) ENERGY CONSUMPTION IN VOLVO CARS’ WHOLLY OWNED PLANTS (DIRECT AND INDIRECT - MWH)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>854,936</td>
<td>861,121</td>
<td>713,379</td>
<td>816,581</td>
<td>918,569</td>
</tr>
<tr>
<td>Other indirect energy consumption, electricity and district heating account for</td>
<td>455,687</td>
<td>488,781</td>
<td>429,204</td>
<td>497,458</td>
<td>571,080</td>
</tr>
</tbody>
</table>

EN3.2 DIRECT ENERGY CONSUMPTION IN VOLVO CARS’ WHOLLY OWNED PLANTS BY SOURCE (%)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Natural gas</td>
<td>98</td>
<td>94</td>
<td>95</td>
<td>95</td>
<td>97</td>
</tr>
<tr>
<td>Oil/diesel/petrol</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Renewables (biomass)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Renewables (non-biomass)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Other/Unspecified</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

(1) The Volvo Cars facilities included in the data are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium), Kuala Lumpur (Malaysia), Volvo Cars Skövde – Engines (Skövde, Sweden), Volvo Cars Floby (Floby, Sweden) and Volvo Cars Olofström – Body Components (Olofström, Sweden).

EN4 Indirect energy consumption by primary energy source

There are various ways of describing the primary energy source of the electricity purchased in a given country during a certain period. The European electricity grid is interconnected and all electric power generated is delivered to the same network. Therefore, it is impossible to say where an individual kilowatt-hour is generated, but by demanding certified renewable energy from electricity providers, Volvo Cars encourages the move towards greater renewable energy production. All the electricity bought and used by Volvo Cars in Europe is certified hydropowered electricity.

In Malaysia, we assume that 100% of our electricity is generated from coal. These assumptions provide a sufficiently accurate reflection of how the electricity we use is generated.

In 2011, the company’s consumption of purchased electricity was higher than the previous year. Considering our increased production, the energy consumption has not increased proportionally. This shows that the energy-saving and efficiency processes taking place at our facilities are yielding results.

EN4.1 INDIRECT ENERGY CONSUMPTION, DISTRICT HEATING BY PRIMARY ENERGY SOURCE (MWH)

<table>
<thead>
<tr>
<th>Primary energy source</th>
<th>2011</th>
<th>2010</th>
<th>2009</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste heat</td>
<td>62,392</td>
<td>77,695</td>
<td>40,844</td>
<td>47,597</td>
</tr>
<tr>
<td>Biofuels</td>
<td>12,233</td>
<td>12,163</td>
<td>11,597</td>
<td>10,399</td>
</tr>
<tr>
<td>Fossil fuels + electricity</td>
<td>15,169</td>
<td>20,889</td>
<td>11,980</td>
<td>11,291</td>
</tr>
<tr>
<td>Total</td>
<td>89,794</td>
<td>115,793</td>
<td>64,421</td>
<td>69,287</td>
</tr>
</tbody>
</table>

(1) The Volvo Cars facilities included in the data are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium), Kuala Lumpur (Malaysia), Volvo Cars Skövde – Engines (Skövde, Sweden), Volvo Cars Floby (Floby, Sweden) and Volvo Cars Olofström – Body Components (Olofström, Sweden).

EN4.2 INDIRECT ENERGY CONSUMPTION, ELECTRICITY BY PRIMARY ENERGY SOURCE (MWH)

<table>
<thead>
<tr>
<th>Primary energy source</th>
<th>2011</th>
<th>2010</th>
<th>2009</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuclear power</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hydro power</td>
<td>424,128</td>
<td>365,886</td>
<td>361,886</td>
<td>422,777</td>
</tr>
<tr>
<td>Wind power</td>
<td>1,409</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Condensing coal-fired plants</td>
<td>5,093</td>
<td>4,122</td>
<td>2,797</td>
<td>5,834</td>
</tr>
<tr>
<td>Total</td>
<td>434,270</td>
<td>370,988</td>
<td>364,783</td>
<td>428,171</td>
</tr>
</tbody>
</table>

(1) The Volvo Cars facilities included in the data are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium), Kuala Lumpur (Malaysia), Volvo Cars Skövde – Engines (Skövde, Sweden), Volvo Cars Floby (Floby, Sweden) and Volvo Cars Olofström – Body Components (Olofström, Sweden).
EN8 Total water withdrawal by source

Volvo Cars has long worked in a targeted manner to reduce the company’s emissions to water and is endeavouring to be the leader in the automotive industry. Since 2010, the environmental protection department has been working on adapting the Global Water Footprint method for the automotive industry, to gain a comprehensive picture of Volvo Cars’ impact on water. The Global Water Footprint method is used to calculate Volvo Cars’ water footprint. Water management is divided into two areas: The grey water footprint, meaning the quantity of water released from plants; and the blue water footprint, meaning the quantity of water used in production.

EN8 WATER CONSUMPTION IN VOLVO CARS MANUFACTURING PLANTS

<table>
<thead>
<tr>
<th>Year</th>
<th>Water consumption (m³)</th>
<th>Water consumption m³/vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>662,000</td>
<td>1,5</td>
</tr>
<tr>
<td>2010</td>
<td>549,000</td>
<td>1,5</td>
</tr>
</tbody>
</table>

1) Manufacturing plants are Volvo Cars Torslanda, Volvo Cars Ghent and Malaysia.

2) Water consumption/vehicle is based on the number of produced cars in manufacturing plants.

EN9 Location and size of land owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside protected areas

Volvo Cars has manufacturing facilities in three countries on two continents. Volvo cars are also produced at Changan Ford Mazda Automobile Company Ltd, Ford Motor Company’s passenger-car joint venture in Chongqing, China.

Conservation International, an environmental organisation based in Washington DC, has developed a list of global biodiversity hotspots1. One of our plants is located in such an area, the Swedish motor Assemblies SDN BHD in Kuala Lumpur, Malaysia in the Sundaland Hotspot. This hotspot is quite large, extending over 1.5 million square km. The other plants are located in the proximity of Natura 2000 areas.

As with all our plants, the Malaysian operation is located at traditional industrial sites in or in close proximity to urban areas. All of our plants have implemented environmental management systems in accordance with ISO 14001. In this process, all of our operations have been inspected in terms of their impact on the environment. Based on this, we have concluded that there are no individual substances or material used in our processes or products that present a direct threat to any individual species or type of biota.

EN10 Biodiversity

<table>
<thead>
<tr>
<th>Operational plant sites</th>
<th>Plant size (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volvo Cars Ghent Plant, Ghent, Belgium</td>
<td>227,928</td>
</tr>
<tr>
<td>Swedish Motor Assemblies SDN BHD, Kuala Lumpur, Malaysia</td>
<td>25,541</td>
</tr>
<tr>
<td>Volvo Cars Torslanda Plant, Gothenburg, Sweden</td>
<td>372,542</td>
</tr>
<tr>
<td>Volvo Cars Skövde – Engines, Skövde, Sweden</td>
<td>112,003</td>
</tr>
<tr>
<td>Volvo Cars Floby, Floby, Sweden</td>
<td>21,999</td>
</tr>
<tr>
<td>Volvo Cars Olofström – Body Components, Olofström, Sweden</td>
<td>245,939</td>
</tr>
</tbody>
</table>

EN11 Total direct and indirect greenhouse gas emissions by weight

Volvo Cars has an overall target to continuously reduce our total energy consumption and our aim is to become climate-neutral. This is done by systematic work on the energy issue; please see EN3 and EN4.

We report direct and indirect emissions of CO₂. Indirect emissions are estimated based on our primary energy sources for the countries in which we operate, as described under EN4. During 2011, our total emissions of greenhouse gases decreased compared with the previous year. We continue to focus on our energy management, conducting energy inventories, saving and efficiency processes as described in EN3–4. Greenhouse gases also include CH₄, N₂O, HFCs, PFCs and SF₆. Of these, Volvo Cars only emits minor quantities of HFCs – the biggest source of HFCs being the cooling equipment.

EN12 Estimated direct and indirect emissions of CO₂ in car production

<table>
<thead>
<tr>
<th>Year</th>
<th>Emissions of CO₂ from electricity (tonne)</th>
<th>Emissions of CO₂ from hydrocarbon fuels (tonne)</th>
<th>Total emissions of CO₂ (tonne)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>59,508</td>
<td>4,287</td>
<td>63,795</td>
</tr>
<tr>
<td>2009</td>
<td>53,169</td>
<td>5,705</td>
<td>58,874</td>
</tr>
<tr>
<td>2008</td>
<td>60,578</td>
<td>3,941</td>
<td>64,519</td>
</tr>
<tr>
<td>2007</td>
<td>62,558</td>
<td>4,381</td>
<td>66,939</td>
</tr>
</tbody>
</table>

1) The Volvo Cars facilities included in the data are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium), Kuala Lumpur (Malaysia), Volvo Cars Skövde – Engines (Skövde, Sweden), Volvo Cars Floby (Floby, Sweden) and Volvo Cars Olofström – Body Components (Olofström, Sweden).

2) The primary energy source for electricity in Europe is hydropower, which is climate neutral, while the primary energy source in Malaysia is assumed to be coal (720 kg CO₂/MWh).

EN13 Stocks of ozone-depleting substances in EU

<table>
<thead>
<tr>
<th>Year</th>
<th>HCFCs (kg)</th>
<th>CFC equivalent (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>385</td>
<td>462</td>
</tr>
<tr>
<td>2010</td>
<td>441</td>
<td>517</td>
</tr>
<tr>
<td>2009</td>
<td>496</td>
<td>595</td>
</tr>
<tr>
<td>2008</td>
<td>588</td>
<td>705</td>
</tr>
<tr>
<td>2007</td>
<td>676</td>
<td>811</td>
</tr>
</tbody>
</table>

EN14 Emissions of ozone-depleting substances by weight

In the EU, we do not use CFCs in any application, although HCFCs are used to some extent in air conditioning systems. However, these are also to be phased out and we intend to successively introduce completely chlorine-free alternatives as systems are refilled. Since 2002, no new systems have been filled with HCFCs in Sweden. The actual quantities of HCFCs in stock, converted to CFC-11 equivalents, are shown in the table below.

EN15 NOₓ, SOₓ and other significant air emissions by type and weight

NOₓ, SOₓ

Our plants produce emissions of sulphur oxides (SOₓ) and nitrogen oxides (NOₓ). Emissions of sulphur oxides have been reduced significantly over a long period, mainly as a result of our changeover from oil to district heating and gas. The improvement is also due, in part, to the use of cleaner fuel oils at those locations where oil is still used for heating purposes. Emissions of nitrogen oxides are a function not of fuel quality but mainly of combustion temperature. High combustion temperatures generally yield low emissions of CO and VOC, although the opposite is true of nitrogen oxides. (This is the situation in the paint shop in order to reduce the level of CO and VOC. All other combustions are at boiler houses and they are function not of fuel quality but mainly of combustion temperature.) The NOₓ emissions are calculated based on the quantity of fuel. Spot tests are also performed. SOₓ emissions are calculated on the basis of the sulphur content in the fuel. See Table EN20 for Emissions of SOₓ and NOₓ 2007–2011.

Volatile organic compounds (VOC)

Our plants produce emissions of volatile hydrocarbons (VOC). Hydrocarbon emissions are caused mainly by painting operations. Since it was commissioned in 1991, the Torslanda paint shop has proved to be one of the very best in the world in terms of minimising the quantity of hydrocarbons emitted per unit of painted surface. In 2007 the European Union imposed a limit of 60 g/m² of painted surface on hydrocarbon emissions from existing automotive paint shops. Our paint shop in

Volvo Car Corporation – GRI Report 2011
Torslanda emits approximately 13 g of hydrocarbons per m² of painted surface, and our Ghent paint shop approximately 21 g per m² of painted surface. We will continue our efforts to further reduce emissions. See Table EN20 for emissions of SO₂, NOₓ, and VOC in 2007-2011. Calculations of VOC emissions are based mainly on the amount of solvents in materials used and on measurements of the degree of purification of the equipment.

**EN20: Emissions of SO₂, NOₓ, and VOC (TONNE)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Emissions of SO₂</th>
<th>Emissions of NOₓ</th>
<th>Emissions of VOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>&lt;1</td>
<td>80</td>
<td>820</td>
</tr>
<tr>
<td>2010</td>
<td>&lt;1</td>
<td>85</td>
<td>90</td>
</tr>
<tr>
<td>2009</td>
<td>&lt;1</td>
<td>71</td>
<td>527</td>
</tr>
<tr>
<td>2008</td>
<td>&lt;1</td>
<td>90</td>
<td>712</td>
</tr>
<tr>
<td>2007</td>
<td>1</td>
<td>101</td>
<td>740</td>
</tr>
</tbody>
</table>

**EN22: Total weight of waste by type and disposal method**

Volvo Cars work continuously and proactively to avoid waste and optimise waste handling in early project phases, applying the following priorities: 1. Avoidance, 2. Material recycling, 3. Energy recovery, 4. Landfill or destruction.

Compared to 2010, total waste increased, mainly due to higher production levels, an increase in re-building projects and because of the fact that the stamping plant in Gothenburg is now included in the statistics. We weigh and classify all waste in accordance with the EU’s EWC waste codes. Over 99% of Volvo Cars’ production waste originates in our plants in Sweden and Belgium. See tables EN22:1, EN22:2, EN22:3.

Hazardous waste from Volvo Cars’ production plants includes: wastewater sludges, oils, cutting fluids, paint sludge, adhesive residues and solvents. In 2011, there was renewed focus on recovering the energy from more of the company’s hazardous waste.

**EN22:1 WASTE MATERIALS BY TYPE (TONNE)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total waste</th>
<th>Hazardous waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>230,167</td>
<td>11,439</td>
</tr>
<tr>
<td>2010</td>
<td>169,146</td>
<td>5,087</td>
</tr>
<tr>
<td>2009</td>
<td>123,186</td>
<td>5,594</td>
</tr>
<tr>
<td>2008</td>
<td>171,872</td>
<td>9,320</td>
</tr>
<tr>
<td>2007</td>
<td>195,045</td>
<td>11,295</td>
</tr>
</tbody>
</table>

1) Sweden and Belgium

**EN22:2 WASTE MATERIALS BY TYPE (%)**

<table>
<thead>
<tr>
<th>Waste materials by type</th>
<th>2011</th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metals</td>
<td>88.7</td>
<td>94.5</td>
<td>94.7</td>
</tr>
<tr>
<td>Hazardous waste</td>
<td>5</td>
<td>3</td>
<td>3.1</td>
</tr>
<tr>
<td>Other</td>
<td>2.7</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>Stone and Cement</td>
<td>0.7</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Paper and cardboard</td>
<td>0.7</td>
<td>0.4</td>
<td>0.3</td>
</tr>
<tr>
<td>Sludge</td>
<td>0.5</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Wood</td>
<td>0.6</td>
<td>0.5</td>
<td>0.7</td>
</tr>
<tr>
<td>Plastics</td>
<td>0.3</td>
<td>0.3</td>
<td>0.2</td>
</tr>
<tr>
<td>Construction waste</td>
<td>0.5</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>Domestic refuse</td>
<td>0.3</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Electronics1</td>
<td>2</td>
<td>0.02</td>
<td>0.02</td>
</tr>
</tbody>
</table>

1) Sweden and Belgium

2) Electronics included in Hazardous waste.

**EN22:3 METHODS OF PROCESSING WASTE (%)**

<table>
<thead>
<tr>
<th>Type</th>
<th>Materials recovery</th>
<th>Energy recovery</th>
<th>Landfill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incl. Metals 2011</td>
<td>93</td>
<td>55</td>
<td>12</td>
</tr>
<tr>
<td>Incl. Metals 2010</td>
<td>94</td>
<td>55</td>
<td>6.5</td>
</tr>
<tr>
<td>Incl. Metals 2009</td>
<td>93</td>
<td>65</td>
<td>0.5</td>
</tr>
<tr>
<td>Incl. Metals 2008</td>
<td>94</td>
<td>55</td>
<td>0.5</td>
</tr>
<tr>
<td>Excl. Metals 2011</td>
<td>98</td>
<td>49</td>
<td>10</td>
</tr>
<tr>
<td>Excl. Metals 2010</td>
<td>25</td>
<td>68</td>
<td>7</td>
</tr>
<tr>
<td>Excl. Metals 2009</td>
<td>24</td>
<td>68</td>
<td>8</td>
</tr>
<tr>
<td>Excl. Metals 2008</td>
<td>25</td>
<td>67</td>
<td>8</td>
</tr>
</tbody>
</table>

1) Production plants in Sweden and Belgium. The figures are provided by Volvo Cars’ waste disposal contractor.

2) Excluding 0.3 respectively 3 percent of waste fluids treated in evaporator and other waste fractions.

**EN23: Total numbers and volume of significant spills**

Discharges of water consist of internally pre-treated process water, and wastewater discharged from catering and restroom facilities to the domestic water systems in our plants. These discharges of water are not judged to be significant. The municipal wastewater treatment plants impose restrictions on the water they will accept for treatment, what contaminants the water may contain and their concentrations. The wastewater arising from Volvo Cars does not have any negative effects on the municipal wastewater treatment plants. All effluents from our Belgian plant are treated within the plant itself, complying with the standards imposed on discharges by the Belgian authorities. Process wastewater from our plant in Malaysia is treated there in the same way as in the Ghent plant.

All plants must report serious environmental incidents to Volvo Cars’ Environmental Protection Department in Gothenburg. During 2011 no serious environmental incident was reported. To prevent environmental spillage and incidents, Volvo Cars is working continuously on risk assessments, environmental accident drills and reporting of ‘near misses’. The company has developed a risk analysis process in order to prevent the occurrence of environmental risks. According to this process regular risk analyses are performed at all areas where environmentally hazardous activities are carried out (according to the definition in the Swedish Environmental Code).

Volvo Cars has a programme for internal audits concerning the environment, the operational management system and legal compliance as well as dangerous goods, to monitor our operations and thus find scope for improvement.

**EN26: Initiatives to mitigate environmental impacts of products and services and extent of impact mitigation**

Climate change is one of the greatest threats facing our planet. It is clear that greenhouse gas emissions must be radically reduced. According to the reports of the Intergovernmental Panel on Climate Change, 13.5% of global greenhouse gas emissions are caused by transportation. Climate change and mitigating emissions represent a major challenge for the automotive industry. Volvo Cars follows three main tracks for reducing the environmental impact of its products: Efficiency enhancement, Renewable fuels, and Electrification. These three tracks will coexist and vary in significance over the coming decades, with the aim of gradually reducing fuel consumption and emissions to the levels required by the authorities, the customers and the environment.

**Efficiency enhancement**

The average carbon dioxide emission in all new Volvo Cars’ vehicles sold in 2011 declined by 33% compared to 1995 (EU15). The fleet average of g CO₂/km decreased from 157 in the previous year to 151 in 2011 (3.8%).

**EN26: FUEL EFFICIENCY (EU15)**

<table>
<thead>
<tr>
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<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fleet average (g CO₂/km)</td>
<td>151</td>
<td>157</td>
<td>173</td>
<td>185</td>
<td>190</td>
</tr>
</tbody>
</table>

1) Reduced by 26% compared to 1995.

**Efficient diesels**

Volvo Cars thinks that the most effective way to cut the product range’s total carbon dioxide emissions in the short term is to reduce the fuel consumption of its diesel and petrol engines. This is because cutting the emissions of many cars sold in large volumes will have a bigger total effect and bring favourable results more quickly than making huge cuts in a small number of cars. Volvo Cars has introduced a range of high-efficiency diesel models with very low CO₂ emissions. In addition, really efficient diesel engines featuring start/stop technology will be introduced across the entire product range in the coming years.

Volvo Car Corporation – GRI Report 2011
DRIVe Towards Zero
Another initiative to reduce the environmental impact of our cars is DRIVe Towards
Zero – Volvo Cars’ vision for developing cars entirely free from harmful exhaust
emissions and environment-impacting carbon dioxide. Volvo’s DRIVe cars consist of
a series of extremely fuel-efficient diesel models. The C30, S40 and V50 are
currently the most efficient DRIVe models with fuel consumption (EU Combined)
down to 3.8 l/100 km and CO₂ emissions at 99 g/km. The Volvo S60 and V60 in
DRIVe versions have CO₂ emissions of just 114 g/km and 119 g/km respectively –
corresponding to fuel consumption of 4.3 and 4.5 l/100 km respectively. The
low consumption and emission levels are the result of a number of technological
improvements:
• Friction between gearbox components has been reduced.
• The engine and gearbox software has been modified.
• The start/stop system cuts off the diesel engine when the car is still rolling (below
5 km/h).
• All electrical systems have been optimised to create lower energy consumption.

Volvo Cars’ DRIVe Towards Zero also includes improvements to the petrol engines.
By optimising the four-cylinder, 1.6-litre T3 engine (150 hp), which is available in the
Volvo S60 and V60, the engine experts have managed to bring fuel consumption
down to 5.8 l/100 km in the S60. This corresponds to CO₂ emissions at 135 g/km.

VEA – Volvo Environmental Architecture, the new four-cylinder strategy
Volvo Cars’ new engine range, known as VEA – Volvo Environmental Architecture –
consists solely of four-cylinder engines which in certain configurations will benefit
from enhanced performance through electrification or other spearhead technology.

Volvo Cars will develop four-cylinder engines with higher performance than
today’s six-cylinder units, along with lower fuel consumption than the current gen-
eration of four-cylinder engines.

Volvo Cars is also introducing a new 8-speed automatic gearbox, which gives
the driver a refined drive and excellent fuel economy.

Renewable fuels – Volvo Cars’ Flexifuels
Sustainable mobility demands the development of cars that can run on fuels from
renewable sources. Europe’s bioethanol refuelling infrastructure is expanding, partly
as a result of constructive cooperation between the car industry and several EU
countries. Volvo Cars’ track to increase the use of renewable fuels includes car
models that are tailored to run on multiple fuels. Volvo Cars offers models that are
powered by petrol, diesel, ethanol and natural gas/biogas – Volvo Cars’ Flexifuel
models (C30, S40, S60, S80, V50, V70, and V60), which is one of the car world’s
broaderest ranges of Flexifuel models. What is more, on several European markets
there are aftermarket-converted gas models that can run on up to five fuels –
natural gas, biogas, hythane (biomethane with low-blend hydrogen), E85 and petrol.

Biogas in particular offers excellent environmental properties. Within the next few
years, second-generation biofuels such as synthetic diesel will also be able to
be used in Volvo’s cars. Filling up with E85 instead of petrol can reduce a car’s fossil
carbon dioxide emissions by up to 80%.

Electricity

On the electrification track, Volvo has taken various initiatives. For example, the
company invests heavily in hybrid cars and has started producing pure electric cars.

Hybrid cars
Volvo Cars aims to be the market leader in plug-in hybrid technology by continuing
to focus heavily on advanced green technology. Between 2006 and 2014 Volvo
Cars is investing a massive SEK 15 billion in research and development with the aim
of reducing the fuel consumption and environmental emissions of its cars.

In 2012, customers will be able to buy Volvo plug-in electrical hybrids (such as
the Volvo V60 Plug-in Hybrid), that is to say cars that can be recharged via a regular
household electrical socket. These cars have both a conventional combustion engine
and an electric motor powered by a battery pack. They are propelled primarily by
energy from the battery, with the combustion engine taking over when the distance
tavelled exceeds the capacity of the battery. For shorter distances in and around
cities, it is likely that dedicated battery-powered cars may be in demand. Volvo is
therefore moving forward in this area too.

The Volvo V60 Plug-in Hybrid is the world’s first diesel-powered plug-in hybrid,
giving owners an electric range of 30 miles (50 km) and over 120 miles per US
gallon (1.9 l/100 km) in hybrid mode. It integrates the best properties from three
different car types into an attractive sports wagon – by simply pressing a button the
driver can choose which car he/she wants to drive: an electric car with a range of up
to 50 kilometres, a high-efficiency hybrid with carbon dioxide emissions averaging
just 49 g/km, or a muscular fun-to-drive car.

Pure electric cars – C30 Electric
In 2011 Volvo Cars started production of the Volvo C30 Electric. The fleet of 250
cars is leased to customers in selected European countries and they are also cur-
rently operating in demonstration programmes in Sweden, Belgium and China. The
Volvo C30 Electric has a 20 kWh battery that is recharged from a regular household
power socket. A full recharge takes about 7 hours and the operating range is up to
150 kilometres per full charge.

Electric mobility partnership
In 2011 Volvo Cars and Siemens launched a strategic cooperation to jointly advance
the technical development of electric cars. The focus of this initiative is on the joint
development of electrical drive technology, power electronics and charging technol-
geny as well as the integration of those systems into Volvo C30 Electric vehicles.

Other efforts taken
Several other initiatives were taken to mitigate the environmental impacts of prod-
ucts. Some examples are highlighted below.

Lightweight design
Volvo Cars aims to take the lead in lightweight automotive design with upcoming
SPA models (Scalable Product Architecture) being 100–150 kg lighter than current
models of the same size, which will result in a reduced requirement for material
and lower fuel/energy consumption. One of the components is the flywheel. The
flywheel that Volvo Cars will use in its test car is made of carbon fibre. It weighs
about 6 kg and has a diameter of 20 cm. The carbon fibre wheel spins in a vacuum
to minimise frictional losses.

SARTRE
The SARTRE project (Safe Road Trains for the Environment) is being driven by
seven European partners and is the only one of its kind to focus on the develop-
ment of technology that can be implemented on conventional highways in which
platooned traffic operates in a mixed environment with other road users.

SARTRE aims to encourage a step change in personal transport usage through
the development of safe environmental road trains (plaetons). Systems are being
developed in prototype form that will facilitate the safe adoption of road trains on
unmodified public highways with full interaction with non-platoon vehicles. If suc-
cessful, the benefits from SARTRE are expected to be significant.

Environmental impact is reduced since the cars follow close behind each other
and benefit from the lower air drag. The energy saving is expected to be as much as
20% depending on vehicle spacing and geometry. The system will also enable road
capacity to be utilised more efficiently. The SARTRE project – with Volvo Cars as the
only participating car manufacturer – began formally in September 2009 and will
run for a total of three years. It has successfully completed the first test demonstra-
tions of a multiple vehicle platoon.

Reduction of material use
In 2011 Volvo Cars continued the development of the Advanced Engineering
Woodfiber Door Module, which aims to reduce fossil-based material in favour of
renewable material.

Further, Volvo Cars together with MIL (Swedish Environmental Research Institute)
and KTH (Royal Institute of Technology) started evaluating the plastic quality of max.
10-year-old bumpers from scrapped cars. The objective is to assess the possibility
of reusing such plastic parts in new bumpers or any other products, thereby contrib-
uting to the reduction of material use.

Harmful emissions from products, other than CO₂
The percentage of sold Volvo cars that complied with Euro 5/ULEV in 2011 was
94%. Euro 5 is the EU classification regulating harmful emissions from the product,
other than CO₂ (for example NOₓ, SOₓ and particulate matter). ULEV stands for
‘Ultra-Low Emission Vehicle’, and is an environmental classification in force in Cali-
fornia that has set even higher demands for lower emissions than Euro 5 does.
EN27 Percentage of products sold and their packaging materials that are reclaimed by category

In compliance with EC Directive 2005/64, metals, oils, fluids, rubber and certain plastics corresponding to at least 95% of the weight of a Volvo can be recovered and 85% can be recycled. Volvo calculates the recyclability rate and the recoverability rate of its cars according to the ISO 22628:2002 method.

Metallic materials are reused, but the exact amount is not measured due to the complexity of the process.

EN28 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations

In the past 18 years we have not been notified or found culpable of any breach of environmental standards or operating licences in any of our plants. All of our environmental activities are conducted in compliance with applicable legislation and permits.

Social performance
Labour Practice and Decent Work

LA1 Total workforce

LA1:1 BREAKDOWN OF WORKFORCE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>21,512</td>
<td>19,494</td>
<td>19,650</td>
<td>22,732</td>
<td>24,384</td>
</tr>
<tr>
<td>Market companies</td>
<td>1,908</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>341</td>
<td>282</td>
<td>187</td>
<td>223</td>
<td>274</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1,908</td>
<td>1,811</td>
<td>1,841</td>
<td>1,782</td>
<td>1,749</td>
</tr>
<tr>
<td>Belgium (Ghent)</td>
<td>3,981</td>
<td>4,484</td>
<td>3,685</td>
<td>3,791</td>
<td>4,110</td>
</tr>
<tr>
<td>Torslanda plant</td>
<td>2,008</td>
<td>1,951</td>
<td>1,863</td>
<td>2,593</td>
<td>1,569</td>
</tr>
<tr>
<td>Distrikt</td>
<td>1,479</td>
<td>1,561</td>
<td>1,405</td>
<td>1,747</td>
<td>1,496</td>
</tr>
<tr>
<td>St Albans</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>21,512</td>
<td>19,494</td>
<td>19,650</td>
<td>22,732</td>
<td>24,384</td>
</tr>
</tbody>
</table>

LA1:2 BREAKDOWN OF EMPLOYMENT TYPE (SWEDEN AND BELGIUM ONLY)

<table>
<thead>
<tr>
<th></th>
<th>White collar1)</th>
<th>Blue collar2)</th>
<th>Full-time3)</th>
<th>Part-time4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>17,339</td>
<td>15,921</td>
<td>17,339</td>
<td>15,921</td>
</tr>
<tr>
<td>Sweden</td>
<td>6,662</td>
<td>6,278</td>
<td>8,486</td>
<td>7,888</td>
</tr>
<tr>
<td>Torslanda plant</td>
<td>208</td>
<td>190</td>
<td>3,133</td>
<td>2,818</td>
</tr>
<tr>
<td>Göteborg – Other</td>
<td>5,725</td>
<td>5,418</td>
<td>1,721</td>
<td>1,687</td>
</tr>
<tr>
<td>Göteborg incl Fiby</td>
<td>363</td>
<td>328</td>
<td>1,894</td>
<td>1,760</td>
</tr>
<tr>
<td>Skövde incl Floby</td>
<td>366</td>
<td>342</td>
<td>1,738</td>
<td>1,803</td>
</tr>
<tr>
<td>Belgium (Ghent)</td>
<td>234</td>
<td>602</td>
<td>4,339</td>
<td>4,813</td>
</tr>
<tr>
<td>Total</td>
<td>13,558</td>
<td>13,158</td>
<td>12,825</td>
<td>20,549</td>
</tr>
</tbody>
</table>

LA2 Employee turnover

The net employee turnover at Volvo Cars in 2010 is presented in table LA2. For 2011 and 2010, data represent Sweden only.

LA2 EMPLOYEE TURNOVER1)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue collar male</td>
<td>1.7</td>
<td>2.1</td>
<td>3.7</td>
<td>2.2</td>
<td>2.4</td>
</tr>
<tr>
<td>Blue collar female</td>
<td>1.9</td>
<td>2.4</td>
<td>3.6</td>
<td>2.5</td>
<td>2.7</td>
</tr>
<tr>
<td>Total blue collar</td>
<td>1.8</td>
<td>2.6</td>
<td>3.6</td>
<td>2.7</td>
<td>2.9</td>
</tr>
<tr>
<td>White collar male</td>
<td>2.9</td>
<td>2.1</td>
<td>5.9</td>
<td>5.9</td>
<td>6.5</td>
</tr>
<tr>
<td>White collar female</td>
<td>2.2</td>
<td>2.3</td>
<td>6.9</td>
<td>7.3</td>
<td>8.5</td>
</tr>
<tr>
<td>Total white collar</td>
<td>2.9</td>
<td>2.4</td>
<td>9.1</td>
<td>9.2</td>
<td>10.7</td>
</tr>
<tr>
<td>Total Volvo Cars</td>
<td>2.3</td>
<td>3.3</td>
<td>12.8</td>
<td>9.2</td>
<td>9.1</td>
</tr>
</tbody>
</table>

1) Number of employees leaving the company divided by the number of employees employed at the end of the reporting period.

2) Since 2010, data represent only Sweden. Previous years represent Sweden and Belgium.

LA7 Rates of injury, occupational diseases, lost days, absenteeism, and number of work-related fatalities

Sick leave among Volvo Cars’ employees in Sweden and Belgium has been slowly but surely decreasing over the past few years as a result of our systematic Health and Safety efforts. From the second half of 2005, extra focus was placed on sick leave and rehabilitation from a general perspective and in connection with the implementation of improved sick leave reporting and follow-up at Volvo Cars Sweden. We succeeded in our ambition and achieved all-time low sickness absenteeism of 4.4% in 2011.

LA7:1 SICK LEAVE PER HOURS WORKED (%) (SWEDEN AND BELGIUM ONLY)

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>3.6</td>
<td>3.7</td>
<td>3.8</td>
<td>4.3</td>
<td>4.8</td>
</tr>
<tr>
<td>Volvo Cars total</td>
<td>4.4</td>
<td>4.5</td>
<td>4.7</td>
<td>5.0</td>
<td>5.5</td>
</tr>
</tbody>
</table>

LA7:2 NUMBER OF INCIDENTS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Injuries1)</td>
<td>0.7</td>
<td>0.8</td>
<td>0.5</td>
<td>0.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Serious injuries2)</td>
<td>15</td>
<td>6</td>
<td>6</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

1) Defined as number of injuries resulting in at least one day of sick leave per 200,000 hours worked (equivalent to 100 man years)

2) Defined as total number of injuries leading to fractures, unconsciousness etc.
Education, training, counselling, prevention and risk-control programmes in place to assist workforce members, their families, or community members regarding serious diseases

Volvo Cars conducts company-wide injury prevention programmes. This means that we, as an employer, are responsible for organising and conducting our operations in a manner designed to prevent accidents and work-related illnesses. All employees are responsible for reporting injuries and serious incidents to their immediate superior. We compile an annual report of all reported injuries and incidents, which provides a vital basis for our preventive programmes. The company’s action plan for work environment activities places particular emphasis on reporting incidents which might have resulted in personal injury.

Our injury prevention programmes are conducted by working environment committees which, together, cover all units and operations in Sweden, as well as our production units in Belgium and Malaysia. The task of these committees is to survey and evaluate the risks present in the working environment, and to propose action to minimise them.

Over the years, we have worked systematically to reduce occupational risks, with the focus on high-risk areas and personal behaviour. In the past ten years, there has been a downward trend in the risk of sustaining a work-related injury or illness. A comprehensive training programme for managers and safety officers is one of the means adopted to achieve this aim.

We have no specific policy or action plan for dealing with HIV infection or AIDS. Infected employees are subject to the company’s ordinary rules governing illness, sick leave, sickness benefit and rehabilitation but when/if cases occur they are handled with the utmost discretion. Although this is subject to review, we do not, at present, see a need for a separate policy on HIV and AIDS.

Average hours of training per year per employee by employee category

Every employee must have a personal development plan, which is developed in consultation with his or her immediate superior. The purpose of this is to ensure that the employee’s development is in accordance with the organisation’s development and needs. Development plans may lead to training or other forms of competence development. The overall learning vision for Volvo Cars is to make employees more active in driving their own development, while the company moves from being a learning provider to being a learning enabler. Some of the tools for achieving this are through offering blended learning solutions and resources that enable the employee’s self-directed learning.

In 2011, Volvo Cars offered 585 different courses at 2,880 sessions, with a total of 83,214 participants. In total Volvo Cars conducted 499,284 hours of training in 2011. Some of the areas and issues covered were: product-related issues (engineering); IT, systems and tools; leadership and organisational development; process-related manufacturing; and safety, health and environment. During the year many new employees have had training in different tools and processes. The company also trained different target groups on safety issues for electrical vehicles, cultural issues and technical aspects of new development. The statistics on training courses are related to traditional classroom training only, and do not include other efforts conducted frequently, including competence development activities such as mentoring, project work, job rotation and literature studies. The total time invested in these activities is difficult to estimate.

In 2011 the use of Volvo Cars’ internally developed e-learning increased, with several new e-learning courses. During the year 2,236 e-learning courses were completed. The aim of e-learning is to increase the accessibility of education for employees and facilitate the rapid implementation of new working methods and systems. Through public funding, the company also had the opportunity to allocate more resources to training and competence development of staff during the year. The company hopes to continue to work with public funding in the future, in order to be able to devote more resources to competence development and improve collaboration and cooperation with other companies and suppliers in the same market.

Volvo Cars encourages employees who undergo further education outside of work by various incentive measures. For example, the company offers different financial benefits for employees studying in their free time.

Composition of governance bodies and breakdown of employees per category

Volvo Cars’ executive management team consists of 13 people: 12 men and one woman. The board of directors consists of 12 people: nine men and three women (two male union member deputies not included).

Diversity is important for Volvo Cars. The mix of different nationalities in the management team has increased and there is a strong focus on becoming a global corporation with diversity at its core. There is a trend towards a better gender balance in leading positions, with the proportion of women in leadership positions reaching 21% by the end of 2011. The number of people of foreign origin has increased from 17% to 21% during one year.

The 2010–2012 diversity plan includes a series of activities to accelerate progress towards increased diversity and to utilise the diversity within the company. For example, an extensive training programme for managers started in 2010 that will continue during 2011 and early 2012. Moreover, a number of mentoring programmes have been run, as well as a shadowing programme for females, in cooperation with two external organisations. Women are also in focus in the Volvo Cars succession planning process, and career development discussions are held to enable each unit to identify resources and actions needed to reach their specific targets.

The diversity index has increased one step from 2010 to 2011 on an aggregated level. The index is a part of the Global People Survey and measures every team on composition by gender, age and foreign origin as well as manager inclusion and team inclusion. The diversity index is followed up in the Executive Management Team and also by the Board of Directors. The new desired work culture and the new corporate strategy will make us an even more diverse and inclusive corporation. See tables LA13:1–LA13:3 for more information on diversity at Volvo Cars related to age.
LA13:3 AGE DISTRIBUTION, VOLVO CARS IN GOTHENBURG - BLUE COLLAR

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>22-24</td>
<td>13-15</td>
</tr>
<tr>
<td>2012</td>
<td>25-29</td>
<td>16-19</td>
</tr>
<tr>
<td>2013</td>
<td>30-34</td>
<td>20-23</td>
</tr>
<tr>
<td>2014</td>
<td>35-39</td>
<td>24-27</td>
</tr>
<tr>
<td>2015</td>
<td>40-44</td>
<td>28-31</td>
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<tr>
<td>2016</td>
<td>45-49</td>
<td>32-35</td>
</tr>
<tr>
<td>2017</td>
<td>50-54</td>
<td>36-39</td>
</tr>
<tr>
<td>2018</td>
<td>55-59</td>
<td>40-43</td>
</tr>
<tr>
<td>2019</td>
<td>60-64</td>
<td>44-47</td>
</tr>
<tr>
<td>2020</td>
<td>65-69</td>
<td>48-51</td>
</tr>
</tbody>
</table>

LA14: Ratio of basic salary of men to women by employee category

To ensure fair treatment of all employees, Volvo Cars implements a clear salary policy and a structured salary process. In connection with the annual salary review, Volvo Cars and the employee organisations represented at its facilities conduct an analysis of salaries to identify and adjust any discrepancies in the salary structure. Discriminatory salary inequalities between men and women are included among the follow-up parameters.

The salary comparisons in tables LA14 show that there is a weak tendency towards lower salaries for women throughout all of the categories for white-collar workers. The discrepancy is highest in the most senior position category. Volvo Cars work continuously to eliminate salary discrimination by gender. For example, we have a gender-neutral salary policy and in the annual salary review, there is a requirement to allot at least the same proportion of salary increase to women as to men. The differences that do exist can be explained by the fact that women have a lower average age within each salary group, and that women in general progress faster between different salary groups and therefore have participated in fewer revisions within each group. Within the group of blue-collar workers, women and men have equal salary levels.

We are concerned by the fact that women do not attain senior positions to the same extent as men, and this is a challenge for the future. However, even though the ratio is low, there is a trend towards a better gender balance in leading positions. The proportion of women in leadership positions reached 21% by the end of 2011. See also LA13 for further information on how we work to increase diversity within the company.

LA14:1 BASIC SALARY RATIO BETWEEN WOMEN AND MEN BY EMPLOYEE CATEGORY (WHITE-COLLAR WORKERS IN SWEDEN)

<table>
<thead>
<tr>
<th>Year</th>
<th>SG</th>
<th>SG</th>
<th>SG</th>
<th>SG</th>
<th>SG</th>
<th>SG</th>
<th>SG</th>
<th>SG</th>
<th>SG</th>
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<tr>
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<td>0.95</td>
<td>0.92</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
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</table>

LA14:2 BASIC SALARY RATIO BETWEEN WOMEN AND MEN BY EMPLOYEE CATEGORY (BLUE-COLLAR WORKERS IN SWEDEN)

<table>
<thead>
<tr>
<th>Year</th>
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<th>SG</th>
<th>SG</th>
<th>SG</th>
<th>SG</th>
<th>SG</th>
<th>SG</th>
<th>SG</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>0.99</td>
<td>1.00</td>
<td>0.99</td>
<td>0.98</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
<td>1.01</td>
</tr>
</tbody>
</table>

LA15: Human Rights

HR2 Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken

About 40% (by value) of the materials needed for each car are manufactured in our own facilities. The remaining 60% are purchased from external sources. Volvo Cars has approximately 400 business partners producing components for our cars, and a further 3,300 delivering other products and services.

During 2010 and 2011, Volvo Cars developed a new Code of Conduct that sets forth the guiding principles of to all employees of Volvo Cars, all business partners.

Volvo Cars does business with, all dealers that sell the products of Volvo Cars, as well as all other representatives that conduct business on behalf of the company.

The Code of Conduct has been communicated during 2011 to suppliers of both direct material and indirect material – via Volvo Supplier Portal, the Volvo Cars Purchasing Terms & Conditions and Volvo Cars’ Social Responsibility Web guide.

During the last year Volvo Cars has also established a new supplier portal for all suppliers, with the aim of streamlining communication between the company and its suppliers.

The portal also contains information about Volvo Cars’ demands and expectations on suppliers in a range of areas. The demands and expectations within the area of human rights, for example, cover topics such as: Diversify and equal opportunity, Health and Safety, Child labour, Forced labour, Freedom of association and collective bargaining, Compensation, Working hours.

In 2011 a total of 953 supplier visitors were registered on the supplier portal.

From 2003 to 2009 a number of Volvo Cars’ suppliers and business partners underwent screening on human rights under a programme driven by Ford Motor Company. None of Volvo Cars’ suppliers or contractors were excluded or subjected to performance conditions or other sanctions as a result of human rights screening.

During 2010 and 2011, Volvo Cars Purchasing Department has been developing a company-specific strategy for the company’s continued activities with its supply chain relating to human rights. One base initiative that has been developed during 2011 is communicating the company’s demands and expectations in terms of human rights through the new supplier portal and through training of suppliers in selected countries. The training was conducted in collaboration with other automotive OEMs and AIA (Automotive Industry Action Group). During the 2011 training was carried out in India and Turkey, and training in Mexico and China is planned for the first quarter of 2012.

Volvo Cars has also conducted manufacturing site assessments of new and current suppliers to review the suppliers’ manufacturing processes, including health and safety and risk management. These assessments have been carried out by the Supplier Technical Assistance department within Purchasing. The company is also investigating the possibilities of integrating working conditions into the assessment.

During 2011 Volvo Cars has also focused on developing a country risk segmentation model, in order to guide coming activities, such as selecting countries for supplier training. The company also developed a pilot audit project with the help of its new country risk segmentation model. The project will be launched in the first half of 2012, and suppliers will be followed up on a range of areas, including human rights. The outcome of the pilot project will inform the future development of Volvo Cars Purchasing Department’s strategic work with audits.

Another project which Volvo Cars has focused on during 2011 is developing a strategic process for self-assessments of, for example, human rights for the company’s suppliers.

For more information on Volvo Cars’ work with suppliers, contractors and human rights, please see Management Approach: Human Rights, Supply Chain section, above.
HR3 Total hours of employee training on policies and procedures concerning aspects of human rights

In 2011 and 2012, Volvo Cars conducted a total of 600 hours of training in Corporate Social Responsibility, sustainability and the Global Compact for the entire Volvo Cars Purchasing department. The purpose of this training is to raise awareness of social responsibility and human rights in general and more specifically in relation to Volvo Cars’ supply chain, as well as to increase employees’ risk awareness within the area. A total of 10 training sessions for the Purchasing Department have taken place in the following locations: Gothenburg (7), Prague (audio/WebEx) (1), Ghent (audio/WebEx) (1) and Shanghai (January 2012) (1). In 2011, 400 employees in the Purchasing Department were trained, representing approximately 80% of the department’s staff. Material from the training has also been distributed to all staff in the department. Volvo Cars will continue to inform and train employees within the Purchasing Department on our work procedures regarding human rights and supply chain in accordance with set strategies.

HR4 Total number of discrimination incidents and actions taken

In 2011 HR Labour Affairs handled three cases of alleged discrimination that had been reported to them in Sweden. HR Labour Affairs has investigated all cases and found that no discrimination has occurred. None of the cases is any longer subject to action. Data reported for this indicator are for Sweden only.

Society

SO3 Percentage of employees trained in organisation’s anti-corruption policies and procedures

Volvo Cars’ policy is not to engage in any act that could possibly be construed as giving or taking a bribe or in any kind of corruption. We support the UN Global Compact and the 10th, anti-corruption, principle. In 2011, we implemented our first Code of Conduct as a standalone company, including, but not limited to, guidelines regarding bribery and corruption. In essence, the circumstances under which employees can accept gifts from suppliers, dealers or other business partners are regulated by the Code of Conduct. The Code of Conduct was adopted by the Board of Directors in February 2011. In 2011 we also began development of our Code of Conduct Handbook, with detailed guidelines for employees on how to behave when confronted with dilemmas such as gifts or favours, entertainment and social events, relations with suppliers, dealers and other customers as well as relations with governments and other policy makers. The Code of Conduct handbook was launched to employees in February 2012.

Volvo Cars’ Code of Conduct set out the guiding principles for all employees of Volvo Cars, all business partners that the company does business with, all dealers that sell the products of Volvo Cars, as well as all other representatives that conduct business on behalf of the company. Volvo Cars expects all business partners to ensure that the Code of Conduct is communicated to their employees and subcontractors. Volvo Cars also expects all of its business contacts and commercial partners to be governed by the same principles stipulated in the Code of Conduct or similar ones.

To reach our goals it is not only important what we do, but also how we do it. Volvo Cars’ reputation and in the end our growth and profitability is affected by the way employees act within the company or in relation to external parties. It is important that we always act with a high degree of ethics and integrity. A web-based compliance training programme was introduced in May 2011. The course, ‘Combating Bribery in Business’, was the first compliance course since the ownership transition from Ford and it was created specifically for Volvo Cars. The course dealt with the rules and guidelines concerning bribes, gifts and representation and was mandatory for all white-collar employees. By the end of March 2012, more than 8,200 Volvo Car employees had completed the anti-bribery training.

SO4 Actions taken in response to incidents of corruption

No incidents of corruption have been reported for 2011.

SO5 Public policy positions and participation in public policy development and lobbying

Volvo Cars is affected by political decisions that are made in all of the countries where it operates. Therefore, we work continuously to establish access to politicians, authorities and institutions through dialogue in order to obtain information regarding important legislation and regulation that impact Volvo Cars’ strategic decisions and plans. Through this dialogue, Volvo Cars’ goal is to share knowledge and experiences that we believe will drive societal developments in a favourable way.

Volvo Cars does not have a formal policy on public policy development or lobbying, but its Code of Conduct, states that the name of the company shall not be used in political campaigns or for the benefit of a specific political interest. In our dialogues with various stakeholders, Volvo Cars does not differentiate between authorities and other type of organisations, but acts in the same way to establish access to politicians, authorities and institutions.

Our work to impact political decisions and processes can be summarized in several ways: through our memberships in trade associations, through the proactive dialogue with authorities that we initiate ourselves, through our contacts with NGOs and other institutions as well as the issues that the company raises in the public debates. Volvo Cars has held public events in 2011 that focused on economic incentives from the government to encourage a greater number of electrical cars on the market, creation of a long-term regulation on greenhouse gas emissions and insurance premiums discounts for cars with advanced safety technologies. The Executive Director of Government Affairs is responsible for public policy development & governmental relations. The Senior Vice President General Counsel is responsible for policies and procedures related to bribery and corruption.

SO7 Total number of legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcomes

Volvo Cars is committed to complying with competition and anti-trust laws, and fair competition is vital to the company’s success. The company must compete vigorously, aggressively and fairly and without any anticompetitive understandings or agreements with its competitors. Volvo Cars is also committed to complying with competition laws that apply to dealers and other independent businesses that deal with company products. Such competition laws protect the distributors’ right to conduct their business independently. The Corporate directive ‘Compliance with Competition Laws’ is the company’s guiding policy for anti-competitive behaviour, anti-trust and monopoly practices. The corporate directive summarises the principles that should guide employee conduct in relationships with competitors, customers and suppliers.

No legal actions for anti-competitive behaviour, anti-trust or monopoly practices were initiated against Volvo Cars in 2011.

SO8 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations

Volvo Cars has not identified any non-compliance with laws or regulations during 2011.
Product Responsibility

**PR1 Life cycle stages in which health and safety impacts of products and services are assessed for improvement**

Volvo Cars’ models were awarded the highest ranking in 81 out of 91 independent car safety tests. The test results are presented in the PR1 tables. In addition, the Volvo V60 won the ‘Best Large Family Car 2011’ in Euro NCAP’s ‘Best in Class Cars 2011’.

Some highlights during the year regarding product safety include touring the world’s motor shows with a Volvo C30 Electric that has, like all other Volvo cars, undergone Volvo Cars’ stringent crash test procedure. The company is taking yet another step in active safety by developing a system that alerts and automatically brakes for animals on the road. The new system will be launched on the market in a few years’ time. Volvo Cars’ employees have also received an award from the NHTSA, the American traffic safety administration, for significant contributions to automotive safety.

**PR1 SAFETY TESTS**

<table>
<thead>
<tr>
<th>Test body</th>
<th>Share of independent tests where Volvo Cars received the highest rank (%)</th>
<th>2011</th>
<th>2010</th>
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<th>2008</th>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(from CY2009)</td>
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<td>89</td>
<td>88</td>
<td>80</td>
<td>70</td>
<td>69</td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>(before CY2009)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(from CY2011)</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Combined</td>
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<td>Roof strength</td>
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</table>

1) Latest results of independent car safety tests on our models. The results are shown in the form of rankings, with ‘1’ denoting the highest ranking, ‘2’ the second highest, ‘3’ average rating, ‘n/t’ not tested by the independent test bodies, and ‘-’ not achieved.

As many as 50 million people are injured every year in road accidents and approximately 1.3 million die as a result of these accidents. For this reason, safety is a core value to us and since the foundation of Volvo in 1927 we have worked continuously on enhancing safety, not only for the occupants of our cars to help reduce their risk of injury in case of an accident, but also for those in their vicinity.

**Holistic view of safety - five phases to improve vehicle safety**

Our work to improve vehicle safety is carried out in five phases from normal driving to after collision. These five phases, shown in the figure to the right, are Normal driving, Conflict, Avoidance, Crash and After collision.

**Normal driving**

The driver is well informed and alert. Good lighting and visibility are important to help him or her to detect danger and avoid an accident. Comfortable seating and ergonomic controls enable the driver to concentrate on driving. Examples of Volvo Technologies: Driver Alert Control, IDIS, BLIS, Hill Descent Control, Alcoguard and Active Bi-Xenon.

**Conflict**

Technology helps the driver to handle the difficult situation. If the unexpected happens, the car can help to warn the driver, be easy to manoeuvre and must have effective brakes. Examples of Volvo Technologies: DSTC, RSC, Trailer Stability Assist, Collision warning with auto brake/Collision warning, Emergency Brake Lights and Lane Departure Warning.

**Avoidance**

The car acts automatically to avoid a collision if the driver fails to react. Examples of Volvo Technologies: City Safety, Collision Warning with Auto Brake and Pedestrian Detection.

**Crash**

The car’s safety systems help to reduce the crash energy in order to minimise the effect on the occupants and other road users. Examples of Volvo Technologies: Patented Front Structure, SIPS, WHIPS, ROPS, Child Safety and Pedestrian technology.

**After collision**

The car automatically calls for assistance and facilitates the rescue work. Examples of Volvo Technologies: Volvo on Call.
PR5 Practices related to customer satisfaction, including results of surveys measuring customer satisfaction

The car is probably the consumer product that gets most attention from the media and the public. There are many newspaper columns and TV programmes about the automotive industry and the discussion about cars tends to be lively and engaged. 

Because our success is built on satisfied customers, it is natural for Volvo Cars to take advantage of this public and media interest to obtain valuable information. When we plan our products and services, we do this on the basis of careful analyses of different customers’ needs and desires. During the development phase of a product, we perform tests about how the proposed solutions are perceived by our consumers. By combining the customer evaluations with our own tests, we work to find a final solution that is the best for our customers.

When our cars have reached the market, we follow closely how they are received by media, through feedback from dealers, and, most importantly, by holding a dialogue with our customers.

The new Volvo Cars’ company strategy has quality and customer satisfaction high on the agenda, and a number of key initiatives have been taken that will further strengthen our position around the world. These initiatives include:

• Reinforced quality organisation
• New quality policy
• Working procedures developed to attain a higher quality and customer focus
• Refocused targets and management regarding quality and customer satisfaction

Some of these measures will be noticed by our customers rather quickly. Others are more long-term. Regardless of the time scale, our aim is to maintain a world-class level of quality.

The purpose of the corporate instruction is to ensure that the company’s advertising and PR material is produced in accordance with applicable laws and regulations, and in line with the company’s own applicable guidelines as issued from time to time. The instruction is applicable to all marketing and PR representation of the company to the public or dealers concerning the characteristics, performance, quality, benefits, prices, or services of Volvo Cars’ products. It also applies to dealer advertising and merchandise funded entirely or partially by the company. It covers such material in whatever form it is produced, including but not limited to, advertisements, TV commercials and interactive web material.

PR6 Programmes for adherence to laws, standards, and voluntary codes related to marketing communications

Our in-house guidance states that all of Volvo Cars’ products and services shall be marketed and sold in a fair and honest manner. Marketing of products and services should always comply with national legislation and be conducted in an honest and fair manner in relation to the characteristics of the product or service. The Volvo Cars’ Corporate Marketing Instruction provides guidance on the preparation and documentation of company advertising and PR material, such as, but not limited to, press releases and launch material. The instruction reaffirms the commitment of the company that its advertising and PR material shall be accurate, truthful and in good taste.

Volvo Cars continuously review their marketing communication according to the Volvo Cars Corporate Marketing Instruction. The ambition of the company is to keep the incidents of non-compliance at a zero level by monitoring new laws and regulations, reviewing marketing communication and educating employees working with marketing communication. The responsibility for leading the work of conducting marketing in a fair and honest manner and in accordance with regulations and voluntary codes is driven by the following different areas within the company: Legal, Global Communications and Safety communication. Each market worldwide is responsible for its own marketing and for ensuring that the marketing initiatives are carried out in accordance with the Volvo Cars Corporate Marketing Instruction.

There has been no incident of non-compliance with regulations and voluntary codes concerning marketing communications during 2011.

PR7 Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications

Volvo Cars continuously review their marketing communication according to the Volvo Cars Corporate Marketing Instruction. The ambition of the company is to keep the incidents of non-compliance at a zero level by monitoring new laws and regulations, reviewing marketing communication and educating employees working with marketing communication. The responsibility for leading the work of conducting marketing in a fair and honest manner and in accordance with regulations and voluntary codes is driven by the following different areas within the company: Legal, Global Communications and Safety communication. Each market worldwide is responsible for its own marketing and for ensuring that the marketing initiatives are carried out in accordance with the Volvo Cars Corporate Marketing Instruction.

There has been no incident of non-compliance with regulations and voluntary codes concerning marketing communications during 2011.