

Environmental Report 2011  
Extraction from 2011 Annual Report



## 8.2 Industrial and Environmental Risk

Dassault Systèmes, which operates as a software publisher in the services sector, does not believe that it is exposed to significant environmental risks. None of the Company's sites produce dangerous waste, emissions having an environmental impact on the soil, air or water, and none are classified SEVESO (a classification of sites presenting risks due to dangerous substances used by the European Directive) or ICPE (classified sites presenting risks). A significant portion of the Company's assets are intangible, which limits its industrial and environmental risks. The Company is not aware of any environmental situations or factors which could have a significant impact on its financial situation or results. The only elements for which there is a minor environmental risk, but which the Company believes could not have a significant impact on the Company's financial situation, are: (i) fuel reserves are stocked on the DS Campus HQ and the DS Boston Campus to provide electrical needs in case of a power outage; (ii) a pyralene/PCB transformer was identified on the Dassault Systèmes site in Bangalore, India. The principal sites occupied by the Company are described in paragraph 8.1 "Properties Occupied by the Company and Other Important Existing or Planned Real Estate Interests".

The organization of its operational locations is guided by a desire to rationalize its activities and take into account environmental considerations (see paragraph 8.3 "Environmental Report").

The Company's activities do not generate noise or odors which could disturb its surroundings.

In light of the limited nature of the Company's industrial and environmental risks, the costs related to the assessment, prevention and treatment of industrial and environmental risks are not significant and are included in the different investment and expense items set forth in the consolidated financial statements.

In 2011, no provision or guaranty for environmental risks was recorded in the Company's consolidated financial statements, and no charge was integrated in the financial statements as a result of a court decision related to environmental issues or for actions taken to repair any environmental damage.

In order to anticipate regulatory risks regarding the environment, the Company carefully monitors all environmental regulations that could potentially impact its business.

## 8.3 Environmental Report

### 8.3.1 Dassault Systèmes and environmental issues

Since Dassault Systèmes' business is publishing software, its activities have little environmental impact. Nevertheless, the Company is aware of its responsibility for protecting the environment. It has made sustainable development central to its objectives, with a strategy based on sustainable innovation, and implemented a strategy for optimizing and transforming its activities to reduce its environmental impact.

#### 8.3.1.1 Dassault Systèmes' solutions contribute to sustainable development

Most of Dassault Systèmes' brands offer a promise of sustainable development. PLM solutions for product lifecycle management now consider the "Product in life", which means not only the product itself, but also the integration of the product into its environment.

**SolidWorks**, for "3D professionals", and in particular SolidWorks Sustainability, allows design teams to reduce the carbon footprint of their products, as well as pollution. By conducting a product lifecycle analysis directly in SolidWorks before starting production, designers can see how the supply of materials in a given region, manufacturing, use and product disposal will affect the product's lifecycle.

**CATIA**, for "virtual products" eliminates physical prototypes and enables users to confirm, starting with the design phase, that their products may be produced. By using a digital model, Dassault Systèmes' customers reduce their waste and, as a result, their consumption of raw materials while optimizing energy consumption.

**SIMULIA**, for "realistic simulation", enables companies to test their products' and materials' performance in a virtual 3D environment. Businesses can rely on SIMULIA's simulation capabilities to ensure an optimal use of materials and the effectiveness of their products while also making them safer, reducing their weight, and therefore making them more environmentally friendly.

**DELMIA**, for “digital manufacturing and production”, provides testing of the operation of production systems, enabling manufacturers of all industrial sectors to anticipate new challenges. From planning processes to upstream assembly simulation through to the complete definition of machinery and equipment, DELMIA assists businesses in reaching maximal efficiency and cost control, while also providing for the health and safety of employees.

**ENOVIA**, for “collaborative global innovation”, enables businesses to take full advantage of opportunities for collaboration: bringing together the best ideas to coordinate development and comply with safety and environmental regulations.

**3DVIA**, for “lifelike experience”, uses 3D immersion technology to optimize the functional and environmental aspects of operations. 3DVIA Composer permits companies to replace paper manuals with interactive digital versions while at the same time making the information in technical documents clearer. Digital professional training using 3DVIA Studio Pro reduces the cost and environmental impact resulting from building facilities by replacing them with a digital environment. The risks related to employee training in potentially dangerous work environments are thus minimized.

### **8.3.1.2 Consideration of environmental matters in the Company’s operational locations**

Dassault Systèmes’ desire to limit its environmental impact is also reflected through recent decisions regarding its operational locations:

#### ***The DS Campus HQ***

Dassault Systèmes’ world headquarters, located in Vélizy (France) received the HQE certification “*NF Bâtiments tertiaires Démarche HQE*” as well as a “very effective” score in five environmental areas (water, energy, the building and its immediate surroundings, construction site and maintenance), exceeding the minimum of three areas required for HQE certification.

Optimization of energy consumption at the DS Campus HQ is based on different technologies, including:

- Computer servers: heat generated by the servers is used to heat a significant portion of air circulated;
  - Lighting: Dassault Systèmes saves energy by using motion detectors and detectors of natural light together with high-yielding lighting elements. For example, the lights used are 30% more efficient than fluorescent lights and five times more efficient than incandescent lights, with a 12- to 15-times greater life expectancy;
  - Maintenance: A centralized computerized system oversees energy consumption, making it possible to locate leaks and defects and accelerate repair work to avoid energy loss.

Dassault Systèmes generally includes requirements regarding sustainable development in the terms and conditions for bids from suppliers of the DS Campus HQ. In particular, the terms and conditions for maintaining the green spaces and cleaning require the service provider to use non-toxic products.

To the extent possible, Dassault Systèmes seeks to work with companies that are, or are in the process of becoming, ISO 9001 and 14001 certified. For example, the Company has put in place real-time monitoring of the results of operational incidents and building maintenance with the assistance of ISO 9001 certified companies.

#### ***DS Boston Campus***

The DS Boston Campus received the American certification LEED Gold, awarded for buildings designed to optimize environmental performance and built according to strict environmental standards. The building’s construction used 61,000 metric tons of crushed materials (cement, masonry, steel, glass) for its embankment and 2,000 metric tons of recycled steel, and reused more than 75% existing materials.

To optimize its energy consumption, the DS Boston Campus is equipped with condensation heaters, high-yield air conditioning, and daylight sensors.

### **8.3.1.3 Environmental impact of the Company’s transportation policy**

Since the Company’s business is publishing software, transportation is the principal source of its greenhouse gas emissions.

Dassault Systèmes’ travel policy limits the impact of travel on the environment. Under this policy, employees are encouraged to give preference to meetings by conference call and video conference rather than by physical travel, train

travel rather than air travel for trips under three hours in length, and economy class for air travel (the carbon footprint of business class being substantially greater than for economy class).

The greenhouse gas effect of travel is presented in paragraph 8.3.4 “Greenhouse gas emissions”.

#### **8.3.1.4 Environmental considerations of the Company’s computer equipment management policy**

Dassault Systèmes places significant importance on managing its computer equipment both in terms of usage and recycling. The Company’s computer equipment includes fixed terminals, laptop computers and the servers of its data center and has received the “Energy Star” certificate. When buying new material, the Company gives preference to environmental certificates such as “Energy Star” and “TCO”.

Recycling of computer equipment is generally handled by businesses or groups complying with applicable local environmental requirements regarding the treatment of electronic waste. Management of the retirement of computer equipment is set forth in paragraph 8.3.3.2 “Waste treatment”.

#### **8.3.1.5 Creating Company employee awareness**

Dassault Systèmes pursues an on-going policy of employee awareness by involving them in steps taken to save water and energy through presentations of actions and technologies which can reduce the environmental impact of the Company’s activities.

In 2011, the Company repeated the organization at the DS Campus HQ of a week of communication dedicated to sustainable development, with a presentation of the carbon footprint analysis for the Campus by the Social and Environmental Responsibility Department. In addition, the department made a presentation on issues regarding water conservation and the management of water within the Company’s facilities.

In 2010, Dassault Systèmes created a “Sustainable Development for All” community on its intranet site in order to inform employees about subjects concerning sustainable development. Based on the success of this initiative, the Company created a “DS Global Green Team” community which enables the exchange of information on more specific environmental topics at Dassault Systèmes.

### **8.3.2 Methodology for environmental reporting**

#### ***Definition of environmental reporting***

Dassault Systèmes adopted its “Environmental Reporting Protocol” in 2010. This protocol defines the Company’s environmental indicators and the methodology for collecting and calculating environmental information. This protocol was enhanced in 2011 as part of the Company’s continuous improvement policy:

- The Company currently produces information regarding CO<sub>2</sub> emissions due to the use of coolants and employee car travel (see paragraph 8.3.4 “Greenhouse gas emissions”), as well as the number of computers destroyed (see paragraph 8.3.3.2 “Waste treatment”).

When information on these new indicators is available for 2010, historical data are presented to provide comparability. In other cases, “n.a” (“not available”) has been indicated.

- Methodological improvements were put into effect regarding certain indicators, in particular those regarding:
  - water consumption: in 2010, facilities in the Americas zone had provided information on their water consumption only on the basis of consumption at the offices. In 2011, data for these sites includes offices, common areas and green spaces.
  - the concept of recycling according to “European environmental standards” was clarified in 2011 for persons reporting from the Americas and Asia zones as regards the indicator for the number of recycled computers.

When differences in the method used to report data were identified between 2010 and 2011, “not comparable”, or “n.c.”, is indicated in the “change” column.

- Finally, in the marginal situation where a reporting error was detected for the preceding year, historical data has been restated. These cases are limited and concern only the consumption of paper in the Asia zone.

Environmental indicators thus determined for 2011 are presented in paragraph 8.3.3 “Company environmental indicators”.

The Company’s environmental reporting may evolve as part of the on-going process of improvement undertaken by the Company, or to take account of changes in applicable regulations.

### ***Environmental reporting scope***

The targeted scope for environmental reporting covers Dassault Systèmes SA and all the companies included in the scope of consolidation, with the exception of entities recently acquired by Dassault Systèmes, which are not integrated in the environmental reporting scope until one full year of operation has passed.

During 2011, environmental reporting covered 98% of the Company’s employees, compared to 90% in 2010. This scope expansion was achieved through improved coverage of sites in the Americas zone.

### ***Collecting and consolidating environmental data***

Environmental data were collected and consolidated by the Social and Environmental Responsibility Department on the basis of the environmental reporting Protocol and the responses to questionnaires sent to contributors (principally, the Finance, Human Resources and R&D Departments) identified at each Company entity concerned. For certain questions, such as the carbon footprint and data concerning recycling, external service providers were also consulted.

### ***Limitations on environmental reporting***

When information could not be produced on the basis of real consumption (particularly for sites for which the charges related to water and energy consumption are included in rental charges), the environmental reporting Protocol specifies the approach to be followed to make necessary estimates (for example, an estimate of water and energy consumption on the basis of averages observed on other sites of the geographic zone pro rata according to the number of employees or square footage occupied). Actual consumption may as a result be different from our estimates.

In addition, in connection with waste treatment, collection is handled for most subsidiaries by the local government, which does not furnish any information on collected waste. It is thus not possible to provide any information on the amount of waste generated. Dassault Systèmes has nevertheless inquired of all the subsidiaries included in the 2011 reporting scope as to whether recycling was put in place at their facilities. The Company produces on this basis information as to the percentage of sites adopting waste recycling rather than as to the quantity of waste treated (see paragraph 8.3.3.2 “Waste treatment”).

## **8.3.3 Company environmental indicators**

The Company’s environmental indicators are set forth below. Dassault Systèmes presents more detailed information for the DS Campus HQ, the Company’s headquarters and principal site. It should be noted that in July 2011 approximately 450 employees who worked on site moved to a nearby facility. The information related to the “DS Campus HQ” does not include these employees after the date of the move.

The indicators concerning the DS Campus HQ were thus affected by this move, which led to a decline in consumption at the site, and by the unfavorable one-time impact of the move in terms of the treatment of the resulting waste.

### **8.3.3.1 Company consumption levels**

#### ***Energy***

Information set forth below concerns only electricity consumption at Dassault Systèmes sites and data centers. Information on other forms of energy consumption is set forth in paragraph 8.3.4 “Greenhouse gas emissions”.

<i>Electricity consumption (in kWh)</i>	<b>Year 2011</b>	<b>Year 2010</b>	<b>Change</b>
Europe	27,800,000	28,300,000	(2)%
<i>of which DS Campus HQ</i>	<i>15,800,000</i>	<i>17,100,000</i>	<i>(8)%</i>
Americas	16,000,000	16,300,000	(2)%
Asia	4,200,000	4,000,000	5%
<b>Total</b>	<b>48,000,000</b>	<b>48,600,000</b>	<b>(1)%</b>

The main change is related to the DS Campus HQ. The decrease observed on this site resulted principally from the relocation of certain employees in July 2011 as indicated above. The combined consumption of employees at the DS Campus HQ and affected employees in their new locations amounted to 16,700,000 kWh, or a decrease of 2% compared to 2010.

When considering data regarding energy consumption at the DS Campus HQ, the following information should also be taken into account: the energy supplier for the DS Campus HQ realized at the end of 2011 that the electricity counters of two of the four buildings at the campus had not been activated. Recorded and billed consumption has as a result been understated since Dassault Systèmes moved into these facilities. Data set forth in the table above correspond to the consumption recorded and billed.

Dassault Systèmes has located part of its servers at several data centers in the world. Energy consumption at these centers is included in the total electricity consumption above. The largest center underwent major modifications in 2010 with the “virtualization” of its servers: the replacement of several physical servers by a single high density virtual server. The “virtualization” of servers leads to better use of material, savings in space at the data center and a reduction in power consumed by the infrastructure, and thus a reduction in greenhouse gas emissions. The percentage of virtual servers in the world was estimated at 28% for 2009 according to a study by Gartner. Dassault Systèmes is far ahead in this area with 80% of the servers at its principal data center already virtualized. For equivalent capacity, the virtualization of the data center generated a 14% savings in energy consumption in 2011 and a 25% savings in 2010 for this data center.

### **Water consumption**

<i>Water consumption (in cubic meters)</i>	<b>Year 2011</b>	<b>Year 2010</b>	<b>Change</b>
Europe	31,900	22,500	n.c
<i>of which DS Campus HQ</i>	<i>19,500</i>	<i>18,200</i>	<i>7%</i>
Americas	20,300	3,500	n.c
Asia	3,200	2,200	n.c
<b>Total</b>	<b>55,400</b>	<b>28,200</b>	n.c

On the DS Campus HQ, water consumption for 2011 amounted to slightly more than 19,500 cubic meters, compared to 18,200 cubic meters in 2010. The increase in water consumption on the DS Campus HQ was due to the increase in events organized on the site, the cleaning of hydraulic networks and watering tests for the facades and gutters as well as the filling of the canal in connection with insurance recovery for work damage. For the other geographic zones, data for 2011 and 2010 are not comparable.

Data related to water consumption presented above are partially based on estimates and as such may differ from actual water consumption (see paragraph 8.3.2 “Methodology for environmental reporting – Limitations on environmental reporting”).

### **Paper and packaging**

<i>Paper consumption (in metric tonnes)</i>	<b>Year 2011</b>	<b>Year 2010</b>	<b>Change</b>
Europe	58	52	12%
<i>of which DS Campus HQ</i>	<i>24</i>	<i>30</i>	<i>(20)%</i>
Americas	23	23	0%
Asia	19	16(*)	19%
<b>Total</b>	<b>100</b>	<b>91 (*)</b>	10%

(\*) restated data

Paper consumption at the DS Campus HQ amounted to 24 metric tonnes in 2011, compared to 30 metric tonnes in 2010. Paper consumption per employee on the DS Campus HQ remained stable. From July to December 2011, the employees transferred to nearby rented facilities, consumed 3 metric tonnes.

On the DS Campus HQ, the paper used is ‘FSC certified’, an eco-label which ensures sustainable forest management. At a global level, 65% of employees use paper that is 100% recycled or FSC or PEFC certified, compared to 60% in 2010.

Packaging at Dassault Systèmes consists principally of packaging for the Company’s software products. The supplier responsible for packaging the Company’s products complies with Reach (Registration, Evaluation, Authorisation and Restriction of Chemicals), a legal framework for environmental protection in Europe, and received the Imprim’Vert label for its printing facility, which certifies, among other things, that no toxic products are used and that waste is sorted for recycling. The supplier’s packaging is 100% recyclable and biodegradable.

For the other geographic zones, data for 2011 and 2010 are not comparable (see paragraph 8.3.2 “Methodology for environmental reporting – Definition of environmental reporting”).

### 8.3.3.2 Waste treatment

#### *Waste generally*

In light of the nature of its business, Dassault Systèmes generates principal ordinary waste (food products) and paper, cardboard and plastic. The Company does not generate hazardous waste.

The table below indicates the percentage of employees with access to recycling facilities at their work location by geographic zone.

	Year 2011	Year 2010
<i>Percentage of employees with access to recycling facilities at their work location</i>		
Europe	76%	90%
<i>of which DS Campus HQ</i>	100%	100%
Americas	93%	74%
Asia	100%	100%
<b>% of employees with access to recycling facilities at their work location in the world</b>	<b>85%</b>	<b>86%</b>

On the DS Campus HQ, the service provider that collects waste is ISO 9001 certified for collection and ISO 14001 certified at all its waste treatment sites. The service provider carries out the sorting and collection of paper and boxes, removes large waste items once each quarter and offers electrical battery collection. Ordinary waste at the DS Campus HQ is recycled for energy production by the service provider.

In the rest of the world, changes in the number of employees with access to recycling facilities is due to the extension of the reporting scope.

	Year 2011	Year 2010
<i>Waste treatment at DS Campus HQ</i>		
Normal waste (metric tonnes)	72	50
Recyclable paper waste (metric tonnes)	68	73
<b>% of ordinary waste recycled</b>	<b>49%</b>	<b>59%</b>

The proportion of recycled waste decreased from 59% in 2010 to 49% in 2011. This decrease was due principally to the one-time effect of moving 500 employees off the DS Campus HQ.

#### *Specific waste*

	Year 2011	Year 2010
<i>Computers (laptop and desktop) destroyed (in kg)</i>		
Europe	500	100
<i>of which DS Campus HQ</i>	–	–
Americas	900	200
Asia	1,700	1,000
<b>Total</b>	<b>3,100</b>	<b>1,300</b>

	Year 2011	Year 2010
<i>Computers (laptop and desktop) recycled according to environmental standards (in kg)</i>		
Europe	6,900	4,700
<i>of which DS Campus HQ</i>	6,300	3,900
Americas	–	600
Asia	100	100
<b>Total</b>	<b>7,000</b>	<b>5,400</b>

In 2011, on the DS Campus HQ, 6,300 kilograms of computer equipment were recycled by an association supporting and reinserting handicapped persons for recycling or rehabilitating computer equipment. The Company organized a collection procedure at the DS Campus HQ for recycling computers from all Dassault Systèmes’ European sites. This policy explains the increase in the quantity of computers recycled at the DS Campus HQ from 2010 to 2011.

### 8.3.4 Greenhouse gas emissions

To analyze its carbon footprint on a global basis, Dassault Systèmes uses the GHG Protocol (GreenHouse Gas Protocol). This method of evaluation of greenhouse gas effects was launched in 2001 by the World Business Council for Sustainable Development (WBCSD) and the World Resource Institute (WRI). It was developed through a partnership among businesses, non-governmental organizations and governments in order to create a common framework for accounting and reporting, measurement tools and actions to resist climate change.

The GHG Protocol divides the operational perimeter of greenhouse gas emissions of an organization as follows:

- Scope 1: direct emissions resulting from the combustion of fossil fuels from resources owned or controlled by the enterprise,
- Scope 2: indirect emissions resulting from the purchase or production of electricity,
- Scope 3: all other indirect emissions, from the extended supply chain to transport of goods and persons.

The information used to evaluate the global carbon footprint of the Company covered a scope representing 98% of its employees. As part of the policy of continuous improvement at Dassault Systèmes, Scope 3 integrated in 2011 employee travel by personal car in connection with work. The results are set forth below:

	2011	2010
	<i>Metric Tonnes</i> <i>CO2 emissions</i>	<i>Metric Tonnes</i> <i>CO2 emissions</i>
<b>Scope 1</b>		
<b>Emissions due to on-site fuel consumption</b>	<b>1,460</b>	<b>90</b>
<b>Total emissions due to the use of company vehicles</b>	<b>3,140</b>	<b>2,300</b>
Emissions due to the use of company vehicles in Europe	3,000	2,220
Emissions due to the use of company vehicles in the Americas	10	10
Emissions due to the use of company vehicles in Asia	130	70
<b>Emissions due to the use of refrigerants</b>	<b>220</b>	<b>160</b>
<b>Total scope 1</b>	<b>4,820</b>	<b>2,550</b>
<b>Scope 2</b>		
<b>Total emissions due to purchases of electricity</b>	<b>12,240</b>	<b>12,960</b>
Emissions due to purchases of electricity in Europe	3,180	3,150
Emissions due to purchases of electricity in the Americas	6,310	7,180
Emissions due to purchases of electricity in Asia	2,750	2,630
<b>Total scope 2</b>	<b>12,240</b>	<b>12,960</b>
<b>Scope 3</b>		
<b>Total emissions due to employee business air travel</b>	<b>18,120</b>	<b>12,520</b>
Emissions due to employee business air travel in Europe	4,750	3,800
Emissions due to employee business air travel in the Americas	10,540	7,920
Emissions due to employee business air travel in Asia	2,830	800
<b>Total emissions due to employee business travel by train</b>	<b>2,260</b>	<b>500</b>
Emissions due to employee travel by train in Europe	270	180
Emissions due to employee travel by train in the Americas	10	10
Emissions due to employee travel by train in Asia	1,980	310
<b>Total emissions due to employee travel by personal car in connection with work</b>	<b>3,670</b>	<b>n.a</b>
Emissions due to employee travel using their personal vehicles in Europe	1,900	n.a
Emissions due to employee travel using their personal vehicles in the Americas	1,130	n.a
Emissions due to employee travel using their personal vehicles in Asia	640	n.a
<b>Total scope 3</b>	<b>24,050</b>	<b>13,020</b>
<b>Total greenhouse gas emissions (scopes 1 + 2 + 3)</b>	<b>41,110</b>	<b>28,530</b>

“n.a.”: information not available

The general increase in greenhouse gas emissions was principally due to:

- the increase in the Company’s business activities, which generated more employee travel,
- the inclusion of additional indicators in 2011, in particular regarding employee travel by car, and
- the extension of the environmental reporting scope (see paragraph 8.3.2 “Methodology for environmental reporting – Environmental reporting scope”) which mechanically causes an increase in the data produced regarding greenhouse gas emissions on all indicators and particularly in connection with fuel consumption, which in 2011 included for the Americas zone:
  - 15 sites consuming natural gas (compared to 2 sites in 2010)
  - 8 sites consuming domestic fuel (none in 2010).

### 8.3.5 NRE correspondence table

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