

## 4.5. ENVIRONMENTAL INDICATORS

The environmental section of Vivendi's Reporting Protocol, a benchmark in CSR reporting for the Group's entities, was fully revised and the improved definitions of each indicator allow for a better harmonization of measurements.

### 4.5.1. General Environmental Policy

#### 4.5.1.1. ORGANIZATION, ASSESSMENT PROCESS AND CERTIFICATIONS

		GRI	UNGC	OECD
<input checked="" type="checkbox"/> <b>Conducted energy assessment and evaluation of environmental impacts (number)</b>		DMA Environment, EN30	7, 8	VI.1.a
	<b>2012</b>			
<b>Consolidated data</b>	<b>106</b>			
C+G	7			
UMG	0			
AB	0			
SFR	87			
MTG	9			
GVT	2			
Other	1			

Within the Group, the activities of the telecommunications operators contribute significantly to the total consumption of energy. These operators conduct regular assessments of their sites and make every effort to improve control of their waste management.

		GRI	UNGC	OECD
<input checked="" type="checkbox"/> <b>Environmental site certification (number)</b>		DMA Environment	7, 8	-
	<b>2012</b>			
<b>Consolidated data</b>	<b>3</b>			
C+G	0			
UMG	1			
AB	0			
SFR	(see Section 3.10) 1			
MTG	0			
GVT	0			
Other	1			

The environmental certifications for the sites of various Group entities have been renewed for several years. In June 2012, the registration of the European EMAS certification was renewed at Vivendi's corporate headquarters in Paris, three years after its initial certification by the French Ministry for the Ecology, Sustainable Development and Energy (please refer to "Environmental key messages" p. 16).

**4.5.1.2. EMPLOYEE TRAINING AND AWARENESS**

This information category is deemed not relevant to Vivendi's activities, nevertheless, some of the Group's entities raise the awareness of their employees through the provision of training and information on environmental impacts.

**4.5.1.3. MEASURES TO PREVENT ENVIRONMENTAL RISKS AND POLLUTION**

This information category is deemed not relevant to Vivendi's activities, which do not present any risks in terms of pollution.

**4.5.1.4. FINANCIAL PROVISIONS FOR ENVIRONMENTAL RISKS**

This information category is deemed not relevant to Vivendi's activities, as the major risks associated with the Group's activities are not related to environmental concerns.

**4.5.2. Pollution and Waste Management****4.5.2.1. PREVENTION, REDUCTION OR REMEDY OF EMISSIONS INTO THE AIR, WATER AND SOIL**

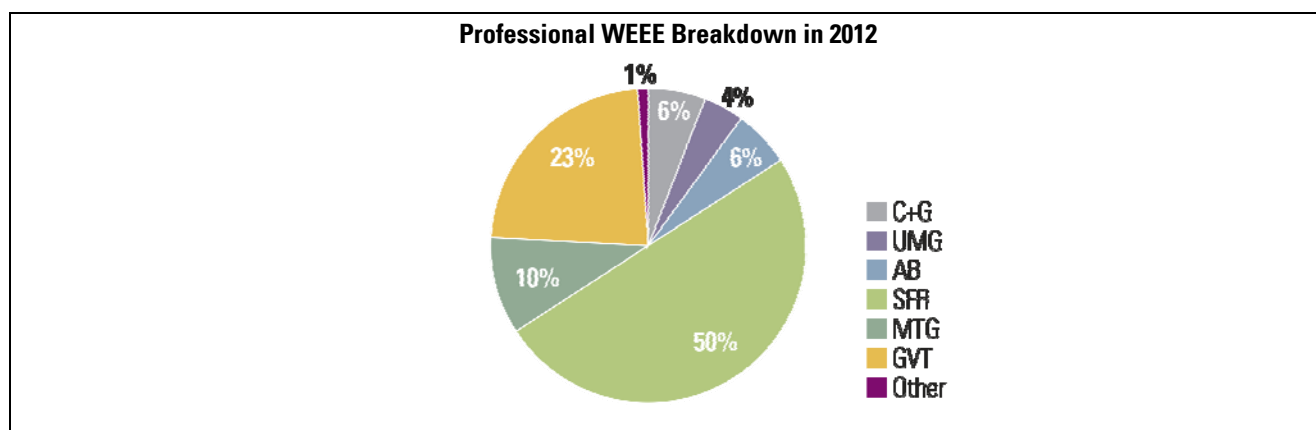
This information category is deemed not relevant to Vivendi's activities, which do not present risks in terms of air, water or soil pollution (outside of the CO<sub>2</sub> emissions which are described pp. 123-125).

**4.5.2.2. WASTE MANAGEMENT AND RECYCLING**

Waste collection consists mainly of business and household waste from electrical and electronic equipment (WEEE), hazardous and special waste (waste which, due to its composition or properties, may present a danger for human health or the environment) and cell phones and batteries produced as part of the Group's activities.

<input checked="" type="checkbox"/> Professional electrical and electronic equipment waste (WEEE) (kg)	GRI EN22	UNGC -	OECD VI.1.a
<b>Consolidated data</b>	<b>2012</b> <b>970,139</b>		
C+G	64,685		
UMG	45,388		
AB	54,665		
SFR	484,320		
MTG	101,156		
GVT	219,210		
Other	715		

In 2012, Maroc Telecom and GVT improved their data collection process in relation to the waste category, which enabled the large-scale collection of obsolete cell phone handsets and routers by the Moroccan operator as well as the disposals of relay antennas by the Brazilian operator to be included in the Group's 2012 reporting.


 **Household electrical and electronic equipment waste (WEEE) (kg)**
GRI  
EN22

UNGC

-

OECD

VI.1.a

**Consolidated data**

2012

**2,779,261**

C+G	161,007
UMG	958
AB	128,862
SFR	2,255,284
MTG	-
GVT	233,150
Other	-

At SFR, the household WEEE indicator also includes all cell phones, boxes, femto boxes and other accessories such as cables, remote controls and hard disks that have been recycled. In 2012, nearly 360,000 cell phones were collected and recycled by the operator. The collection of data on this type of waste has been improved by UMG and Activision Blizzard this year, and has made considerable progress at GVT.

	2012	GRI	UNGC	OECD
		EN22	7,,8, 9	VI.1.a
<input checked="" type="checkbox"/> <b>Total production of hazardous or special waste (kg)</b>				
<b>Consolidated data</b>	<b>813,098</b>			
C+G	31,744			
UMG	-			
AB	-			
SFR	386,598			
MTG	366,000			
GVT	28,556			
Other	200			

In 2012, GVT included in its hazardous or special waste reporting the "stationary" batteries that are used in switches as well as the fact that the collection of special waste increased by 28 tons. At Canal+ Group's "Lumière" site, 29 tons of UPS batteries were replaced and efforts have been made to collect waste printer toner.

	2012	GRI	UNGC	OECD
		EN22	7,,8, 9	VI.6.b & d
<input checked="" type="checkbox"/> <b>Total recycled household and professional batteries, whether rechargeable or not (kg)</b>				
<b>Consolidated data</b>	<b>24,786</b>			
C+G	667			
UMG	-			
AB	-			
SFR	-			
MTG	4,000			
GVT	20,100			
Other	19			

In 2012, the data collection process in Morocco and Brazil in relation to cell phones and batteries has been strengthened, which has led to Maroc Telecom and GVT becoming the Group's main contributors. At GVT, switches and fixed terminals are also included in the scope of the indicator.

## 4.5.2.3. MANAGEMENT OF NOISE AND OF OTHER TYPES OF POLLUTION

	GRI	UNGC	OECD
☑ Measures taken to reduce the visual impact of relay antennas	107	-	-

(Please refer to area for action "Environment and radiofrequencies" pp. 65-69).

## 4.5.3. Sustainable Use of Resources

## 4.5.3.1. WATER CONSUMPTION AND SUPPLY

	GRI	UNGC	OECD
☑ Water consumption from the public supply network and measures taken to adapt water consumption to local constraints	DMA EN Water aspect, EN8, EN9, EN21	7, 8, 9	VI, VI.1.a, VI.6.d

Under the Reporting Protocol, this indicator has for the first time been redefined and consolidated into the current form. Due to the assorted and incomplete nature of the data reporting for this indicator in 2012, it has only been possible to assess water consumption from the public network at 538,000 m<sup>3</sup>.

## 4.5.3.2. CONSUMPTION OF RAW MATERIALS AND MEASURES TO IMPROVE THEIR EFFICIENT USE

The following information on raw materials is considered relevant in view of the Group's activities:

- \* Purchases of paper for external use (e.g., publications, letters to shareholders and miscellaneous reports);
- \* Purchases of plastics and acrylics incorporated in consumer products; and
- \* Purchases of packaging and cardboard used for the sales of consumer products.

	GRI	UNGC	OECD
☑ Purchases of paper for external use, purchases of plastics and acrylics incorporated in consumer products, purchases of packaging and cardboard used for the sales of consumer products	EN1, EN26	-	VI.1.a

In 2012, these indicators have been included for the first time in the information collected by Vivendi's entities. This initiative is based on the Group's decision to concentrate environmentally sensitive consumption measurements on raw materials that have a direct relationship to the key activities of its businesses.

- \* The information on the purchases of plastics incorporated in consumer products will enable their use in DVD and CD packaging to be quantified, especially at UMG. In 2012, the Group estimates the use of polycarbonates for the sale of UMG's products worldwide at just over 1,000 tons.
- \* To improve the Group's reporting on the use of raw materials, it will include the figures for the plastics used in the manufacture of other elements in its product range, in particular TV service boxes and Internet Access Provider (IAP) boxes, as well as the games and toys produced by Activision Blizzard.
- \* The use of packaging materials and cardboard has also been measured for the first time this year. Vivendi aims to improve the collection of data for this indicator as it considers the use of these materials as an important element in its activities affecting the environment. The Group has identified total purchasing (not consumption) of 18.8 tons for these two segments in 2012. The most significant contributions have come from Activision Blizzard (82% of the total), whose products are highly dependent on cardboard and packaging for retailing to the public. Similarly, but to a lesser degree, UMG and SFR use packaging products for their CDs, DVDs and boxes (8% and 9% of the total, respectively).
- \* The purchase of paper for external use this year was close to 7,000 tons. SFR contributes substantially to this total (83%), mainly due to the greater maturity of its data collection process.

For these three indicators, Vivendi's aim is to constantly improve its information consolidation process.

	GRI	UNGC	OECD
<input checked="" type="checkbox"/> <b>Measures taken to improve energy efficiency and the use of renewable energy</b>	EN4, EN5, EN7	7, 8, 9	VI.6.b & d

The Group’s various entities have adopted measures to improve the energy efficiency of their activities, including, for example, the use of renewable energy (please refer to “Environmental key messages” p. 17).

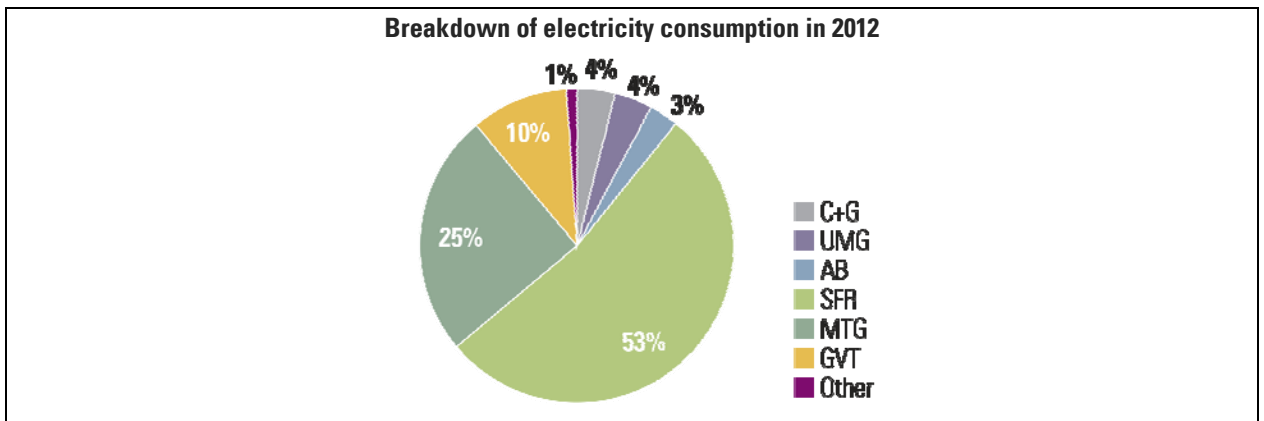
**4.5.3.3. ENERGY CONSUMPTION AND MEASURES TAKEN TO IMPROVE ENERGY EFFICIENCY AND USE OF RENEWABLE ENERGY**

	GRI	UNGC	OECD
<input checked="" type="checkbox"/> <b>Consumption of electricity (thousands of kWh)</b>	EN3	-	VI.1.a

	2012
<b>Consolidated data</b>	<b>1,235,162</b>
C+G	47,637
UMG	51,883
AB	40,882
SFR	659,456
MTG	310,455
GVT	121,801
Other	3,048

The increase in electrical energy consumption measured is due to two main factors:

- \* Improvement in actual measurements at UMG; and
- \* Improved reporting of data at GVT.



Consumption of natural gas (thousands of kWh GCV - Gross calorific value)

GRI	UNGC	OECD
EN3	-	VI.1.a

	2012
<b>Consolidated data</b>	<b>39,048</b>
C+G	14
UMG	17,396
AB	18,449
SFR	3,190
MTG	-
GVT	-
Other	-

In 2012, Activision Blizzard improved its data collection process for the consumption of natural gas and SFR incorporated a new site within the scope of its reporting.

 Consumption of fuel oil (liters)

GRI	UNGC	OECD
EN3	-	VI.1.a

	2012
<b>Consolidated data</b>	<b>6,267,689</b>
C+G	18,319
UMG	4,291
AB	7,902
SFR	141,617
MTG	6,053,174
GVT	41,621
Other	765

At SFR, due to a significant number of maintenance programs, a significant use was made of generators, which lead to an increase in consumption fuel oil.

At Maroc Telecom, the significant consumption of domestic fuel is due to the considerable increase in the size of its vehicle fleet in the second half of 2012, however, consumption was substantially lower in the Settat region due to the electrification of seven sites.

**Steam used for space heating (kWh)**

GRI	UNGC	OECD
EN4	-	VI.1.a

	2012
<b>Consolidated data</b>	<b>4,704,028</b>
C+G	8,199
UMG	1,810,800
AB	-
SFR	1,908,430
MTG	-
GVT	-
Other	976,600

Steam is essentially used for heating office space for Canal+, SFR, Vivendi's head office as well as UMG Germany's main office.

 **CO<sub>2</sub> emissions due to usage of mobile sources (tCO<sub>2</sub>eq)**

GRI	UNGC	OECD
EN3, EN4, EN16, EN17, EN29	-	VI.1.a

	2012
<b>Consolidated data</b>	<b>46,304</b>
Gasoline for vehicles	27,504 (59%)
Diesel for vehicles	16,577 (36%)
Other fuel	2,223 (5%)

	Gasoline	Diesel	Other
C+G	2,622	1,067	-
UMG	495	1,425	-
AB	90	227	74
SFR	11	5,193	-
MTG	186	8,405	-
GVT	24,097	158	2,149
Other	3	102	-

The consumption of fuel is linked to the Group's activities, especially the use of sales and support vehicles. At GVT, the high growth of the activity generated a significant increase in the size of its vehicle fleet and consequently its consumption of fuel.



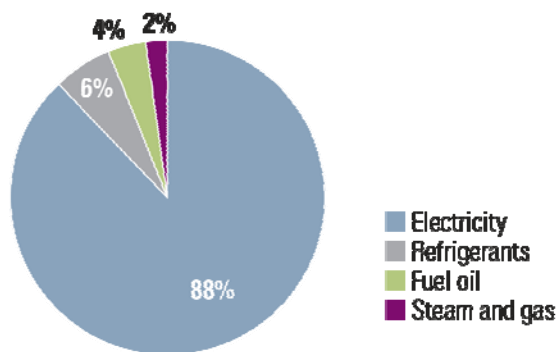
CO<sub>2</sub> emissions due to usage of fixed sources (tCO<sub>2</sub> eq)

GRI	UNGC	OECD
EN16, EN17, EN29	-	VI.1.a

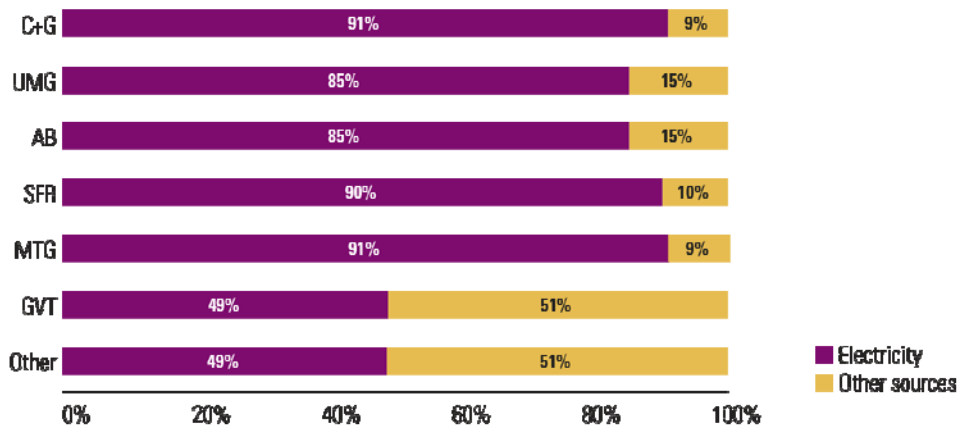
	2012
<b>Consolidated data</b>	<b>392,416</b>
Electricity	344,863 (88%)
Refrigerants	23,200 (6%)
Fuel oil	16,417 (4%)
Other sources (steam and gas)	7,935 (2%)

	Electricity	Other sources
C+G	10,355	1,008
UMG	22,151	3,875
AB	20,555	3,730
SFR	61,897	6,934
MTG	219,802	21,723
GVT	9,866	10,032
Other	238	250

Breakdown of CO<sub>2</sub> emission by source in 2012



Breakdown of CO<sub>2</sub> emission by source by subsidiary in 2012



In Brazil, GVT included the measurement of consumption at technical sites in its calculation, thereby quadrupling the relevant data for electricity. The operator also now measures emissions from refrigerant gases.

More detailed explanations on electricity, steam, natural gas and fuel oil, which contribute to CO<sub>2</sub> emissions, are presented in this section under each indicator.

#### 4.5.3.4. LAND USE

This information category is deemed not to be relevant as the Group's activities do not present particular risks in terms of soil pollution.

### 4.5.4. Climate Change

#### 4.5.4.1. GREENHOUSE GAS EMISSIONS

	GRI	UNGC	OECD
<input checked="" type="checkbox"/> CO <sub>2</sub> emissions attributable to business travel (tCO <sub>2</sub> eq)	EN16, EN17, EN29	-	VI.1.a

	2012
<b>Consolidated data</b>	<b>33,949</b>
Air travel	33,423 (98%)
Train travel	526 (2%)

	Total air travel	Total train travel
C+G	2,546	25
UMG	17,336	216
AB	9,011	53
SFR	2,116	76
MTG	154	154
GVT	1,739	-
Other	520	2

This indicator measures the CO<sub>2</sub> emissions due to travel by train or plane undertaken exclusively for business purposes.

#### 4.5.4.2. ADAPTATION TO CLIMATE CHANGE

This information category is deemed not relevant given the Group's activities, although regular efforts to reduce electricity consumption and hence CO<sub>2</sub> emissions are undertaken. More detailed explanations are presented in relation to each indicator that contributes to the measurement of emissions and discharges, as well as in terms of other sources of CO<sub>2</sub> emissions (steam, natural gas and fuel oil).

### 4.5.5. Biodiversity Preservation

#### 4.5.5.1. MEASURES TAKEN TO PRESERVE OR DEVELOP BIODIVERSITY

	GRI	UNGC	OECD
<input checked="" type="checkbox"/> Measures taken to limit the impact towards the environment and protected animal and plant species	EN11-15, EN25	7, 8, 9	VI.6.d

In light of the Group's activities, risks to biodiversity are not considered a major issue in relation to which Vivendi needs to make specific investments. Nevertheless, the Group's entities make every effort to minimize any impact from their site construction or maintenance activities on protected environments for animal and plant species.