



# **European Investment Bank Carbon Footprint Report 2012**

## **GHG emissions resulting from EIB internal operations**

**January to December 2012**

This report has been prepared by Carbon Trust Advisory Services Ltd for the European Investment Bank using data provided by the EIB for 2012 and reports published by the EIB for 2007 to 2011.

Report dated: 1<sup>st</sup> March 2013

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## 1 EXECUTIVE SUMMARY

The EIB first calculated the carbon footprint of its head office operations in 2007 and set a target to reduce relative emissions by 20%. This includes emissions from energy use in the buildings (natural gas for heating and power generation, and purchased electricity and steam for power), from mobility activities (owned vehicles, business travel and employee commuting), from waste disposal and from the production of paper used in the offices. However, purchased electricity is covered by green guarantees of origin so is treated as zero carbon on a net basis.

In **2012**, the EIB's total carbon footprint was 16,441 tCO<sub>2</sub>e, a decrease of 16% from 2011 and a decrease of 8% compared to 2007. The relative carbon footprint was 7.5 tCO<sub>2</sub>e per employee, a decrease of 17% compared to 2011 and a decrease of 37% compared to 2007. This reflects a 46% increase in staff numbers since 2007. As such, the EIB has achieved the 20% target set in 2007 and should look to set a new target.

The most significant source of emissions (94% of total net emissions) relates to mobility activities. Air travel represents the biggest share of this (56% of total net emissions). There are measures that can be taken to reduce these emissions, such as the use of technologies such as tele- and video-conferencing, although it is a core part **of EIB's business activity and** emissions will therefore remain significant. Commuting represents 38% of total net emissions although the methodology used to calculate this needs to be improved to ensure that any improvement measures introduced can be properly monitored.



## 2 INTRODUCTION

The European Investment Bank (EIB) was established in 1958 under the Treaty of **Rome. It is the European Union's financing institution, with a remit to contribute** towards the integration, balanced development and economic and social cohesion of the Member States. It raises funds on the capital markets to finance projects that meet EU objectives: regional development, trans-European networks of transport, telecommunications and energy, research, development and innovation, environmental improvement and protection, health and education. Outside of the European Union, the EIB implements the financial components of agreements concluded under the European development aid and cooperation policies.

The European Investment Fund (EIF) is a European Union agency, majority-owned by the EIB, whose remit is to provide finance through private banks and funds to small and medium-sized enterprises. **The EIF is included within the boundary of the EIB's carbon footprint and references to the EIB's emissions** in this report include the EIF.

The EIB first calculated its carbon footprint in 2007 and adopted a 20% relative reduction target from this baseline to 2020. This was consistent with the European Commission target for 2020 of a 20% reduction in EU greenhouse gas emissions from 1990 levels (with an 8% reduction to be achieved between 2008 and 2012 as agreed under the Kyoto Agreement). For Luxembourg, the National Emissions Reduction target was set at 28% by 2012 based on its relative wealth at the time.

**The EIB's commitment to measure** and manage its footprint is consistent with its environmental and social policies, principles and standards for the projects it finances. Understanding its carbon footprint also allows it to identify and implement measures to reduce emissions and to track performance against its target. Measures taken in previous years include **expansion into a BREEAM 'excellent' building and investment in** the energy efficiency of existing buildings, in addition to some activities to reduce travel related emissions.

This report presents the analysis of **EIB's 2012** carbon footprint based on the GHG Protocol Corporate Standard and the Global Reporting Initiative principles and indicators.

### 3 ORGANISATIONAL AND OPERATIONAL BOUNDARY

#### 3.1 Organisational boundary

The organisational boundary defines the businesses and operations that constitute the company for the purpose of accounting and reporting greenhouse gas emissions. Companies can choose to report either the emissions from operations over which it has financial or operational control (the control approach) or from operations according to its share of equity in the operation (the equity share approach).

The **EIB's** carbon footprint uses the operational control approach. As such, it includes the EIB and EIF head office operations in Luxemburg (Kirchberg and Hamm). Smaller regional offices are not included at present due to difficulties obtaining consistent data, but we will examine how to address this in the future. These regional offices will not represent a material share of the total footprint.

#### 3.2 Operational boundary

Defining the operational boundary involves identifying emissions associated with its operations, categorising them as direct and indirect emissions, and choosing the scope of accounting and reporting for indirect emissions.

The following definitions are used:

##### Direct GHG emissions

- **Scope 1:** emissions from sources that are owned or controlled by the reporting entity (i.e. any owned or controlled activities that release emissions straight into the atmosphere).

##### Indirect GHG emissions

Indirect emissions **occur as a consequence of the reporting entity's activities** but at sources that are owned or controlled by another entity (and are therefore their scope 1 emissions). These are classified as:

- **Scope 2:** Indirect GHG emissions from the consumption of purchased electricity, heat, steam or cooling.
- **Scope 3:** Indirect GHG emissions from other activities. A detailed Standard exists that sets out the rules for 15 categories of scope 3 emissions as indicated in Figure 1<sup>1</sup>

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<sup>1</sup> The Corporate Value Chain (Scope 3) Accounting & Reporting Standard, available: <http://www.ghgprotocol.org/standards/product-and-supply-chain-standard>



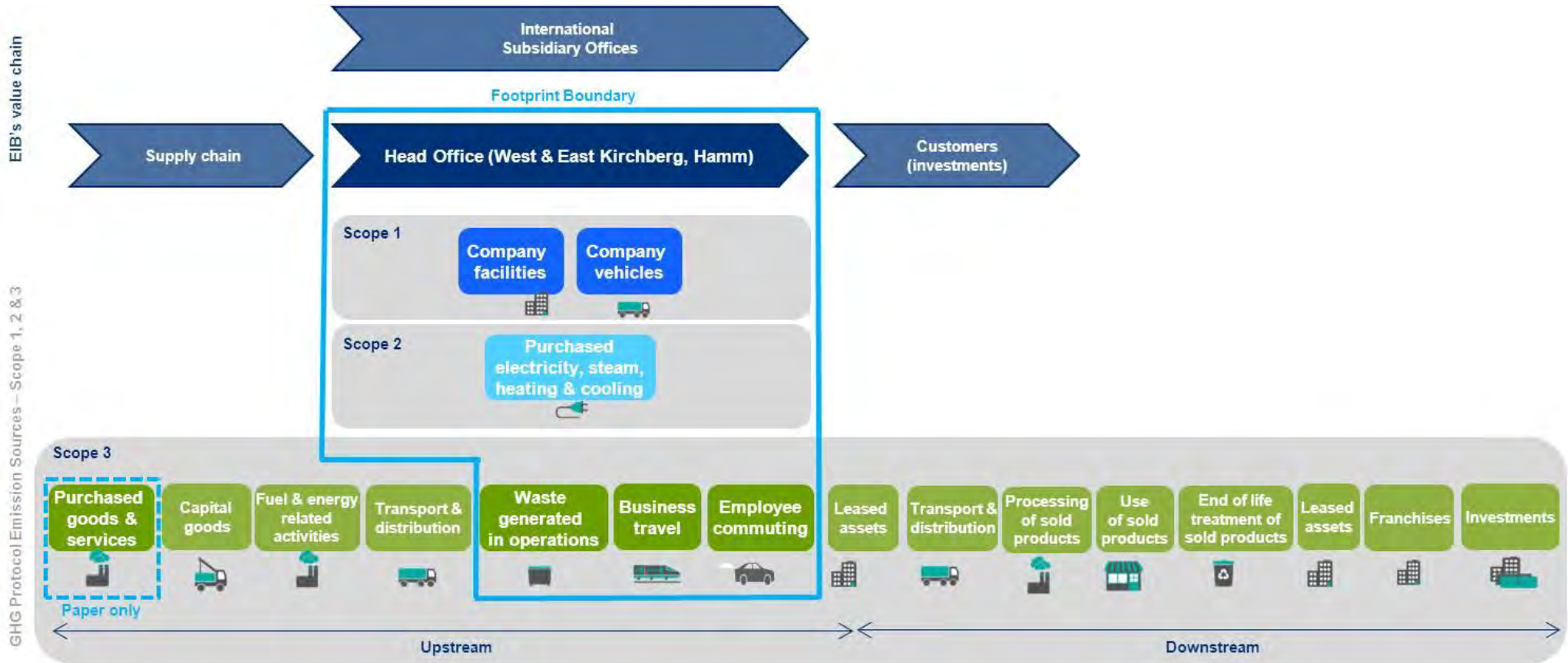
The operational boundary for **EIB's** carbon footprint report includes the following:

- **Scope 1:** Natural gas combusted in boilers to heat EIB buildings and used in the co-generation plant to generate heat and power, and transport fuel used to run vehicles owned by the EIB. There are no relevant fugitive emissions because air conditioning systems use ammonia.
- **Scope 2:** Purchased grid electricity (from green tariffs) and steam used for power in the properties (lighting, air conditioning, small power, elevators etc).
- **Scope 3:** Transport fuel and power used by air and rail transport operators for EIB business travel, by the outsourced mini-bus service that operates between the Luxembourg sites and by employee-owned vehicles for commuting to and from work; emissions from waste management operations due to incineration or recycling of waste generated by the EIB; and, emissions generated in the production of office paper purchased by the EIB.

Figure 1 illustrates the organisational and operational boundary.

### 3.3 Reporting period covered

The reporting period covers 1 January 2012 to 31 December 2012.



**Figure 1: Boundary Diagram**



## 4 METHODOLOGY

Carbon footprint analysis for previous years has used the Bilan Carbone methodology, taking an extract to report in accordance with the GHG Protocol. In November 2012, we conducted a methodology review, comparing Bilan Carbone, the GHG Protocol, ISO14064 and the Carbon Trust Standard. We presented a report to the EIB comparing the different methodologies in terms of both technical accounting methodology and in terms of usage. To assess current best practice usage, we analysed submissions to the Carbon Disclosure Project (CDP) in 2011 and found that 56% of companies reported using the GHG Protocol with others reporting against various national schemes, **such as the UK's DEFRA Guidance or the US EPA Climate Leaders program**, or independent standards such as ISO 14064. Bilan Carbone is not **mentioned although may be grouped under the category 'other', which makes up 23%** of responses.

The GHG Protocol is recognized as the most widely used international accounting tool for government and business leaders to understand, quantify, and manage greenhouse gas emissions. It is an international standard used by a diverse range of organisations, including many in the banking sector (155 reported into CDP in 2011), and it is widely accepted as best practice. Bilan Carbone is being developed to be more consistent with the GHG Protocol. ISO14064 and the Carbon Trust Standard are recognised standards providing prescriptive guidance that can be used to gain external verification. However, it was more important to retain flexibility to ensure that the methodology was fit for purpose, could evolve over time and minimised unnecessary burden on resources.

It was therefore agreed to directly align with the GHG Protocol<sup>2</sup>.

To calculate the GHG emissions inventory, we identified all relevant GHG emissions sources and collected activity data from the EIB then, using emission factors, calculated emissions from each source. This was aggregated to corporate level for **EIB's total carbon footprint**.

The following sections set out the details of the process followed.

### 4.1 Emission sources and activity data

Activity data is a quantitative measure of activity that results in GHG emissions. Table 1 shows the activity data provided by the EIB. It is mainly primary data e.g. the amount of gas used for heating or the distance travelled by air, with the exception of commuting data that is based on the average number of vehicles and average distance travelled. The activity data, with the addition of water consumed, is also used as environmental impact indicators as per the Global Reporting Initiative (GRI).

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<sup>2</sup> <http://www.ghgprotocol.org/standards/corporate-standard>



Emission scope	Emission source	Units	Resolution
Scope 1	Natural Gas for heating	kWh	By site, by month
	Natural gas for co-generation <sup>1</sup>	kWh	By site, by month
	Owned vehicles	km	By vehicle
Scope 2	Purchased electricity <sup>2</sup>	kWh	By site, by month
	Purchased steam	kWh	By site, by month
Scope 3	Business travel – Air	Passenger km	By journey (inc. class and distance)
	Business travel – Rail	Passenger km	By journey (inc. class and distance)
	Outsourced minibus	km	Single figure
	Employee commuting	Parking spaces <sup>3</sup>	Average count by month
	Waste	kg	By type and treatment, by site, by month
	Paper consumption	Tonnes	By site

**Table 1: Activity data**

**Notes to Table 1:**

<sup>1</sup> The co-generation plant generates electricity that is sold to the grid. The EIB profits directly from the sale of this electricity therefore the emissions associated with its generation (from the combustion of natural gas) are accounted for under scope 1.

<sup>2</sup> The EIB began to purchase electricity originating 100% from renewable sources (hydropower, wind power and biomass) in 2007 and is the proprietor of the related green guarantees of origin. As such, whilst emissions at a grid average factor are accounted for under scope 2, there are no net emissions associated with purchased electricity.

<sup>3</sup> Primary data on distances travelled or fuel consumed for commuting is not currently available. The EIB therefore counts the average number of available parking spaces on a monthly basis, deducted from the total number of available spaces, to arrive at an assumed number of cars per day. This is then multiplied by an average distance travelled of 35 km, based on a survey conducted by the European Commission of its employees in Luxemburg. This figure is supported by 3<sup>rd</sup> party research<sup>3</sup>.

<sup>3</sup> A. Aguilera (1999) 'Growth in commuting distances in polycentric metropolitan areas: the case of Paris', 45th Congress of the European Regional Science Association. Available: <http://www-sre.wu-wien.ac.at/ersa/ersaconfs/ersa05/papers/255.pdf>

## 4.2 Emission factors

Emission factors are calculated ratios relating GHG emissions to a measure of activity at an emissions source. They are used to convert activity data to carbon emissions.

Consistent with prior years, the emission factors represent carbon dioxide equivalent (CO<sub>2</sub>e). They convert the impact of each of the six greenhouse gases covered by the Kyoto Protocol – carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF<sub>6</sub>) – into a common unit of tonnes of CO<sub>2</sub>e based on their Global Warming Potential (GWP). The GWP is a measure of how much heat the respective gas retains in the atmosphere over a given time horizon, based on the Intergovernmental Panel on Climate Change (IPCC) 100-years GWP coefficients.

Table 2 sets out the emission factors used and the sources of data.

Emission scope	Emission source	Emission factor	Data source
Scope 1	Natural Gas for heating	0.182 kgCO <sub>2</sub> e/kWh	EIB
	Natural gas for co-generation	0.182 kgCO <sub>2</sub> e/kWh	EIB
	Owned vehicles <sup>1</sup>	0.168 kgCO <sub>2</sub> e/km <sup>5</sup>	Vehicle manufacturers
Scope 2	Purchased electricity <sup>2</sup>	0.391 kgCO <sub>2</sub> e/kWh	Defra
	Purchased steam	0.043 kgCO <sub>2</sub> e/kWh	Ville de Luxembourg
Scope 3	Business travel – Air <sup>3</sup>	0.173 to 0.500 kgCO <sub>2</sub> e/Passenger km	Defra
	Business travel – Rail	0.015 kgCO <sub>2</sub> e/Passenger km	Defra
	Outsourced minibus	2.630 kgCO <sub>2</sub> e/litre	IVECO
	Employee commuting	0.325 kgCO <sub>2</sub> e/km	As per 2011 (Bilan Carbone v5)
	Waste <sup>4</sup>	-50.6 to 18.3 kgCO <sub>2</sub> e/tonne <sup>4</sup>	As per 2011 (Bilan Carbone v5)
	Paper consumption	955 kgCO <sub>2</sub> e/tonnes	Defra

**Table 2: Emission factors**

### Notes to Table 2:

<sup>1</sup> This is an average figure for all the vehicles owned by the EIB. The factor provided by the vehicle manufacturers is used for each vehicle to calculate emissions.

<sup>2</sup> The gross carbon footprint is reported using the grid average factor for purchased electricity, but as EIB purchase 100% green power the net carbon footprint is used for analysis in this report (i.e. emissions from purchased electricity treated as zero). See section 7 for a breakdown of gross and net emissions.

<sup>3</sup> The emission factor for air travel includes a Radiative Forcing factor that accounts for impacts other than CO<sub>2</sub> emissions (including water vapour, contrails, NO<sub>x</sub> etc) that magnify the warming effect in the upper atmosphere. There is uncertainty about the appropriate factor to use. The IPCC estimated 2-4 in 1999, with current best scientific evidence suggesting a factor of 1.9<sup>4</sup>. Application of this multiplier is optional under the Greenhouse Gas Protocol. A factor of 2 has been used to be consistent with previous years (as per Bilan Carbone).

The range of factors represents the different impact of distance (i.e. short-haul and long-haul) and travel class (i.e. economy and business class).

<sup>4</sup> The range of factors represents the different impact of waste type and treatment type (i.e. recycling or incineration).

### 4.3 Emissions inventory calculation

An inventory of GHG emissions by source was calculated by applying the emission factors to relevant activity data and aggregating the results to calculate EIB's absolute carbon footprint. A relative footprint was also calculated using employee numbers in Full Time Equivalent (FTE).

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<sup>4</sup> <http://elib.dlr.de/19906/1/s13.pdf>

## 5 CARBON FOOTPRINT

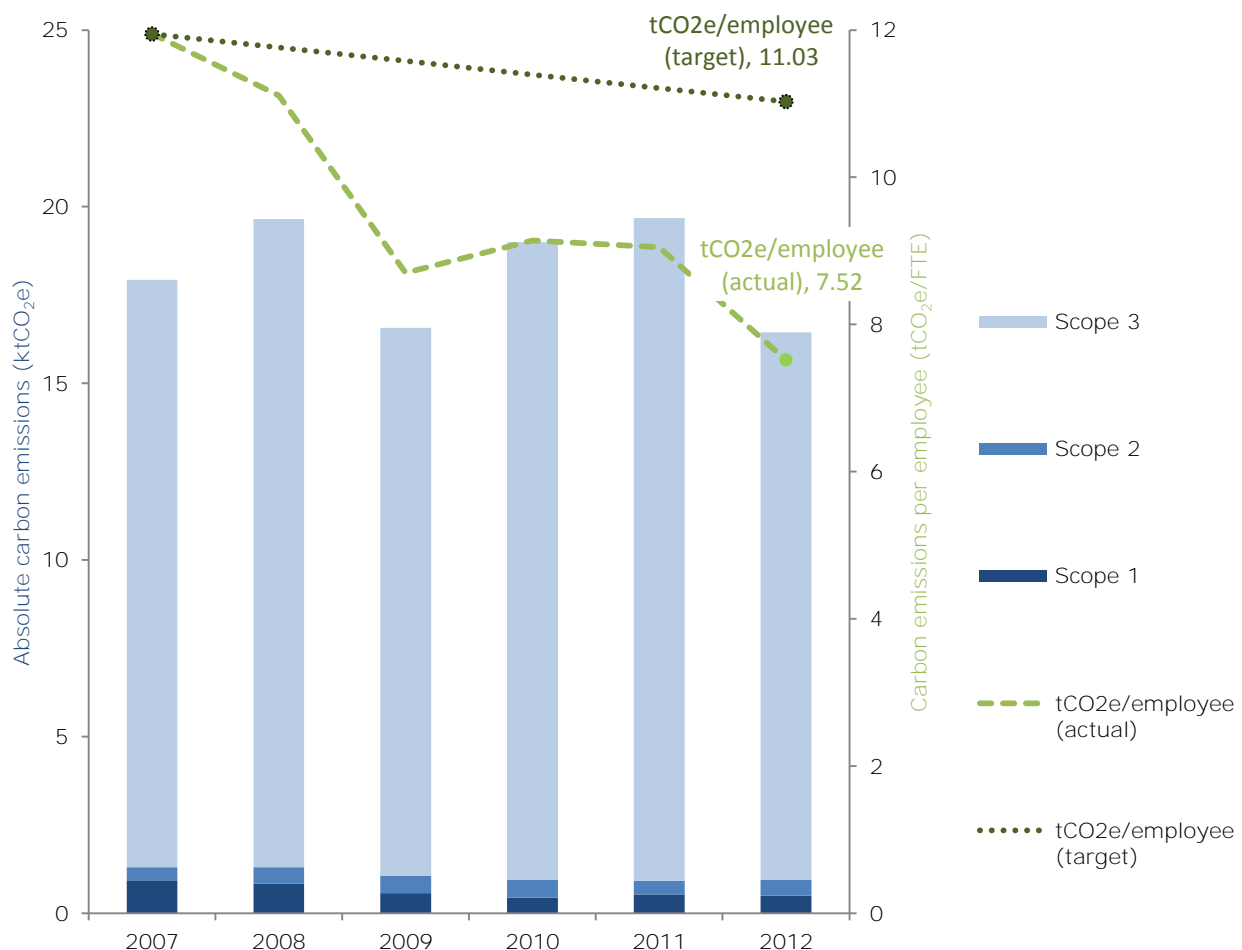
### 5.1 Total emissions

The **EIB's** total carbon footprint in 2012 was 16,441 tCO<sub>2</sub>e, a decrease of 16% compared to 2011 and a decrease of 8% compared to the 2007 baseline year.

The relative carbon footprint in 2012 was 7.5 tCO<sub>2</sub>e per employee, a decrease of 17% compared to 2011 and a decrease of 37% compared to the 2007 baseline year. The additional reduction in relative emissions over absolute emission reductions reflects a 46% increase in staff numbers since 2007.

The **EIB's** relative emission reduction target of 20% was achieved by 2009, and reductions have been maintained in subsequent years, as shown in Figure 2 below.

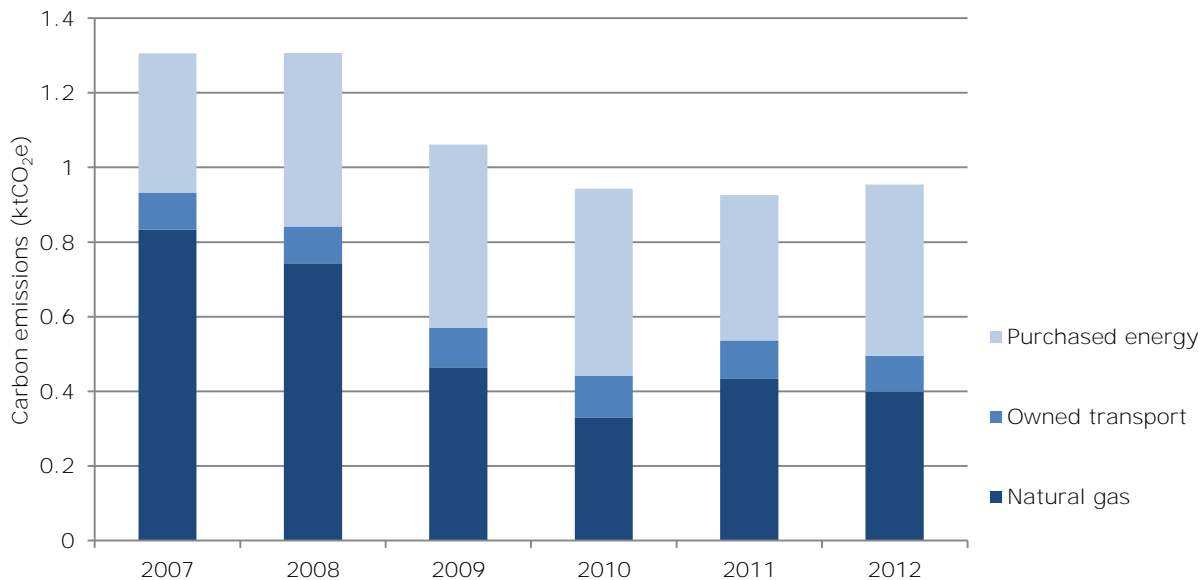
**Absolute and relative CO<sub>2</sub>e emissions by year**



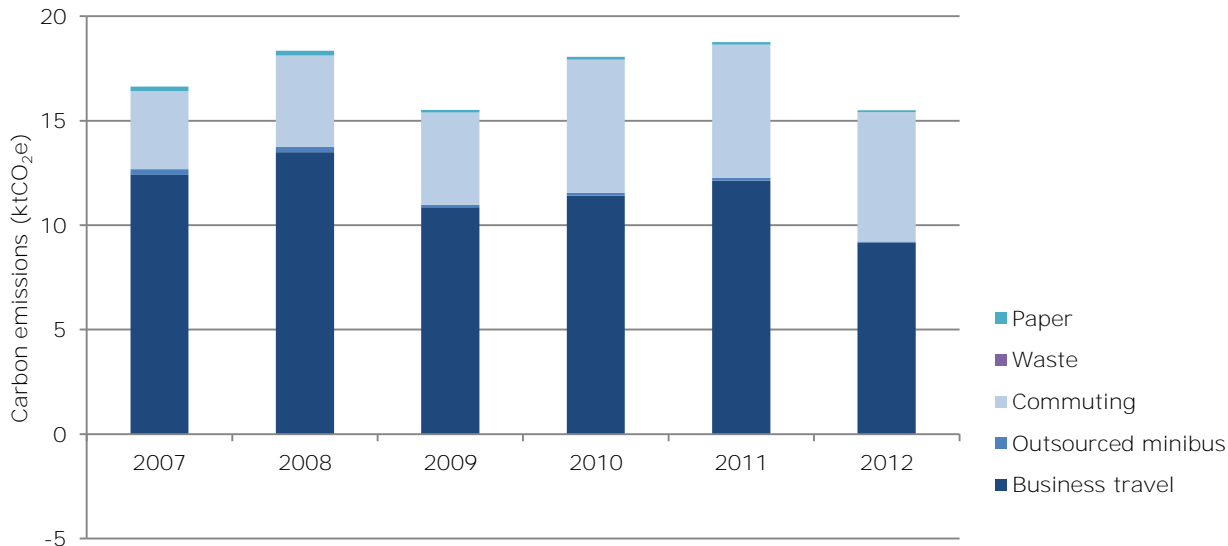
**Figure 2: 2007-2012 total emissions against targets**

Figure 3 shows absolute emissions broken down by source for 2007 to 2012.

### Scope 1 & 2 CO<sub>2</sub>e emissions by year



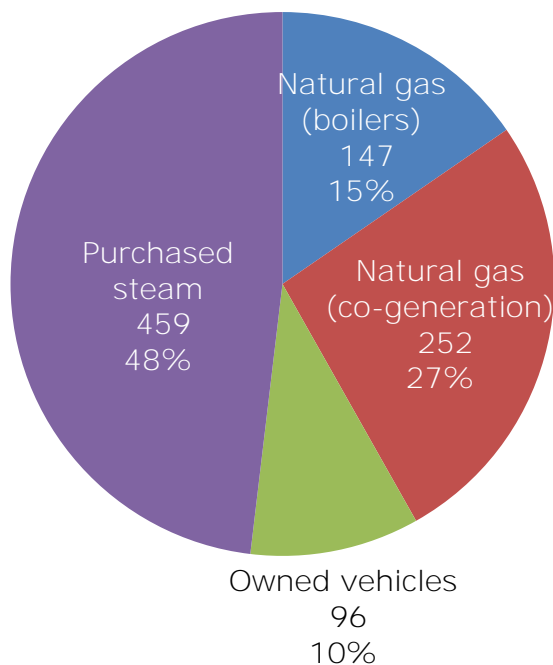
### Scope 3 CO<sub>2</sub>e emissions by year



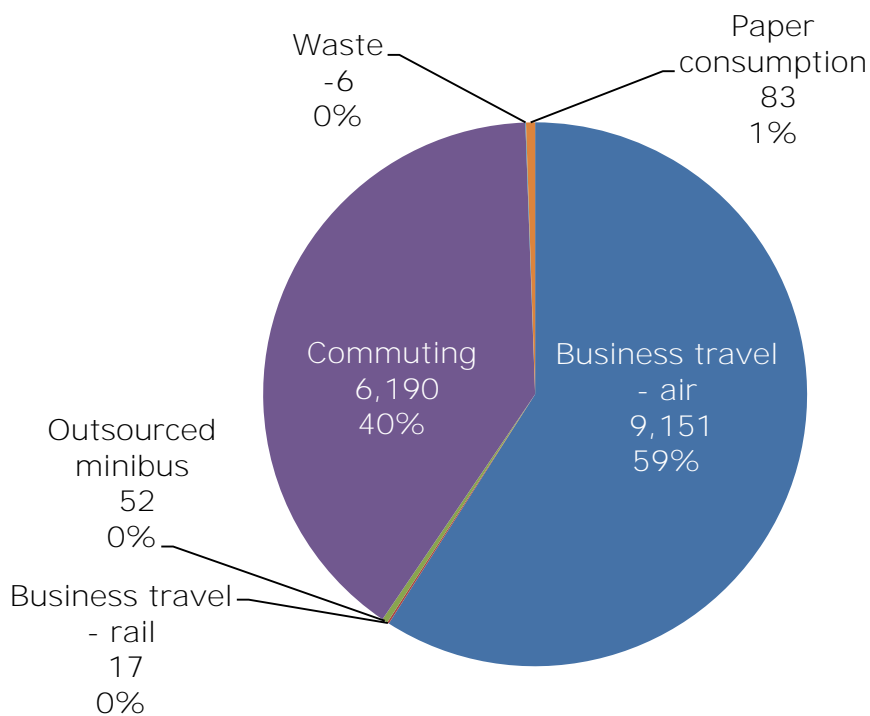
**Figure 3: 2007-2012 scope 1, 2 and 3 emissions breakdown**

The 2012 carbon footprint is broken down by emissions source as per Figure 4 below. Approximately 94% relates to mobility - travel in owned vehicles and third party transport used for business travel and employee commuting. Air travel represents the most significant proportion of this, although if the Radiative Forcing factor is removed, emissions are less than commuting. As air travel is a **core part of EIB's business** it is not able to avoid it, although there may be measures it can take to reduce associated emissions.

**2012 CO<sub>2</sub>e emissions by source - Scope 1 & 2**



**2012 CO<sub>2</sub>e emissions by source - scope 3**



**Figure 4: Emissions by source**

## 5.2 Stationary emissions analysis

Stationary energy emissions were 858tCO<sub>2</sub>e (0.4tCO<sub>2</sub>e per employee) in 2012, representing 5% of total net emissions. This is 4% higher than 2011 (823tCO<sub>2</sub>e), and 29% lower than 2007 (1,206tCO<sub>2</sub>e).

Stationary emissions relate to the combustion of fuels in stationary equipment owned or controlled by the EIB for heating and power (scope 1), and from purchased heat and power (scope 2).

The activity data provided by the EIB and resulting emissions are shown in Table 3.

Site	Emission source	Activity data	tCO <sub>2</sub> e	Variance to 2011	Variance to 2007
Hamm	Boiler	808,041 kWh Gas	147	-51%	-43%
Hamm	Co-generation	1,385,930 kWh Gas	252	+92%	-34%
West Kirchberg	Steam heating	7,330,300 kWh Purchased Steam	315	+22%	+30%
East Kirchberg	Steam heating	3,340,178 kWh Purchased Steam	144	+8%	n/a

**Table 3: Stationary emissions and activity data**



### 5.3 Mobility emissions analysis

Mobility emissions were 15,506tCO<sub>2e</sub> in 2012, representing 94% of total net emissions. This is 17% lower than 2011 (18,744tCO<sub>2e</sub>), and 6% lower than 2007 (16,526tCO<sub>2e</sub>).

Mobility emissions relate to the combustion of fuels in the vehicles owned or controlled by the EIB (scope 1) or third party transport for employee business travel and commuting to and from work (scope 3).

The activity data provided by the EIB and resulting emissions are shown in Table 4

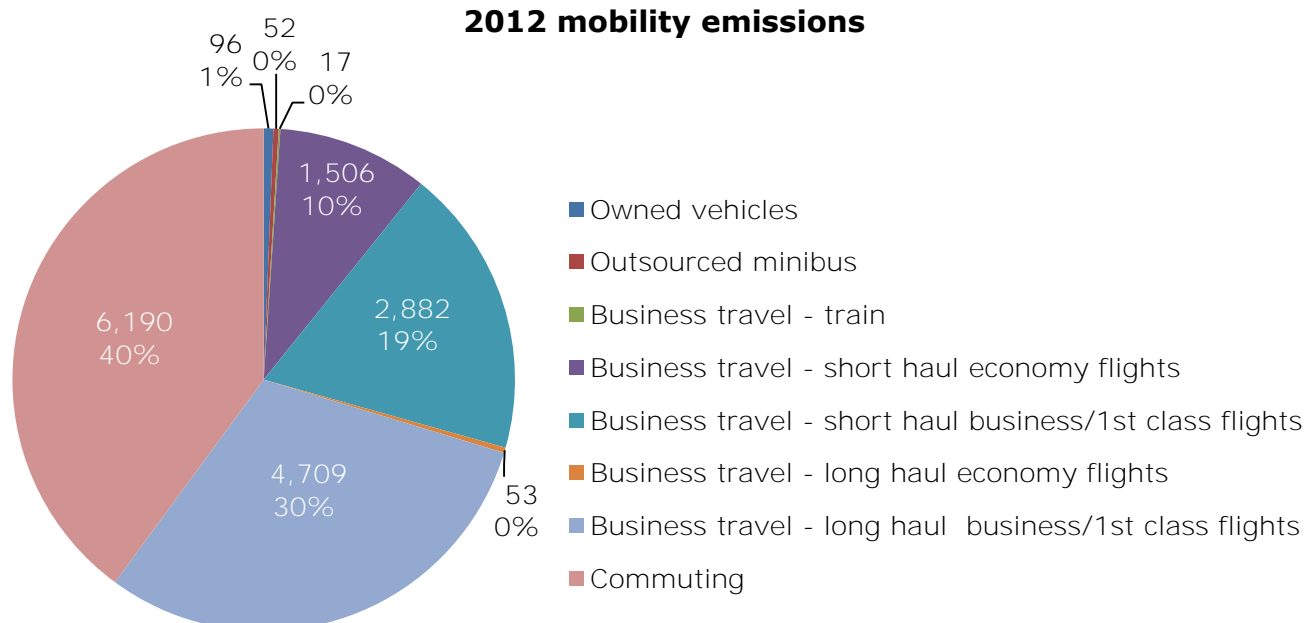
Emission source	Activity data	tCO <sub>2e</sub>	Variance to 2011	Variance to 2007
Owned vehicles ( <i>scope 1</i> )	569,077 km	96	-7%	-4%
Outsourced minibus	115,196 km / 19,687 litres	52	-63%	-81%
Business travel – air (short haul, economy class)	7,652,955 km	1,506	-25% for total flights	-26% for total flights
Business travel – air (short haul, business/1 <sup>st</sup> class)	9,759,910 km	2,882		
Business travel – air (long haul, economy class)	308,951 km	53		
Business travel – air (long haul, business/1 <sup>st</sup> class class)	9,411,701 km	4,709		
Business travel – train	1,121,696 km	17	-58%	-30%
Commuting <sup>1</sup>	1,489 parked vehicles per day / 19,021,443 km	6,190	-3%	+65%
<b>Total transport emissions</b>		15,506	-17%	-6%

**Table 4: Mobility emissions and activity data**

*Notes to Table 4:*

<sup>1</sup> *The increase in commuting emissions compared to 2007 reflects the increase in staff numbers travelling to work and the increase in available parking spaces at the new East Kirchberg building that are now included in the calculation methodology (previously, staff may have parked elsewhere but the methodology does not account for this).*

## 2012 mobility emissions



**Figure 5: Mobility emissions**

## 5.4 Paper consumption

Paper consumption emissions relate the emissions released in the production of office paper that is then used by the EIB (not paper waste which is accounted for under waste). Emissions relating to the 87 tonnes of office paper used accounts for 83tCO<sub>2e</sub>, 1% of total emissions. This is a decrease of 28% compared to 115tCO<sub>2e</sub> in 2011, and a decrease of 58% compared to 200tCO<sub>2e</sub> in 2007.

## 5.5 Waste

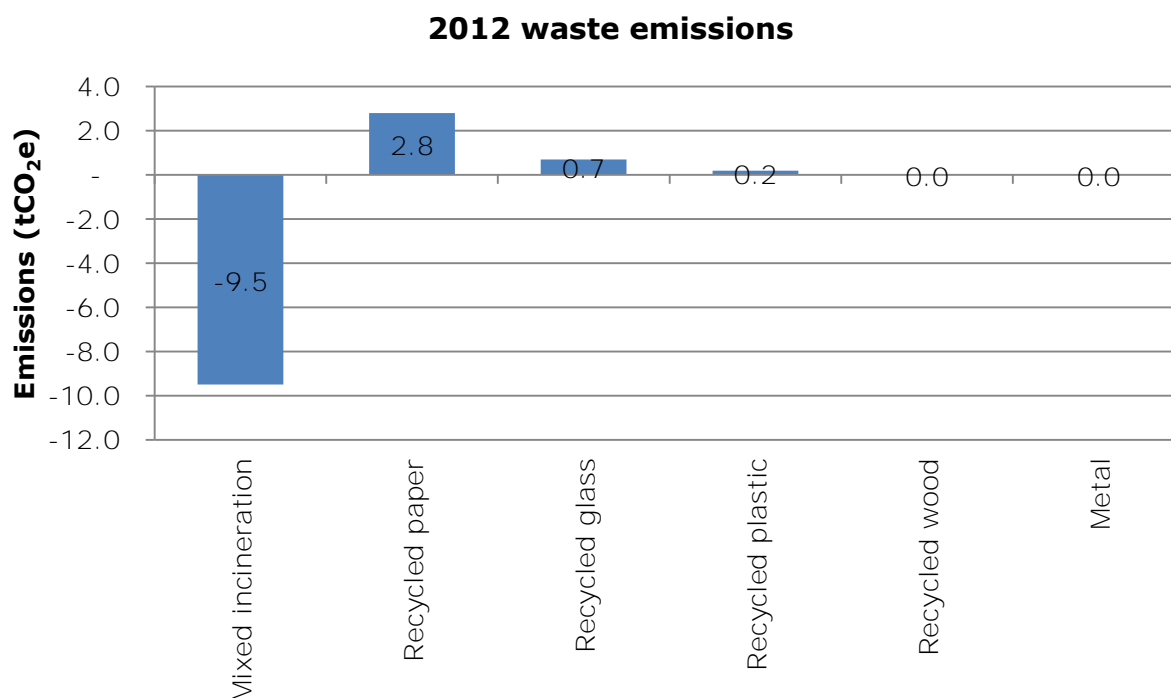
Emissions from waste disposal account for -5.7tCO<sub>2e</sub>. The activity data provided by the EIB and resulting emissions are shown in Table 5 and Figure 6 below. Significant variances should be viewed in the context of relatively small figures.

Type	Treatment	Volume (tonnes)	tCO <sub>2e</sub>	Variance to 2011	Variance to 2007
Mixed	Incineration <sup>1</sup>	187	-9.5	-89%	-330%
Paper	Recycled	154	2.8	+12%	+51%
Glass	Recycled	39	0.7	-3%	+804%
Plastic	Recycled	8	0.2	+12%	+189%
Metal	Recycled	2	0.0	+89%	+26%
Wood	Recycled	0	0.0	-77%	-99%
<b>TOTAL</b>		<b>390</b>	<b>-5.7</b>	<b>+263%</b>	<b>-2,547%</b>

**Table 5: Waste emissions and activity data**

*Notes to Table 5:*

<sup>1</sup> *The mixed waste causes a net positive emissions contribution as it is incinerated with energy recovery, replacing energy that would normally have been produced from a non-renewable fossil fuel source.*



**Figure 6: Waste emissions by type**

It should be noted that data on hazardous waste, which includes Waste Electrical and Electronic Equipment (WEEE), florescent light bulbs, batteries, toner cartridges and cans containing aerosols and other harmful substances, is also collected for regulatory purposes. This is not included in the emission calculations due to a lack of information regarding the waste treatment – it may be sent to landfill, recycled or incinerated – which is required to properly calculate emissions. It will be included in future years as information becomes available, although will not have a material impact on the total carbon footprint (there were 10.2 tonnes of hazardous waste in 2012, out of a total of 402.4 tonnes).

## 6 DATA ASSESSMENT AND METHODOLOGY CHANGES

### 6.1 Data quality and completeness

Table 6 sets out our assessment of the activity data and assumptions applied in 2012.

Emission source	Activity data	Assumptions applied
Boiler (Hamm)	Primary data	n/a
Co-generation (Hamm)	Primary data	n/a
Steam heating (Kirchberg)	Primary data	n/a
Owned cars	Primary data	Fuel efficiency conversion based on manufacturer's data
Minibus	Primary data	Fuel efficiency conversion of 0.17 litres/km
Business travel – air	Primary data	Short- / long-haul split at 4,000km
Business travel – train	Primary data	n/a
Commuting	Number of vehicles is inferred from available spaces and an average count of empty spaces at Kirchberg	All commuting is by car and the average daily distance of 35km is applied 365 days per year
Paper consumption	Primary data	n/a
Waste	Primary data	All general waste is incinerated with heat recovery

Key: 

Weak – priority area for improvement	Satisfactory – could be improved	Good – no changes recommended
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**Table 6: Data quality and completeness assessment**

The regional offices and hazardous waste are excluded because data was not available. They are assumed to be less than the 5% of total emissions normally allowable for exclusion. The EIB should investigate how to improve the completeness of data in the future.

## 6.2 Proposed future changes to methodology

For 2012 the methodology and emission factors used has been consistent with previous years to allow comparison. For 2013 it is proposed to fully align with the GHG Protocol that will result in the following changes to emission factors:

- **Emission factor used for commuting.** The emission factor currently used from Bilan Carbone is a complete cradle-to-grave factor (reflecting the full product lifecycle of the vehicles used for commuting). For 2013, we propose to use the factor that relates only to emissions associated with the combustion of fuel for the vehicle in use. This more accurately reflects emissions associated with commuting for the EIB given that the vehicles are owned by employees and used for other purposes over their life.
- **Emission factor used for waste.** According to the GHG Protocol Scope 3 Standard, to avoid double-counting, the emissions associated with recycling and energy generation from waste are attributed to the user of the recycled materials, with only transportation and minimal preparation emissions attributed to the entity disposing of the waste. As such it is proposed for 2013 that the credit currently accounted for by the incineration of general waste (with heat recovery) will not be included in the emission factor for waste.

### 6.3 Company owned vehicles

The 16 vehicles owned by the EIB represent 10% (96tCO<sub>2</sub>) of EIB's net scope 1 and 2 emissions (excluding electricity at the grid average factor). The vehicles, including an additional seven replaced within the year (shaded grey), are ranked as follows:

Rank	Emission gCO <sub>2</sub> /km	KMs parcourus	Total emission kgCO <sub>2</sub>
1	0 (Electric)	5,645	0
2 (replaces 3)	99 (Hybrid)	3,482	345
3 (replaced by 2)	104	95,229	9,904
4 (replaces 14)	149	23,842	3,552
5 (replaces 15)	150	29,059	4,359
6 (replaces 17)	150	44,831	6,725
7	152	7,596	1,155
8	154	33,000	5,082
9	154	17,016	2,620
10	158	48,476	7,659
11	162	18,110	2,934
12 (replaces 21)	175	6,435	1,126
13 (replaces 19)	183	19,000	3,477
14 (replaced by 4)	189	29,290	5,536
15 (replaced by 5)	189	29,851	5,642
16 (replaces 22)	195	17,522	3,417
17 (replaced by 6)	195	21,511	4,195
18	199	13,504	2,687
19 (replaced by 13)	199	27,350	5,443
20	223	11,854	2,643
21 (replaced by 12)	227	11,377	2,583
22 (replaced by 16)	245	25,606	6,273
23	281	29,491	8,287
<b>TOTAL</b>		<b>569,077</b>	<b>95,643</b>

**Table 7: Owned vehicles**

It should be noted that one of these vehicles (#1) is an electric car used by the IT department to visit data centres with no associated emissions (electricity for recharging is not separable from electricity used in the buildings). The vehicle with the lowest emission factor (#2) is a full hybrid car.

The EIB has a policy to replace poor performing vehicles (in carbon efficiency terms). The total annual emissions for the seven replaced in 2012 will be 17% lower than the cars they replace, saving 11.7tCO<sub>2</sub> per year. Replacing the next three highest emitting vehicles could save a further 8tCO<sub>2</sub>.

## 7 ENVIRONMENTAL INDICATORS 2012

### 7.1 Emissions by Scope

Emissions (tCO <sub>2</sub> e)	2012	2011	2010	2009	2008	2007
Natural gas	399	433	329	464	743	833
Owned transport	96	103	112	107	99	100
<b>Total Scope 1</b>	<b>495</b>	<b>536</b>	<b>441</b>	<b>570</b>	<b>842</b>	<b>933</b>
Purchased electricity <sup>1</sup>	6,876	7,061	7,111	7,367	7,454	6,085
Purchased steam	459	390	502	490	374	249
Purchased cold supply					28	32
<b>Total Scope 2</b>	<b>7,335</b>	<b>7,451</b>	<b>7,613</b>	<b>7,857</b>	<b>7,857</b>	<b>6,366</b>
Business travel	9,168	12,131	11,413	10,858	13,489	12,407
Outsourced minibus	52	141	130	130	270	270
Commuting	6,190	6,369	6,369	4,407	4,363	3,749
Waste	(6)	(2)	(4)	0	(1)	0
Paper consumption	83	115	146	120	227	200
<b>Total Scope 3</b>	<b>15,488</b>	<b>18,754</b>	<b>18,054</b>	<b>15,515</b>	<b>18,348</b>	<b>16,626</b>
<b>Total Gross emissions</b>	<b>23,317</b>	<b>26,741</b>	<b>26,108</b>	<b>23,943</b>	<b>27,047</b>	<b>23,926</b>
Green tariff	(6,876)	(7,061)	(7,111)	(7,367)	(7,392)	(5,993)
<b>Total net emissions<sup>2</sup></b>	<b>16,441</b>	<b>19,682</b>	<b>18,997</b>	<b>16,576</b>	<b>19,653</b>	<b>17,932</b>
% change from 2011	-16%					
% change from 2007	-8%	10%	6%	-8%	10%	0%

Number of employees	2,185	2,175	2,079	1,906	1,769	1,501
<b>Net emissions per employee</b>	<b>7.52</b>	<b>9.05</b>	<b>9.14</b>	<b>8.69</b>	<b>11.11</b>	<b>11.92</b>
% change from 2011	-17%					
% change from 2007	-37%	-24%	-24%	-27%	-7%	0%

<sup>1</sup> Assumes the grid average emission conversion factor for Luxembourg in 2009 (latest available) for all years for comparability

<sup>2</sup> Small differences in total due to rounding



## 7.2 Emissions by type

Indicators	Total tCO <sub>2</sub> e 2012	tCO <sub>2</sub> e per employee 2012	tCO <sub>2</sub> e per employee 2011	tCO <sub>2</sub> e per employee 2010	tCO <sub>2</sub> e per employee 2009	tCO <sub>2</sub> e per employee 2008	tCO <sub>2</sub> e per employee 2007
Energy emissions <sup>1</sup>	858	0.39	0.38	0.41	0.52	0.68	0.82
Mobility emissions	15,506	7.10	8.62	8.67	8.13	10.31	11.10
Copying paper emissions	83	0.04	0.053	0.10	0.06	0.13	0.13
Waste emissions	-5.7	-0.0026	-0.0007	-0.0020	0.0001	-0.0007	0.0002
<b>Total (net emissions)<sup>2</sup></b>	<b>16,441</b>	<b>7.52</b>	<b>9.05</b>	<b>9.14</b>	<b>8.69</b>	<b>11.11</b>	<b>11.92</b>

<sup>1</sup> Based on net emissions therefore does not include grid electricity as per scope 2;

<sup>2</sup> Small differences in total due to rounding

## 7.3 Other indicators

	Total m <sup>3</sup> 2012	m <sup>3</sup> per employee 2012	m <sup>3</sup> per employee 2011	m <sup>3</sup> per employee 2010	m <sup>3</sup> per employee 2009	m <sup>3</sup> per employee 2008	m <sup>3</sup> per employee 2007
Water	52,813	24.17	29.88	29.57	40.89	37.34	41.11

	Total kWh 2012	kWh per employee 2012	kWh per employee 2011	kWh per employee 2010	kWh per employee 2009	kWh per employee 2008	kWh per employee 2007
Purchased electricity with green certificates	17,573,827	8,042.94	8,296.82	8,742.91	9,878.63	10,679.51	10,205.32

	Total tonnes 2012	Tonnes per employee 2012	Tonnes per employee 2011	Tonnes per employee 2010	Tonnes per employee 2009	Tonnes per employee 2008	Tonnes per employee 2007
Total copying paper	87	0.04	0.04	0.05	0.05	0.07	0.07

## 8 ANNEX – GRI INDICATORS

### **EN5: Energy saved due to conservation and efficiency improvements.**

Energy savings due to conservation and efficiency improvements have resulted in a decrease by 18% of the energy purchased by the EIB per employee since 2007.

<b>Energy source</b>	<b>2012</b>	<b>2007</b>	<b>Variance</b>	<b>% change</b>
Natural gas (kWh)	2,193,971	4,040,540	-1,846,569	-46%
Electricity (kWh)	17,573,827	15,619,594	1,954,233	13%
Steam (kWh)	10,670,478	5,785,063	4,885,415	84%
<b>Total (kWh)</b>	<b>30,438,276</b>	<b>25,445,197</b>	<b>4,993,079</b>	<b>20%</b>
Number of employees	2,185	1,501	684	46%
<b>Energy per employee</b>	<b>13,931</b>	<b>16,952</b>	<b>-3,021</b>	<b>-18%</b>

### **EN 6: Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.**

- For electricity consumption: lighting and thermal production: estimated consumption reduction of 530,000 kwh/year for 2013 (-2.9%)
- Energy heating (natural gas and purchased steam) consumption: thermal production and regulations: estimated consumption reduction of 510,000 kwh/year for 2013 (-4.7%)
- Water used by EIB facilities: water treatment, air-cooler: estimated consumption reduction of 5,500 m3 / year for 2013 (-8.4%)

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

The EIB disposes of waste through the Luxembourg municipal authorities. Waste is sorted in-house to the extent possible so that it can ultimately be recycled. All unsorted waste is incinerated with energy recovery. Details of the quantities of waste by the official categorisation are shown in Table 8 below:

The Luxembourg "SuperDrecksKëscht Green Label" was first awarded to the Bank for its internal waste recycling practices in 2007 and renewed annually to date for the East, West and Hamm buildings. The criteria for obtaining the label are as follows:

- visible and accessible collection sites;
- safe and environmentally correct storage;
- good management in terms of waste recycling and disposal.

<b>Code CED</b>	<b>Official description of waste</b>	<b>Quantity (kg)2011</b>	<b>Quantity (kg) 2012</b>
080317	waste printing toner containing dangerous substances	2,012 cartridges	5310 cartridges
150101	paper / cardboard	72,200	75,606
150102	plastic packaging	1,449	406
150106	mixed packaging	4,968	5,952
150107	glass packaging	39,444	39,444
160214	Electronic and electrical scrap sorting	690	0
200101	paper and cardboard	65,120	77,958
200125	used cooking oil		2,172
200133	batteries and accumulators in 160601, 160602 or 160603 and unsorted batteries and accumulators containing these batteries	285.5	351
200135	electrical and electronic equipment discarded containing hazardous components other than 200121 and 200123	431	392
200136	electrical and electronic equipment discarded containing hazardous components other than 200121 and 200123	3963	6,421
200137	Treated wood waste	0	0
200138	Untreated wood waste	356	82
200139	plastics	766	1,438
200139	plastics PSE-PP-PE	301	563
200140	waste metals	893	1,575
200301	mixed municipal waste (garbage)	71,496	136,500
200301	mixed municipal waste (compactor)	120,460	50,212
200108	kitchen waste and canteen waste	136	136
150110	packaging containing residues of hazardous or contaminated by residues	713	964
150110	packaging containing residues of hazardous or contaminated by residues	24	16
160601	lead-acid accumulators	18	0
170411	cables other than those in 170410	16	141
170604	insulation materials other than those mentioned in 170601 and 170603	1,083	1,396
200121	fluorescent tubes and other mercury-containing waste	303	230
200121	Energy saving bulbs	178	309
200121	Incandescent bulbs	30	157
170107	Flat glass with frame	1060	0
<b>TOTAL</b>		<b>386,382</b>	<b>402,420</b>
	(of which hazardous waste not included in emissions calculation)		12,543 (3%)

**Table 8: Waste categories**