



Carbon Footprint Report - Fiscal Year 2008-



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Report by



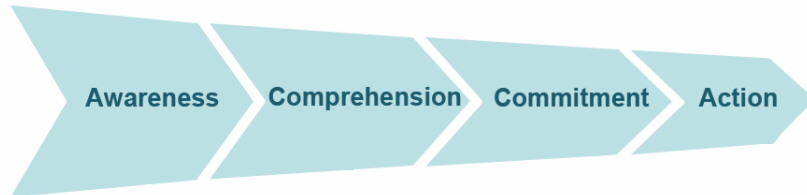
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Introduction

Climate change and its dramatic consequences for future generations and the planet finally seems to be a reality accepted by all. The political scene has also changed considerably with the arrival of a new President in the United States of America. As often referred to “Green and Lean” has become one of the core values of the bail-out packages being set up to deal with the current financial and economic crisis.

The USA, Europe and even China have all included CO2 reductions and energy efficiency as part of the objectives of their bail-out packages. This



Source: International Polar Foundation, Alain Hubert, 2006

This message is slowly but surely filtering down to the corporate level and even individual level however action is still clearly lacking. The shift towards a low carbon economy has begun but needs to be accelerated. This carbon footprint report will help the European Investment Bank (EIB), the European Investment Fund (EIF) and more importantly their executive management committee, their employees, their purchasing decision makers, their members, all related stakeholders, and public entities to have a better comprehension of the banks impact on climate change and to see how it improved or not compared to last year and how they can continue trying to improve it year on year. It will also facilitate decision making in respect to internal carbon abatement. The report will act as a sort of Key Performance Indicator (KPI) to inform, educate and encourage proactive action and corporate social responsibility. A clear overview of the current carbon footprint of the EIB has been mapped out in this report. One can only control what one measures and being conscious of ones personal carbon emissions is the first important step towards a low carbon economy.

This carbon report, prepared by CO2logic is divided into two parts. The first part provides an analysis of the CO2 emissions emitted by the organisations for the Fiscal Year (FY) 2008. The final part investigates the company’s exposure to a carbon tax or a cap and trade system.

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1. Context

1.1. Climate change, a growing concern for the EIB and EIF

Sustainable development and climate change issues are increasingly taking a central role in the EIB and EIF mission. The new and updated “EIB Statement of Environmental and Social Principles and Standards” published on the 18th of March confirms this.

“The environmental and social policies, principles and standards as well as the environmental and social practices of the EIB derive from and reflect the evolving EU approach and that of the international community to promote environmental sustainability and social well-being, in the broader context of the goal of sustainable development.”

Calculating the EIB and EIF carbon footprint is coherent with this new mission and shows the bank “walks the talk”.

“It is a core priority of the Bank to finance projects that protect and improve the environment and that promote sustainable communities. More generally, the Bank aims to add value by enhancing among other things the environmental and social quality of all the projects that it finances. In particular, both climate change and biodiversity considerations are integrated into the lending activity of the Bank, and for projects outside the EU, the Bank applies a broad range of social guidelines.”

1.2. What is one tonne of CO₂

- ‡ 3 month of heating in an average flat in Luxemburg
- ‡ 1 return ticket from Luxemburg to Malaga by plane
- ‡ 5 returns from Paris to London by plane
- ‡ 0.5 tonnes of paper.
- ‡ 7000 km with the average European car
- ‡ 4000 km with a SUV 4X4

All greenhouse gases (GHG) such as carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), refrigerants (HFC's, PFC's, CFC's), sulfur hexafluoride (SF₆), water vapor (H₂O), ozone (O₃) ... are converted into CO₂ equivalent using the Intergovernmental Panel on Climate Change (IPCC) 100-years global warming potential (GWP) coefficients.

Gas	GWP 100 years time horizon
CO ₂	1
Methane (CH ₄)	25
Nitrous Oxide (N ₂ O)	298
Sulfur Hexafluoride (SF ₆)	22800

2. Carbon Footprint

2.1. Quick presentation of the EIB and EIF

The European Investment Bank was established in 1958 under the Treaty of Rome. The European Investment Bank is the European Union's financing institution, whose remit is to contribute towards the integration, balanced development and economic and social cohesion of the Member States. In particular financing is provided for regional development, Trans-European Networks of transport, telecommunications and energy, research, development and innovation, environmental improvement and protection, health and education. To that end, it raises substantial funds on the capital markets, which it channels, on the keenest terms, into the financing of projects that meet EU objectives. Outside the Union, the EIB implements the financial components of agreements concluded under the European development aid and cooperation policies.

The EIB has its head office buildings in Luxembourg (East & West Kirchberg, Hamm and Findel) next to each other on the Kirchberg Plateau in Luxembourg. The EIF occupied part of an office building not far from the EIB. The EIB has been based in Luxembourg since 1968 and moved onto the Kirchberg Plateau in 1980. The EIB employs 1613 people (254 more than 2007) and the EIF employs 156 people (14 more than 2007). The EIB also has small international subsidiary offices around the world which report to the head office.

2.2. Methodology

To carry out this carbon footprint report we used the emission conversion factors from the recognised Bilan Carbone® ADEME tool or when no figures were available for certain emission factors we used data from the CO2logic database and research. The consultants at CO2logic are certified to use the Bilan Carbone® tool but other figures were used in certain cases when considered more adapted to a specific situation.

What is the Bilan Carbone® method?

Bilan Carbone® is a methodology developed by the ADEME (French government Agency for Environment and Energy Management) allowing a consistent approach to measure and quantify CO2 emissions. The Bilan Carbone® methodology is compliant with the ISO 14064 quality standard, the World Resources Institute and the World Business Council for Sustainable Development, GHG Protocol Initiative Standard as well as the EU ETS Directive n°2003/87/CE.

Nearly all human activities rely directly or indirectly on fossil fuels and generate directly or indirectly, greenhouse gas (GHG) emissions. As the use of these fossil fuels modifies the climate, all industrial and service companies, government agencies, not-for-profit groups and individuals should assess their carbon footprint. A carbon footprint is an indicator of one's climate change impact. Such a calculation will also allow a company to anticipate and prepare for any carbon tax. Carrying out a carbon footprint is an effective solution for ranking emissions by source and for launching an active carbon emission reduction strategy.

The results given in this report are designed to give the EIB and EIF an accurate view of their carbon footprint. The results can be used to facilitate carbon reduction decision making. The time period which this carbon footprint report covers is 01/01/2008 to 31/12/2008.

The items quantified in this study are as classified under the ISO 14064 standard:

- ⌚ Internal consumption, heating and electricity production. (all scope 1 emissions GHG protocol, direct emissions)
- ⌚ Sourced electricity and heating (all scope 2 emissions GHG protocol, indirect emissions)
- ⌚ Employee commuting to and from work, employee business travel, paper consumption and disposal of waste generated. (certain scope 3 emissions, GHG protocol and radiative forcing, indirect emissions)

The EIB management has decided that to make this initial carbon footprint report the boundaries of the carbon footprint scope would be set as defined above. It was also decided that the emissions measured would include those of the EIF as well as the EIB. At this stage the emissions from the EIB headquarters including East & West Kirchberg, Hamm, Findel and the EIF offices will be taken into account but not the smaller subsidiary offices. Due to the current constructions which are going on at the West Kirchberg building and the movement of personnel from one building to the other during the year the data for 2008 included some anomalies. As much effort as possible has been made to give the most accurate results however transition periods and overlaps of building use will create some discrepancies in the 2008 results.

This report has taken into account the GHG Protocol Initiative Standards as well as the latest principles and indicators (G3) developed by the Global Reporting Initiative (GRI) to report on sustainability. Using the Global Reporting Initiative definition of Materiality it is considered that reporting on the EIB and EIF carbon footprint is of significant importance. This report has been written in a way so as to facilitate sustainability reporting in accordance with the latest principles and indicators (G3) developed by the Global Reporting Initiative. This includes the principles for ensuring report quality and guidance for boundary setting. Calculations were all based on figures provided by the EIB and the EIF who obtained them from their invoices. These figures were then sent to CO2logic. Thus the results of the report can only be as accurate as the figures provided by the EIB and EIF.

2.3. Carbon Balance

2.3.1. Global footprint for EIB and EIF

Within the emission boundary set, as explained above the results obtained show that the total carbon footprint of the EIB and EIF comes to 19,653 (19,654 - 1.3) tonnes of Carbon Dioxide equivalent (tCO₂ eq) per year.

The pollution coming from in-company emissions, which relate to heating, electricity and co-generation, account for 1,207 tonnes of CO₂ thus 6% of the total emissions (nearly the same as 2007).

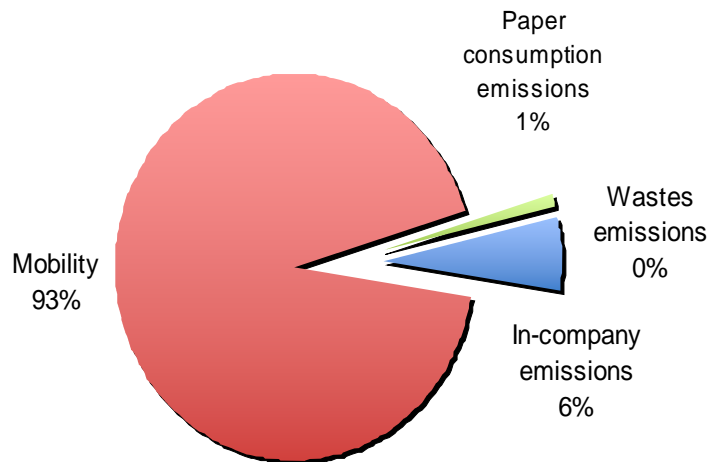
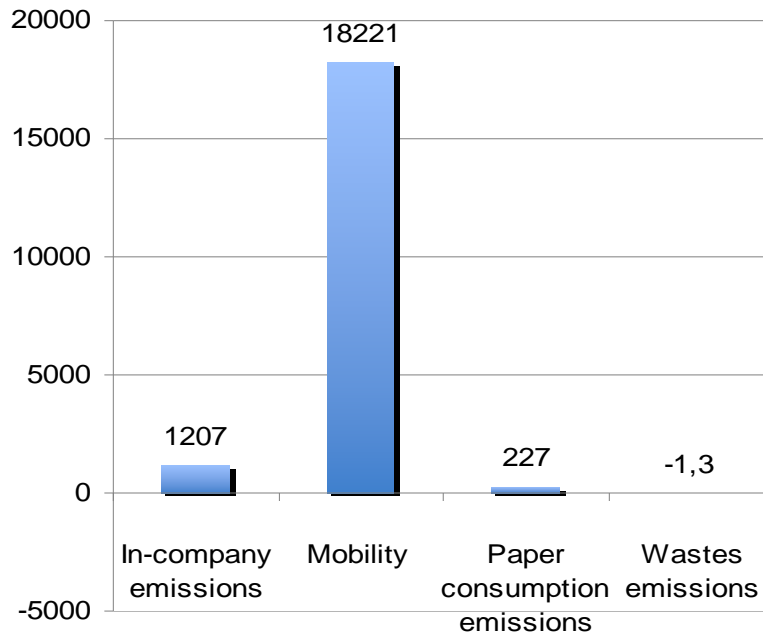
The emissions coming from mobility thus the travel of employees due to transport, commuting and air travel account for 18,221 tonnes of CO₂ thus 93% of emissions (1696 more than 2007). It should be noted that a radiative forcing factor of

X2 was used for air travel which is what CO₂logic advises according to the Bilan Carbone® methodology. This however differs from the GHG Protocol which does not take into account radiative forcing and for which the result would be halved.

The emissions related to paper consumption account for 227 tonnes of CO₂ thus 1.2 % of total emissions.

The emissions from waste disposal account for -1.3 tonnes of CO₂. This negative figure is due to the fact that the waste is used as an energy source to produce electricity and thus replaces the use of fossil fuels. This is very positive and more waste should

Global footprint (t CO₂ eq)



be used for this production reducing our heavy dependence on fossil fuels.

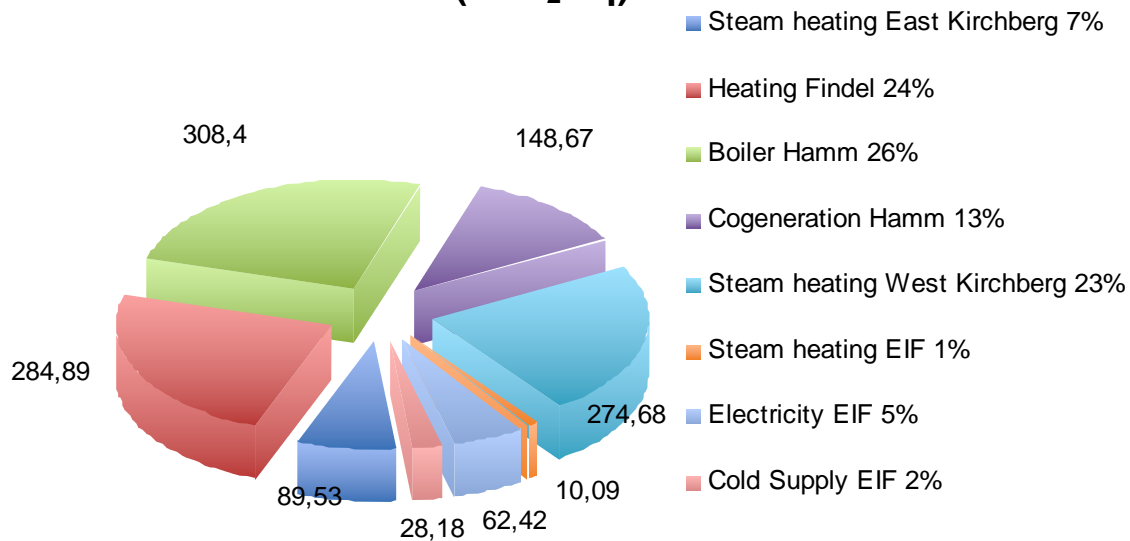
With 1613 employees at the EIB in 2008 (254 more than in 2007) and 156 at the EIF (14 more than 2007) making a total of 1769 (268 more than 2007) this implicates an overall average emission level of 11.11 tonnes of CO₂ per person per year at work within the scope set (0,84 tonnes more per person than in 2007).

2.3.2. In-company emissions

The emissions related to this category are those from internal combustion related to internal production of heat and electricity as well as emissions from externally sourced electricity and heating.

In-company emissions count for 1,207 tonnes of CO₂ thus 6% of the total emissions. This means 0,68 tonnes of CO₂ per employee for this emission category.

EIB and EIF in-company emissions (t CO₂ eq)



Due to the delivery of the East Kirchberg building in 2008 the data in 2008 had to be extrapolated and certain assumptions had to be applied as employees were only partially in the building and the ongoing construction used extra energy and there was also a transfer period where the building is not functioning in its most efficient form.

The following data was collected by the facilities management:

- ⌚ Steam heating West Kirchberg, 274,68 tonnes of CO₂ (Steam 6,387,858 kwh purchased)
- ⌚ Steam heating East Kirchberg¹, 89,53 tonnes of CO₂ (Steam 2,082,000 kwh purchased)

¹ The consumptions for the East Kirchberg metered were adjusted as they were not completely attributable to the Bank due to on going construction. The figures for the EKI have been determined as Heating: . Thus 85% from the 2,449.40 MWh, were allocated with an accuracy of ±10%.

- ⌚ Heating Findel, 284,89 tonnes of CO2 (Gas 119 tep purchased)
- ⌚ Boiler Hamm, 308,4 tonnes of CO2 (Gas 1,661,790 kwh purchased)
- ⌚ Co-generation Hamm, 148,67 tonnes of CO2 (Gas 801,108 kwh purchased)
- ⌚ Steam heating EIF, 10,09 tonnes of CO2 (Gas 229,240 kwh purchased)
- ⌚ Electricity EIF, 62,42 tonnes of CO2 (Electricity 204,714 kwh purchased)
- ⌚ Cold Supply EIF, 28,18 tonnes of CO2 (Cold 92,437 kwh purchased)

One should be careful when comparing year on year CO2 emissions due to the buildings as differences in seasonal temperatures etc can influence the annual situation. Thus it is only over the long term that differences can really be observed. The more efficient East Kirchberg should help at this level we also strongly advise that a Energy Audit should be carried out for the remaining buildings. Quick wins can easily help reduce emissions often at no cost. All EIB purchased electricity is green electricity and the EIB is proprietor of the related green guarantees of origins. In contrast the EIF does not use green electricity. The electricity produced by the cogeneration system in the Hamm building is not used internally by the EIB as it is sold to the network and green electricity is bought instead. However the EIB profits directly from the sale of this electricity thus the gas consumption and therefore the CO2 emissions created by this cogeneration system are fully allocated to the EIB Hamm building CO2 emissions. Gas consumption was converted from PCS to PCI figures to ensure further accuracy of calculations. For the cold purchased by the EIF due to a lack of exact figures we were advised by LuxEnergie S.A. (2007) to apply a ratio of «1kwh of electricity = 5 kwh of cold». The EIB air-conditioning systems use ammonium so there is no global warming impact from leakage only the electricity usage which is already accounted for. The Kirchberg plateau has a positive particularity of all the buildings being heated centrally by the Kirchberg power plant steam production. For steam heating purchased we were provided by the supplier with an emissions factor of 43g CO2 per Kwh. This was used for all steam purchased including the steam purchased by the EIF due to lack of more specific figures for that particular calculation. Co-generation systems are very positive and minimise energy loss.

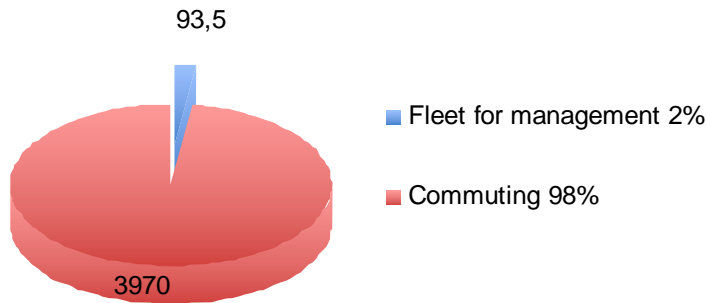
2.3.3. Mobility emissions

Mobility related CO2 emissions included emissions from commuting, company fleet cars, a shuttle service between the various buildings and CO2 emissions from travel by plane and train.

Mobility emissions represent 18,221 tonnes of CO2 thus 93% of the total emissions (increase of 1696 tonnes of CO2 from 2007). This means 10,3 tonnes per employee for this emission category. This is a decrease per person compared to the 11 tonnes per employee of 2007 however further efforts need to be made.

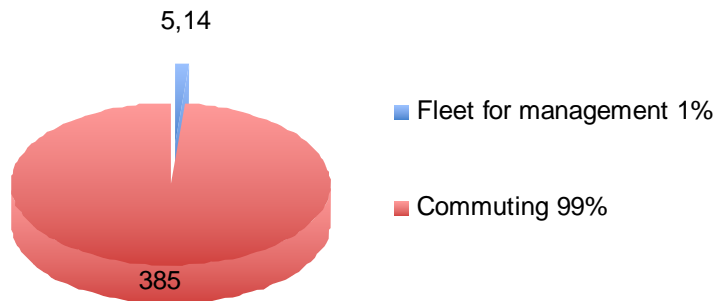
For the EIB this represents 4063,5 tonnes of CO₂

Fleet and commuters in EIB (t CO₂ eq)



For the EIF this represents 390,14 tonnes of CO₂

Fleet and commuters in EIF (t CO₂ eq)



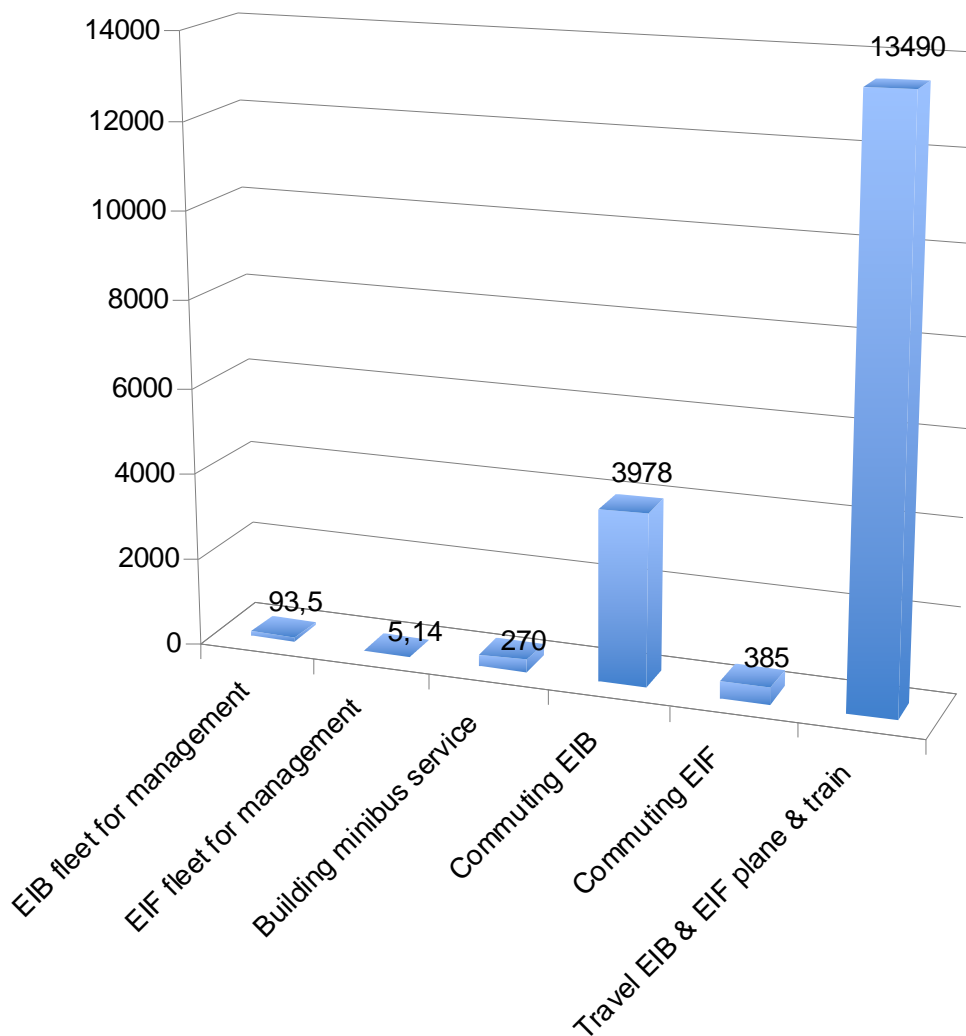
For the global situation when the EIB and EIF are pooled we get the following information as collected by the facilities management:

- ⌚ Owned management cars EIB, 93,5 tonnes of CO₂ (Diesel 14915 & Petrol 22187 liters)
- ⌚ Owned management cars EIF, 5,14 tonnes of CO₂ (19,280 km three cars Jaguar, Audi)
- ⌚ Building minibus service, 270 tonnes of CO₂ (same route as 2007)
- ⌚ Commuting EIB, 3978 tonnes of CO₂ (Kirchberg, Hamm & Findel 17,284,575 km)
- ⌚ Commuting EIF, 385 tonnes of CO₂ (extrapolation from EIB result)
- ⌚ International Travel EIB & EIF,
 - For air travel 6724,5 tonnes of CO₂ without the radiative forcing and 13,449 tonnes of CO₂ with radiative forcing X2 Bilan Carbone® (plane: short haul 3,112,162 km, long haul first class 17,055,670 km)
 - For train travel 40,2 tonnes of CO₂ (1,013,840 km)

For flights Non Kyoto Gases were included with a radiative forcing factor of X2 in line with the Bilan Carbone® recommendation this is however in contradiction with the GHG Protocol which does not include radiative forcing factor for aviation. For travel by plane we were informed that for short haul journeys less than 3 hours, economy class was used and for long haul journeys, business class was used. As the class affects the number of people in a plane this factor effects the emissions and was taken into account in the calculations.

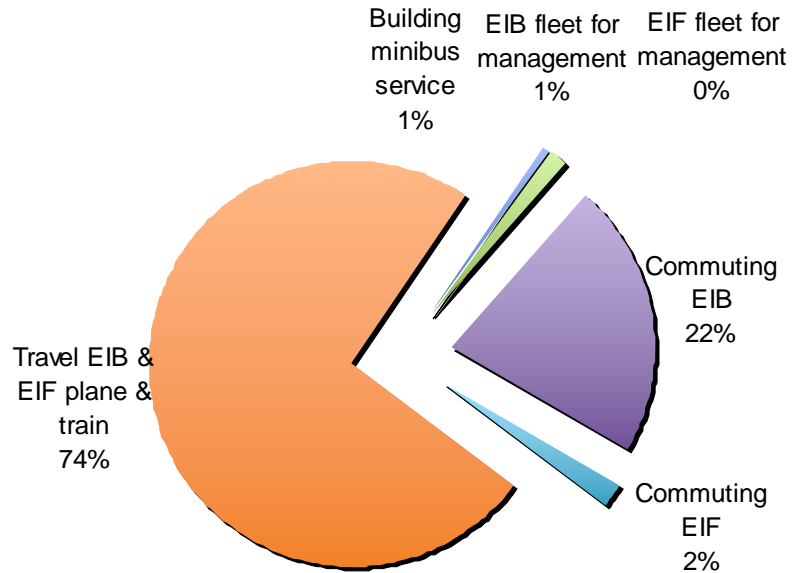
For the EIB commuting emission figure the average distance travelled of 35 km was applied based on the research carried out at the European Commission (2007) for its employees in Luxembourg.

Transports (t CO2 eq)



For the EIF, commuting emissions were calculated through an extrapolation of the EIB emissions figures per person.

For train travel the emission conversion figure applied per km was the Luxemburg train average. This figure is not far off the European average and thus is assumed a reasonable average to apply even if it is understood that many of the train journeys did end abroad.

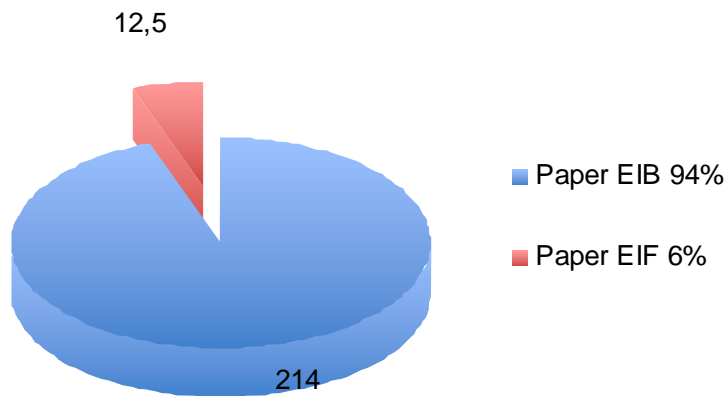


2.3.4. Paper consumption

The paper consumed by the EIB and the EIF was also calculated in terms of its CO₂ production impact.

Paper consumption emissions represent 112,2 tonnes of paper equalling 227 tonnes of CO₂ thus 1.2% of the total emissions.

Paper consumption EIB & EIF (t CO₂ eq)



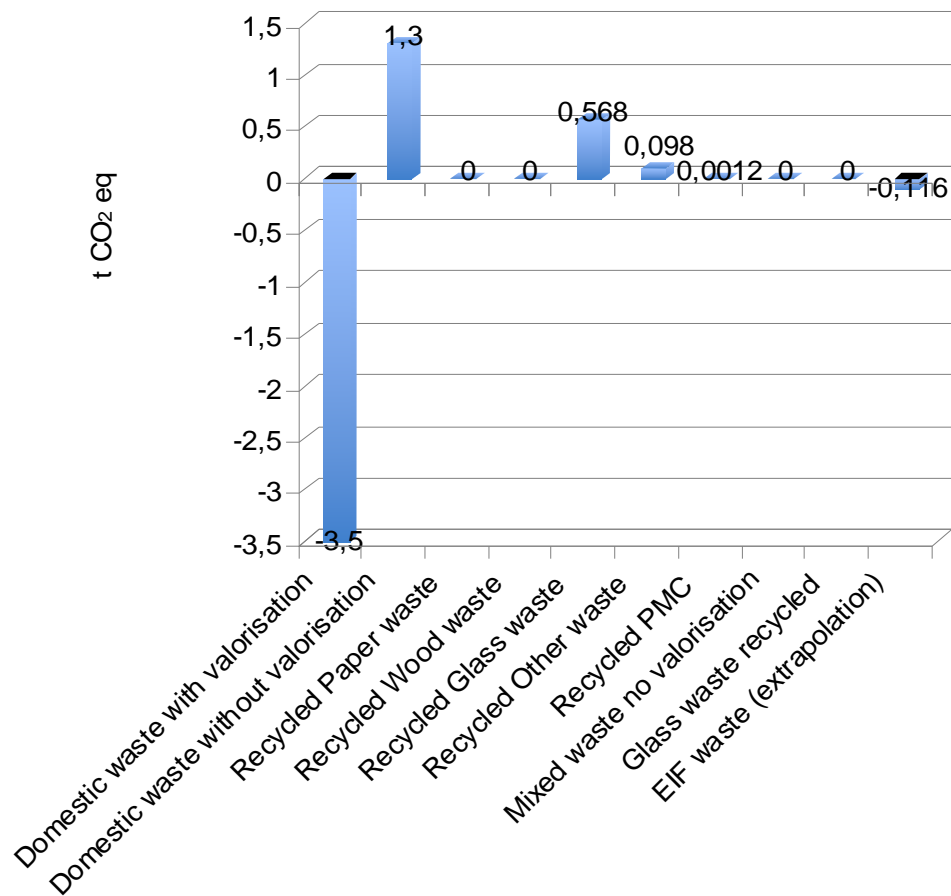
The following data was collected by the facilities management:

- ⌘ The EIB caused 214 tonnes of CO₂ emissions through its paper consumption (106 tonnes of paper)
- ⌘ The EIF caused 12,5 tonnes of CO₂ emissions through its paper consumption (6,2 tonnes of paper)

2.3.5. Waste

The emissions from waste disposal account for -1,3 tonnes of CO₂ this positive effect is due to the use of the waste to produce energy thus displacing the use of fossil fuel it is important that waste is valued in such manners and not simply sent to landfill.

EIB & EIF Waste emissions (t CO₂ eq)



The following data was collected by the facilities management:

- ⌚ Domestic waste with valorization caused 3.5 tonnes of CO2 spared (205,1 tonnes of waste)
- ⌚ Domestic waste without valoristaion caused 1.3 tonnes of CO2 (87,9 tonnes of waste)
- ⌚ Recycled Paper waste caused 0,351 tonnes (24 tonnes of waste)
- ⌚ Recycled Glass waste caused 0,57 tonnes of CO2 (6 tonnes of waste)
- ⌚ Recycled other waste caused 0,27 tonnes of CO2 (38,71 tonnes of waste)
- ⌚ Recycled PMC caused 0,0012 tonnes of CO2 (0,85 tonnes of waste)
- ⌚ EIF waste causes 0,116 CO2 emissions spared bassed on an extrapolation from the EIB per employee figures.

Domestic waste with valorization causes a positive emissions contribution as the waste is used to make electricity which would normally have been produced from a non renewable fossil fuel source. In general the disposal of waste at the EIB through recycling and valorisation allows this emission category to be relatively low.

3. Carbon Tax / Carbon Offsetting

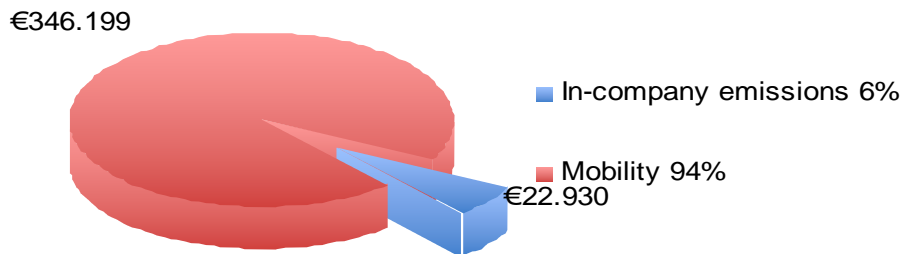
As carbon restrictions, taxes and regulations are being rolled out across Europe and even in the US, companies that take into account and anticipate any legislation by putting a price on their carbon emissions will see a growing competitive advantage over those businesses that delay taking this decision till later. A companies carbon footprint is equal to a companies overall internal and external consumption of fossil fuels. By reducing this emissions figure a company will also be directly reducing it's exposure to any fluctuation in fossil fuel price. This could help make some very significant savings.

Assuming the following factors the cost for the EIB and the EIF would be :

If a carbon tax or offset (CER from Kyoto Clean Development Mechanism) was set at the rate of 19 Euro the cost would be **369,129 Euro** (current prices have dropped to around 14 Eur 09/03/2009)

If a carbon tax or offset was set at the rate of the Stern Review estimated CO2 social cost of approx 60 Euro the cost would be **1,179,180 Euro**

Cost of offsetting (t CO₂ eq)



There are three steps to reaching the «CO2 Neutral» status. The first involves measuring and calculating ones carbon footprint as has been done in this report. The next step involves looking at ways of acting on these results and identifying reductions which can be made internally. The last step involves offsetting one's residual emissions. By offsetting one's emissions a company is internalising its external costs. This will help the executive management consider the otherwise often neglected environmental impact cost of their pollution and encourage them to reduce this cost and thus their carbon emissions. Considering the conclusions made by Sir Nicholas Stern that say spending 1% of world GDP to avoid a cost of 20% after 2050 it seems clear that offsetting is an interesting way to take immediate action and to reduce ones global warming impact whilst the low carbon technologies arrive to the market. Offsetting can be done using CER or VER (GS) CO2logic offers all these types of offsets.

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Key terms

Carbon Dioxide equivalent (CO₂). An internationally accepted measure that, by means of agreed conversion factors, expresses the global warming capacity of different greenhouse gases in terms of the amount of carbon dioxide that would have the same global warming potential (GWP).

Certified Emissions Reduction (CER). A carbon reduction credit for one tonne of CO₂ as certified by the UNFCCC under the United Nations' Clean Development Mechanism (CDM).

DEFRA (Department for Environment, Food and Rural affairs).

European Union Emissions Trading Scheme (EU ETS). The world's largest multi-country, multi-sector, greenhouse gas emission trading scheme. The scheme, in which all 25 member states of the European Union participate, started operations on 1 January 2005.

Gold Standard (GS) Voluntary offset verification standard

Greenhouse gas (GHG). Any gas, such as carbon dioxide (CO₂), methane (CH₄) or water vapour (H₂O) that gives rise to a greenhouse global warming impact.

Intergenerational equity. The issue of the fairness of the distribution of the costs and benefits that are borne by different generations. In the case of climate change policy, for example, action or inaction today has impacts not only on the present, but also on future, generations.

Intergovernmental Panel on Climate Change (IPCC). The IPCC was established in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP). The role of the IPCC is to "... assess on a comprehensive, objective, open and transparent basis the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts and options for adaptation and mitigation."

Kyoto Protocol. An international agreement adopted in December 1997 in Kyoto (Japan). The Protocol sets binding emission targets for developed countries that would reduce their emissions on average by 5.2% below 1990 levels.

Radiative forcing. In climate science, defined as the difference between the incoming radiation energy and the outgoing radiation energy in a given climate system. A positive forcing (more incoming energy) tends to warm the system, while a negative forcing (more outgoing energy) tends to cool it. Possible sources of radiative forcing are changes in insulation (incident solar radiation), or the effects of variations in the amount of radiatively active GHG gases present.

Social cost of carbon. The damage value of an additional tonne of carbon emissions.

United Nations Framework Convention on Climate Change (UNFCCC). A treaty, signed at the 1992 Earth Summit in Rio de Janeiro, which calls for the "stabilization of greenhouse gas

concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference

Verified Emissions Reductions (VER) Offsets that are used in the voluntary market and which are verified by a third party.