



Carbon Footprint Report - Fiscal Year 2007-



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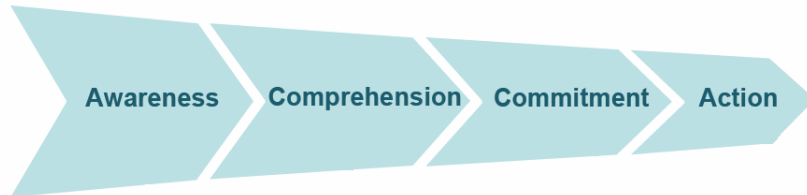
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Introduction

After years of debate it is now commonly agreed that climate change is a reality and a real threat to mankind. The shift towards the low carbon economy will be the greatest challenges of this century. With the Kyoto Protocol, the 2007 IPCC / Al Gore, Nobel Peace Prize and the Stern Review awareness is at an all time high. Comprehension and commitment are the next big hurdles. 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, and all related stakeholders, parties and public entities to have a better comprehension of the banks climate impact and how to tackle it. 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. Using the Bilan Carbone® emissions conversion factors and other credible sources 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.



Source: International Polar Foundation, Alain Hubert, 2006

This carbon report, prepared by CO2logic is divided into three parts. The first part describes the general context of the climate change issue. The second part provides an analysis of the CO2 emissions emitted by your organisations for the Fiscal Year (FY) 2007 and provides certain reduction recommendations. The final part investigates your company's exposure to a carbon tax.

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1. Context

Climate change has been identified as one of the greatest challenges facing nations, governments, business and citizens over future decades. Current human activities which induce the release of greenhouse gases such as burning fossil fuels will have an effect on the future climate. The impacts will range from affecting agriculture, endangering food security, increasing sea levels, accelerating coastal erosion, increasing intensity of natural disasters, species extinction and the spread of vector-borne diseases. These impacts will be global but also local (IPCC 2007).

Scientific research and knowledge on climate change has progressed substantially, confirming that the current warming of the Earth's climate is very likely to be due to human activities such as the burning of fossil fuels. The Earth's warming is already having measurable consequences and future impacts are expected to be wide-ranging and costly.

In 2007, the Intergovernmental Panel on Climate Change published its most recent conclusions. This scientific report re-confirmed with ever more certainty, what had previously been implied. It provided new answers in its up-to-date assessment of the current state of knowledge on climate change. It validated that the planet was seeing increases in global average air and ocean temperatures and that these increases since the mid-20th century are very likely (+90% confidence) due to the observed increase in anthropogenic greenhouse gas concentrations. This helped to persuade many that action needed to be taken and a historic agreement, a roadmap for achieving a global climate deal by the end of 2009, was reached in Bali at the end of 2007. Developed and developing countries alike signed up to the agreement, which for the first time ever will bring together the world's countries to negotiate a climate treaty to take the Kyoto beyond 2012.

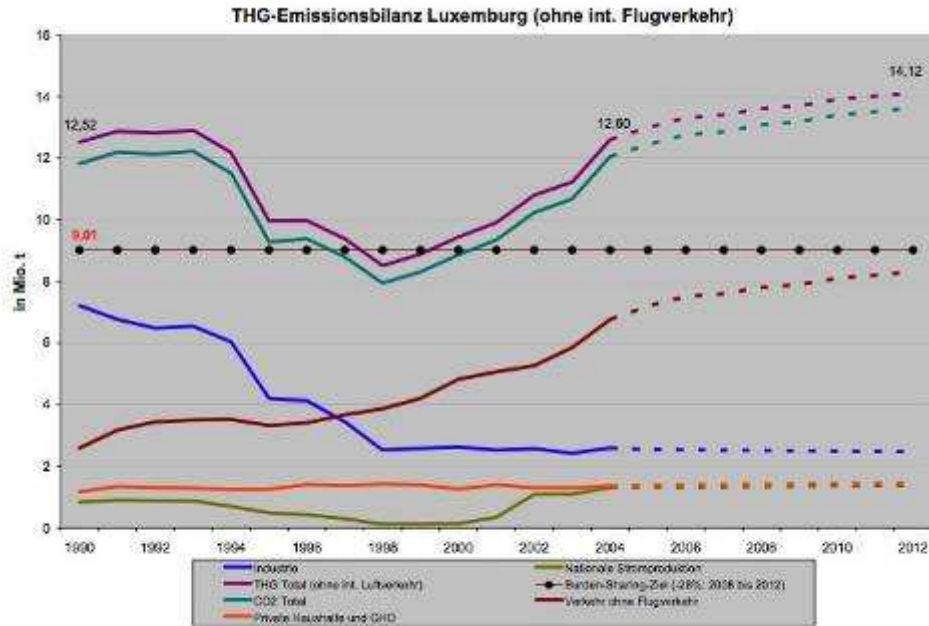
1.1. CO2 Emissions in Europe and more specifically in Luxembourg

In January 2008, the European Commission announced a 20% reduction of greenhouse gases by 2020 compared to 1990 levels and an objective for a 30% reduction by 2020 subject to the conclusion of a comprehensive international climate change agreement.

The EIB and EIF headquarters are situated in Luxembourg thus any reduction efforts they make will contribute to Luxembourg's carbon emissions reduction commitments and therefore, also to the global European effort. The per capita emissions in Luxembourg are 21,1 tonnes of CO2 equivalent per person. This ranks Luxembourg amongst the largest polluters per capita in the world (but inferior to USA & Canada). According to certain scientists the planet can only naturally absorb an amount sufficient to allow us to emit 1,8 tonnes of CO2 per person for a planet of 6,5 billion people (460 kg of carbon, Jean-Marc Jancovici, August 2007). This means carbon emissions in Luxembourg would need to be divided by +/- 12.

In the agreements surrounding Kyoto in 1998 Luxembourg accepted to reduce its CO2 emissions by 28% by 2012 (compared to 1990 levels i.e. Kyoto agreements). The Luxembourg Government has put in place an Action Plan that aims to help reduce the very high per capita carbon emissions. However as can be seen in the table below emissions in the country (12,7 million tonnes of CO2 in 2005) are predicted to rise to 14 million tonnes of CO2 by 2012. This rise is in particular due to the transport sector (54% of total emissions of the country in 2004). Even if 75% of fuel

sold in Luxemburg is subsequently exported the related emissions are still allocated to Luxemburg's quota.



Source : FIFD et Administration de l'Environnement

This 28% reduction target is amongst the most ambitious in Europe. All parties in Luxemburg will have to contribute if this target is to be reached. It implies Luxemburg will have to reduce its CO2 emissions to 9 million tonnes of CO2 by 2012.

1.2. The economic impact of climate change

An independent review by the Sir Nicolas Stern the UK's Chief Economist and former Chief Economist at the World Bank was published in October 2006. This review was commissioned by the British Chancellor of the Exchequer and written for the Prime Minister Tony Blair. The review contributed massively towards a clearer understanding of the severe economic consequences of climate change.

Tony Blair said the Stern Review showed that scientific evidence of global warming was "overwhelming" and its consequences "disastrous".

“Two thousand scientists, in a hundred countries, engaged in the most elaborate, well organized scientific collaboration in the history of humankind, have produced long-since a consensus that we will face a string of terrible catastrophes unless we act to prepare ourselves and deal with the underlying causes of global warming.”

Al Gore talking about the IPCC, Nobel Peace Prize winner

The 700 page report convincingly shows that the benefits of early global action to mitigate climate change will be far greater than the costs of non action. It also concludes that:

- ⌚ Extreme weather could reduce global gross domestic product (GDP) by up to 1%
- ⌚ A two to three degrees Celsius rise in temperatures could reduce global economic output by 3%
- ⌚ If temperatures rise by five degrees Celsius, up to 10% of global output could be lost. The poorest countries would lose more than 10% of their output
- ⌚ In the worst case scenario global consumption per head would fall 20%
- ⌚ To stabilise at manageable levels, GHG emissions would need to stabilise in the next 20 years and fall between 1% and 3% after that. This would cost 1% of GDP
- ⌚ A tonne of CO₂ currently emitted causes damage of 85\$ or more

The review also concludes that the shift towards the low carbon economy could be the source of important employment creation and economic stimulation.

1.3. 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.”

1.4. 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 three head office buildings in Luxemburg (Kirchberg, Hamm and Findel) next to each other on the Kirchberg Plateau in Luxembourg. The EIF occupies part of an office building not far from the EIB. The EIB has been based in Luxemburg since 1968 and moved onto the Kirchberg Plateau in 1980. The EIB employs 1359 people and the EIF employs 142 people. 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® tool which CO2logic is certified to use or in certain cases other figures 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 ones environmental global warming 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 01/01/2007 to 31/12/2007.

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)

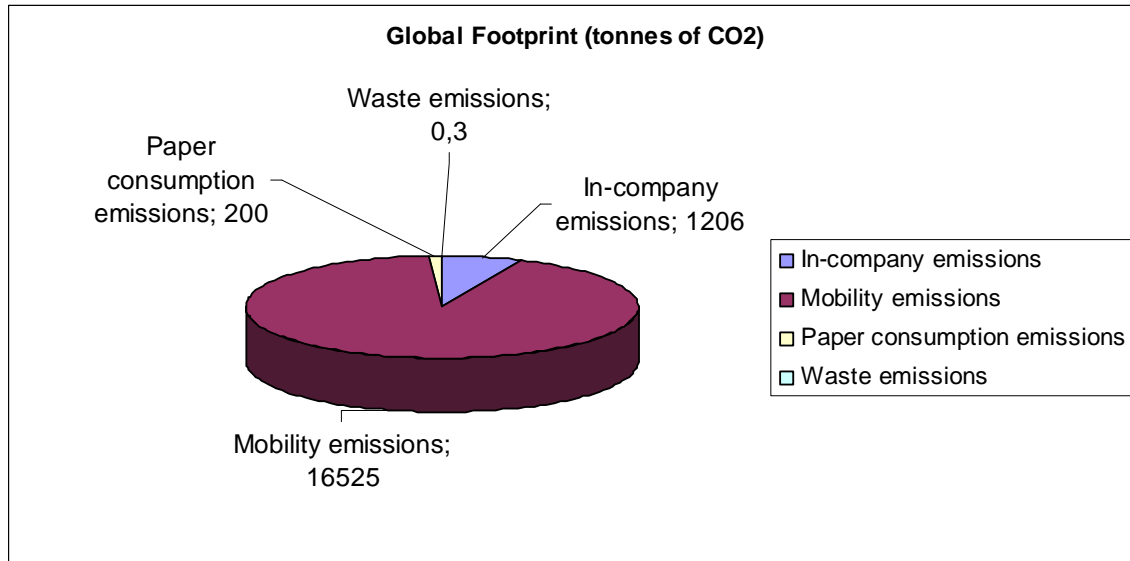
The EIB management has decided that to make this initial carbon footprint report the boundaries of the carbon footprint scope would be set as defined above. It was also decided that the emissions measured would include those of the EIF as well as the EIB. At this stage the emissions from the EIB headquarters including Kirchberg, Hamm, Findel and the EIF offices will be taken into account but not the smaller subsidiary offices.

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 17,932 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 1,206 tonnes of CO₂ thus 7% of the total emissions.

The emissions coming from mobility thus the travel of employees due to transport, commuting and air travel account for 16,525 tonnes of CO₂ thus 92% of emissions. 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 200 tonnes of CO₂ thus 1.1 % of total emissions.

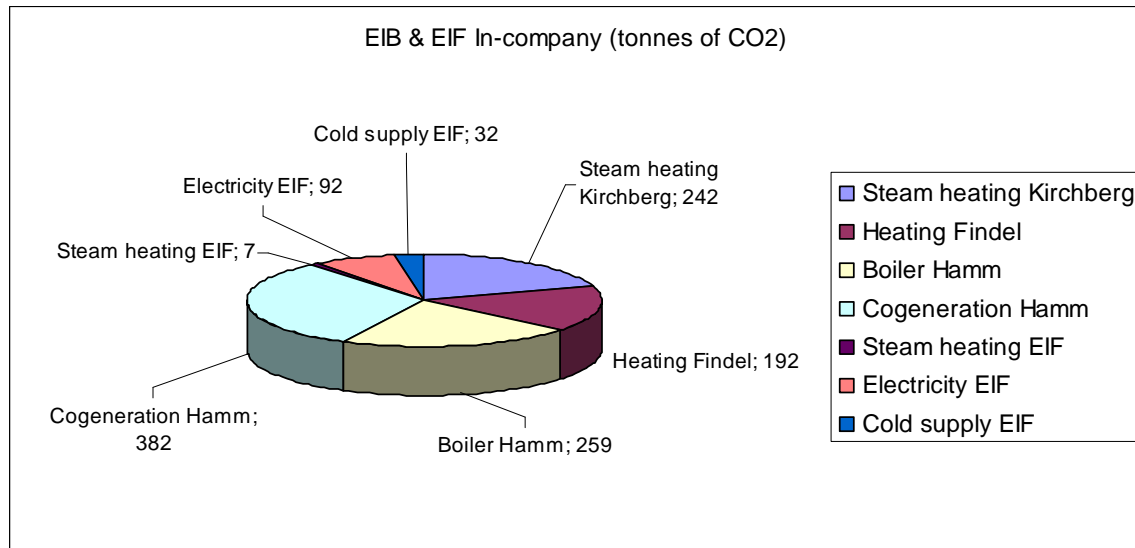
The emissions from waste disposal account for 0.3 tonnes of CO₂ this is less than 1% of total emissions.

With 1359 employees at the EIB in 2007 and 142 at the EIF (total 1501 employees) this implicates an overall average emission level of 11.95 tonnes of CO₂ per person per year at work within the scope set.

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 1,206 tonnes of CO₂ thus 7% of the total emissions. This means 0,8 tonnes of CO₂ per employee for this emission category.



The following data was collected by the facilities management:

- ⌚ Steam heating Kirchberg, 242 tonnes of CO₂ (Steam 5,618,725 kwh purchased)
- ⌚ Heating Findel, 192 tonnes of CO₂ (Gas 931,469 kwh purchased)
- ⌚ Boiler Hamm, 259 tonnes of CO₂ (Gas 1,852,832 kwh purchased)
- ⌚ Co-generation Hamm, 382 tonnes of CO₂ (Gas 1852832 kwh purchased)
- ⌚ Steam heating EIF, 7 tonnes of CO₂ (Gas 166,338 kwh purchased)
- ⌚ Electricity EIF, 92 tonnes of CO₂ (Electricity 301,409 kwh purchased)
- ⌚ Cold Supply EIF, 32 tonnes of CO₂ (Cold 1,852,832 kwh purchased)

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 provider claims that the use of green electricity has helped avoid 8398 tonnes of CO₂ in 2007. 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. 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.

Improving footprint calculation:

Upstream loss of steam and electricity could be added in emissions calculations to have a better overview of indirect emissions.

Upstream emissions due to refining and transport for gas consumption could be included in the future to have a better overview of indirect emissions.

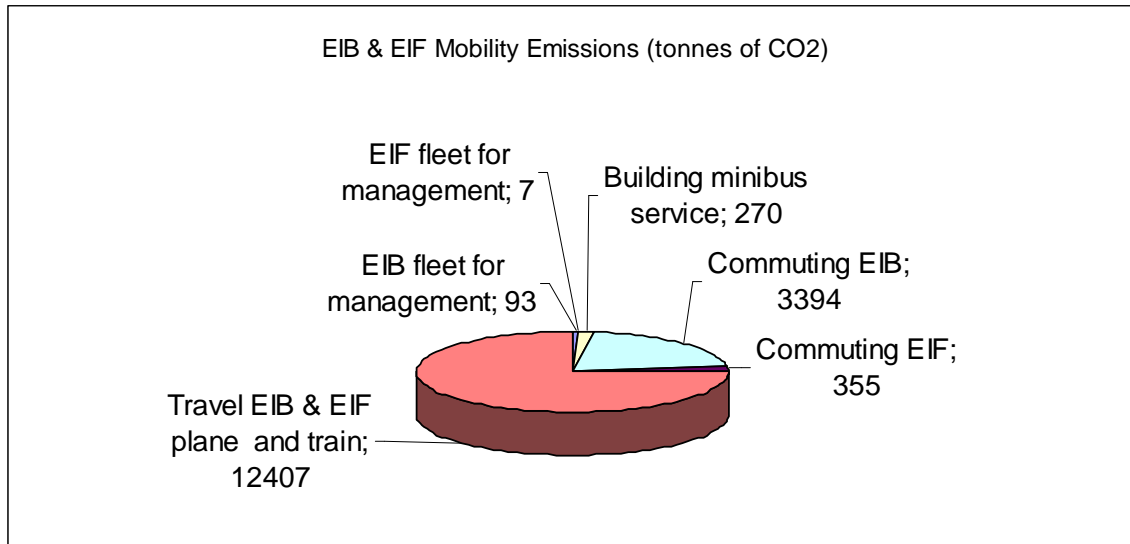
Reduction advice:

- ⌚ The transfer to the new EIB building which will be certified BREEAM should in theory create 30-40% reductions. Refurbishment/conditioning of other existing buildings following an energy audit should also bring further energy savings and thus cost and CO₂ emission savings.
- ⌚ Automatic light timers could be installed. On average, this effort could save around 3% on in-company CO₂ emissions. Avoiding approx 36 tonnes of CO₂ into the atmosphere.
- ⌚ Low emissions light bulbs installation. On average, this effort could save around 10% of emissions. The release of approx 121 tonnes of CO₂ into the atmosphere could be avoided.
- ⌚ Switch to 100% green supplier of electricity would save on the EIF emission by approx 92 tonnes of CO₂. (The switch by the EIB helped save several thousand of tonnes of CO₂)
- ⌚ Regulate temperature -1°C during the winter and +1 °C during the summer could save 7% of emissions. The release of approx 86 tonnes of CO₂ into the atmosphere could be avoided.

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 16,525 tonnes of CO₂ thus 92% of the total emissions. This means 11 tonnes per employee for this emission category.



The following data was collected by the facilities management:

- ⌚ Owned management cars EIB, 93 tonnes of CO₂ (Diesel 11,891 liters, Petrol 25,158)
- ⌚ Owned management cars EIF, 7 tonnes of CO₂ (25,842 km three cars Jaguar, Audi, Fiat)
- ⌚ Building minibus service, 270 tonnes of CO₂ (263,620 km)
- ⌚ Commuting EIB, 3394 tonnes of CO₂ (Kirchberg 10,731,000 km, Hamm 996,450 km, Findel 3,002,125 km)
- ⌚ Commuting EIF, 375 tonnes of CO₂ (extrapolation from EIB result)
- ⌚ International Travel EIB & EIF,
 - For air travel 6,191 tonnes of CO₂ without the radiative forcing and 12,383 tonnes of CO₂ with radiative forcing X2 Bilan Carbone® (plane: short haul 3,217,092 km, long haul first class 15,568,247 km.
 - For train travel 24,2 tonnes of CO₂ (612,211 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 for its employees in Luxemburg. 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.

Improving footprint calculation:

In the future it would be worth taking into account upstream emissions from the refining and transport of the fuel and also emissions from the construction of the cars and planes to have a more global view of the indirect CO₂ impact. These factors would come under Scope 3 emissions.

More precise information on commuting distances and types of car at the EIB and EIF should be gathered to give further accuracy on commuting emissions figure.

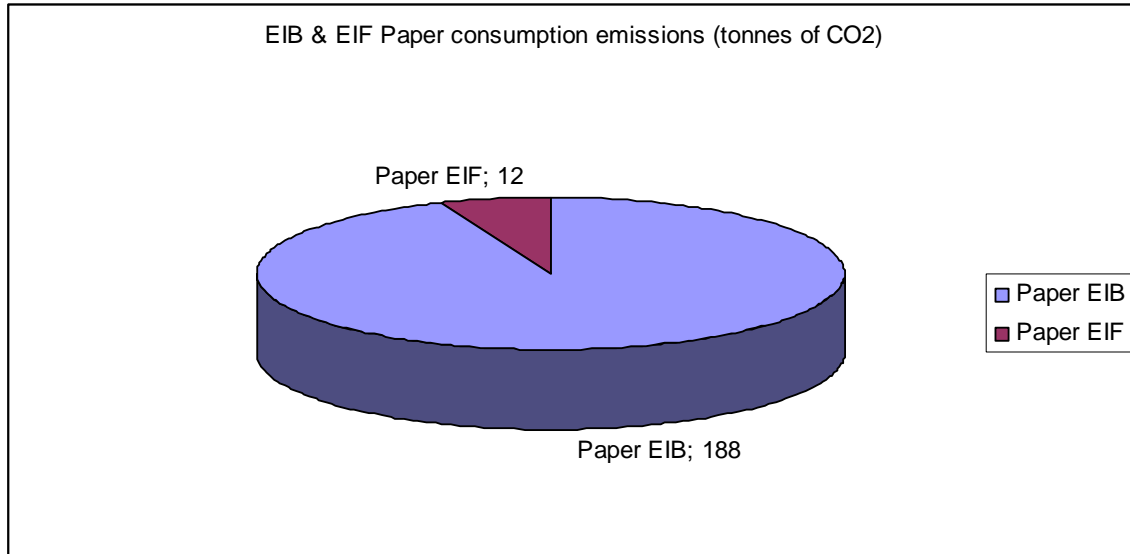
As mobility is the largest CO₂ emitting activity, undertaking reduction actions on this item would be the most efficient option for the EIB to curb its overall emissions. Reduction advice:

- ⌚ Installation of professional telepresence systems in some of the EIB offices around the world. This would help reduce emissions due to reduced international travel. A small reduction of just 10% less travel would mean a reduction of approx 619 tonnes of CO₂. The latest technology such as those installed by Cisco cost approx 45,000 € and are very effective.
- ⌚ The management cars for the EIB and for the EIF count for 100 tonnes of CO₂. Aiming to ensure that these cars are more efficient than the European average of 160g of CO₂ per km could lower this impact e.g. Toyota Hybrid 105 g CO₂ km or VW Passat Bluemotion 137 g CO₂ km. It is also clear that there is a high portion of petrol cars in this management fleet. Switching towards more diesel cars (with particle filters) could also reduce CO₂ emissions.
- ⌚ The average commuting distances (even if these are averages from the European Commissions) are high (35km) causing significant CO₂ emissions. A survey could be carried out to see if there would be more commuting by train if there was a shuttle service to the train station to facilitate this option and to compliment the public transport system during peak hours. Other companies in Luxemburg have put in place such a system.
- ⌚ Avoiding travels by plane from Luxemburg to Paris now that there is the high speed train line.
- ⌚ Providing eco-driving lessons to employees could create up to 10% of CO₂ emissions reductions.

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 200 tonnes of CO₂ thus 1.1% of the total emissions.



The following data was collected by the facilities management:

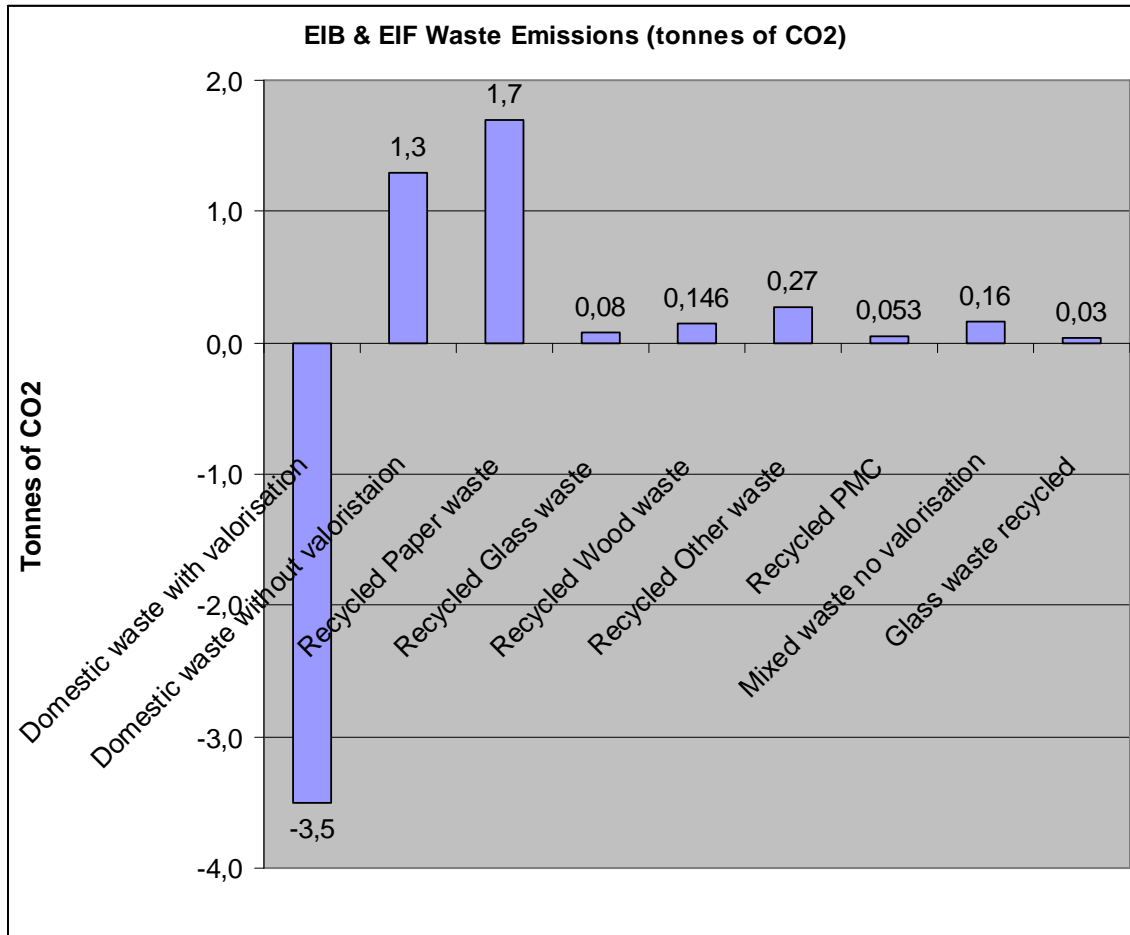
- ‡ The EIB caused 188 tonnes of CO₂ emissions through its paper consumption (93 tonnes of paper)
- ‡ The EIF caused 12 tonnes of CO₂ emissions through its paper consumption (6 tonnes of paper)

Reduction advice:

- ‡ The purchasing of printers that allow double sided printing or setting double sided printing as the default regulation could reduce emissions by around 20% thus avoiding 40 tonnes of CO₂.
- ‡ Promoting the distribution of documents by mail will also help reduce CO₂ emissions.
- ‡ Encouraging two page per sheet landscape printing for none important documents

2.3.5. Waste

The emissions from waste disposal account for 0,3 tonnes of CO₂ this is less than 1% of total emissions.



The following data was collected by the facilities management:

- ⌚ Domestic waste with valorization caused 3.5 tonnes of CO2 **spared!!** (207 tonnes of waste)
- ⌚ Domestic waste without valorisation caused 1.3 tonnes of CO2 (88 tonnes of waste)
- ⌚ Recycled Paper waste caused 1.7 (117 tonnes of waste)
- ⌚ Recycled Glass waste caused 0.08 tonnes of CO2 (6 tonnes of waste)
- ⌚ Recycled Wood waste caused 0,146 tonnes of CO2 (10 tonnes of waste)
- ⌚ Recycled other waste caused 0,27 tonnes of CO2 (18 tonnes of waste)
- ⌚ Recycled PMC caused 0,053 tonnes of CO2 (3,6 tonnes of waste)
- ⌚ Mixed waste no valorization 0,16 tonnes of CO2 (40 tonnes of waste)
- ⌚ EIF waste causes 0,025 CO2 emissions based 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.

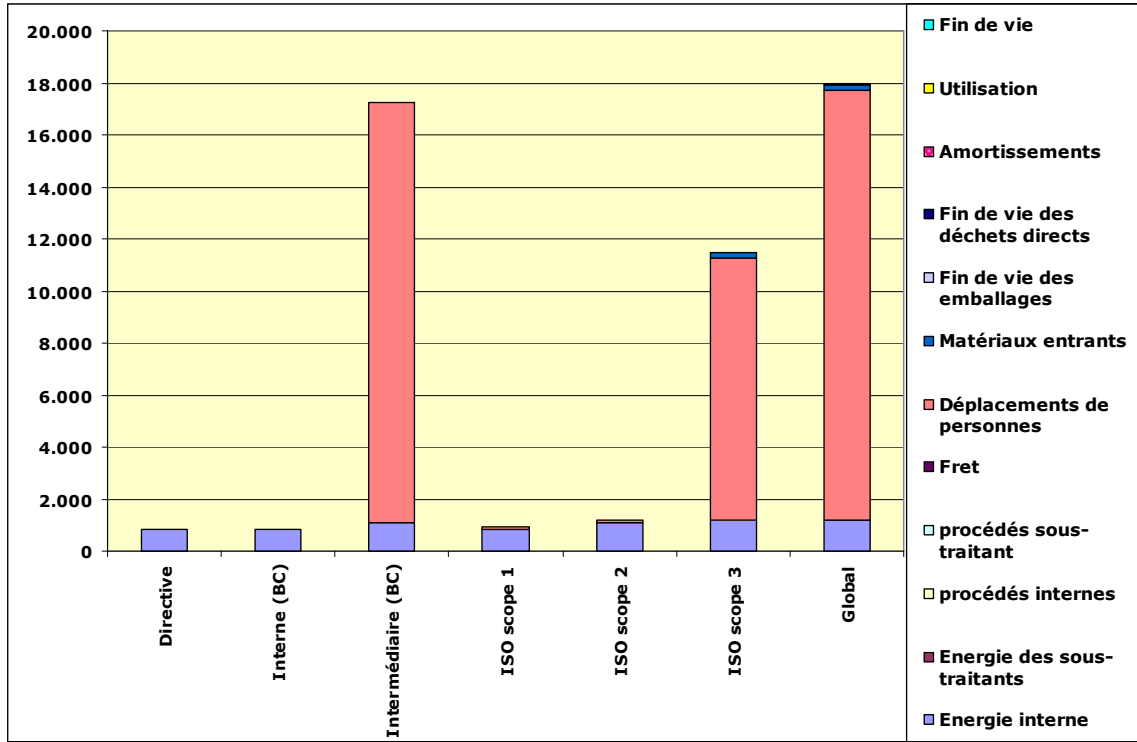
Reduction advice:

- ⌚ Make sure more waste either goes to incineration with valorisation or is recycled.
- ⌚ Try and source incoming materials and stationary with less packaging

2.3.6 Scope

The table below helps observe where the emissions within the set scope come from. It is particularly interesting to observe Scope 1 & 2 and 3 as defined by ISO 14064. The difference between “Scope 3” and “BC Global” emissions are the none Kyoto gases from air travel (i.e. radiative forcing). For “Scope 3” (as well as “BC Global”) we could have chosen to set the boundary much further and include more indirect emissions such as those due to visitors to the bank etc. This is encouraged by the Bilan Carbone® methodology and should be considered in the future.

*BC = Bilan Carbone



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 was set at the rate of the EU ETS at 23 Euro the cost would be **412,436 Euro**

If a carbon tax or offset was set at the rate of the Stern Review estimated CO2 social cost of 60 Euro the cost would be **1,075,920 Euro**

If a carbon tax or offset was set at the rate of the Lehman Brothers estimated CO2 social cost of 40 Euro the cost would be **717,280 Euro**

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 ones residual emissions. By offsetting ones 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 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 (VCS or 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.

Voluntary Carbon Standard (VCS) Voluntary offset verification standard with the climate system.”