European Parliament two-seat operation:

Environmental costs, transport & energy

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The Greens | European Free Alliance in the European Parliament

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Photo: Cédric Puisney 2003

Peer Review

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The usual disclaimers apply.

Note

As a UK-authored document, the convention in this report is to use points (".") for decimal places (e.g. 2.5).

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Executive Summary

The European Parliament has two seats and meets regularly in both Brussels and Strasbourg. The duplication of facilities and the demands made on MEPs, staff, assistants and journalists, imposes significant financial, environmental and organisational penalties on Europe's Parliament. The financial penalties are estimated to be over 200 million Euros each year.

This report has carried out a systematic analysis of the use of energy in buildings, transport and purchases associated with the Strasbourg operation and has used widely accepted methods and techniques to convert these details into estimates of the CO_2 impact of the two-seat operation.

We have carried out the analysis focussing on Strasbourg and on the CO_2 impact of the Strasbourg operation. The total CO_2 inventory associated with Strasbourg is 18884.5 tonnes pa.

This total is significant in several respects. It is large, it is avoidable and it would be prudent for the Parliament to set a clear example in reducing these emissions especially at a time when the European Union is taking a lead in advocating cuts in greenhouse gases. Not to "put it's own house in order" is to send all the wrong signals at a time when convincing leadership is needed if the Union is to be successful in heading off the worst consequences of climate change.

We are confident our calculations are correct but in two respects they must be regarded as interim. Firstly we have not had access to high quality data on all aspects of personnel and transport. We have used such data as were available and made clear our assumptions and scenarios. Secondly we have not carried out a compensatory analysis for any additional energy expenditure in Brussels if the Strasbourg operation were to cease. This requires more detailed energy and operational practice information than was available to us but we are confident that any compensatory changes of this kind will be minor.

The Strasbourg operation imposes a very large climate change burden. There are reasons why Parliament has evolved this way but the urgent need to take action on climate change requires a change of plan. Not to change historical operational practice sends a very clear message to millions of citizens and thousands of businesses that they need not try very hard to change behaviour if this change is inconvenient. This would be a serious mistake at a critical juncture in the climate change policy debate. The conclusion that follows from this is that on climate change grounds the European Parliament should concentrate all its activities in Brussels and bring the Strasbourg operation to an end.

1 Introduction

1.1 Eco-Logica Ltd was commissioned on 12th February 2007 by Caroline Lucas MEP and Jean Lambert MEP to carry out a study of the environmental impact of the current pattern of two-seat operation of the European Parliament.

1.2 The terms of reference of this study are:

- Collect and assess energy consumption data of all EP buildings in Brussels and Strasbourg and identify the proportion of this combined total that could reasonably be regarded as over and above what would be needed in a one-seat operation, assuming the one seat would be Brussels.

- Collect and assess information on the transport, energy and climate change implications of moving MEPs, assistants, support staff and freight between Brussels and Strasbourg.

- Take into account any compensatory movements, which might, for example, produce shorter journeys to Strasbourg than would be the case for a trip to Brussels and build this into the analysis.

- Arrive at an evidence-based and robust conclusion about the environmental and climate change implications of running a one-seat, Brussels-based, operation for the European Parliament.

Photo: Lukas Riebling 2005

2 The geographical basis of European Parliament operations

2.1 When it met in Edinburgh on 11 and 12 December 1992, the European Council reached agreement on the location of the seats of the institutions and of certain bodies and departments of the European Communities and of Europol. That agreement was subsequently set out in a protocol annexed to the Treaty of Amsterdam, which lays down in particular:

'The European Parliament shall have its seat in Strasbourg where the 12 periods of monthly plenary sessions, including the budget session, shall be held. The periods of additional plenary sessions shall be held in Brussels. The committees of the European Parliament shall meet in Brussels. The General Secretariat of the European Parliament and its departments shall remain in Luxembourg.'

Source: The Secretary General of the European parliament, D/24355; NT/475413EN.doc; PE 320.860/BUR./fin. (Page 2/8)

2.2 In its judgment of 1 October 1997 (Case C-345/95, French Republic v European Parliament), the Court of Justice of the European Communities held that:

'The decision [taken in Edinburgh] must be interpreted as defining the seat of the Parliament as the place where 12 ordinary plenary part-sessions must take place on a regular basis, including those during which the Parliament is to exercise the budgetary powers conferred upon it by the Treaty. Additional plenary part-sessions cannot therefore be scheduled for any other place of work unless the Parliament holds the 12 ordinary plenary part-sessions in Strasbourg, where it has its seat.'

and that

'... the Governments of the Member States have not, by so defining its seat, encroached upon the power of the Parliament to determine its own internal organisation, conferred by Articles 25 of the ECSC Treaty, 142 of the EC Treaty and 112 of the EAEC Treaty.'

. On the basis of an exchange of letters, implementing procedures have been agreed with the Grand Duchy of Luxembourg which stipulate that, out of the total number of staff employed by the European Parliament (excluding political group and external office staff), at least half must be assigned to Luxembourg. Similarly, half of the new posts created as a result of enlargement must also be assigned to Luxembourg.

Source: The Secretary General of the European parliament, D/24355; NT/475413EN.doc; PE 320.860/BUR./fin. (page 3/8)

2.3 Parliamentary activities are organised over a four-week cycle, with two weeks being set aside for meetings of parliamentary committees and delegations, followed by one week earmarked for political group meetings and one plenary part-session week. During the first three weeks, meetings are held in Brussels, with the fourth week being spent in Strasbourg.

No plenary part-session is held in August during the parliamentary recess. However, a second part-session is usually held in Strasbourg in late September or early October. When Parliament is in session in Strasbourg, political group meetings and any parliamentary committee meetings convened to address urgent problems are also held in Strasbourg. Six times a year, an additional short plenary part-session is held in Brussels, during a week set aside for parliamentary committee meetings.

Source: The Secretary General of the European parliament, D/24355; NT/475413EN.doc; PE 320.860/BUR./fin. (Page 3/8)

2.4 The effect of these geographical dispersion arrangements is that the European Parliament buildings in Strasbourg are largely empty for 307 days each year and in use for the remainder of the year. There are efforts to use the chamber more efficiently, in terms of finding alternative uses for when the Parliament is not in session (e.g. for large-scale civil society congresses and youth events), but these are only occasional.

2.5 With a view to meeting requirements relating to parliamentary meetings and to offices for Members, staff and support services, building complexes have had to be constructed in the three places of work with three times the amount of equipment. For example, the conference rooms in Brussels and Strasbourg are generally not used simultaneously (although the Social and Economic Committee of the EU and the Committee of the Regions do occasionally use the chamber and large conference rooms). The same applies to Members' offices. A very large number of officials of the European Parliament and of the political groups have a permanent office in Luxembourg, plus a temporary office in one or even both of the other places of work. Alternating the organisation of parliamentary activities between Brussels and Strasbourg also requires twice the amount of infrastructure and of technical equipment for IT, simultaneous interpretation and telecommunications, as well as of general amenities.

Concentration of parliamentary activities in one single place of work would, therefore, render redundant:

- one Chamber
- 21 large conference rooms (seating between 100 and 350 persons) and 13 small conference rooms (seating between 20 and 60 persons) with interpreters' booths and 13 small conference rooms without interpreters' booths
- 2 650 offices
- the corresponding technical areas and general amenities

i.e. a total surface area of about 300 000 m^2, the rent for which amounts annually to EUR 60 million, to which must be added another EUR 18 million in ancillary costs (water, gas, electricity, insurance, maintenance of technical installations, security), i.e. a total of EUR 78 million.

Source: The Secretary General of the European parliament, D/24355; NT/475413EN.doc; PE 320.860/BUR./fin. (Page 4/8)[1].

2.6 One other important budget item concerns mission expenses for staff travelling between the three places of work. The total cost of mission expenses is EUR 18 million.

When a part-session is held in Strasbourg, 1 220 officials and other servants of Parliament and of the political groups, as well as freelance interpreters, travel from Brussels to Strasbourg as do another 525 from Luxembourg to Strasbourg[2].

Source: The Secretary General of the European parliament, D/24355; NT/475413EN.doc; PE 320.860/BUR./fin. (Page 6/8)[3].

[1] The document dates from 2002 but unfortunately no more up-to-date figures were available. Since two waves of enlargement have happened since then and the EU has gone from 15 Members to 27, the current figure is likely to be significantly higher.

[2] See Note 1 above

[3] See Note 1 above

2.7 The geographical dispersion of the European Parliament also generates costs charged to budgets other than its own. For example, when a part-session is held in Strasbourg, the following staff travel there at their employer's expense:

- 400 hundred personal assistants of Members employed in Brussels (estimate provided by office of Caroline Lucas)
- 120-160 journalists based in Brussels
- Dozens of officials employed by the Commission, the Council and the Permanent Representations of the Member States
- Lobbyists

Source: The Secretary General of the European parliament, D/24355; NT/475413EN.doc; PE 320.860/BUR./fin. (Page 7/8)[4]

2.8 The operation of two Parliamentary locations in Brussels and Strasbourg also generates freight movements by lorry:
"…including the fifteen lorries which ferry cupboards and tin trunks full of documents each month from Brussels or Luxembourg to Strasbourg and back again."

Source: The Secretary General of the European parliament, D/24355; NT/475413EN.doc; PE 320.860/BUR./fin. (Page 6/8)

[4] See Note 1 page 10

3 Data sources: budgets

3.1 The Secretary General's report on Parliament's draft estimates for the financial year 2007 is revealing about the costs of running the European Parliament and the areas of cost that could offer potential reduction if all meetings took place in Brussels (our one-seat in Brussels assumption). The report quantifies the potential savings from adopting the one-seat option at 206 617 088 Euros (Table C, page 10/11 of DV/603846EN.doc; PE 368.766/BUR/ANN.IV).

3.2 The budget headings in the report are not as helpful as they could be in quantifying savings under different headings (e.g. energy consumption in the EP's Strasbourg buildings and travel expense between Brussels and Strasbourg for MEPs, assistants and other staff). Nevertheless they give an outline indication of the scale of the budget commitment to Strasbourg, which in turn gives an indication of the scale of environmental impact including climate change impact.

3.3 The main headings relevant to environmental impact and climate change impact are summarised in Table 3.1

Table 3.1: Parliament Budgets relevant to environmental and climate change impacts (draft estimates for 2007 in millions of Euros)

Travel and subsistence of members	77.5
Missions (staff)	25.0
Expenditure on energy in buildings	13.1
Political group expenditure on travel and subsistence	13.5
Travelling between the three main locations	2.4

Source: Annexe 4 to the Secretary-General's report to the members of the Bureau on Parliament's preliminary draft estimates for the financial year 2007 DV/603846EN.doc; PE 368.766/BUR/ANN.IV.

3.4 The geographical dispersion arrangements described in section 2 generate significant movements of staff between Brussels, Strasbourg and Luxembourg. These are quantified in Para 2.6 and are estimated to cost 18 million Euros.

3.5 The Secretary General has provided a summary table of the costs of the annual cost of the geographical dispersion (Table 3.2):

Table 3.2: Annual cost of the geographical dispersion

These figures provide a basis for estimating the annual cost arising from the geographical dispersion of the European Parliament. They break down as follows:

Infrastructure costs	-	premises	78 million
	-	IT and other equipment	42 million
Staff costs	-	supernumerary staff	22 million
	-	mission expenses	18 million
Sundry operating costs	-		9 million
		Total:	169 million
Expected impact of enlargement			34 million
		General total:	203 million

That amount, before and after enlargement, accounts for about 16% of Parliament's total budget.

Source: The Secretary General of the European Parliament, D/24355; NT/475413EN.doc; PE 320.860/BUR./fin. (Page 8/8)

4 Data sources: energy

4.1 Energy consumption data for 2006 have been supplied by the European Parliament for Strasbourg. The raw consumption data and its CO_2 equivalent using a range of conversion factors are shown in Table 4.1.

Table 4.1: Raw energy consumption data for Strasbourg (kWh) and its CO_2 equivalent (tonnes)

	kWh	CO_2 tonnes (Note 1)	CO_2 tonnes (Note 2)	CO_2 tonnes (Note 3)
Electricity	42 402 955	3472	2078	3392
Gas	9 736 105	1850	1850	1850
Totals		5322	3928	5242

Source of kWh data: Communication from the Directorate General for the Presidency, Secretariat of the Bureau, the Conference of Presidents and Quaestors, 27th March 2007, letter to Caroline Lucas MEP (under the name of Peder Kyst)

Notes on Table 4.1

1 The CO_2 tonnage figure is based on the conversion factors in the Climate Care report (see Note 1 in the 'Further Explanation' section of this report on page 64). This uses a conversion factor of 80g/kWh for electricity and 0.19kg/kWh for gas.

2 The CO_2 tonnage figure is based on our own calculations, which use the same value as Climate Care for gas, but 49g/kWh for electricity. The 49g/kWh conversion factor is from the French electricity supplier EDF.
Source: *http://particuliers.edf.fr/141288i/EDF-Particuliers/pages-transverses/questions-frequentes/ethique-et-developpement-durable.html*

3 The CO_2 electricity figure has been calculated from data supplied by ADEME and EDF:

Les résultats permettent de distinguer 4 niveaux d'émissions par usages. Ces 4 indicateurs offrent une vision facilement partageable pour les utilisations les plus courantes. Ils se fondent sur un lot d'indicateurs détaillés (cf. annexe) qui peuvent être utilisés pour des besoins plus précis.

- L'usage de l'électricité pour le chauffage résidentiel et tertiaire (chauffage électrique et pompes de circulation des chaudières fuel et gaz), exclusivement hivernal, se voit attribuer le contenu CO_2 de la production saisonnalisée, à savoir 180 g/kWh

- L'éclairage, qu'il soit résidentiel, tertiaire, public ou industriel a un contenu CO_2 d'environ 100 g/kWh

- Les usages résidentiels (cuisson, lavage et produits bruns), les usages tertiaires et industriels autres que l'éclairage ont une consommation qui suit la courbe de charge globale et se voient donc attribuer un contenu CO_2 à peu près égal à la moyenne nationale à savoir environ 60 g/kWh

Source: http://www.rac-f.org/imprimer.php3?id_article=822

We have selected the level of 80g/kWh as the most appropriate for the Strasbourg Parliament. We do not have a detailed breakdown of electricity consumption by end use for the European Parliament and we understand that the figure of 100g/kWh is to be used for lighting and 60g/kWh for computers. We have selected the average of both coefficients as a simplified assumption that does not bias the result towards the lower or higher end of the spectrum. It also corresponds with the Climate Care figure above.

4.2 We consider the ADEME/EDF figure for electricity (80g/kWh) to be the most appropriate to use and for gas, the Climate Care figure for European natural gas is also the most appropriate. The gas figure we have used (0.19kg/kWh) is the figure used by Climate Care and is also recommended by the UK Environment Ministry (DEFRA) in its "Environmental Reporting Guidelines for Company Reporting on Greenhouse Gas Emissions". It is the figure (according to DEFRA) that should be used for the purposes of environmental reporting, the UK Emissions Trading Scheme and the Climate Change Levy agreements.

4.3 The total CO_2 carried forward to Table 9.1 is, therefore, 5242 tonnes

4.4 It is clear that the transfer of activities from Strasbourg to Brussels would add an additional amount of energy consumption, maintenance and purchases to the Brussels total, and so not all of the consumption in the above calculations would be removed if a one-seat in Brussels operation were to become a reality. Unfortunately the data available were not sufficiently detailed to accurately quantify the additional burden on Brussels under such a scenario. However, they suggest that in fact the majority of consumption in both places is a base load, and so the additional amounts related to the increased activity during plenary sessions is likely to be relatively insignificant.

5 Data sources: Non MEP Travel

5.1 Mission staff travel: Secretariat General and Political Group staff

The 2007 estimates for European Parliament staff state that the staff total is 5959.

Source: European Parliament, Committee on Budgets, Report on the estimates of revenue and expenditure of the EP for the financial year 2007 (2006/2022(BUD)).RR/371734EN.doc PE 371.734v03-00 Page14/63

Precise travel data concerning mission staff numbers for the period 2006 were provided by the Secretary General – *Directorate General Presidency, Secretariat of the Bureau of the Conference of Presidents and the Quaestors on 16/04/2007 by courtesy of Mr Peder Kyst.* Full details of the Secretary General communication and the mission staff travel data can be found in appendix VI in this report. These data cover all staff of the Parliament's Secretariat General (e.g. civil servants of the Committees; interpreters; ushers), but not staff of the political groups (see below).

The travel data show total movements of European Parliament staff of the Secretariat General on mission during the year 2006 between the parliamentary seats in both Brussels and Luxembourg to Strasbourg. We will assume that this movement between parliamentary seats takes place 12 times per year in accordance with the timing of plenary sessions held in Strasbourg.

Section 5.2 details the movement of these staff between Brussels & Strasbourg, mode of transport used and CO_2 emissions generated. Data for mission staff movements between Luxembourg and Strasbourg are supplied in Section 5.3, where attention is also given to the emissions that would arise from Luxembourg-based staff instead travelling to Brussels for plenary sessions.

Note 2 in the 'Further Explanations' section of this report (page 64) provides details of referenced distance sources for distances travelled between parliamentary seats relating to mode of transport used.

Besides the staff of the Secretariat General, each of the Parliament's nine political groups employs staff in numbers proportional (or very nearly so) to the number of MEPs in that group. Unfortunately no specific data were received on the movements of this category of staff so appropriate assumptions and scenarios have been constructed, as set out in Section 5.4.

Emission factors have been taken from the following source "*To shift or not to shift, that's the question." The environmental performance of the principal modes of freight and passenger transport in the policy-making context*. CEC 2003. Annex C, pg 93 (table 1). This source will henceforth be referred to as CEC 2003.

Box 1: Emissions factors based on CEC 2003 data g/pkm of CO_2 for transport modes: rail, air & train

	Best Case	Worst Case
Road		
Petrol	69	93
Diesel	61	82
Assumed figure	65	87
Rail		
	29	79
Air		
500km	444.54	709.02
1500km	216.47	345.87

NB: Unfortunately, time and budget constraints meant it was not possible to carry out survey work to ascertain a precise evidence-based figure for occupancy, so we have used the assumed figure of 2.5. This is quite high by EU standards, but this is reported to be quite reasonable for the purposes of this report since efforts are made between staff to lift-share. The effect of this is to give a lower figure than might be the case for CO_2 emissions.

Source: CEC 2003

This meta-study is based on a state-of-the-art review of work on emission factors so we are confident in using its conclusions, which are based on data and parameters deemed to be broadly applicable to EU countries. Given the peculiarities of the parliamentary travels to Strasbourg, it is appropriate to use such average figures.

5.2 Mission staff travel (Secretariat General): Brussels – Strasbourg

5.2.1 The travel data provides the total number of Parliament staff of the Secretariat General on mission to Strasbourg from Brussels in 2006 and the mode of transport used to complete the journey. Data is provided for both outward and return journeys made by staff and this information is presented in tables 5.1 and 5.2:

Table 5.1: Total number of Secretariat General staff on mission to Strasbourg in 2006 and mode of transport. ***Outward journeys*** Brussels – Strasbourg

	Outward Journey Brussels	
	12 plenary sessions	1 plenary session
Air	4896	408
1st Class Rail	1418	118
2nd Class Rail	273	23
Sleeper Rail	4	0
Shared car	264	22
Own car	5895	491
Service car	605	50
Other	69	6
Total	13424	1119

Source: Adapted from Directorate-General Presidency. Secretariat of the Bureau of the Conference of Presidents and the Quaestors on 16/04/2007 by courtesy of Mr Peder Kyst (see appendix VI)

Table 5.2: Total number of Secretariat General staff on mission to Strasbourg in 2006 and mode of transport. ***Return journeys*** Brussels – Strasbourg

	Return Journey Brussels	
Mode	12 plenary sessions	1 plenary session
Air	4858	405
1st Class Rail	1387	116
2nd Class Rail	221	18
Sleeper Rail	4	0
Shared car	311	26
Own car	5878	490
Service car	696	58
Other	69	6
Total	13424	1119

Source: Adapted from Directorate-General Presidency. Secretariat of the Bureau of the Conference of Presidents and the Quaestors on 16/04/2007 by courtesy of Mr Peder Kyst (see appendix VI)

Notes on tables 5.1 & 5.2:

1 Travel data provided by the Secretary General shows total numbers of staff on mission to Strasbourg and their mode of transport for the period 2006 (See Appendix VI for original data). As Parliament in Strasbourg is held during 12 plenary sessions over the period of one year, this has been reflected in tables 5.1 and 5.2. In order to establish

the number of Secretariat General staff attending 1 plenary session in Strasbourg and the mode of transport used, we have divided the original data by 12 for each mode.

5.2.2 Table 5.3 shows total travel mode figures for Secretariat General staff on mission to Strasbourg under the three main modal headings: Air, Rail, and Road. We have arrived at these figures by totalling the individual data provided for rail and road:

Table 5.3: Total number of Secretariat General staff on mission to Strasbourg under three main headings: Air, Rail, and Road (Outward & Return journeys)

	Outward Journey Brussels		Return Journey Brussels	
	12 plenary sessions	1 plenary session	12 plenary sessions	1 plenary session
Air	4896	408	4858	405
Rail	1695	141	1612	134
Road	6764	564	6643	554
Total	13355	1113	13113	1093

Source: Directorate-General Presidency. Secretariat of the Bureau of the Conference of Presidents and the Quaestors on 16/04/2007 by courtesy of Mr Peder Kyst (see appendix VI) and own calculations for modal categories Rail & Road

Notes on table 5.3

1 Considering the fact that we cannot establish a distance band per mode of transport for the travel mode category 'other', this information will be omitted from the final analysis.

2 Table 5.3 incorporates the sum of rail travel and road travel categories for outward and return journeys respectively identified in tables 5.1 & 5.2. These totals will be used in the following analysis to identify total CO_2 emissions per mode.

Total CO_2 emissions per annum relating to above staff movements between parliamentary seats have been calculated for each mode: Air, Rail and Road. Data is provided for best-case and worst-case emissions for each category, however only Best Case CO_2 emissions figures have been incorporated into the final analysis in order to reflect a conservative approach.

The source of specific emission data that we have used in this analysis (CE, Delft, 2003) presents these data as both "best case" and "worst case". Note 3 in the 'Further Explanations' section of this report (page 65) provides more detail regarding the best-case/worst case distinction.

In our detailed analysis of CO_2 emissions for staff, MEP, assistant and journalist travel as well as freight transport we have presented the results for both best case and worst case. It is, however, our view that the totals carried forward to the final table (Table 9.1) should use only best-case data.

Our reasons are 3-fold:

- The data and the arguments presented in this report do not depend on the differences between best and worst for their impact. The best-case impact is sufficiently serious to require a change in the way Parliament operates.

- Some of our categories of emissions e.g. energy and expenditure on buildings and supplies do not have best and worst case variants. It is logical therefore to use one only and in our view that selection should be based on a conservative variant that runs the risk of underestimating impacts rather than over-estimating impacts.

- There is uncertainty in the data that were made available to us and the correct way to deal with uncertainties is to avoid exaggeration and over-estimation. Those readers interested in the best and worst-case scenarios are referred to the original publication.

Tables 5.4 to 5.7 detail total CO_2 emissions for Secretariat General staff travel by Road, Rail and Air. Total CO_2 emissions by mode of transport are estimated by calculating the sum of the emissions for the outward trip and the return trip. For clarity, this figure is labelled as the 'round trip total' in the following tables.

5.2.3 Secretariat General staff travel Brussels – Strasbourg: modal analysis

The CO_2 emissions associated with each mode are now collected and summarised in tables 5.4, 5.5, 5.6 and 5.7.

Table 5.4: Secretariat General staff travel emissions Brussels – Strasbourg by road

	No. of people	Distance (km)	Total passenger kilometres (pkm)	gCO_2/pkm	g CO_2/pkm	Total CO_2 by road to Strasbourg (Tonnes) 1 Plenary session	Total CO_2 by road to Strasbourg (Tonnes) 1 Plenary session	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions
				BEST CASE	WORST CASE	BEST CASE	WORST CASE	BEST CASE	WORST CASE
Outward Journey	564	488	275232	65.00	87.00	17.89	23.94	214.68	287.28
Return Journey	554	488	270352	65.00	87.00	17.57	23.52	210.84	282.24
Round trip totals	1118	976	545584			35.46	47.46	425.52	569.52

Source: CEC 2003 g CO_2/pkm data & own calculations

Table 5.5: Secretariat General staff travel emissions, Brussels – Strasbourg by rail

	No. of people	Distance (km)	Total passenger kilometres (pkm)	g CO_2/pkm	g CO_2/pkm	Total CO_2 by air to Strasbourg (Tonnes) 1 Plenary session	Total CO_2 by air to Strasbourg (Tonnes) 1 Plenary session	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions
				BEST CASE	WORST CASE	BEST CASE	WORST CASE	BEST CASE	WORST CASE
Outward Journey	141	428	60348	29.00	79.00	1.75	4.76	21.00	57.12
Return Journey	134	428	57352	29.00	79.00	1.66	4.53	19.92	54.36
Round trip total	275	856	117700			3.41	9.29	40.92	111.48

Source: CEC 2003 g CO_2/pkm data & own calculations

Notes to Table 5.5

[1] Emissions based on 'Intercity Electric' and not 'High Speed Train'

[2] See Note 4 in the 'Further Explanations' section of this report on page 67

Table 5.6: Secretariat General staff travel emissions Brussels – Strasbourg by air

	No. of people	Distance (km)	Total passenger kilometres (pkm)	gCO_2/pkm	gCO_2/pkm	Total CO_2 by air to Strasbourg (Tonnes) 1 Plenary session	Total CO_2 by air to Strasbourg (Tonnes) 1 Plenary session	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions
				BEST CASE	WORST CASE	BEST CASE	WORST CASE	BEST CASE	WORST CASE
Outward Journey	408	350	142800	444.00	709.00	63.4	101.24	760.80	1214.88
Return Journey	405	350	141750	444.00	709.00	62.93	100.5	755.16	1206.01
Round trip total	813	700	284550			126.33	111.74	1515.96	2420.89

Source: CEC 2003 g CO_2/pkm data & own calculations

5.2.4 Total Secretariat General staff CO_2 emissions by modal split: Brussels – Strasbourg

Table 5.7: Total Secretariat General staff annual CO_2 emissions by modal split. Brussels – Strasbourg. Best case scenario

Mode	Total annual CO_2 emissions (Tonnes)
Air	1515.96
Rail	40.92
Road	425.52
Total	1982.4

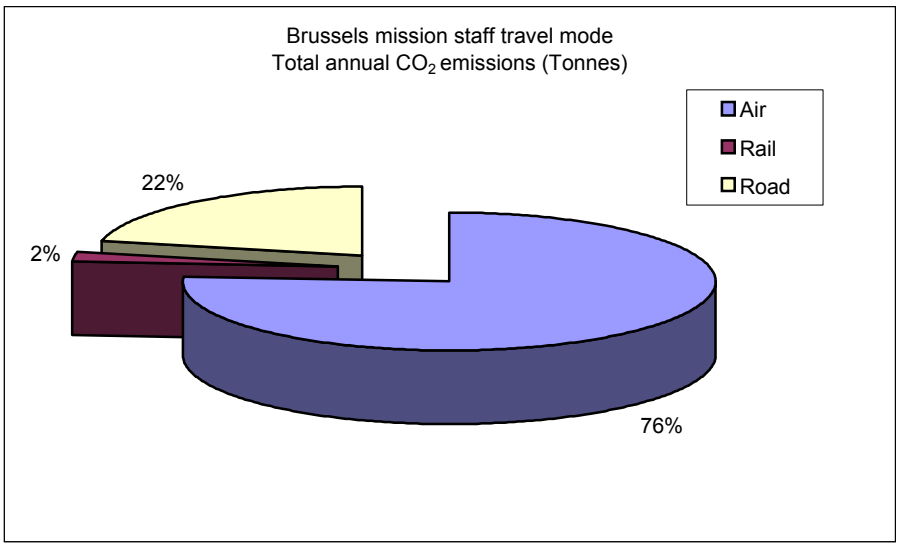
Source: CEC 2003 g CO_2/pkm data & own calculations

Notes on table 5.7

1 Total annual CO_2 emissions figures for each mode are extracted from the total annual CO_2 emissions (Tonnes) best case round trip total figures from tables 5.4, 5.5 & 5.6

The total CO_2 emissions from Brussels mission staff travel to Strasbourg are 1982.4 tonnes (best case). This will now be carried forward to table 9.1. The CO_2 emissions attributable to travel mode are shown in figure 5.1

Figure 5.1: Brussels Secretariat General staff travel mode – % total annual CO_2 emissions



Source: CEC 2003 g CO_2/pkm data & own calculations

5.3 Mission staff travel (Secretariat General) – Luxembourg to Strasbourg

5.3.1 As in Section 5.2, the travel data supplied by the Secretary General provides the total number of Parliament staff of the Secretariat General on mission between Luxembourg and Strasbourg in 2006 and the mode of transport used to complete these journeys. Data are provided for both outward and return journeys made by staff and this information is presented in tables 5.8 and 5.9:

Table 5.8: Total number of Secretariat General staff on mission to Strasbourg in 2006 and mode of transport. ***Outward journeys*** Luxembourg – Strasbourg

	Outward Journey Luxembourg	
Mode	12 plenary sessions	1 plenary session
Air	0	0
1st Class Rail	315	26
2nd Class Rail	45	4
Sleeper Rail	0	0
Shared car	62	5
Own car	3884	324
Service car	225	19
Other	12	1
Total	4543	379

Source: Adapted from Directorate-General Presidency. Secretariat of the Bureau of the Conference of Presidents and the Quaestors on 16/04/2007 by courtesy of Mr Peder Kyst (see appendix VI)

Table 5.9: Total number of Secretariat General staff on mission to Strasbourg in 2006 and mode of transport. ***Return journeys*** Luxembourg – Strasbourg

	Return Journey Luxembourg	
Mode	12 plenary sessions	1 plenary session
Air	2	0
1st Class Rail	304	25
2nd Class Rail	42	4
Sleeper Rail	0	0
Shared car	64	5
Own car	3895	325
Service car	224	19
Other	12	1
Total	4543	379

Notes on tables 5.8 & 5.9

Travel data provided by the Secretary General shows total numbers of staff on mission to Strasbourg and their mode of transport for the period 2006 (See Appendix VI for original data). As Parliament in Strasbourg is held during 12 plenary sessions over the period of one year, this has been reflected in tables 5.8 and 5.9. In order to establish the number

of mission staff attending 1 plenary session in Strasbourg and the mode of transport used, we have divided the original data by 12 for each mode. In fact, this is a methodological convenience since it is known that some of the travel takes place outside plenary sessions for reasons relating to the coordination of services or work to be carried out locally. However, this does not affect the ultimate purpose here of calculating total emissions arising from Luxembourg-origin travel.

5.3.2 Table 5.10 shows total travel mode figures for staff on mission between Strasbourg and Luxembourg under the three main modal headings: Air, Rail, and Road. We have arrived at these figures by totalling the individual data provided for rail and road:

Table 5.10: Total number of Secretariat General staff on mission between Luxembourg and Strasbourg: Air, Rail, and Road (Outward & Return journeys)

	Outward Journey Luxembourg		Return Journey Luxembourg	
	12 plenary sessions	1 plenary session	12 plenary sessions	1 plenary session
Air	0	0	2	0
Rail	360	30	346	29
Road	4171	348	4183	349
Total	4531	378	4531	378

Source: Directorate-General Presidency. Secretariat of the Bureau of the Conference of Presidents and the Quaestors on 16/04/2007 by courtesy of Mr Peder Kyst (see appendix VI) and own calculations for modal categories Rail & Road

5.3.3 Total CO_2 emissions per annum relating to above staff movements between the parliamentary seats in Strasbourg and Luxembourg have been calculated for each mode of travel: Air, Rail and Road. Data is provided for best-case and worst-case emissions scenarios for each category, however only best-case CO_2 emissions figures have been incorporated into the final analysis in order to reflect a conservative approach.

Tables 5.11 to 5.14 detail total CO_2 emissions for Secretariat General staff travel by Road, Rail and Air. Total CO_2 emissions by mode of transport are estimated by calculating the sum of the emissions for the outward trip and the return trip. For clarity, this figure is labelled as 'round trip total' in the following tables.

5.3.4 Secretariat General staff travel Luxembourg – Strasbourg: modal analysis
The CO_2 emissions associated with each mode are now summarised in Tables 5.11, 5.12, 5.13 and 5.14

Table 5.11: Secretariat General staff travel emissions Luxembourg – Strasbourg by road

	No. of people	Distance (km)	Total passenger kilometres (pkm)	gCO_2/pkm	gCO_2/pkm	Total CO_2 by road to Strasbourg (Tonnes) 1 Plenary session	Total CO_2 by road to Strasbourg (Tonnes) 1 Plenary session	Total annual CO_2 emissions (Tonnes)	Total annual CO_2 emissions (Tonnes)
				BEST CASE	WORST CASE	BEST CASE	WORST CASE	BEST CASE	WORST CASE
Outward Journey	348	220	76560	65.00	87.00	4.97	6.66	59.64	79.92
Return Journey	349	220	76780	65.00	87.00	4.99	6.67	59.88	80.04
Round trip totals	697	440	153340			9.96	13.33	119.52	159.96

Source: CEC 2003 g CO_2/pkm data & own calculations

Table 5.12: Secretariat General staff travel emissions Luxembourg – Strasbourg by rail

	No. of people	Distance (km)	Total passenger kilometres (pkm)	gCO_2/pkm	gCO_2/pkm	Total CO_2 by air to Strasbourg (Tonnes) 1 Plenary session	Total CO_2 by air to Strasbourg (Tonnes) 1 Plenary session	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions
				BEST CASE	WORST CASE	BEST CASE	WORST CASE	BEST CASE	WORST CASE
Outward Journey	30	220	6600	29.00	79.00	0.19	0.52	2.28	6.24
Return Journey	29	220	6380	29.00	79.00	0.18	0.50	2.16	6.0
Round trip totals	59	440	12980			0.37	1.02	4.44	12.24

Source: CEC 2003 g CO_2/pkm data & own calculations

[1] Emissions based on 'Intercity Electric' and not 'High Speed Train'

Table 5.13: Secretariat General staff travel emissions Luxembourg – Strasbourg by air

	No. of people	Distance (km)	Total passenger kilometres (pkm)	gCO_2/pkm	gCO_2/pkm	Total CO_2 by air to Strasbourg (Tonnes) 1 Plenary session	Total CO_2 by air to Strasbourg (Tonnes) 1 Plenary session	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions
				BEST CASE	WORST CASE	BEST CASE	WORST CASE	BEST CASE	WORST CASE
Outward Journey	0	164	0	444.00	709.00	0.00	0.00	0.00	0.00
Return Journey	0.17	164	28	444.00	709.00	0.01	0.02	0.14	0.24
Round trip totals	0.17	440	28			0.01	0.02	0.14	0.24

Source: CEC 2003 g CO_2/pkm data & own calculations

Table 5.14: Total Secretariat General staff annual CO_2 emissions by modal split. Luxembourg – Strasbourg. Best case scenario

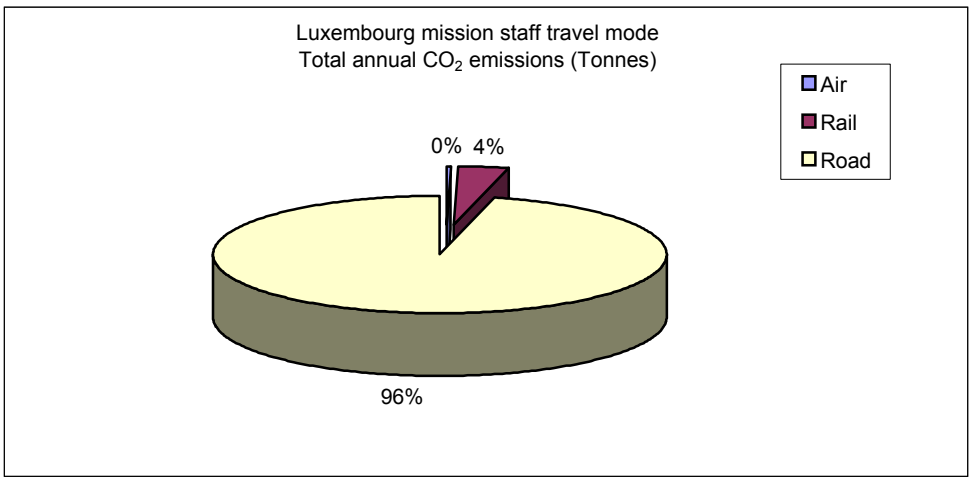
Mode	Total annual CO^2 emissions (Tonnes)
Air	0.14
Rail	4.44
Road	119.52
Total	124.1

Source: CEC 2003 g CO_2/pkm data & own calculations

Notes on table 5.14

Total annual CO_2 emissions figures for each mode are extracted from the total annual CO_2 emissions (Tonnes) best case round trip total figures from tables 5.11, 5.12 & 5.13

Figure 5.2: Luxembourg Secretariat General staff – % total annual CO_2 emissions by modal split



Source: CEC 2003 g CO_2/pkm data & own calculations

5.3.5 The total CO_2 emissions from Luxembourg mission staff travel to Strasbourg are 124.1 tonnes (best case).

5.3.6 We must now consider the emissions that would be produced if Luxembourg-based staff were instead to be required to travel to Brussels rather than Strasbourg. We will assume that the Luxembourg based staff will travel at the same rate and at the same frequency and with the same modal split from Luxembourg to Brussels. This will incur a CO_2 emission penalty which must be

set against the "saving" of 124 tonnes in para 5.3.5. In fact, the distance from Luxembourg to Brussels is greater than the distance to Strasbourg at 233 km and this will have the effect of adding CO_2 to the saving of 124.08 tonnes. The difference between the CO_2 emissions generated from staff travel to Brussels in place of staff travel to Strasbourg is -7.52 tonnes. The entry for this category of travel in Table 9.1 will therefore be -7.52 tonnes.

5.4 Mission staff travel (Political Groups)

5.4.1 Each of the Parliament's nine political groups employs staff in numbers proportional (or very nearly so) to the number of MEPs in each group, a large number of whom travel to Strasbourg. Specific data on these movements, like that used in sections 5.2 and 5.3 for staff of the Secretariat General, were not available so estimates have been made on the basis of information supplied by the Secretariat of the Greens / European Free Alliance group. As there are 785 MEPs, it has been assumed that there are 785 group staff; of whom 75% i.e. 589 travel to Strasbourg each session. It is assumed that all this travel takes place from the base of Brussels.

5.4.2 In the absence of data on the mode of transport used by group staff travelling to Strasbourg, total CO_2 emissions per annum relating to these staff movements have been estimated using scenario assumptions[1]. Data are provided for Best case and Worst case emissions estimates for all scenarios. The following simple scenarios based on modal travel split are provided:

1. All staff travel by road
2. All staff travel by rail
3. All staff travel by air
4. Comparative modal split – 33.3% split scenarios 1-3, 50% split scenarios 1 & 2

In the tables presented below we carry out the calculations for staff travel based on these four scenarios. The results that are taken forward in our estimates of total CO_2 emissions are those from scenario 4 (the one third split for each of road, rail and air). This avoids a bias towards the environmentally damaging mode (air) and also avoids a bias towards the environmentally benign mode (rail). The results of the above scenarios are shown in tables 5.15, 5.16, 5.17 and 5.18.

[1] Given the time constraints and circumstances under which this research has taken place, an electronic survey of staff travel was not possible.

Table 5.15: Political group staff travel emissions Brussels – Strasbourg by road

No. of people	Return distance (km)	Total passenger kilometres (pkm)	gCO_2/pkm	gCO_2/pkm	Total CO_2 by road to Strasbourg (Tonnes) 1 Plenary session	Total CO_2 by road to Strasbourg (Tonnes) 1 Plenary session	Total annual CO_2 emissions (Tonnes) 12 sessions	Total annual CO_2 emissions (Tonnes) 12 sessions
			BEST CASE	WORST CASE	BEST CASE	WORST CASE	BEST CASE	WORST CASE
589	976	574864	65.00	87.00	37.37	50.01	448.39	600.16

Source: CEC 2003 g CO_2/pkm data & own calculations

Table 5.16: Political Group Staff travel emissions Brussels – Strasbourg by rail

No. of people	Distance one-way (km)	Return distance (km)	Total passenger kilometres (pkm)	g CO_2/pkm[1]	gCO_2/pkm[1]	Total CO_2 by rail to Strasbourg (Tonnes) 1 Plenary session	Total CO_2 by rail to Strasbourg (Tonnes) 1 Plenary session	Total annual CO_2 emissions (Tonnes) 12 sessions	Total annual CO_2 emissions (Tonnes) 12 sessions
				BEST CASE	WORST CASE	BEST CASE	WORST CASE	BEST CASE	WORST CASE
589	428	856	504184	29.00	79.00	14.62	39.83	175.46	477.97

Source: CEC 2003 g CO_2/pkm data & own calculations

[1] Emissions based on 'Intercity Electric' and not 'High Speed Train'

Table 5.17: Political Group Staff travel emissions Brussels – Strasbourg by air

No. of people	Distance one-way (km)	Total passenger kilometres (pkm) (one way)	gCO_2/pkm	gCO_2/pkm	Total CO_2 by air to Strasbourg (Tonnes) ONE WAY – 1 Plenary session	Total CO_2 by air to Strasbourg (Tonnes) ONE WAY – 1 Plenary session	Total annual CO_2 emissions (Tonnes) ONE WAY – 12 Plenary sessions	Total annual CO_2 emissions (Tonnes) ONE WAY – 12 Plenary sessions	Total annual CO_2 emissions (Tonnes) RETURN – 12 Plenary sessions	Total annual CO_2 emissions (Tonnes) RETURN – 12 Plenary sessions
			BEST CASE	WORST CASE	BEST CASE	WORST CASE	BEST CASE	WORST CASE	BEST CASE	WORST CASE
589	350	206150	444.00	709.00	91.53	146.16	1098.37	1753.92	2196.73	3507.85

Source: CEC 2003 g CO_2/pkm data & own calculations

Table 5.18: Political Group Staff travel CO_2 emissions (tonnes) Brussels – Strasbourg by modal split

		BEST CASE	WORST CASE
Road	100%	448.39	600.16
Rail	100%	175.46	477.97
Air	100%	2196.73	3507.85
Road	50%	224.39	300.08
Rail	50%	87.73	238.99
Total		312.12	539.07
Road	33.33%	149.46	200.05
Rail	33.33%	58.49	159.32
Air	33.33%	732.24	1169.28
Total		940.19	1528.65

Source: CEC 2003 g CO_2/pkm data & own calculations

5.4.3 We will now carry forward to Table 9.1 a total of 940.19 tonnes of CO_2 emissions from political group staff.

5.5 Assistants' travel: Brussels - Strasbourg

5.5.1 According to estimates provided by the office of Caroline Lucas, approximately half of the 785 MEPs travel with one assistant to the parliamentary seat in Strasbourg. For the purposes of analysis, the total number of assistants travelling to Strasbourg for plenary sessions is estimated at 400[1].

5.5.2 We assume assistants' residency to be in Brussels and that the journey between Brussels and Strasbourg is completed over land by road or rail. This provides a conservative estimate as some assistants do fly**,** and it is possible that considerably more than 400 assistants travel. However in the absence of detailed survey data on this we have erred on the side of caution.

5.5.3 Total CO_2 emissions per annum relating to assistant movements between parliamentary seats have been estimated using scenario assumptions. Data is provided for best-case and worst-case emissions estimates. The following simple scenarios based on modal travel split are provided:

1. All assistants travel by road
2. All assistants travel by rail
3. Comparative modal split – 50% travel by road, 50% travel by rail

We will now calculate the total CO_2 emissions for assistants' travel in each of above scenarios. The results are shown in Tables 5.19, 5.20, 5.21 and 5.22.

[1] Precise data on the total number of assistants travelling, or on the modal split of their journeys was not available and constraints of time and budget prevented it from being collected specifically for this study.

Table 5.19: Assistants' travel emissions Brussels – Strasbourg (100% road)

No. of people	Return distance (km)	Total passenger kilometres (pkm)	g CO_2/pkm	g CO_2 /pkm	Total CO_2 by road to Strasbourg (Tonnes) 1 Plenary session	Total CO_2 by road to Strasbourg (Tonnes) 1 Plenary session	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions
			BEST CASE	WORST CASE	BEST CASE	WORST CASE	BEST CASE	WORST CASE
400	976	390400	65.00	87.00	25.38	33.96	304.51	407.58

Source: CEC 2003 g CO_2/pkm data & own calculations

Table 5.20: Assistants' travel emissions Brussels – Strasbourg (100% rail)

No of people	Return distance (km)	Total passenger kilometres (pkm)	g CO_2 /pkm	g CO_2 /pkm	Total CO_2 by rail to Strasbourg (Tonnes) 1 Plenary session	Total CO_2 by rail to Strasbourg (Tonnes) 1 Plenary session	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions
			BEST CASE	WORST CASE	BEST CASE	WORST CASE	BEST CASE	WORST CASE
400	856	333920	29.00	79.00	9.93	27.05	119.16	324.60

[1] Emissions based on 'Intercity Electric' and not 'High Speed Train'

Source: CEC 2003 g CO_2/pkm data & own calculations

Table 5.21: Assistants' travel CO_2 emissions (tonnes) Brussels – Strasbourg: summary of scenarios 1 & 2

		BEST CASE	WORST CASE
Road	100%	304.51	407.58
Rail	100%	119.16	324.60

Source: CEC 2003 g CO_2/pkm data & own calculations

Table 5.22: Assistants' travel CO_2 emissions (tonnes) Brussels – Strasbourg: summary of scenario 3 (50% rail and 50% road)

		BEST CASE	WORST CASE
Road	50%	152.26	203.79
Rail	50%	59.58	162.30
Rail	50%	211.84	366.09

Source: CEC 2003 g CO_2/pkm data & own calculations

5.5.4 We will now carry forward to Table 9.1 a total of 211.84 tonnes of CO_2 emissions from assistants' travel.

5.6 Other travel – Brussels to Strasbourg

5.6.1 As mentioned in para 2.7, between 120 and 160 journalists based in Brussels travel to Strasbourg to report on parliamentary plenary sessions.

Source: The Secretary General of the European Parliament, D/24355; NT/475413EN.doc; PE 320.860/BUR./fin. (Page 7/8)

In a communication concerning mission staff numbers for the period 2006 it is also noted that on average some 150 journalists are present in the press room during plenary sessions in Strasbourg (i.e. journalists issued with press passes). This number increases to 250/300 when the agenda features subjects of high media interest. Out of journalists present in plenary sessions in Strasbourg, 10 to 15 are based in Strasbourg. Full details of the Secretary General communication and the mission staff travel data can be found in Appendix VI in this report.

Source: Communication from The Secretary General – Directorate General Presidency, Secretariat of the Bureau of the Conference of Presidents and the Quaestors on 16/04/2007 by courtesy of Mr Peder Kyst)

5.6.2 We will therefore assume a figure of 150 journalists travelling from Brussels to Strasbourg. Data is provided for best-case and worst-case emissions estimates for all scenarios. The following simple scenarios based on modal travel split are provided:

1. All journalists travel by road
2. All journalists travel by rail
3. All journalists travel by air
4. Comparative modal split – 33.3% split scenarios 1, 2 & 3, 50% split scenarios 1 & 2

The calculations for journalist travel are based on these four scenarios. There are no original data for this category of trip. The results that are taken forward in our estimates of total CO_2 emissions are those from scenario 4 (one third split for each of road, rail and air). This avoids a bias towards the environmentally damaging mode (air) and also avoids a bias towards the environmentally benign mode (rail).

The results of the above scenarios are shown in Tables 5.23, 5.24 & 5.25 and 5.26.

An additional number of lobbyists also travel to the parliamentary seat. There is no source of data on the number of lobbyists making this journey, which is likely to vary considerably according to the plenary session agenda. This category of trip has therefore been omitted from our calculations.

Table 5.23: Journalist travel– Brussels to Strasbourg (100% road)

No. of people	Return distance (km)	Total passenger kilometres (pkm)	g CO_2/pkm	g CO_2/pkm	Total CO_2 by road to Strasbourg (Tonnes) 1 Plenary session	Total CO_2 by road to Strasbourg (Tonnes) 1 Plenary session	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions
			BEST CASE	WORST CASE	BEST CASE	WORST CASE	BEST CASE	WORST CASE
150	976	146400	65.00	87.00	9.52	12.74	114.19	152.84

Table 5.24: Journalist travel– Brussels to Strasbourg (100% rail)

No. of people	Distance one-way (km)	Return distance (km)	Total passenger kilometres (pkm)	g CO_2/pkm	g CO_2/pkm	Total CO_2 by rail to Strasbourg (Tonnes) 1 Plenary session	Total CO_2 by rail to Strasbourg (Tonnes) 1 Plenary session	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions	Total annual CO_2 emissions (Tonnes) 12 Plenary sessions
				BEST CASE	WORST CASE	BEST CASE	WORST CASE	BEST CASE	WORST CASE
150	428	856	128400	29.00	79.00	3.72	10.14	44.68	121.72

Table 5.25: Journalist travel– Brussels to Strasbourg (100% air)

No. of people	Distance one-way (km)	Total passenger kilometres one-way (pkm)	g CO_2/pkm	g CO_2/pkm	Total CO_2 by air to Strasbourg (Tonnes) ONE WAY – 1 Plenary session	Total CO_2 by air to Strasbourg (Tonnes) ONE WAY – 1 Plenary session	Total annual CO_2 emissions (Tonnes) ONE WAY – 12 Plenary sessions	Total annual CO_2 emissions (Tonnes) ONE WAY – 12 Plenary sessions	Total annual CO_2 emissions (Tonnes) RETURN – 12 Plenary sessions	Total annual CO_2 emissions (Tonnes) RETURN – 12 Plenary sessions
			BEST CASE	WORST CASE	BEST CASE	WORST CASE	BEST CASE	WORST CASE	BEST CASE	WORST CASE
150	350	52500	444.00	709.00	23.31	37.22	279.72	446.64	559.44	893.28

Table 5.26: Journalist travel CO_2 emissions (tonnes) Brussels – Strasbourg by modal split

		BEST CASE	WORST CASE
Road	100%	114.19	152.84
Rail	100%	44.68	121.72
Air	100%	559.44	893.28
Road	50%	57.10	76.42
Rail	50%	22.34	60.86
Total		79.44	137.28
Road	33.33%	38.06	50.95
Rail	33.33%	14.89	40.57
Air	33.33%	186.29	297.46
Total		239.24	388.98

5.6.3 The total CO_2 emissions generated through journalists travel between Brussels and Strasbourg ($^1/_3$ modal split scenario) are 239.24 tonnes (best case). This is carried forward to Table 9.1.

5.7 Commission staff travel – Brussels to Strasbourg

5.7.1 In response to a question asked of the Commission concerning Commission staff travel on mission to the European Parliament for Plenary sessions, the following information was provided via email correspondence on 14th May 2007:

"In 2006 Commission staff undertook approximately 3 500 missions to Strasbourg, mostly to European Parliament part-sessions (3 000) or to the Council of Europe.

Missions to Parliament are decided on a case-by-case basis depending on the items up for discussion and are confined to the duration of the meeting. They involve no transfers of equipment or of large quantities of documents, and the only costs are those related directly to the mission itself (travel and, if the occasion so requires, accommodation). The pattern of missions in 2007 is expected to be much the same, depending on the items on the agenda.

As regards the modal breakdown for missions to Strasbourg in 2006, approximately 55% of journeys were made by air, 35% by car and 7% by train."

Source: E-1063/07EN. Answer given by Mr Kallas on behalf of the Commission (10.5.2007)

5.7.2 The CO_2 travel emissions by mode of transport generated by the reported 3000 missions to Parliament plenary sessions are represented in the following tables 5.27, 5.28 & 5.29. Table 5.30 illustrates the modal split and emissions generated by each mode corresponding to the modal breakdown information detailed in the email response above.

Table 5.27: European Commission staff travel emissions Brussels – Strasbourg by road

No. of people	Return distance (km)	Total passenger kilometres (pkm)	g CO_2/pkm	g CO_2/pkm	Total annual CO_2 emissions (Tonnes)	Total annual CO_2 emissions (Tonnes)
			BEST CASE	WORST CASE	BEST CASE	WORST CASE
1050	976	1024800	65.00	87.00	66.61	89.16

Source: CEC 2003 gCO_2/pkm data & own calculations based on staff figures supplied by the European Commission (email from the office of Caroline Lucas Monday 14th May 2007)

Table 5.28: European Commission staff travel emissions Brussels – Strasbourg by rail

No. of people	Return distance (km)	Total passenger kilometres (pkm)	g CO_2/pkm	g CO_2/pkm	Total annual CO_2 emissions (Tonnes)	Total annual CO_2 emissions (Tonnes)
			BEST CASE	WORST CASE	BEST CASE	WORST CASE
210	856	179,760	29.00	79.00	5.21	14.20

Source: CEC 2003 gCO_2/pkm data & own calculations based on staff figures supplied by the European Commission (email from the office of Caroline Lucas Monday 14th May 2007)

Table 5.29: European Commission staff travel emissions Brussels – Strasbourg by air

No. of people	Distance (km) (one-way)	Total passenger kilometres (pkm) (one.way)	g CO_2/pkm	g CO_2/pkm	Total annual CO_2 emissions (Tonnes) ONE WAY	Total annual CO_2 emissions (Tonnes) ONE WAY	Total annual CO_2 emissions (Tonnes) RETURN	Total annual CO_2 emissions (Tonnes) RETURN
			BEST CASE	WORST CASE	BEST CASE	WORST CASE	BEST CASE	WORST CASE
1650	350	577500	444.00	709.00	256.41	409.45	512.82	818.90

Source: CEC 2003 gCO_2/pkm data & own calculations based on staff figures supplied by the European Commission (email from the office of Caroline Lucas Monday 14th May 2007)

Table 5.30: Total European Commission staff on mission to the European Parliament part-sessions annual CO_2 emissions by modal split (2006)

Mode	Total annual CO_2 emissions (Tonnes)
Air	512.82
Rail	5.21
Road	66.61
Total	584.64

Source: CEC 2003 gCO_2/pkm data & own calculations based on staff figures supplied by the European Commission (email from the office of Caroline Lucas Monday 14th May 2007)

Notes on table 5.30

Total annual CO_2 emissions figures for each mode are extracted from the total annual CO_2 emissions (Tonnes) Best case figures supplied in tables 5.27, 5.28 & 5.29

5.7.3 The total CO_2 emissions from Brussels Commission staff on mission to the European Parliament in Strasbourg are 584.64 tonnes (best case). We will now carry this total of 584.64 tonnes forward to Table 9.1.

6 Data sources: MEP travel

6.1 CO_2 emissions for MEP travel have been estimated in the following way:

- All trips are assumed to be taken from the capital city of the home country to either Brussels or Strasbourg.
- It is taken as a simplifying assumption that all MEPs fly, although acknowledged that around 50-100 (particularly those based near Strasbourg) may not.
- Emission factors are summarised in Box 1, pg 17.
- Emissions factors based on distance bands for aircraft of 500km and 1500km have been used. All distances from MEP capital city to the parliamentary seat are allocated a distance band of 500km or 1500km and the appropriate emission factor used. Distances are listed in Table 6.1
- CO_2 emissions are calculated by multiplying the actual distance by the appropriate emission factor.

Table 6.1: Distances from MEP country principal airport to parliamentary seat (in Brussels and Strasbourg) for a one-way journey and distance bands allocated

EU Country	No. MEPs	Home base	Distance to Brussels (km)	Distance band allocated (km)	Distance to Strasbourg (km)	Distance band allocated (km)
Bulgaria	18	Sofia	1700	1500	1374	1,500
Belgium	24	Brussels	0	0	350	500
Czech Republic	24	Prague	722	500	514	500
Denmark	14	Copenhagen	768	500	854	500
Germany	99	Berlin	652	500	592	500
Estonia	6	Tallinn	1601	1500	1631	1500
Greece	24	Athens	2091	1500	1745	1500
Spain	54	Madrid	1316	1500	1283	1500
France	78	Paris	262	500	397	500
Ireland	13	Dublin	774	500	1112	1500
Italy	78	Rome	697	500	363	500
Cyprus	6	Nicosia	2905	1500	2575	1500
Latvia	9	Riga	1457	1500	1435	1500
Lithuania	13	Vilnius	1470	1500	1385	1500
Luxembourg	6	Luxembourg	186	500	164	500
Hungary	24	Budapest	1133	1500	851	500
Malta	5	Valletta	1850	1500	1516	1500
Netherlands	27	Amsterdam	173	500	464	500
Austria	18	Vienna	916	500	637	500
Poland	54	Warsaw	1161	1500	1022	1500
Portugal	24	Lisbon	1712	1500	1740	1500
Romania	35	Bucharest	1772	1500	1475	1500
Slovenia	7	Ljubljana	919	500	582	500
Slovakia	14	Bratislava	969	500	693	500
Finland	14	Helsinki	1651	1500	1694	1500
Sweden	19	Stockholm	1283	1500	1369	1500
United Kingdom	78	London	318	500	648	500
Total MEPs	785					

Sources:

MEP names & representation numbers: www.europarl.europa.eu/members/

Distances between cities ('as the crow flies') www.geobytes.com

Distances by air between cities: www.webflyer.com

Notes to Table 6.1

- MEP home base is assumed as principal airport in each respective EU country
- Table shows total number of MEPs representing each EU country in 2007
- All distances are represented as a one way journey

- The distance from an MEP home base principal airport to Brussels, and from an MEP home base to Strasbourg have been calculated using an internet "as the crow flies" tool (www.webflyer.com)

- The distances between home base principal airport and the parliamentary seat in Brussels and Strasbourg have been allocated a distance band as per Box 1, pg 17

- Subsequent calculations for MEP CO_2 emissions from aircraft are based on the distance from their home base principal airport to the parliamentary seat in Brussels and Strasbourg

We can now estimate CO_2 emissions associated with the travel of all MEPs to Brussels or Strasbourg (one way trip) and the results are summarised in Table 6.2 and Figure 6.1.

Table 6.2: Best case & Worst case scenarios – Tonnage CO_2 all trips home base principal airport –Brussels/home base principal airport –Strasbourg for a one-way journey

	Best case	Worst case
Parliamentary seat	Total CO_2 (Tonnes)	
Brussels	208.48	332.8
Strasbourg	204.98	327.19

Source: Own calculation based on data from Table 6.1 and CEC 2003 emissions factors for air, Box 1, pg 17.

Notes on table 6.2:
Step 1: Multiply one way trip distance per EU country from home base to Brussels & Strasbourg by aircraft g/passenger km CO_2 emissions – 'Best case' and 'Worst case' scenario figures (data in Box 1, pg 17). This provides g/CO_2 emissions per MEP
Step 2: Multiply g/CO_2 per MEP by the number of MEPs in the EP representing each region. This provides the total CO_2 emissions
Step 3: Convert this total into tonnes CO_2 (/1000000)

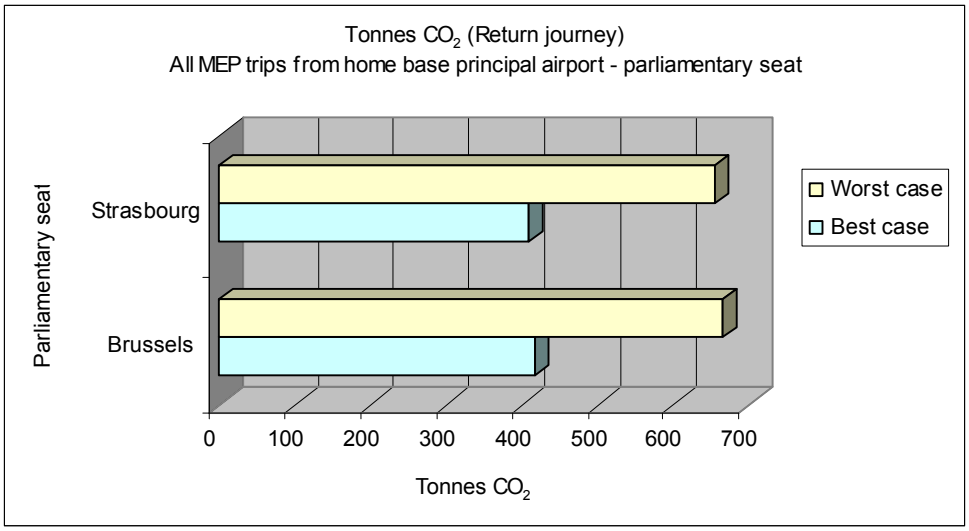
6.2 We will now provide a CO_2 estimate for the ***return journey*** and this can be done through doubling the values in Table 6.2. This is summarised in Table 6.3 and repeated again in Figure 6.1.

Table 6.3: Best case & Worst case scenarios – Tonnage CO_2 all trips home base principal airport – Brussels/home base principal airport – Strasbourg for a return journey

	Best case	Worst case
Parliamentary seat	Total CO_2 (Tonnes)	
Brussels	416.96	665.59
Strasbourg	409.96	654.38

Source: Own calculation based on data from tables 6.1 and 6.2

Figure 6.1: Total CO_2 emissions based on MEP numbers and distance from home base principal airport to parliamentary seat (return journey)



6.3 All calculations provided up to this point refer to total CO_2 emissions expended during MEP travel to parliamentary seat for one plenary session. European Parliament plenary sessions are known to be held 12 times per year in the Strasbourg seat. We will now provide estimates for total CO_2 emissions for all MEP travel over a period of one year. The total CO_2 emissions estimates are provided for return journeys in Table 6.3. These totals are multiplied by a factor of 12 in order to provide annual total CO_2 emissions pertaining to MEP travel. Estimates for return journey annual emissions are shown in Table 6.4.

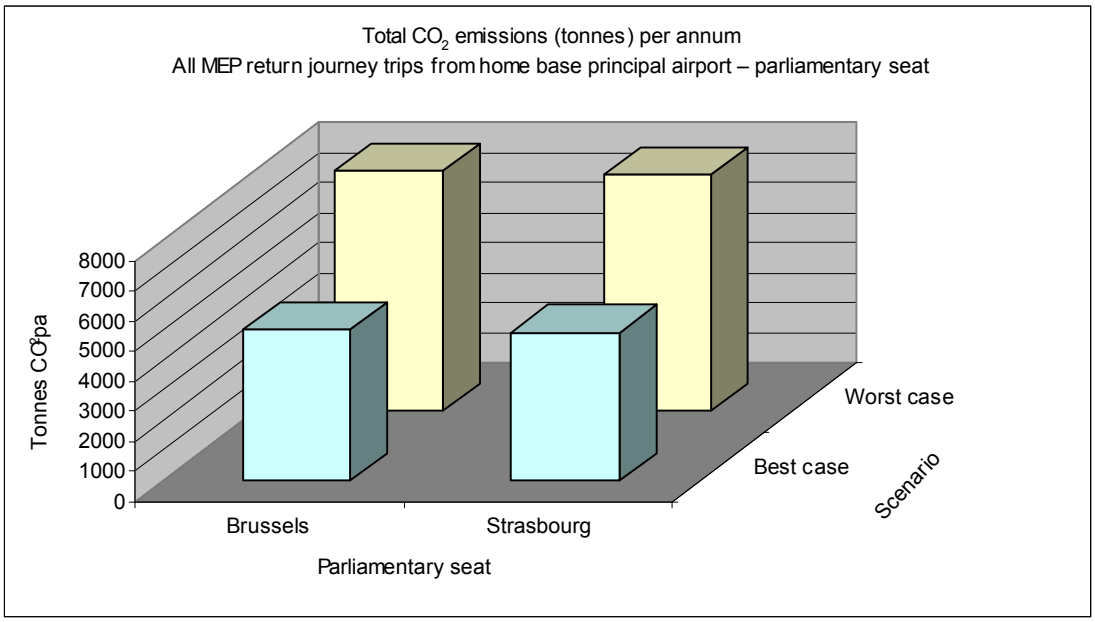
Table 6.4: Total CO_2 emissions (tonnes) per annum, all MEP return journey trips from home base principal airport – parliamentary seat

	Best case	Worst case
Parliamentary seat	Total CO_2 (Tonnes)	
Brussels	5003.52	7987.08
Strasbourg	4919.52	7852.56

Source: Own calculations based on data from table 4.3

At this stage in the calculation, the impact of MEP travel to Strasbourg is the difference between all trips going to Brussels and all trips going to Strasbourg which in the best case is -84 tonnes, i.e. holding all plenaries in Brussels would generate 84 tonnes more than results from travel to Strasbourg.

Figure 6.2: Total CO_2 emissions (tonnes) per annum, all MEP return journey trips from home base principal airport – parliamentary seat



6.4 MEP aviation emissions - Impact of the Landing Take Off Cycle (LTO Cycle)

The Brussels – Strasbourg difference must now be adjusted to reflect the higher number of LTOs for trips to Strasbourg, bearing in mind that LTOs are responsible for a significant proportion of the emissions from a flight.

Approximately half of the MEPs travelling by air to Strasbourg do not fly directly from an origin airport to Strasbourg, whereas if flying to Brussels a

direct flight would be possible. Indirect flights involves a change of aircraft, which means an extra LTO cycle. A direct flight involves one take-off and one landing but a change of flight involves two take-offs and two landings. This has the effect of increasing emissions by approximately 25% when a journey of (say) 1000kms (one LTO) is compared with two journeys of 500kms (2 LTOs).

We will adjust the CO_2 calculation for Strasbourg in Table 6.5 to take account of the extra LTO in the following way.

The LTO CO_2 "burden" is 2.6 tonnes and is taken from Table 8.2 (reproduced below). The 2.6 tonnes is the full LTO cycle for:

Domestic
LTO (kg/LTO) – Average fleet (B737-400)

And **International**:

- LTO (kg/LTO) – Average fleet (short distance, B737-400)

Table 8.2 Emission factors and fuel use for the *Very Simple* methodology. Emission factors are given on a representative aircraft basis.

Domestic	Fuel	SO_2	CO_2	CO	NO_x	NM-VOC	CH_4	N_2O	$PM_{2.5}$
LTO (kg/LTO) – Average fleet (B737-400)	825	0.8	2600	11.8	8.3	0.5	0.1	0.1	0.07
LTO (kg/LTO) – Old fleet (B737-100)	920	0.9	2900	4.8	8.0	0.5	0.1	0.1	0.10
Cruise (kg/tonne) – Average fleet (B737-400)	-	1.0	3150	2.0	10.3	0.1	0	0.1	0.20
Cruise (kg/tonne)- Old fleet (B737-100)	-	1.0	3150	2.0	9.4	0.8	0	0.1	0.20
International	**Fuel**	**SO_2**	**CO_2**	**CO**	**NO_x**	**NM-VOC**	**CH_4**	**N_2O**	**$PM_{2.5}$**
LTO (kg/LTO) – Average fleet (B767)	1617	1.6	5094	6.1	26.0	0.2	0.0	0.2	0.15
- LTO (kg/LTO) – Average fleet (short distance, B737-400)	825	0.8	2600	11.8	8.3	0.5	0.1	0.1	0.07
- LTO (kg/LTO) – Average fleet (long distance, B747-400)	3400	3.4	10717	19.5	56.6	1.7	0.2	0.3	0.32
LTO (kg/LTO) – Old fleet (DC10)	2400	2.4	7500	61.6	41.7	20.5	2.3	0.2	0.32
- LTO (kg/LTO) – Old fleet (short distance, B737-100)	920	0.9	2900	4.8	8.0	0.5	0.1	0.1	0.10
- LTO (kg/LTO) – Old fleet (long distance, B747-100)	3400	3.4	10754	78.2	55.9	33.6	3.7	0.3	0.47
Cruise (kg/tonne)- Average fleet (B767)	-	1.0	3150	1.1	12.8	0.5	0.0	0.1	0.20
Cruise (kg/tonne)- Old fleet (DC10)	-	1.0	3150	1.0	17.6	0.8	0.0	0.1	0.20

*Sulphur content of the fuel is assumed to be 0.05% S (by mass) for both LTO and cruise activities.
** Assuming a cruise distance of 500 nm for short distance flights and 3000 nm for long distance flights.
Source: Derived from ANCAT/EC2 1998, Falk 1999 and MEET 1999.
$PM_{2.5}$ data (= PM_{10} emissions) Source: inferred from smoke data from ICAO database (ICAO 2006) using the methodology described in DfT PSDH (UK-DfT 2006).

Source: http://reports.eea.europa.eu/EMEPCORINAIR4/en/B851vs2.4.pdf

6.5 The calculation of the LTO adjustments is as follows:

Step 1: Half the MEPs fly and change aircraft (Source: e-mail from the office of Caroline Lucas, 19th June 2007). This is 392 MEPs.

Step 2: This implies 392 indirect passenger-flights to Strasbourg each month. This is 4704 indirect passenger-flights pa.

Step 3: These indirect flights each entail one extra LTO cycle, and therefore 2.6 tonnes of CO_2 beyond that entailed by a direct flight.

Step 4: The 2.6 tones extra CO_2 is per flight and now needs to calculated on a per passenger basis.

Step 5: We will assume for this purpose that the aircraft used is a Boeing 737-400. We do this because this is a very commonly used aircraft on routes of this distance. According to Boeing these aircraft have a seating capacity (two class) of 146.

Step 6: Aircraft do not generally travel full i.e. at 100% capacity. The Association of European Airlines reports a load factor of 77% so we will assume that the 2.6 tones can be allocated on a per passenger basis as 2600kgs divided by 112 passengers = 23kgs per passenger.

Step 7: There are 4704 passengers (12 plenary sessions multiplied by 392 MEPs).

Step 8: The LTO allocation for MEP aviation travel is 4704 multiplied by 23kgs = 108.2 tonnes.

Step 9: Double this figure to include the outward and return trip. The result is an extra 216.4 tonnes.

The total CO_2 emissions for MEP travel to Strasbourg are now 5135.92 tonnes (4919.52 + 216.4).

Table 6.5: Total CO_2 emissions including LTO allocation MEP travel Brussels to Strasbourg (Best case)

Brussels	5003.52
Strasbourg	5135.92
Difference	132.40

The Strasbourg CO_2 (MEP travel) total is 132.40 tonnes higher than Brussels and this figure is carried forward to Table 9.1.

7 Data Sources: freight

Information on the movement of freight from Luxembourg and Brussels to Strasbourg has been supplied by the European Parliament and is summarised in table 7.1.

Table 7.1: Lorry movement from Luxembourg and Brussels to Strasbourg

LS1	Luxembourg to Strasbourg	2 small lorries max 10 tonnes	Meeting documents
LS2	Luxembourg to Strasbourg	2 lorries, one with trailer (max 20 tonnes each)	
BS1	Brussels to Strasbourg	5 semi-trailers (max 30 tonnes)	Trunks and other equipment
BS2	Brussels to Strasbourg	2 lorries with trailers (max 20 tonnes each)	
BS3	Brussels to Strasbourg	1 lorry (max 20 tonnes)	

Source: e-mail to Caroline Lucas MEP dated 26.3.07

Kent JOHANSSON
Transport and Removals Unit
DG Infrastructure and Interpretation,
European Parliament

The information in table 7.1 is now related to distances, specific emission factors and a calculation of total CO_2 emissions (see Appendix 1 for details of emission factors). The results are summarised in Table 7.2.

Table 7.2: CO_2 emissions from Freight transport from Luxembourg and Brussels to Strasbourg (Data is for one-way trip to Strasbourg for one session)

	Distance (km)	Tonne kms	No of lorries	Total Tonne-kms	gCO_2/tkm	Total CO_2 (tonnes)
LS1	220	10x220=2200	2	4400	104.51	0.459
LS2	220	20x220=4400	2	8800	104.51	0.919
BS1	488	30x488=14640	5	73200	58.78	4.3
BS2	488	20x488=9760	2	19520	104.51	2.03
BS3	488	20x488=9760	1	9760	104.51	1.01
						8.71

Notes:
Distances are sourced from: http://www.europe.org/drivingdistances.html
Specific emission factors are sourced from: *CEC 2003*

The total in table 7.2 now has to be doubled for the return journey to produce a total round trip figure of 17.42 tonnes and then multiplied by 12 (the number of sessions pa) to produce an annual round trip figure of 209.04 tonnes. This total of 209.04 tonnes is now carried over to Table 9.1.

Photo: European Parliament 2007

Photo: European Parliament 2007

8 Capturing wider carbon impacts

It is generally acknowledged in the environmental and Corporate Social Responsibility world that all the operations of a company or organisation have a direct and an indirect (through procurement) impact on materials, resources, energy and carbon dioxide emissions. It is still the case, however, that for many routine purposes the carbon footprint of an organisation is conceptualised rather narrowly as the use of energy and transport.

Understanding the total impact of the operations of a company or organisation is central to the task of understanding the climate change impact of the two-seat European Parliament operation. Forum for the Future is a UK-based charity which has grasped the importance of working with businesses and large organisations, and in its statement of intent on businesses and the environment it sets out the following approach to acknowledging an organisation's full environmental impacts:

8.1 Environment

Do you understand the full range of your company's environmental impacts?

Hallmarks of a leader in the environment

- **Direct** and **indirect** environmental impacts are well understood.
- There is a commitment to an **absolute reduction** of negative impacts.
- Positive actions have been identified to **restore** the environmental resources the organisation depends upon or affects.
- A clear understanding of what it means to operate within **environmental limits** is evident.
- Systems are in place to identify, understand and manage **future environmental risks** and opportunities, for example climate change.
- The organisation is committed to **internalise the business's environmental costs**, currently paid for by society as a whole.

Source: Forum for the Future, London (accessed on 7th June 2007)
http://www.forumforthefuture.org.uk/business/leaderbusinessresources_page350.aspx

Forum for the Future also gives an example of the direct application of these principles within one organisation (Sun Microsystems):

Sun Microsystems is committed to becoming a more sustainable business, both within the organisation through its Eco-Responsibility Initiative, and in the products and services it brings to market through its Sustainable Computing

programme. Eco-Responsibility includes the commitment to a 20% CO_2 reduction pledge and consideration of the environmental footprint of the business across its extended supply chain. Sustainable Computing aims, through its 'Design for the Environment' programme, to reduce raw material requirements and increase efficient use of resources and energy efficiency. When coupled with their reuse and recycling programme, Sun Microsystems can justifiably claim to be a leader in bringing low carbon technologies to the mainstream market. By extending the focus on carbon emissions and climate change impacts from its own operations to impacts associated with the use of its products, Sun is demonstrating active stewardship of the environment. www.sun.com

Source: Forum for the Future, London
http://www.forumforthefuture.org.uk/business/leaderbusinessresources_page350.aspx

8.2 The ISA methodology: measuring climate change impacts

A methodology now exists for achieving the objective of measuring the total direct and indirect CO_2 impact of an organisation and this has been subjected to independent peer review and validation.

The ISA methodology and BL^3 software is based on a static, single-region, open, basic-price, industry-by-industry input-output model of the UK economy as of 2000, augmented with a database of indicators from 2001. The model framework is described in Foran et al. (2005), Balancing Act - A Triple Bottom Line Account of the Australian Economy, Canberra, ACT, Australia, with a summary available in Foran et al. (2005), Integrating Sustainable Chain Management with Triple Bottom Line Reporting, *Ecological Economics* 52:143-157.

A 22 page description of the methodology can be found here:
http://www.isa-research.co.uk/docs/Wiedmann_Lenzen_2006_CRRC_paper.pdf

Links to the report above and further details on the methodology can be found here: http://www.isa.org.usyd.edu.au/publications/index.shtml
and here: http://www.isa.org.usyd.edu.au/research/tbltwo.shtml

The ISA (also known as the Triple Bottom Line) methodology works on the basis of relating organisational budgets and expenditures to known relationships that have been established via the analysis of input-output tables. The input-output tables allow organisational or corporate expenditure under a variety of headings to be related to the CO_2 impact per £ of

expenditure and hence produce an accurate assessment of the direct and indirect CO_2 emissions based on those expenditures.

Readers are referred to the documents listed above for more detail.

The detailed input-output material is currently only available for the UK and Australia and it is acknowledged that applying this methodology to the European Parliament will only give an approximation to reality. This can be verified in the future by reference to detailed input-output analysis on French, Belgian or mainland European data but that cannot be done within the scope of this project.

We have used budget information on the European Parliament Strasbourg operation given in "European Parliament, the Secretary General, Note to members of the Bureau, D/24355, NT/475413EN.doc, PE 320.860/BUR./fin. (Page 1/8). This document shows the annual costs of "geographical dispersion" as:

Table 8.1: Annual costs of "geographical dispersion"

	Million Euros
Infrastructure Costs: premises	78
Infrastructure Costs: IT and other equipment	42
Staff costs: supernumerary staff	22
Infrastructure Costs: mission expenses	18
Sundry operating costs	9
TOTAL	169

Notes on Table 8.1

The document dates from 2002, but unfortunately no more up-to-date figures were available (see Para 8.4).

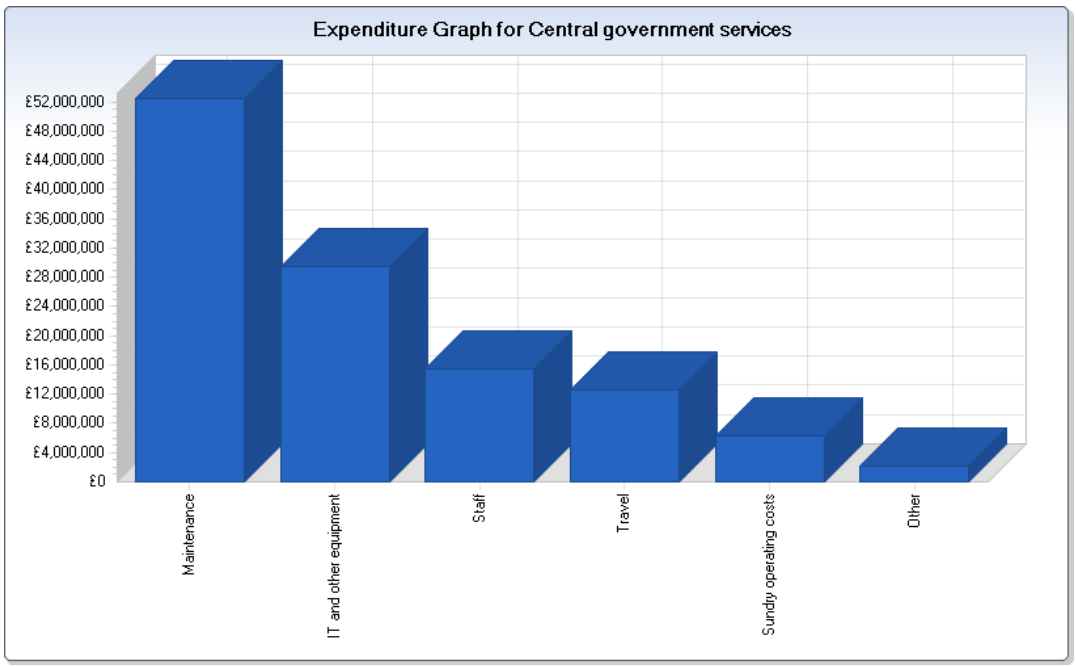
8.3 It should be noted from the data in Table 8.1 that the ISA methodology is concerned with current expenditure (or revenue expenditure in UK usage). This means that there is no analysis of building construction costs or embodied energy in buildings and other materials used to provide the facilities in Strasbourg. Because ISA is based on input-output analysis, it does include upstream inputs into the goods and services purchased on a recurrent basis. This upstream characteristic is one of the strengths of ISA.

8.4 This total cost of 169 million Euros is qualified in the following way:

"After enlargement, that figure might rise to EUR 203 million". This is a 20.1% increase and given that the data are 2002 data and that enlargement has now taken place we will employ the annual expenditure figure as given in the EP report of 203 million Euros.

8.5 First of all we use the pre-enlargement figures. These expenditure figures are summarised in Figure 8.1

Figure 8.1: Costs of geographical dispersion

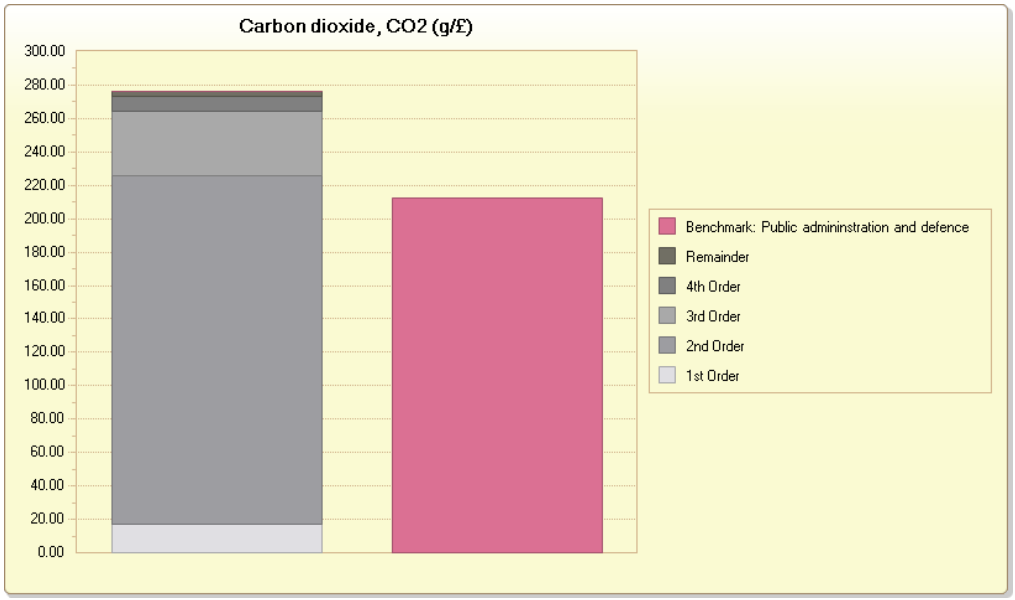


8.6 The software tool (3BL) then relates these expenditure headings to standard input-output tables and data from the economic sector "Central Government Services" and then produces an estimate of CO_2 emissions. These emissions are 9800 tonnes pa (pre-enlargement data) and 11867.8 tonnes (post-enlargement data).

8.7 The 3BL methodology uses standard national input-analysis tables and relates the totality of CO_2 emissions to the economic sectors and sub-sectors of the national economy responsible for those emissions. Our results are based on standard "industry" performance for the economic sector known as "public administration and defence". This is the sector closest to the characteristics of the European Parliament.

8.8 The European Parliament compares unfavourably with the benchmarked sector "public administration and defence". This is summarised in figure 8.2.

Figure 8.2: CO_2 emissions per unit of expenditure



8.9 Figure 8.2 shows the CO_2 emissions per unit of expenditure in the grey block on the left and the benchmarked UK figure in the pink block on the right. The European Parliament produces just under 280g of CO_2 per £ of spending (190g per Euro of spend) which is approximately 25% "worse" than the benchmarked equivalent economic sector in the UK.

8.10 The ISA analysis has produced a CO_2 total of 11867.8 tonnes. This total includes expenditures on travel and energy and therefore the possibility that we are double counting these two components of the emissions. We will now carry out an exercise to eliminate this possibility.

8.11 The expenditure data used in this calculation is as follows:

Table 8.2: ISA energy/travel expenditure Double counting elimination exercise

	Annual cost	% of total	Source of data
Infrastructure costs Mission expenses (Transport[1])	€18m	10.6	Table 8.1
Energy	€18m	10.6	Paragraph 2.5
Total		21.2	

[1] In fact this category also includes subsistence costs, so the double counting is less than has been corrected for.

8.12 We will now reduce our ISA estimate to 11867.8 tonnes by 21.2%. This produces a new total of 9351.8 tonnes and this is carried over to Table 9.1.

9 Climate Change Impact

9.1 The purpose of this section of the report is to collate the results from all sources of CO_2 emissions and present an estimate of the total CO_2 impact of all the activities directly related to the operation of the Strasbourg component of the European parliament. This is done in table 9.1

Table 9.1: Summary of CO_2 emissions for 12 sessions in Strasbourg (data in tonnes)

	Original calculations in this report	CO_2 emissions in tonnes - Best case (See Note 1)
MEP travel	Table 6.5, page 51	132
Secretariat General staff travel Brussels to Strasbourg	Page 24	1982
Secretariat General staff travel Luxembourg to Strasbourg	Pages 30 – 31	-7.5
Political Group Staff travel Brussels to Strasbourg	Table 5.18, page 34	940
Assistant travel	Table 5.22, page 37	212
Journalist travel	Table 5.26, page 40	239
Commission staff travel	Table 5.30, page 44	584
Freight	Pages 52 – 53	209
Electricity Consumption	Table 4.1, page 14	3392
Gas consumption	Table 4.1, page 14	1850
ISA/3BL	Page 59	9352
Totals		18884.5

Notes to Table 9.1

We have discussed the difference between worst case and best case in the section "Further Explanation" at the end of the main text. We have opted for best case. The worst case option would have increased CO_2 emissions for air travel by 159.7% and for car travel by 33.8%. The increases for trains and freight would be negligible. The main impact of using the worst case scenario would be to produce a large increase in MEP and other personal travel CO_2 emissions.

9.2 Table 9.1 shows that on conservative assumptions the total CO_2 emissions attributable to the operation of the Strasbourg seat as defined in that table amount to 18884.5 tonnes pa. It is important to note that the transport component of this total includes all staff and assistant travel from Luxembourg and Brussels to Strasbourg and only that MEP travel which is additional to that

if they were travelling to Brussels. The staff and assistant travel component includes only Brussels to Strasbourg and does not include home country or any other origin to Strasbourg.

9.3 Factors which are likely to contribute to the actual figure being higher than 18884.5 tonnes include the fact that deliberately cautious estimates for modal splits have been used where precise data were not available; likewise for the number of assistants travelling. Furthermore no account has been taken of the travel of lobbyists or officials of other institutions besides the Commission; the correction factor used for double counting on the 3BL point was probably greater than necessary given that mission expenses include subsistence costs; and the final figure uses the results of calculations all using best case emission factor figures. As can be seen from the tables in the text, travel emissions under the worst case are considerably higher and an estimate of the worst case 'uplift' has been provided in Note 1 to Table 9.1.

10 Conclusion

10.1 The decision to base the European Parliament in both Brussels and Strasbourg brings severe penalties on the time, resources and energy of all those involved in supporting the geographically split model of a parliamentary operation. It also costs a great deal (over 200 million Euros per annum) and the cost estimates do not include costs associated with down time in travelling or time wasted on the inevitable disruption associated with operating from two bases. The geographical dispersion also generates significant costs associated with greenhouse gases and climate change and these are the subject of this report.

10.2 On uniformly conservative assumptions, the Strasbourg operation imposes a CO_2 burden that is at the very least 18884.5 tonnes greater (and probably much more) than if the sole seat was Brussels. A decision to adopt a one-seat mode of operation where that seat is Brussels would "save" almost 19,000 tonnes of CO_2 each year.

10.3 The saving would make a significant contribution to the urgent need to reduce CO_2 emissions. The UK Royal Commission on Environmental Pollution's recommendation for a target to cut emissions by 60% by 2050 has been widely accepted, though other expert recommendations call for much more drastic cuts – e.g. the highly-respected Tyndall Centre for Climate Change Research in the UK urges 90% cuts by 2050. In March 2007 the EU agreed a target to cut emissions by 30% by 2020.

10.4 The CO_2 emissions of the European Parliament in Strasbourg, are, however, more important than the quantity itself. The continuation of an administrative arrangement which imposes a large extra burden when this need not be the case sends a very strong signal to every national and regional administration and every business that internal administrative convenience and historical accidents are more important than determined action to reduce emissions though re-engineering human activities and systems to operate at a lower level of emissions. This is the essence of the debate around de-carbonisation and low carbon societies and the Parliament is sending a very strong signal that it will not put it's own house in order. This signal will be picked up by the thousands of businesses and public administrations in the 27 countries of the Union and will damage progress towards reduction in emissions that are urgently needed to reduce the probabilities of widespread economic, social, physical and ecological damage associated with climate change.

10.5 The signal is doubly counterproductive. It provides encouragement for those who wish to view all European institutions as self-serving and irresponsible and it robs the Parliament itself of credibility when it comes to making the bold decisions and recommendations associated with the totality of climate change policy. This deprives the Parliament of its catalytic role in producing the very initiatives that could deliver a successful climate change policy.

10.6 Our analysis of the scale of CO_2 emissions associated with the two-seat operation must be regarded as indicative rather than a precise quantification. We have no direct survey data from the European Parliament on the travel behaviour of MEPs and their assistants or mode of transport. We are, however, grateful for the quantification by mode of Secretariat General staff travel from Brussels and Luxembourg to Strasbourg and this has been used in the analysis. Where necessary we have overcome data deficiencies by constructing scenarios and making assumptions and have erred on the side of caution in using these to estimate CO_2 emissions – meaning that the actual environmental cost may be significantly higher than 18884.5 tonnes.

10.7 The contribution of Integrated Sustainability Analysis (ISA) to this total based on calculations in section 8 is 49.5% of the total. We acknowledge that the ISA methodology is based on input-output data in the UK and this will only approximate to the situation in France. The ISA methodology is based on the carbon burden associated with units of monetary expenditure and this in turn could be problematic when switching from one currency to another. Nevertheless we are confident that this methodology is robust and directs attention to organisational factors and behaviour in the climate change debate and this report is about the organisational behaviour of the European Parliament. It is, of course, highly desirable that the European Parliament carries out its own analysis of wider carbon impacts as set out in section 8 of this report and uses current input-output tables and analyses of carbon impacts by units of expenditure in Euros.

10.8 We have also been unable to carry out an exercise that would answer the question "If Strasbourg ceased to operate as a Parliamentary seat what additional burdens would fall on Brussels that might produce increased CO_2 emissions?" This question is especially relevant to buildings and the activities that take place in those buildings (maintenance, purchase of goods and services, energy). The reductions in CO_2 emissions through the elimination of travel to Strasbourg are not affected by this consideration.

10.9 The transfer of activities from Strasbourg to Brussels would add an additional amount of energy consumption, maintenance and purchases to the Brussels

total but this requires more detailed data on these items to be able to identify the additional amounts to be attributed to Brussels if a one-seat operation there became reality. These data are not available. However the data available do imply that the majority of energy usage is a base load, and so the additional consumption in Brussels due to a transfer of activities may be relatively insignificant.

10.10 We have identified a total of 18884.5 excess tonnes of CO_2 that are associated with the Strasbourg operation. This could easily be removed from the CO_2 inventory of the European Union and its significance lies not so much in its quantitative importance but in the fact that it is so very easy to remove and yet so many obstacles are put in the path of those advocating this course of action.

10.11 Finally, we recommend that in all budgetary and fiscal discussions taking place in the European Parliament and in European institutions, the social cost of the extra carbon dioxide emissions associated with the operation of the Strasbourg seat be noted and incorporated into discussions. The Stern report into climate change in the UK in 2006 estimated that the social costs of these emissions was $85 per tonne:

> Preliminary calculations adopting the approach to valuation taken in this Review suggest that the social cost of carbon today, if we remain on a BAU trajectory, is of the order of $85 per tonne of CO_2 - higher than typical numbers in the literature, largely because we treat risk explicitly and incorporate recent evidence on the risks,

Source:
http://www.hm-treasury.gov.uk/media/8AC/F7/Executive_Summary.pdf

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It is both prudent and appropriate therefore to include a new budget line in European Parliament budgets making it clear that the two-seat operation of geographical dispersion brings an additional annual cost/debit item of 1.1 million Euros (18884.5 tonnes of carbon dioxide multiplied by the Stern figure of $85 per tonne).

11 Further explanations

Note 1: Climate Care (see page 14)

In October 2006 the Independent Newspaper (UK) reported a study carried out by Climate Care (UK) showing that the Strasbourg operation of the European Parliament was responsible for 192000 tonnes of CO_2 per annum. We have not seen the original calculations carried out by Climate Care in Oxford (UK) but we have questioned the accuracy of this total. In an e-mail to the Independent newspaper dated 16 April 2007 and copied to us, Climate Care clarified its position:

"The article did say the figures were 'analysed by the green research organisation Climate Care' which was not really accurate – we analysed travel and energy use data provided by you (the Independent), arriving at a figure (16500 tonnes) that is less than 10% of the that published in the article (192000 tonnes), and also we're a carbon offsetting company, rather than focusing on research.

I am sure that Professor Whitelegg, who is involved in a detailed study on this issue, would be interested in how Chris Heaton Harris reached the 192,000 tonnes figure. Perhaps you can put them in touch directly?"

The 16500 tonne figure is close to our own calculations and we are grateful to Climate Care for clarifying its conclusions. We are not in a position to say anything at all about the process that led to the change from 16500 tonnes to 192000 tonnes.

Note 2: Distance sources and references for rail, air and road travel between parliamentary seats (see page 15)

Rail

The rail distance from Brussels to Strasbourg has been directly measured on a rail map of Europe and has followed a route recommended by the German rail web site:

http://www.db.de/site/bahn/en/travelling/travel.html

The distance is 428 kilometres

Air

The distance from Brussels and Luxembourg to Strasbourg, and Brussels to Luxembourg has been calculated using the following sources:

Distances between cities ('as the crow flies') *www.geobytes.com*

The distance from Brussels to Strasbourg is 350 km

The distance from Luxembourg to Strasbourg is 164 km

The distance from Brussels to Luxembourg is 186 km

Road

The road distance from Brussels to Strasbourg and Luxembourg to Strasbourg has been calculated using the distance calculator from the following source:

http://goeurope.about.com/library/bl-europe-distance-maps.htm

The distance from Brussels to Strasbourg is 488km

The distance from Luxembourg to Strasbourg is 220km

The distance from Brussels to Luxembourg is 233km

Note 3: Best case-worst case (see page 18)

The CE meta-study from Delft has adopted a methodology based on best case and worst case for specific emission factors. The worst case figures are higher than the best case. They show an increased CO_2 level per passenger km. These differences have been shown in our report. The best case and worst case assumptions are detailed in Appendix C of the CE (2003) report, pages 89-94. We acknowledge that this is a complex area with a great deal of scope for varying best case and worst case assumptions and for varying the assumptions for individual countries within the EU. Such a level of disaggregation and original research was outside the scope of our project and there are considerable benefits in adopting the methodology of an independent outside research body which has aggregated the findings of much other work. Whatever assumptions we had adopted for our study (assuming that we had decided to go with a distinctive set of assumptions that were different from CE, Delft) would have been criticised for the implicit bias in that selection. It is better to adopt an authoritative external view (which we did) and we also rely on the views of CE, Delft that "most data are also representative for the EU" (para 2.1.3, page 12).

The best case and worst case emission factors are compared in the table below:

Best case/worst case comparison for gCO_2/pkm and in the case of freight gCO_2/tkm (CE Delft data)

	Best case factor	Worst case factor	% Difference (i.e. worst case is x% higher than best case)
Car	65	87	33.8
Rail	29	79	272.4
Air	444	709	159.7
Freight (Diesel truck, 10-20 tonnes)	104.51	141.39	35.2

The very large difference in the case of rail would not make much impact on our calculations because rail is a very small part of our total CO_2 emissions. The change in freight transport would be small as this is a relatively small part of the CO_2 total. The 33% "uplift" for car travel and 159.7% for air travel would add considerably more to our totals in transport in Table 9.1 but we consider that in the absence of a detailed assessment of those factors that influence the difference between best case and worst case by country it is better to opt for a best case assumption. It is of little value to the analysis or the argument in this report to choose a set of assumptions that boost the CO_2 total.

Note 4: A note on train travel (see page 21)

We acknowledge that we have used CE, Delft train emission data based on a European mix of energy for electricity "without nuclear power" (page 37 CE report).

The total train emissions in our report are as follows:

	CO_2 in tonnes
Secretariat General Staff (Brussels to Strasbourg)	40.92
Secretariat General Staff (Luxembourg to Strasbourg)	4.44
Mission staff travel (political groups)	58.49
Assistants	59.58
Journalists	14.89
MEPs	nil
Total	178.32

This total of 178.32 tonnes is 0.9% of our CO_2 total in table 9.1 of 18884.5.

It is acknowledged that the 178.32 tonnes will be higher than the actual case because French trains (we will presume) run on electricity produced by French nuclear power stations. If we were to take this factor into account we would have to:

- Check on French electricity imports from other countries to see if this increased the proportion of electricity supplied by non-nuclear plants.

- Factor in the scientific work showing that nuclear electricity production is still associated with a CO_2 "burden".

- Factor in the current proportion of total French energy consumption accounted for by nuclear generation.

According to the UK government Sustainable Development Commission report "Is nuclear the answer" there is a 4.5 tonne carbon "burden" for every GW of electricity produced by a nuclear reactor and this does not include future emissions from decommissioning or waste management. This means that nuclear is not zero carbon but "low carbon".

We have not carried out this adjustment for a component that represents 0.9% of the total CO_2 burden. The result would be statistically trivial.

APPENDICES

APPENDIX I: Freight Transport – long and medium distance 2000

				best case				worst case			
AVERAGE 2000	detour factor		Load factor	elasticity	Energy	CO2	NOx	PM10	Energy	CO2	NOx	PM10
Non-bulk					(MJprimary/tonne.km)	(g/tonne.km)			(MJprimary/tonne.km)	(g/tonne.km)		
Truck (diesel)	0%	0%										
< 3.5 tonnes			39%	not relevant	6.99	560.05	2.27	0.340	9.46	757.72	3.07	0.459
3.5 - 10 tonnes			50%	not relevant	2.45	196.29	1.97	0.080	3.32	265.57	2.67	0.108
10 - 20 tonnes			61%	not relevant	1.30	104.51	1.13	0.042	1.77	141.39	1.52	0.057
> 20 tonnes			62%	not relevant	0.73	58.78	0.68	0.022	0.99	79.52	0.92	0.030
trailers			62%	not relevant	0.75	59.96	0.68	0.014	1.01	81.13	0.93	0.019

Source: CEC 2003

APPENDIX II: Estimated appropriations related to GEOGRAPHICAL DISPERSION (excluding external offices and regional information offices)

Chapters including appropriations related to having three places of work		Three places of work		Three places of work Est. savings with one place of work	
		Establish. plan	Amounts (€)	Establish. plan	Amounts (€)
Chapter 10	Travelling between the three main locations		2433517		2433517
Chapter 12	DG Presidency Services (DIT + Security)	216		-22	
	DG Internal Policies	408		-5	
	DG External Policies	157		-5	
	DG Information	638		-45	
	DG Personnel	342		-51	
	DG Infrastructure and Interpretation (drivers, buildings and canteens)	464		-144	
	DG Translation and Publishing	48		-10	
	DG Finance	157			
	Legal Service	79		-1	
	TOTAL / average salary cost)	2509	226891379	-283	25591973
	Estimated pay represented by time spent on mission				5630000
	Session auxiliaries		5143236		5143236
Chapter 30	Article 300:		19067935		16207745
	Mission expenses for political groups (Chap.30)				4230000
Chapter 16	Item 1650: Medical Service		900000		225000
Chapter 14	Mission expenses for freelance interpreters				1000000
Chapter 20	Rentals and associated costs				86513979
Chapter 21	Data processing and equipment		104261075		52130538
Chapter 23	Administrative expenditure		15022200		7511100
	TOTAL				**206617088**

DV/603846EN.doc PE 368.766/BUR/ANN.IV

Source: ANNEX IV to the Secretary-General's report to the members Bureau on Parliament's preliminary draft estimates for the financial year 2007

APPENDIX III: List of normal routes to and from Strasbourg – on which the reimbursement of travel costs will be based in application of Article 3 of the Rules

LIST OF THE NORMAL ROUTES TO AND FROM STRASBOURG

on which the reimbursement of travel costs will be based in application of Article 3 of the Rules

Place of departure to Strasbourg	Normal Routes
Albania	by air to Strasbourg via Milan or Vienna or by air to Frankfurt (direct or via Budapest) + rail / "navette" to Strasbourg [1]
Andorra	by rail to Toulouse, then by air direct to Strasbourg or by rail or bus to Barcelona, then by air to Strasbourg
Armenia	by air to Frankfurt + rail / "navette" to Strasbourg [1] or by air to Strasbourg via Vienna (if direct flight)
Azerbaijan	by air to Strasbourg via Istanbul (some days) or by air to Frankfurt + rail / "navette" to Strasbourg [1]
Austria	by air direct from Vienna or by air to Frankfurt + rail / "navette" to Strasbourg [1]
Belgium	by train or by air if direct connection and/or distance over 400 km
Bosnia and Herzegovina	by air to Strasbourg via Vienna or Munich or by air to Frankfurt + rail / "navette" to Strasbourg [1]
Bulgaria	by air to Strasbourg via Milan, Munich or Vienna or by air to Frankfurt + rail / "navette" to Strasbourg [1]
Croatia	by air to Strasbourg via Munich or by air to Frankfurt + rail / "navette" to Strasbourg [1]
Cyprus	by air to Frankfurt + rail / "navette" to Strasbourg [1]
Czech Republic	by air to Strasbourg via Munich or air to Frankfurt + rail / "navette" to Strasbourg [1]
Denmark	by air direct to Strasbourg or via Paris or Brussels or by air to Frankfurt + rail / "navette" to Strasbourg [1]
Estonia	by air to Strasbourg via Paris or Brussels or by air direct to Frankfurt + rail / "navette" to Strasbourg [1]
Finland	by air via Paris or Brussels or by air to Frankfurt + rail / "navette" to Strasbourg [1]
France	by train or by air if direct connection and/or distance over 400 km
Georgia	by air to Frankfurt + rail / "navette" to Strasbourg [1] by air to Strasbourg via Istanbul (some days)
Germany	by train or by air if direct connection or via Frankfurt + rail / "navette" to Strasbourg [1]
Greece	by air to Strasbourg via Milan or Paris or by air to Frankfurt + rail / "navette" to Strasbourg [1]
Hungary	by air to Strasbourg via Munich or by air to Frankfurt + rail / "navette" to Strasbourg [1]
Iceland	by air to Strasbourg via Copenhagen or Paris or by air to Frankfurt + rail / "navette" to Strasbourg [1]
Ireland	by air to Strasbourg via Paris or Amsterdam
Italy	by air direct to Strasbourg or via Milan, Lyon or Nice or by air to Frankfurt + rail / "navette" to Strasbourg [1]
Latvia	by air to Frankfurt + rail / "navette" to Strasbourg [1]
Liechtenstein	by rail
Lithuania	by air to Strasbourg via Vienna or by air to Frankfurt + rail / "navette" to Strasbourg [1]
Luxembourg	by rail
Malta	by air to Strasbourg via Milan or air to Frankfurt + rail / "navette" to Strasbourg [1]
Moldova	by air to Frankfurt (direct or via Vienna or Budapest) + rail / "navette" to Strasbourg [1]
Monaco	by "navette" bus to Nice + air direct to Strasbourg
Montenegro	by air to Frankfurt + rail / "navette" to Strasbourg [1]
Norway	by air to Strasbourg via Brussels or Paris or by air to Frankfurt + rail / "navette" to Strasbourg [1]
Netherlands	by air direct to Strasbourg or via Paris or Brussels
Poland	by air to Frankfurt + rail / "navette" to Strasbourg [1]
Portugal	by air to Strasbourg via Paris or Bordeaux or by air to Frankfurt + rail / "navette" to Strasbourg [1]
Romania	by air to Strasbourg via Vienna or to Frankfurt + rail / "navette" to Strasbourg [1]
Russian Federation	by air direct to Strasbourg or by air to Frankfurt + rail / "navette" to Strasbourg [1]
San Marino	by air to Strasbourg via Milan or Bologna
Serbia	by air to Strasbourg via Milan or by air to Frankfurt + rail / "navette" to Strasbourg [1]
Slovak Republic	by air to Strasbourg from Vienna (see Austria) or by air to Frankfurt from Bratislava + rail / "navette" to Strasbourg [1]
Slovenia	by air to Strasbourg via Munich or to Frankfurt + rail / "navette" to Strasbourg [1]
Spain	by air direct to Strasbourg or via Paris or Bordeaux
Sweden	by air to Strasbourg via Brussels or by air to Frankfurt + rail / "navette" to Strasbourg [1]
Switzerland	by train or by air if distance over 400 km, to Basel via Zurich + rail to Strasbourg [1]
"The Former Yugoslav Republic of Macedonia"	by air to Strasbourg via Vienna or air to Frankfurt + rail / "navette" to Strasbourg [1]
Turkey	by air direct to Strasbourg, or by air to Frankfurt or Stuttgart + rail / "navette" to Strasbourg [1]
Ukraine	by air to Strasbourg via Munich or air to Frankfurt + rail / "navette" to Strasbourg [1]
United Kingdom	by air direct to Strasbourg or via Paris or by air to Basel or Frankfurt + rail / "navette" to Strasbourg [1]
Belarus	by air to Frankfurt + rail / "navette" to Strasbourg [1]

- **Where possible, please use the same route and same company for your inward and outward journey (cost of ticket will be lower).**
- **You are strongly encouraged to request a prepaid ticket from the Council of Europe Secretariat, in order to benefit from negotiated fares.**
- **When the reimbursement of air travel is authorised but there is no direct air connection, part of the journey must be made by rail in order to comply with the shortest normal route.**

[1] **IMPORTANT**: for normal routes *"by air to Frankfurt + rail / "navette" to Strasbourg"* you must ensure that the plane ticket from place of departure to Frankfurt is issued ***SEPARATELY*** from the "navette" (bus connection) for Frankfurt to Strasbourg, failing which you will be overcharged for the "navette".

01/09/2006

Source:[*http://www.coe.int/t/e/legal_affairs/lega;_co-operation/Public_international_law/Rules%202006.pdf*](http://www.coe.int/t/e/legal_affairs/lega;_co-operation/Public_international_law/Rules%202006.pdf)

APPENDIX IV: Energy consumption factors

Electricity: EDF, France

Nous améliorons notre parc de production en achetant auprès d'autres producteurs, et affichons de façon transparente l'origine de notre électricité appelé aussi mix énergétique: nucléaire (85,8 %), énergies renouvelables (4,7 %), charbon (4,1 %), gaz (3,2 %), fioul (1,8 %), autres (0,4 %).

Pour en savoir plus, consultez notre Agenda 21.

L'électricité contribue-t-elle au réchauffement de la planète ?
Ce sont les émissions de gaz carbonique (CO2) qui sont en grande partie responsables du réchauffement climatique. Or l'énergie fournie par EDF est une énergie qui émet très peu de CO2 : seulement 49g par kWh contre 440g dans les autres pays d'Europe, grâce à notre mix énergétique.

Source: [*http://particuliers.edf.fr/141288i/EDF-Particuliers/pages-transverses/questions-frequentes/ethique-et-developpement-durable.html*](http://particuliers.edf.fr/141288i/EDF-Particuliers/pages-transverses/questions-frequentes/ethique-et-developpement-durable.html)

Gas: Fuel Conversion Factors

Defra
July 2005

Guidelines for Company Reporting on Greenhouse Gas Emissions
Annexes updated July 2005

Annex 1 - Fuel Conversion Factors

Table 2: Converting fuel types to CO_2

Fuel Type	Amount used per year	Units	x	kg CO_2 per unit	Total kg CO_2
Grid Electricity[1]		kWh	x	0.43	
Natural Gas		kWh therms	x x	0.19 5.43	

APPENDIX V: Staff figures for the European Parliament 2006 – 2007 (DRAFT)

AUTHORISED STAFF FOR 2007 (DRAFT)										
Category and grade before 1.5.2004	Category and grade after 1.5.2004	Category and grade after 1.5.2006	2006 POSTS				2007 POSTS			
			Permanent posts		Temporary posts		Permanent posts		Temporary posts	
					Other	Political groups			Other	Political groups
Non-category	Non-category	Non-category	1	0	0	0	1	0	0	0
A1	A* 16	AD 16	9	0	1	0	9	0	1	0
A2	A* 15	AD 15	29	0	1	10	30	0	1	10
A3/L3	A* 14	AD 14	127	1	6	20	129	2	6	20
	A* 13	AD 13	49	0	1	19	72	8	1	27
A4/L4	A* 12	AD 12	583	2	7	61	563	0	7	62
A5/L5	A* 11	AD 11	246	4	6	38	246	0	7	35
A6/L6	A* 10	AD 10	92	3	5	47	92	0	6	42
	A* 9	AD 9	197	0	1	14	203	0	2	13
A7/L7	A* 8	AD 8	45	4	22	11	64	0	16	11
A8/L8	A* 7	AD 7	97	0	0	11	78	0	0	15
	A* 6	AD 6	10	0	0	18	67	0	0	23
	A* 5	AD 5	565	0	4	53	593	0	8	44
		AD total	2049	14	54	302	2146	10	55	302
	B*11	AST 11	55	0	0	16	65	10	0	26
B1	B*10	AST 10	175	4	17	30	165	0	17	21
	B*9	AST 9	52	0	0	5	77	0	0	9
B2	B*8	AST 8	60	2	1	30	65	0	3	30
B3	B*7/C*7	AST 7	462	3	7	56	657	0	4	65
B4/C1	B*6/C*6	AST 6	636	23	5	80	614	0	6	80
B5/C2	B*5/C*5/ D*5	AST 5	621	5	8	74	429	0	6	68
C3/D1	B*4/C*4/ D*4	AST 4	157	18	18	53	300	0	12	61
C4/D2	B*3/C*3/ D*3	AST 3	283	8	0	64	158	0	0	62
C5/D3	C*2/D*2	AST 2	99	2	5	53	94	0	4	48
	C*1	AST 1	233	0	1	39	263	0	9	37
		AST total	2833	65	62	500	2887	10	61	507

	TOTAL	**488 3 (1)**	**7 9 (2)**	**11 6 (3)**	**802**	**503 4 (1)**	**2 0 (2)**	**11 6 (3)**	**809**
GRAND TOTAL		**5801 (4)(5)**				**5959 (4)(5)**			

(1) Of which 25 'ad personam' promotions (two AD14 to AD15, two AST10 to AST11, three AST6 to AST7, 18 AST4 to AST4/5) granted in exceptional cases to deserving officials having reached the end of their career brackets (at least 60 years of age and having been in the last step of the highest grade in their category for at least two years) and after long service (at least 25 years). (2) Notional reserve for officials seconded in the interests of the service not included in the grand total. (3) Of which 22 for the President's Office, 14 for the Secretariat of the Vice-Presidents, five C for the Quaestors' Secretariat, 10 for DG Presidency, 12 for DG Internal Policies (of which seven AD8 until 31.12.2008), seven for DG External Policies (of which one AD8 until 31.12.2008), 17 for DG Information, nine for DG Personnel, nine for DG Infrastructure and Interpretation, two for DG Translation and Publishing, five for DG Finance (of which four half-time AD5), three for the Staff Committee AND one for the Directorate for Relations with Political Groups (NI Coordination). (4) Of which 67 AD and 125 AST for external offices. (5) The appropriations for the creation of one AD5 and four AST3 (professional training) and one AD5 and one AST3 (electronic voting) are placed in the reserve. The appropriations for the creation of 74 posts (one AD15, 30 AD, 43 AST) in the 2007 budget are placed in the reserve.

Source:
http://www.europarl.europa.eu/sides/getDoc.do?objRefId=116257&language=EN#title2

APPENDIX VI: Communication from the Secretary General regarding mission staff travel numbers and mode

PARLAMENTO EUROPEO EVROPSKÝ PARLAMENT EUROPA-PARLAMENTET
EUROPÄISCHES PARLAMENT EUROOPA PARLAMENT ΕΥΡΩΠΑΪΚΟ ΚΟΙΝΟΒΟΥΛΙΟ EUROPEAN PARLIAMENT
PARLEMENT EUROPÉEN PARLAMENTO EUROPEO EIROPAS PARLAMENTS
EUROPOS PARLAMENTAS EUROPAI PARLAMENT IL-PARLAMENT EWROPEW EUROPEES PARLEMENT
PARLAMENT EUROPEJSKI PARLAMENTO EUROPEU EURÓPSKY PARLAMENT
EVROPSKI PARLAMENT EUROOPAN PARLAMENTTI EUROPAPARLAMENTET

Directorate-General Presidency
Secretariat of the Bureau, of the Conference of Presidents and the Quaestors

Mrs Caroline LUCAS
Member of the European Parliament
ASP 08G103

306763 16.04.2007

Dear Mrs Lucas,

Thank you for your letter of 15 February 2007 addressed to Julian Priestley, Secretary-General, requesting data concerning mobility of persons and goods in connection with the activities of Parliament as well as the energy profile and size of buildings occupied by Parliament. Following your request, data was sent to you on 27 March 2007.

The relevant service has now provided the Secretariat of the Bureau with additional data as follows:

- total number of Parliament staff on mission to Strasbourg in 2006, including total cost and mode of transport.

Concerning your query on the number of press passes issued to journalists in Strasbourg, it is worth noting that on average some 150 journalists are present in the press room during sessions. When the agenda features subjects of high media interest, this number may increase to 250 to 300 journalists. Out of the journalists present during plenary sessions in Strasbourg, 10 to 15 are based in Strasbourg.

Yours sincerely,

Peder KYST

Copy: Mr Rømer, Secretary-General

Enclosure: annex

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Couts Missions Strasbourg

transport aller	BRU	LUX	AUTRE	TOTAL
AV avion	4.245.318,42		626.154,62	4.871.473,04
T1 [illegible]	996.171,83	187.502,07	35.531,54	1.219.205,44
T2 [illegible]	186.101,40	26.290,13	6.130,27	218.521,80
TV wagons lits	1.227,65		429,11	1.656,76
VC voiture publique	168.747,92	37.068,94	22.373,90	228.190,76
VP [illegible]	4.370.480,79	2.592.029,94	7.506,03	6.970.016,76
VS [illegible]	440.892,86	119.331,65	0,00	560.224,51
	0,00	0,00		0,00
Sum:	**10.408.940,87**	**2.962.222,73**	**698.125,47**	**14.069.289,07**

Nombre Missions Strasbourg

Voyages aller	BRU	LUX	AUTRE	TOTAL
AV	4896		500	5.396,00
T1	1418	315	39	1.772,00
T2	273	45	8	326,00
TV	4		1	5,00
VC	264	62	22	348,00
VP	5895	3884	11	9.790,00
VS	605	225	4	834,00
A regulariser	69	12		81,00
Sum:	**13424**	**4543**	**585**	**18.552,00**

Voyages retour	BRU	LUX	AUTRE	TOTAL
AV	4858	2	501	5.361,00
T1	1387	304	33	1.724,00
T2	221	42	7	270,00
TV	4		2	6,00
VC	311	64	23	398,00
VP	5878	3895	15	9.788,00
VS	696	224	4	924,00
A regulariser	69	12		81,00
Sum:	**13424**	**4543**	**585**	**18.552,00**