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# ECF, Orthepedalia and Friends of the Bicycle Common Memorandum on Greek EU Presidency

This memorandum provides a common opinion of the European Cyclists' Federation (ECF), and its full members in Greece, on the priorities and policies, related to cycling, that should be part of the European Council transport and regional policy agenda during the Trio Presidencies of Ireland, Lithuania and Greece in 2013 and 2014.

**We urge the EU to provide for greater investment in Cycling because:**

(1) Increased investment in Cycling makes good sense, as:

- Cycling gives exceptionally high benefit/cost returns, greater than all other transport modes;
- Cycling is an exceptionally low cost transport investment;
- Cycling produces wider societal benefits, particularly in terms of health benefits, reduced morbidity, and healthier workforce.

(2) The EU Transport Budget [TEN-T] must include funding for EuroVelo, the European long-distance cycle route network, and cycling must be increasingly represented in the respective strategic documents on European regional and cohesion policy for the period 2014 - 2020.

(3) Increased cycling modal share throughout the EU ensures a more

sustainable Transport Strategy, and reduces accident levels.

(4) The safety of cyclists must be improved by re-designing the cabins of Heavy Goods Vehicles (HGVs), and improving overall driver training.

# 1. Increased investment in Cycling makes good sense

The economic benefits of cycling come from comparatively low investment costs compared to other modes. This is of relevance in any era, but particularly so in times of tight economic constraints, such as the present.

There are no aggregate figures available for overall cycling investment in Europe in cycling infrastructure and promotion, but they do exist for some member states:

- In the UK it is about £2 (€2.4) per capita annually for a 2% cycling mode share;[1]
- In the Netherlands it is about €25 per capita (€410 million in 2010[2]), for a mode share of 27%;
- For Central and Eastern Europe, investments per 1% cycling mode share are generally considerably lower. For example, cycling in Hungary represents about 18% of the mode share for a €3 per capita in annual investments.[3]

Averaging these figures out and allowing for population differences in top EU 15 countries suggests that regular annual Cycling investment across the EU of €0.75 Euro per capita would give approximately 1% cycling mode share.

With an average 7.5% modal share across Europe (Population 502 million) in 2010, the present level of investment in cycling infrastructure and promotion is estimated at approximately €2.8 billion per annum. Of this only approximately €100 million is direct EU investment. Table 1 below shows the overall estimated benefits across different facets of EU society, including Health, Environment, Congestion-easing, but not including the broader social benefits, from this relatively low level of investment. A doubling of this mode share to 15% by 2020 (Ref Section 3 below) would reap proportionally increased benefits.

**Table 1: Annual economic benefits of cycling at 7.5 % cycling mode share in EU-27**

| | **2010: 7.5 %** |
|---|---|
| **1 Health benefits: reduced mortality and morbidity** | € 114 – 121 bn |
| **2 Congestion-easing** | € 24.2 bn |
| **3 Fuel savings at US$ 100/ barrel** | € 2.7 – 5.9 bn |
| **4 Reduced CO2 emission** | € 1.4 – 3.0 bn |

[1] The figure is estimated by CTC, the UK's national cycling charity.
[2] Totaaloverzicht van de uitgaven van alle overheden aan fietsverkeer, http://www.fietsberaad.nl/library/repository/bestanden/uitgaven_overheden_fiets.pdf
[3] The figure is estimated by ECF Director EuroVelo Adam Bodor national cycling commissioner in Hungary between 2006 – 2010.

| | |
|---|---|
| **5 Reduced air pollution** | € 0.9 bn |
| **Total economic benefits of cycling** | **€ 143 – 155 bn** |

## 2. EuroVelo within TEN-T and Increased EU Cycling Investment

EuroVelo (www.EuroVelo.org) is a Europe-wide network of Cycle routes (see map at Appendix B), with well over 45,000 km already in use. The development of EuroVelo could significantly contribute to achieving the goals of the Treaty of Lisbon, which has clear reference to road transportation (Article 100) without any distinction between different road users[4].

The **European Economic and Social Committee(EESC)** has requested the European Commission to integrate the EuroVelo cycle network into TEN-T.[5]

On December 15, 2011, the **European Parliament** gave significant support to EuroVelo in its response to the European Commission White Paper on Transport: "*EuroVelo, the European long-distance cycle route network, should be included in the TEN-T network*"[6].

On December 18, 2012, the **TRAN committee of the European Parliament** voted in relation to the revised TEN-T Guidelines: "*Synergies with other policies should be exploited, for instance with tourism aspects by including on civil engineering structures such as bridges or tunnels bicycle infrastructure for long distance cycling paths like the EuroVelo routes*."

**The ECF urges EU Transport ministers to follow the lead of the European Parliament and the EESC** by:

1. Integrating the EuroVelo network into TEN-T as an opportunity for promoting European trans-border transport networks, in a sustainable manner;
2. Supporting EuroVelo coordination (which is executed via National EuroVelo Coordination Centres) by providing adequate financial and technical assistance for the coordination, know-how transfer, and communication on the European level;
3. Improving the intermodal connections of the TEN-T developments (in particular at railway, ferry, and airport hubs);

[4] Treaty on the Functioning of the European Union
[5] Opinion of the European Economic and Social Committee on the Promotion of cross-border cycle Transport, (2007/C 168/18)
[6] European Parliament response to Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system (2011/2096(INI))

4. Integrating cycling infrastructure, and accessibility by bike, in every relevant TEN-T development, (e.g. include bike paths in all new bridges, and avoid new obstacles by planning subway or bridge crossings of new motorways).

Within the broader EU Financial budget 2007 – 2013, approximately €600 million was earmarked for cycling infrastructure from its €82 billion fund for transport infrastructure. This is a puny 0.7 % of EU co-funding compared to a 47 %[7] share for Roads. Further, the co-funding rule causes a multiplier effect in that this money leverages greater national investment. In other words, current European transport funding policy in itself favours less sustainable projects, and stimulates a similar investment policy by the Member States.

To ensure that adequate funding for sustainable transportation is made available in the years to come, the ECF is targeting a €6 billion EU spend on cycling projects during the coming Multiannual Financial Framework through the relevant European funding programmes, such as:

- European Regional Development Fund;
- European Social Fund;
- Cohesion Fund;
- European Agricultural Fund for Rural Development (EAFRD).
- The proposed Connecting Europe Facility[8];

Funding needs to be explicitly earmarked for cycling in each programme and then integrated into the various national Operational Programmes. **The EU Trio of Presidencies is urged to earmark this €6 billion spend, to ensure Cycling modal share targets are met** (see Section 3 below).

Potential cycling schemes that could be co-financed by the EU broadly fit into the following categories:

- Development of European, national, regional and local cycling route networks;
- Bicycle parking and storage;
- Campaigning, promotion and education;
- Service development and cycling infrastructure;
- Public Bicycle Sharing Systems;
- Monitoring, usage monitoring and impact assessment.

[7] Transport and Environment, *Greening EU Transport spending*, July 7, 2011. http://www.transportenvironment.org/tag/infrastructure

[8] Connecting Europe Facility (CEF) – the European Commission's proposed new financing mechanism for transport, energy and digital networks. Draft proposals indicate that transport projects with, among others, a good climate performance could benefit from a 10% higher co-financing rate.

# 3. Increased Sustainability and Safer Cycling

The ECF has two key objectives for the year 2020:

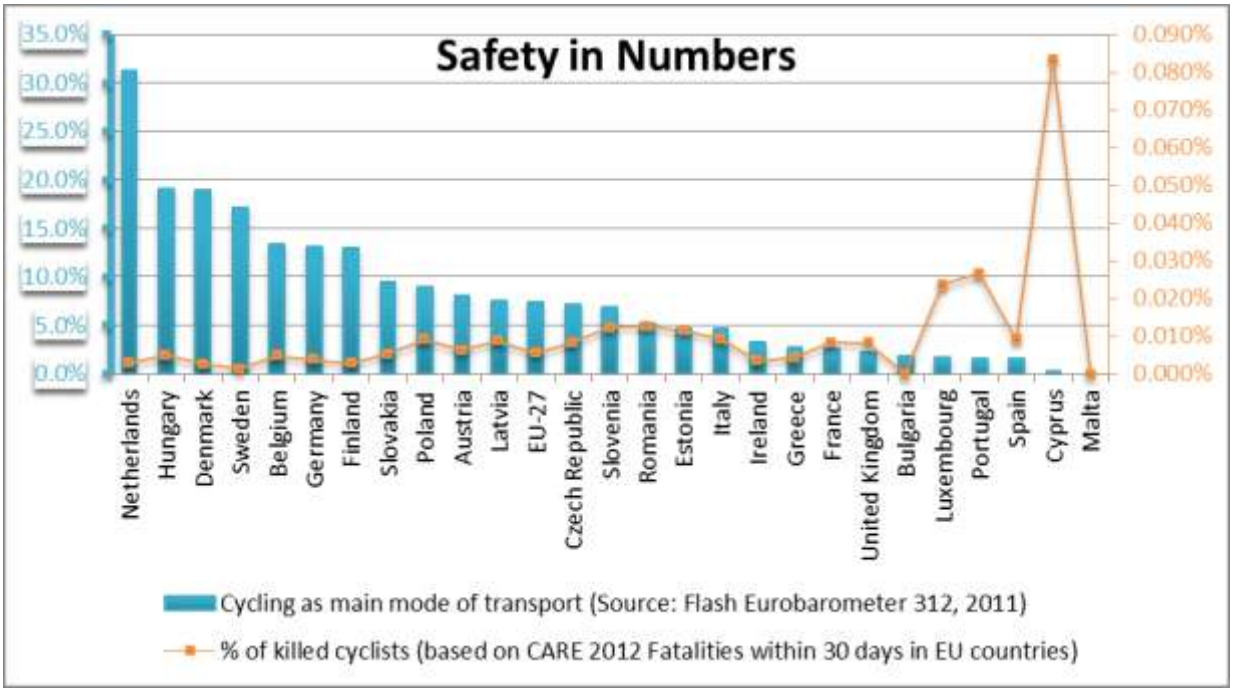
- Doubling the share of cycling in the modal split of trips in the EU to 15%[9];
- Halving fatal and serious injuries as a result of more km cycled.

There is solid evidence that more people cycling leads to safer conditions, not just for cyclists, but for all modes of road based transport. Many examples across Europe show that increases in cycling go hand in hand with reductions in cycling fatalities. ECF is pleased to see that the European Commission has recognized the "Safety in Numbers" principle.[10] – see Chart 1 below

If Cycling numbers increase, this automatically leads to a level of switching from motorized transport, which in turn ensures lower carbon emissions, lower oil imports, and more sociable *Living Cities,* a veritable win-win situation.

**ECF urges the EU Trio of Presidencies to adopt the target of a 15% average Cycling mode share in 2020 across the EU**, in order to increase sustainability, improve overall morbidity statistics, and aim for '*More Living Cities*'.

**CHART 1**




[9] Eurobarometer 312, March 2011: 7.4 % responded 'Cycling' when asked question D7: "What is the main mode of transport that you use for your daily activities?"

[10] "More bicycles and fewer vehicles on the road make cycling more pleasant and less dangerous", SEC (2011) 391 final, par. 15.

## 4. Safer HGVs and Improved Driver Training

ECF requests the Trio Presidency to work with the Commission on the repeal of Directive 96/53 on the Weights and Dimensions of trucks. The new legislation will examine the shape and size of the cab of the HGV with the view of making the vehicles more aero-dynamic. However we also request the Commission, Parliament, Council and the Working Group dealing with the Delegated Acts to make safety a priority. HGVs make up only 3% of the EU vehicle fleet and 7% of driven kilometres, yet they were involved in an average 22% of fatal accidents, between the years 2008-2010.[11]

We believe that a more aerodynamic cab can also be a safer cab for unprotected road users such as cyclists. An FKA study has suggested adding an extra 80 cm to the cab which will make the cabs more aerodynamic but will also improve safety in the following ways.

- Improves direct vision of lorry driver;
- Deflection of cyclist (to avoid overrun);
- Energy absorption criteria.

We think it is essential that safety be a key part of this redesign. **We call on the Trio Presidency to make this HGV cab redesign a priority** to help achieve greater safety of HGVs throughout Europe. The full ECF position paper on the HGV cab redesign can be downloaded here:

http://www.ecf.com/wp-content/uploads/ECF-Cab-design-report_201112.pdf

The physical redesign of HGV cabs is one thing, but the necessity to include a module in all driver related training for increased awareness of vulnerable road users, principally Cyclists and Pedestrians, must go hand in hand with this. The 'windscreen view' of the average motorist/driver needs to be improved, through awareness training, so that they automatically consider the position of other more vulnerable road users, and respect their right to a share of the relevant road space. Ideally this should be relatively uniform across the EU.

[11] ETSC, Pedalling towards Safety, 2012.

# APPENDIX A

# The Economic benefits of cycling in the EU-27 in detail

**Table 1: Annual economic benefits of cycling at 7.5 % cycling mode share in EU-27**

| | **2010: 7.5 %** |
|---|---|
| **1 Health benefits: reduced mortality and morbidity** | € 114 – 121 bn |
| **2 Congestion-easing** | € 24.2 bn |
| **3 Fuel savings at US$ 100/ barrel** | € 2.7 – 5.9 bn |
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| **5 Reduced air pollution** | € 0.9 bn |
| **Total economic benefits of cycling** | **€ 143 – 155 bn** |

## 1) Health benefits

In 2010: € 114-121 bn/year

*Assumptions and sources*:

- The EU27 population can be estimated to have cycled 94 billion kilometres in 2010[12]. Our calculation reflects the annual benefit of current level of cycling linked to reduced premature mortality among adult cyclists (age category 20-64), for a volume of cycling of 77 billion km/year (i.e. a total of 94 bn km/year, of which 17 bn km are attributed to the 5-20 age category). Using WHO's Health Economic Analysis Tool ('HEAT for Cycling')[13], it is estimated that the current level of bicycle use represents EU-wide health benefits of € 114 – 121 billion a year[14],

[12] According to Eurostat, in 2000 in the EU15 distance cycled was 71 billion kilometres, implying an average cycling distance of 188 km per person per year. Assuming conservatively that cycling modal share has not increased since 2000, this brings the EU27 cycling distance to 94 billion km/year. The EU-population of 20 years and over (395 million in 2009, Eurostat) cycled 72 billion km/year (with the 0 to 15 years cycling as much as the average, and the 15 to 20 years cycling 53% more than the average).

[13] When using a value of statistical life of €1.67 million (Becker U., *The true costs of automobility: external costs of car use in EU-27*, 2012) and using a death rate of 971 per 100.000 (Eurostat, 2009).

[14] Considering HEAT is designed for adult population, km cycled by the '0 to 19 years' age group (i.e. 22 billion km/y, assuming the 0 to 15 age group cycle the same amount as the average, and the 0 to 19 age group 53% more than the average) are not taken into consideration (taking these into consideration could lead to an overestimation of the resulting benefits). Considering 7% of EU citizens cite cycling is their main mode of transport (Eurostat 2011), the remaining 72 billion km are spread as follows: 7% of the '20 years and over' age group are assumed to cycle (5.8 km/day x 225days/year=) 1305 km/year (together 36 billion km); 43% of this age group is assumed to cycle the remaining km, i.e. 209 km/year (together also 36 billion km); 50% of the population is assumed never to cycle.

depending on how kilometres are spread over the population. These figures - though impressive - are conservative figures because HEAT is for the time being focusing only on all-cause mortality, while physical activity has positive effects on many aspects of morbidity.

- The value of the health benefits linked to the volume of cycling of the 5-20 age category is not calculated, nor is the economic value of reduced morbidity among adult cyclists.
- The European average value of statistical life (VSL) for 2008 is €1.67 million. Becker U., The true costs of automobility: external costs of car use in EU-27, 2012.

## 2) Congestion:

In 2010: €24.2 bn/year

*Assumptions and sources:*

- Current volume of cycling of 94 bn km/year.
- An EU urban population of 41% (accounting for 62.5% of volume of cycling), EU rural population of 23% (accounting for 11.5% of volume of cycling), and 35% living in intermediate regions (accounting for 26% of volume of cycling). On population of urban, intermediate and rural regions, see Eurostat.
- For marginal social cost price of congestion, middle value figures from the *Handbook on estimation of external costs in the transport sector* (IMPACT, 2008) were used, with values of 0.1€/vkm for rural km, 0.2/vkm for intermediate regions km, and 0.4€/vkm for urban km.

Based on these assumptions, EU-wide health benefits due to reduced premature mortality is valued at € 114 billion/year. The higher figure (€121 billion/year) is obtained when spreading km cycled by the 20+ age group evenly across this entire age group.

Proposed ranges of marginal social cost prices (optimal external costs) of congestion by road class and type of area (€/vkm 2000)

| Area and road type | Passenger cars | | |
|---|---|---|---|
| | Min. | Centr. | Max |
| **Large urban areas (> 2,000,000)** | | | |
| Urban motorways | 0.30 | 0.50 | 0.90 |
| Urban collectors | 0.20 | 0.50 | 1.20 |
| Local streets centre | 1.50 | 2.00 | 3.00 |
| Local streets cordon | 0.50 | 0.75 | 1.00 |
| **Small and medium urban areas (< 2,000,000** | | | |
| Urban motorways | 0.10 | 0.25 | 0.40 |
| Urban collectors | 0.05 | 0.30 | 0.50 |
| Local streets cordon | 0.10 | 0.30 | 0.50 |
| **Rural areas** | | | |
| Motorways* | 0.00 | 0.10 | 0.20 |
| Trunk roads* | 0.00 | 0.05 | 0.15 |

## 3) Fuel savings:

In 2010: €2.7 – 5.9 bn/year

*Assumptions/sources:*

- At current levels, cycling saves 11 to 24 millions of tonnes of CO2e, depending on the mode of transport that the bicycle is considered to substitute[15]. Doubling cycling would save an additional 11 million to 24 million of tons of CO2e. This CO2e is produced by 35 to 76 million barrels of crude oil. At 100 USD/barrel this is 3.5 to 7.6 billion USD.[16](= € 2.7 bn – 5.9 bn)[17];
- One average barrel of crude oil yields a total of 100.73kg of liquid fuels (Riegel, Handbook of industrial chemistry, 2003)
- Carbon-based fuels emit 3.15 times its own weight in CO2 when burnt (Jardine C., Calculating the Environmental Impact of aviation emissions, Oxford university centre for the environment, 2005)
- Assuming a price of 100 USD/barrel of crude oil, and assuming this price remains constant.
- Assuming the bicycle saves, for a volume of cycling of 94 billion km/year, 11 to 24 million tonnes of CO2e (Quantifying CO2 savings of cycling, ECF, 2011).

## 4) Reduced CO2 emissions:

In 2010: €1.4-3.0 bn/year

Assumptions/sources:

- Assuming the bicycle saves, for a volume of cycling of 94 billion km/year, 11 to 24 million tonnes of CO2e (Quantifying CO2 savings of cycling, ECF, 2011): 11 million tonnes of CO2 (representing savings of 1.4 bn/year) when using the following replacement ratio for bicycle trips: bus 42%, car 32% and walking 26%; and 24 million of tonnes CO2 (representing savings of 3.0 bn/year) when the bicycle is considered to replace car trips.
- Carbon pollution cost of €123/ton CO2: a study in the Journal of Environmental Studies and Sciences shows that current calculations on the future financial

[15] 11 millions of tonnes if the bicycle is considered to replace 42% of 'public transport' trips, 32% of car trips and 26% of walking trips (figures derived from the EU funded OBIS project), 24 millions of tonnes if the bicycle trips are considered to replace only car trips.
[16] One barrel crude oil yields a total of 100.73 kg of liquid fuels, and a carbon-based fuel emit 3.15 its own weight in CO2. Therefore, one barrel crude oil produces 317 kg CO2.
[17] 1 USD = 0.78 EUR. Exchange rate 06/11/2012.

impacts of climate change are being underestimated by the US government somewhere between 2.6 and 12 times. The government uses a figure for the damage caused by carbon pollution at $21 per ton of CO2, whereas a more accurate estimate is in the range of $55-266 (€42-205) per ton—and that's for a middle-of-the-road climate scenario, not worst case. The middle figure is €123/ton CO2.

## 5) Reduced air pollution:

In 2010: € 0.9 bn/year

*Assumptions and sources*:

- For the mix of traffic conditions (70% city kilometers, 25% on roads and 5% on highways) that best reflect bicycle trips: TNO, *Fietsen is groen, gezond en voordelig*, 2010.
- For air pollution costs (in €ct/vkm) for passenger cars, by size of engine, type of fuel type of road and emission standards: Handbook on estimation of external costs in the transport sector, IMPACT, 2008. Figures used are for middle size passenger car (1,4-2,0 L, 28% diesel, 72% petrol).
- EU passenger car fleet: 28% are diesel cars, 72% are petrol cars: Dieselisation in the EEA, EEA, 2009.
- For proportion of EU vehicle fleet meeting certain emission standards:
  EEA's TERM034 Estimated share of pre Euro/conventional and Euro I-V gasoline and diesel passenger cars and light-duty vehicles.

# APPENDIX B

## The EuroVelo Network

# APPENDIX C

## Further information

For further information on EuroVelo and the ECF €6 billion campaign please visit the ECF website: www.ecf.com; www.eurovelo.org

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**The European Cyclists' Federation (ECF)**

The European Cyclists' Federation (ECF) represents the interests of bicycle users, is based in Brussels and has about 70 member organisations across 40 countries. As well as advocating for better cycling policies and promoting cycling at the international level, ECF has a range of programmes including EuroVelo, the global networks "Scientists for cycling" and "Cities for Cyclists", and the Velo-city and Velo-city Global conference series. ECF is a main partner in several EU funded projects, such as PRESTO and CYCLE Logistics.

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