



A sustainable future for transport
European Cyclists' Federation (ECF) Paper for DG Transport
Thursday 3 December 2009

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1. INTRODUCTION

About ECF

Founded in 1983, the **European Cyclists' Federation** (ECF) is the umbrella federation of the national cyclists' associations in Europe, reinforced by similar organisations from other parts of the world. Altogether we have 60 member groups in some 36 countries. On behalf of around 500,000 individual cyclists, we are pledged to ensure that bicycle use achieves its fullest potential so as to bring about sustainable mobility and public well-being. To achieve these aims, the ECF seeks to change attitudes, policies and budget allocations at the European level. The ECF stimulates and organises the exchange of information and expertise on bicycle related transport policies and strategies as well as the work of the cyclists' movement.

ECF website: www.ecf.com.

About this paper

In September 2009, ECF submitted a detailed response to the Commission Communication, 'A sustainable future for transport: Towards an integrated, technology-led and user friendly system'¹. This paper details our main messages, with reference to the main sections of the Communication.

The policy priorities and measures that we propose are fundamental to the goal of achieving a sustainable future for transport over the coming decade.

Note on urban focus

We focus our points primarily on urban transport, for the following reasons:

- As recognised in the Communication, most transport starts and ends in urban agglomerations, and urban transport accounts for 40% of CO₂ emissions, and 70% of other air pollution from transport.²
- We agree that the urbanisation trend places urban areas at the heart of Europe's transport challenge, as highlighted in the Communication.
- Europe's towns and cities are the focal points of its wealth, business, service provision and innovation potential, as well as being the site of many environmental challenges³, and there is a strong relationship between the quality of urban environments and their prosperity.
- There is fantastic potential for the bicycle to replace the private car in urban areas. Cycling is quick, flexible and extremely time-reliable: 30% of car trips in Europe are under 3km and 50% are under 5km – a 15 minute bike ride.⁴

However, this is not to neglect the importance of combined bicycle and public transport trips for longer journeys.

¹ COM(2009) 279 final

² COM (2009) 279, paras 32 and 88).

³ European Environment Agency (EEA), 2009: *Ensuring quality of life in Europe's cities and towns*. EEA Report No 5/2009 (http://www.eea.europa.eu/publications/quality-of-life-in-Europes-cities-and-towns/at_download/file).

⁴ World Health Organization (WHO), 2000: *Transport, environment and health*, WHO Regional Publications, European Series, No. 89, p.5.

2. EUROPEAN TRANSPORT POLICY IN THE FIRST DECADE OF THE 21ST CENTURY

The Communication's emphasis in this section is on transport's failure to meet the sustainability goals set in the last White Paper and the Sustainable Development Strategy (SDS) of 2006⁵. It also highlights the challenges of oil dependency and budgetary constraints.

ECF agrees that transport policy needs to move away from focusing on modes that are carbon-intensive, polluting and inefficient in terms of resource and land consumption. Here, the bicycle must be central.

The environmental, social and economic benefits of cycling are summarised in the table below.

**This demonstrates that the bicycle is *the*
Sustainable transport mode par excellence.**

Environmental	<p>Zero-carbon</p> <p>Tripling the modal share of cycling would save 5% of transport CO₂ emissions by 2020⁶. This would make a significant contribution to mitigating climate change and decreasing dependency on fossil fuels.</p> <p>No air pollution</p> <p>Poor air quality, in particular PM₁₀ and NO_x emissions are correctly identified in COM 279 as major ongoing challenges in the EU.</p> <p>No noise pollution</p> <p>Around 65% of people in the WHO European region are exposed to levels of noise leading to sleep disturbance, speech interference, annoyance, increased aggression, heart disease and hypertension.⁷</p> <p>Reduced land consumption</p> <p>10 bikes can be parked in the space required for one car. One lane of typical road can accommodate 2,000 cars per hour – or 14,000 bikes.</p>
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⁵ http://ec.europa.eu/sustainable/library/index_en.htm.

⁶ A tripling of cycling, as anticipated by the Charter of Brussels, at the expense of individual motorized trips, would save 49.1 million tons of CO₂ or 5 % of CO₂ transport emissions (ECF 2007: http://www.ecf.com/3644_1).

⁷ WHO, 2000, p. 6 and pp. 9ff.

Social	<p>Mobility and accessibility</p> <p>Sustainable mobility can be defined as: ‘The ability to meet the needs of society to move freely, gain access, communicate, trade and establish relationships without compromising human and ecosystem health, now or in the future.’⁸ The best way to achieve this is to improve conditions for cycling and walking by reducing car dominance and planning for accessibility, thereby reducing the need to travel and journey distances.</p> <p>Equality of opportunity</p> <p>Buying and maintaining a bicycle is inexpensive compared with a car. The wealthiest 20% of people typically travel 4.5 times further by car and rail than the poorest 20%. However when it comes to cycle use, this gap is more than halved.⁹</p> <p>Improved road safety</p> <p>‘Safety in numbers’: The more people cycle, the greater is road safety. Car drivers are used to the presence of cyclists and are more likely to be cyclists themselves.¹⁰ Recent research investigating this phenomenon in Belgium found that high proportions of commuter cyclists are correlated with low risks of casualties.¹¹</p> <p>Health benefits</p> <p>Increasing the modal share of cycling, as well as improving air quality and reducing the risk of accidents, is a way to build physical activity into daily life, enhancing physical and mental health.¹² There is an inverse correlation between active travel and obesity rates: see graphs overleaf.¹³</p> <p>Social inclusion</p> <p>Increasing levels of walking and cycling in urban areas has been shown to enhance community cohesion and neighbourhood revitalisation.¹⁴</p>
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⁸ World Business Council for Sustainable Development. *Mobility 2001 - World mobility at the end of the twentieth century and its sustainability*: www.wbcsd.org/web/projects/mobility/english_full_report.pdf.

⁹ CTC’s new vision for cycling (www.ctc.org.uk/resources/Campaigns/0902_CTC_New-Vision_Ref_rpt.doc).

¹⁰ Accidents caused by cyclists are not as severe as car accidents due to lower speed and lower mass. They are rarely fatal. Cycling as such gets safer the more cyclists there are. UK research has shown that a doubling in cycling makes cycling one third less risky. (CTC, *Safety in numbers*: www.ctc.org.uk/resources/Campaigns/CTC_Safety_in_Numbers.pdf).

¹¹ Vandenbulcke, G et al (2009) *Mapping bicycle use and the risk of accidents for commuters who cycle to work in Belgium*. Transport Policy, 16, 77-87, 2009.

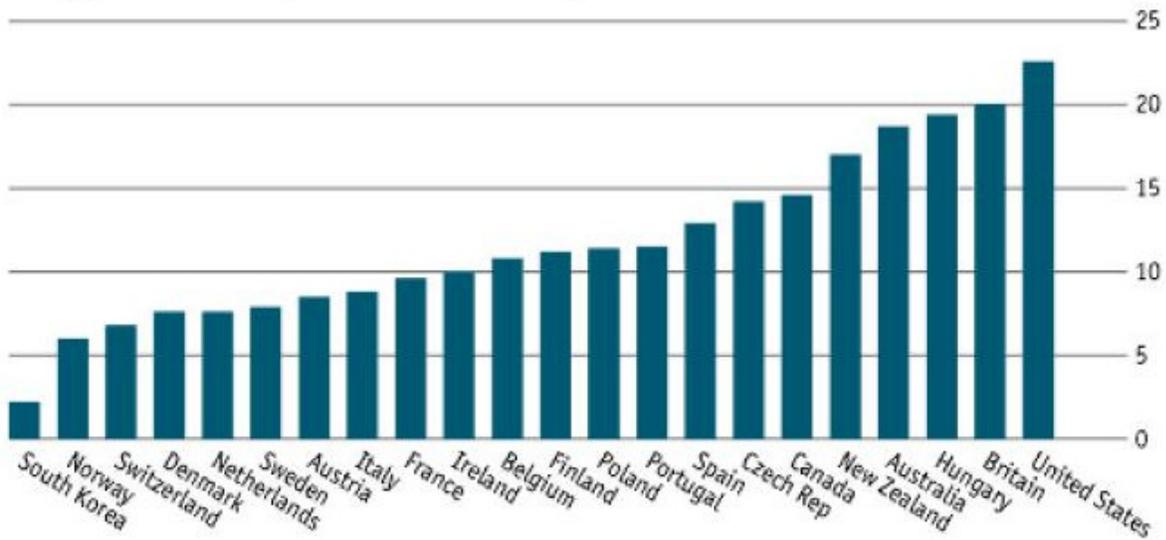
¹² According to the WHO, 30 minutes of physical activity a day reduces by 50% the risk of developing coronary heart diseases; by 50 % the risk of developing adult diabetes; by 50% the risk of becoming obese; by 30 % the risk of developing hypertension; it relieves symptoms of depression and anxiety; it contributes to prevention of falls in the elderly. Health risks are associated with cycling and walking, too, the most serious of which are accidents involving cars. Nevertheless, there is evidence that on balance the benefits to life expectancy of choosing to cycle are 20 times the injury risks incurred by that choice (WHO, 2000, pp. 30 – 31).

¹³ Racioppi, F and Kahlmeier, S (2009) *Cycling and Health: Making the Links*. European Centre for Environment and Health, WHO Regional Office for Europe. Presentation given at Velo-city Conference 2009 (www.velo-city2009.com/assets/files/VC09-plenary-02.pdf).

¹⁴ Leyden, 2003 *Social Capital and the Built Environment: The Importance of Walkable Neighbourhoods*, American Journal of Public Health; Sep2003, Vol. 93 Issue 9, p1546-1551; Tin Tin, S et al, 2009 *Cycling and walking to work in New Zealand, 1991-2006: regional and individual differences, and pointers to effective interventions*, International Journal of Behavioral Nutrition and Physical Activity 2009, 6:64 (www.ijbnpa.org/content/6/1/64).

Obesity

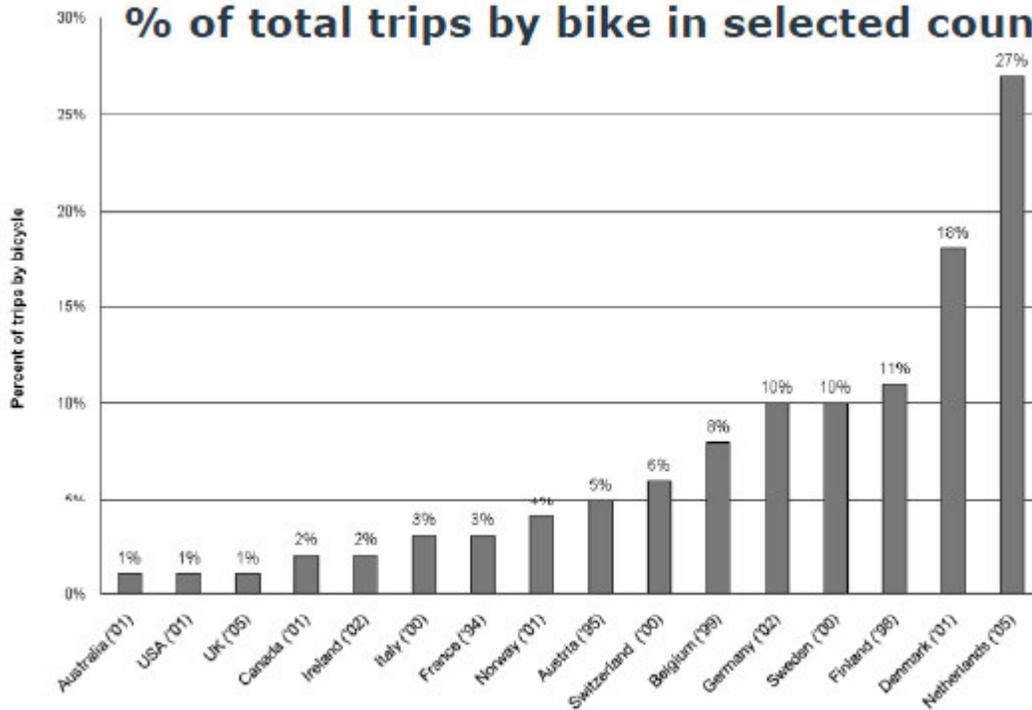
% of population* with Body Mass Index over 30, latest year available



Source: OECD

* Aged 15 and over

% of total trips by bike in selected countries



From: Pucher & Buehler. Transport Reviews, 2008. Data from various sources.

Economic	<p>Reduction in external costs</p> <p>Motorised transport imposes high costs on individuals and society, both directly (road construction and maintenance) and indirectly (casualties, obesity, pollution, congestion, etc.). The Communication estimates the external costs of road transport at 2.6 % of GDP. Other studies suggest as much as 4% and 8%.¹⁵ The overwhelming majority of these external costs are caused by individual motorised transport. Modal shift from car to active travel provides an opportunity for huge cost savings.</p> <p>Cycle-friendly cities attract investment</p> <p>Cycling can improve a city's quality of life and environmental quality and hence attract individuals / businesses, benefiting local economic performance, in line with the Lisbon Agenda for Growth and Jobs.¹⁶</p> <p>Reduced congestion</p> <p>Reducing car use through demand management measures, and increasing active travel will unclog roads and reduce congestion and its associated delays, lost working hours, inability to forecast travel time accurately, wasted fuel, and so on.</p> <p>Value for money</p> <p>In the current climate of constrained budgets, bicycle infrastructure offers excellent value for money compared with public transport for the same environmental results.</p>
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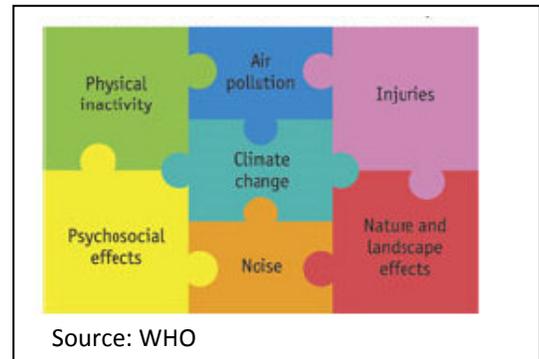
¹⁵ INFRAS, 2000: *External costs of transport (accidents, environmental and congestion costs) in western Europe*.

¹⁶ As stated by the EEA, 'A high quality urban environment also contributes to the priority of the renewed Lisbon Strategy to 'make Europe a more attractive place to work and invest'.' EEA 2009 (op.cit.) p.9. In addition, the UITP (Union Internationale des Transports Publics) point out that urban areas are responsible for over 70% of Europe's economic wealth as they are the focal points for business and investment, but that around 7% of this wealth is wasted on negative externalities, from accidents, congestion, health and environmental damage linked to transport. UITP 2009 (<http://www.uitp.org/mos/positionspapers/91-en.pdf>).

3. TRENDS AND CHALLENGES

ECF agrees that transport is still on an unsustainable path

The adjacent diagram gives an overview of the range of problems arising from the current dominance of private motorised transport, which have severe environmental, social and economic costs:



- **Congestion** “worth” 100 billion Euros/ annually (or 1% of EU GDP).¹⁷
- **Air and noise pollution** getting worse year by year. Urban traffic is responsible for 40% of CO₂ emissions and 70% of emissions of other pollutants arising from road transport.¹⁸
- The number of road traffic **accidents** in towns and cities is also growing each year: one in three fatal accidents now happen in urban areas, and it is the most vulnerable people, namely pedestrians and cyclists, who are the main victims.¹⁹
- **CO₂ emissions** from the transport sector have grown by almost 30% since 1990.
- Half the adult population in developed countries is sedentary or does minimal physical activity.²⁰ Obesity is growing in Western countries, mostly due to these **sedentary lifestyles**.²¹
- Because of bad urban living quality, citizens have moved out to the suburbs, contributing to **urban sprawl** and creating ever more transport²².

Therefore, in relation to the trends and challenges identified in the Communication, ECF:

- ⇒ Welcomes the recognition that transport must urgently mitigate its impacts on the **environment** and rapidly decarbonise and reduce its dependence on **fossil fuels** in the face of climate change and the increasing scarcity of these non-renewable fuel sources.
- ⇒ Agrees that the transport challenge is focused on **urban areas**, but would stress that urbanisation presents a major opportunity for cycling and other active modes.
- ⇒ In respect to **ageing**, emphasises that accessibility, safety and equality of opportunity are key. Planning for the active modes advances all of these goals, and technology such as pedelecs extend access to cycling to more members of the population, including the elderly.

¹⁷ European Commission, 2007: *Green Paper 'Towards a new culture for urban mobility'*, p.3 (http://ec.europa.eu/transport/urban/urban_mobility/green_paper/green_paper_en.htm).

¹⁸ Loc.cit.

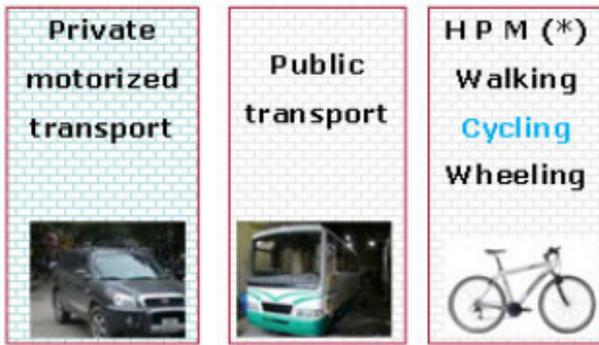
¹⁹ Loc.cit.

²⁰ WHO, 2000 (op.cit.), p. 6.

²¹ WHO, 2000 (op.cit.), p. 32.

²² McCann & Ewing (2003) *Measuring the Effects of Sprawl: A National Analysis of Physical Activity, Obesity and Chronic Disease*. Smart Growth America Special Report (www.smartgrowthamerica.org/healthreport.html).

4. POLICY OBJECTIVES FOR SUSTAINABLE TRANSPORT



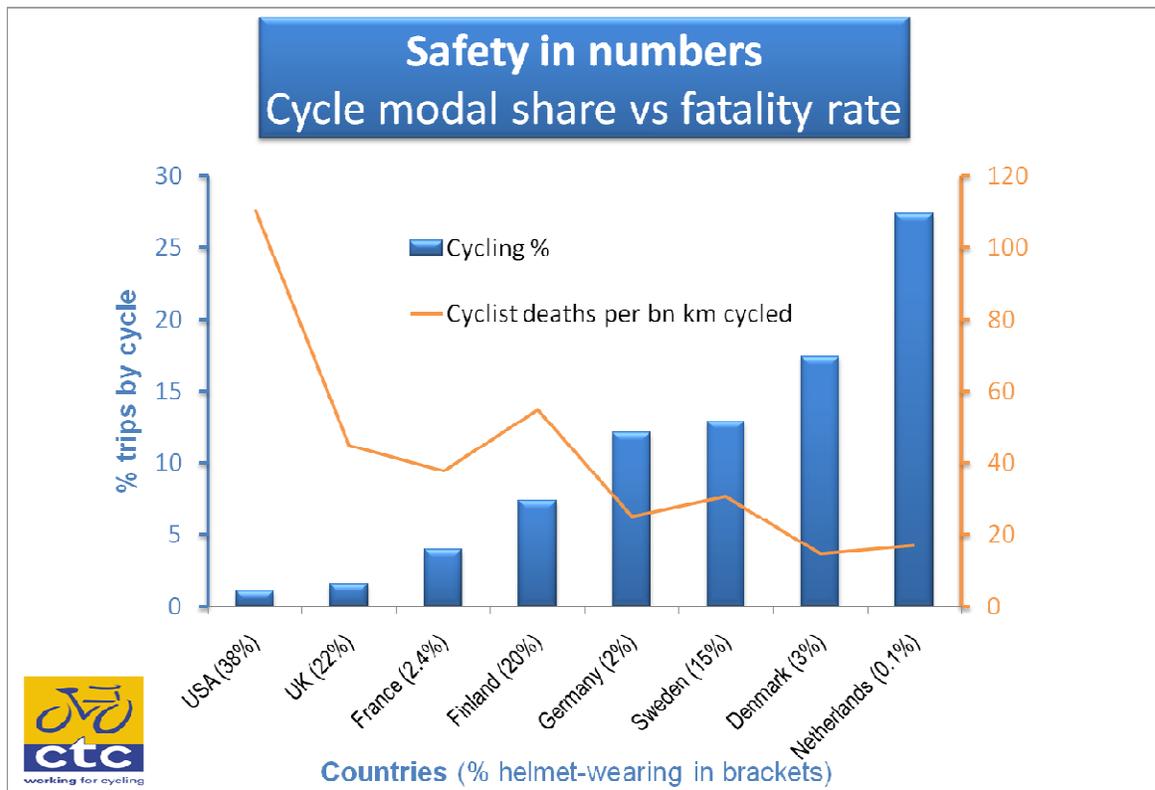
* HPM = Human Power Mobility

Source: ECF

Effective solutions for sustainable transport must place cycling and other forms of human-powered mobility as one of the central policy pillars, in order to ensure environmental sustainability, quality of life and economic development.

The fundamental pre-requisite for success in this regard is to combine coherent pro-cycling policies with demand management to curb individual motorised transport in line with the ‘polluter pays’ principle.

- Safety:** ECF strongly endorses the objective of reducing accidents and health hazards from transport, and creating urban environments conducive to cycling and walking, both of which are referred to in the Communication. It should be explicitly recognised that **reduced motor speeds and volumes and increased active travel** are key to improving safety.



- ECF has recently submitted a detailed paper in response to the European Road Safety Action Programme 2011-2020 public consultation²³. Our priorities in this regard are summarised in the box below.

Measures to improve safety²³

- ⇒ **Education and awareness raising campaigns**
 - Lorry and cyclist driver training and awareness campaigns
 - Driving licenses
- ⇒ **Technical standards**
 - Intelligent Speed Adaptation
 - Safe car fronts
 - Heavy goods vehicle design and equipment
 - Blind spot mirrors and detection systems
 - Material of side-doors
 - Underrun protection
 - Adaptation of Daytime Running Lights (DRLs)
 - Cycle lighting
- ⇒ **Best practices**
 - Road Safety principles
 - Ban lorries form urban areas
 - Lorry routing
 - 2-way cycling on one way streets
 - Traffic Road Policing
- ⇒ **Enforcement of existing national traffic codes across the EU**

- Increasing numbers of cyclists also contributes to creating a safer public realm, as it increases the presence of approachable people on the streets²⁴.
- More **environmentally sustainable** transport: ECF agrees that transport's environmental impacts must be urgently addressed, including consumption of non-renewable resources, noise, air pollution, GHG emissions, land consumption and biodiversity impacts. We would go further than simply stating that these must be 'taken into account' (para.49): they must be placed at the heart of future transport policy, with concrete policy measures to support the shift to environmentally sustainable transport, central to which are policies to reduce car use and increase active travel.
- **Smart prices** as traffic signals: ECF strongly supports this policy objective, as detailed in section 5 below.
- **Planning for accessibility**: ECF supports this objective. Good planning decisions will ensure everyday facilities and activities can be reached easily and safely through all modes of transport, for all members of society. Improving conditions for cycling and walking by reducing the

²³ ECF response to the European Road Safety Action Programme 2011-2020 public consultation 2009: www.ecf.com/3743_1.

²⁴ GTZ Sustainable Urban Transport Project & Interface for Cycling Expertise (ICE) 2009: *Cycling-Inclusive Policy Development: A Handbook*, www.sutp.org/index.php?option=com_docman&task=doc_download&gid=392.

dominance of the car, providing accessible services and 'filtered permeability'²⁵ for the active modes are therefore vital. The EU could link the provision of EU transport infrastructure funds to the presence of Sustainable Urban Transport Plans.

- In relation to **Intelligent Transport Systems**, the Communication focuses on its application to increasing road capacity for cars, which will simply increase traffic volumes. ITS can however make a positive contribution to cycling, through a range of applications, which should be supported and financed.

ITS applications for cycling include:

- On the **bicycle**: navigation systems, anti-theft chips, GSM-based rental system, GPS tracking, electric support when needed
- In **bike-parks**: automatic (underground) parking, access to parking, counting of empty (available) places, bicycle lockers
- In bicycle **renting**: automatic systems, access to lockers
- On the **internet**: reservation of bicycles, bicycle routes, route planning for cycling (secure routes, green routes, safe routes, etc)
- In **traffic management**: VMS for bicycles, traffic lights with faster green when raining, priority for cyclists
- Linking cycling to **other modes**: routeplanner with links to public transport, bicycle renting connected to public transport, park and bike systems.

²⁵ 'Filtered permeability is the principle followed in European towns and cities – such as Freiburg and Groningen – which have been most successful in restraining car use. It means giving walking and cycling an advantage, in terms of speed, distance and convenience, over private motor traffic... There are many ways in which this can be done, including: separate cycleways and walkways, reallocation of road space to footways and cycleways, pedestrian and cycle bridges, selective road closures which allow walkers and cyclists only, two-way cycling on one-way streets, pedestrian priority at crossings and traffic light system phasing at cycle speed'. Association of Directors of Public Health et al, 2009, *Take action on active travel*, p.6 (www.adsph.org/downloads/policies/Take_action_on_active_travel_2009.pdf).

5. POLICIES FOR SUSTAINABLE TRANSPORT

ECF's views on the measures to be included in the 2010 White Paper, with reference to the instruments and interventions proposed in Section 5 of the Communication

- **Infrastructure:** The Communication speaks of making best use of existing infrastructure and well focused expansion projects to reduce congestion (section 5.1). However, these are traditional **supply-side** measures, which will simply induce further motorised traffic. By contrast, ECF strongly advocates the introduction of cycling infrastructure, including cycle paths, safe and secure cycle parking, storage and hire facilities at stations and interchanges.
- ECF also supports the concept of **intermodal networks** which are referred to in section 5.1. Our focus here is on the need for policies to promote and facilitate the integration of cycling with public transport, which is not currently mentioned in the Communication.
- **Funding sustainable transport:** ECF supports the Communication's position that the external costs of all modes must be internalised. Road user charging is a proven policy measures that functions as an effective **demand management** tool, reducing congestion and correctly allocating the costs of individual motorised travel to the polluter.²⁶ We strongly endorse the principle of national road pricing, in which the Netherlands is currently leading the way.²⁷ Parking restrictions are also a powerful tool to reduce individual motorised transport by introducing greater competition for limited city or road space.

Budgets for infrastructure:

55 % goes to road, 27 % to rail, only 0.9 % to cycling.

Next financial perspective 2014-2020: More EU money for sustainable transport modes, in particular on cycling.

Copenhagen's Pedal Power²⁸

In Copenhagen, the promotion of a walking and cycling infrastructure and very restrictive parking policies in the centre have led to 36 % of Copenhageners now choosing to cycle to work.²⁹ This is an illustrative example of effectively combining **supply-side** measures to induce more cycling trips with **demand-management** to deter driving.

²⁶ The congestion charges in London, Stockholm and Milan have reduced traffic volumes by 10 to 30%, while improving air quality and increasing the use of sustainable modes.

²⁷ The per kilometre charge will apply to all roads in the Netherlands. The Dutch Government is predicting that road pricing will dramatically cut congestion, with motor vehicle kilometres falling by 15%. (Local Transport Today, 20 November 2009: http://www.transportextra.com/magazines/local_transport_today/news/?ID=18171). The revised Eurovignette Directive provides a legal basis for the introduction of further such schemes in other Member States, and ECF urges the Commission to support their implementation, However, ECF believes that Eurovignette's application must be extended to additional types of vehicles and to urban areas.

²⁸ Pedal power: Copenhagen is the model city Financial Times, 30 November 2009 (www.ft.com/cms/s/0/e844abb4-dddc-11de-b8e2-00144feabdc0.html?nclick_check=1).

²⁹ EEA 2009 (op.cit.) p.63

ECF also points out that measures to promote cycling and walking have been shown to provide excellent **value for money**³⁰, and should therefore be the obvious choice in a time of significant budgetary constraints.

- **Project appraisal:** The Communication refers to appraisal tools to inform investment decisions, and the need for common data and indicators to help in the selection of projects. ECF agrees and proposes that **indicators** should include the project's impacts on cycling and other sustainable modes. The World Health Organization has developed the Health economic assessment tool for cycling (HEAT for cycling)³¹ that ECF strongly recommends to all decision-makers and city planners when deciding on new road infrastructure.

In relation to **data**, we propose that the EU should fund the collection of comparative data on the active modes.

- ECF agrees that it is crucial to **educate, inform and involve** citizens. However, the Communication seems to focus on public participation as a means to win public acceptance of controversial infrastructure projects. By contrast, ECF believes these tools must be used to stimulate 'smarter choices' to encourage modal shift from cars to the active modes.
- **Governance:** ECF agrees that the EU can play an important role in promoting sustainable transport in order to meet the **urban challenge**. Governments at all levels need to give cycling and walking the same attention as motorised and public transport, in terms of organisational structure, capacities and financing. We would also stress the need for the Commission to employ a European Bicycle Officer/ Bicycle Unit, responsible for the stimulation and coordination of cycling policies from different DGs. We also urge the EP to set up a parliamentary Intergroup on Cycling.

³⁰ A study in which applied the UK Department for Transport's cost-benefit analysis methodology to elements of the UK National Cycle Network, found benefit to cost ratios of between 18:1 and 38:1. Sustrans, 2009, *The value of investment in active travel* (www.sustrans.org.uk/assets/files/AT/Publications/PDFs/The%20value%20of%20investment%20in%20active%20travel%20FINAL.pdf).

³¹ Cavill et al, 2007. *Economic assessment of transport infrastructure and policies: Methodological guidance on the economic appraisal of health effects related to walking and cycling*. World Health Organization Regional Office for Europe (www.euro.who.int/transport/policy/20081219_1).