The Consumer Voice in Europe

BEUC Vision Paper on Sustainable Mobility

Long version

Contact: **Chris Carroll** - **environment@beuc.eu**
Stefanie Hille

Ref.: BEUC-X-2014-056 - 30/07/2014

BUREAU EUROPÉEN DES UNIONS DE CONSOMMATEURS AISBL | DER EUROPÄISCHE VERBRAUCHERVERBAND
Rue d'Arlon 80, B-1040 Brussels • Tel. +32 (0)2 743 15 90 • Fax +32 (0)2 740 28 02 • consumers@beuc.eu • www.beuc.eu
EC register for interest representatives: identification number 9505781573-45

Contents

1. Summary

Whether it be for a child's trip to school, a commuter's journey to work or a pensioner's visit to the bank, mobility is an **essential right for citizens** and is vital for the quality of life of all consumers. Access to mobility has and continues to be a prerequisite for, and a consequence of, **European and global integration**. In addition, transport is a key element in generating positive effects for the European economy and society resulting from **providing citizens access** to education, employment, goods and services or leisure activities.

Our current transportation system has been developed largely on the **availability of cheap fossil fuel imports**. Moving away from such a system, to one that is rather based on renewable energy forms is one of the greatest challenges of our time. With oil being a non-renewable resource which most likely will be depleted by the middle of this century, and on the basis that it could become so expensive that exploitation becomes economically unviable, it is of fundamental importance to find ways to reduce our dependence on fossil fuels so that everyone including the least well-off citizens can afford to remain mobile in the future. At the same time, there is also the need to tackle numerous **negative side-effects** that transport has, such as its role in climate change, but also problems that urban environments in particular are suffering from. The latter would refer to traffic congestion, air pollution, intolerable levels of noise, often lack of space for leisure activities and recreation, and concerns about increased safety risks that traffic flows generate, particularly for pedestrians and cyclists.

In times of ever increasing fuel prices, congestion, air and noise pollution in cities and global warming, it is essential to develop in parallel a large number of political measures and other instruments to tackle the many challenges that the European Union will face in the years to come. **Substitution strategies** including the development of new technologies such as **electric vehicles** and to a limited extent also the further deployment of **sustainable biofuels** will play a fundamental role in the transition. However, in order to successfully transform our future transport system, and despite there being public and political support over recent years for these measures, swapping conventional cars for electric cars or replacing fossil fuels by sustainable biofuels should not be portrayed as "silver bullet solutions". Many problems such as congestion in cities will not disappear in thin air – after all, **"green congestion still remains congestion"**. This is particularly important as current trends indicate that more and more Europeans will be moving into cities over the coming decades. It is essential therefore, that transport policy at both the national and European level strongly considers this projected growth in urbanisation and plans appropriately to reduce congestion for now and in the future.

The development of **public transportation** will represent a key opportunity in tackling the higher transport demand in cities. In this respect: the effectiveness of existing infrastructure must be improved; the interplay between various existing public transport modes must be enhanced; information about transport schedules must be made more available; and timetables between different modes of transportation must be better coordinated and ticketing systems must be better integrated.

However, we also recognize that public transportation cannot be seen as a panacea in itself. Although public transportation is enormously effective in transporting large numbers of passengers, public transportation often suffers from what is known as the "last mile problem". This phenomenon concerns the additional time and hassle passengers are confronted with when accessing public transportation stations at the start of their trips, and again at their final destination. Therefore, public transportation must be complemented by flexible offers which are tailored to suit market demand. In this respect, new mobility solutions such as **car and bike sharing schemes** must be further developed and expanded, and better combined with public transportation systems. In addition, and particular to sparsely populated areas, cities outside the most popular routes and at off-peak times of the day, we see a strong need for better access to mobility for vulnerable consumers (including the elderly and disabled) and for those who do not drive a car or ride a bike, in order to guarantee affordable mobility. Thus, in cases where public transportation with fixed schedules is economically unviable, cheaper and more flexible components of public transportation, including **hailed share taxis** or **dial-a-bus services** should be offered.

To sum up, it is crucial to broaden the scope of our approach to meet the challenge in creating a low-carbon future for the transport sector by **applying the best mix of policy instruments** that lead to **technology and behavioural changes**. Even though the transition itself will most likely take decades, policy decisions still need to be taken today in order to make a shift towards a low carbon future for the benefit of consumers in the medium and long-term perspective. In order to get this transition right and to develop a level playing field between different modes of transportation, it will be crucial to make sure that prices truly reflect the cost of transport to society. Thus in principle, we support the application of the **"user pays principle"** in the transport sector, taking into account however that transport is a key facilitator of economic well-being in Europe and making sure that the **correct pricing of externalities** is **not adversely affecting vulnerable low-income consumers**.[1]

[1] Our UK member Which? shares the objective of decarbonising emissions from the transport sector. However it does not share this vision because their assessment in the UK context shows that several aspects of

This paper will first focus on different challenges in the field of mobility that the European Union is or will be facing in the future. The next section then subsequently discusses key measures to achieve a sustainable mobility system.

2.0 Challenges in the field of mobility

The European Union is facing huge challenges in the field of mobility which, if not tackled, will have a large impact not only on the environment, but also on consumers' welfare and the economy as a whole. A non-exclusive list of such challenges that will be discussed in this paper include:

a) Increase in mobility costs;
b) Increase in greenhouse gas emissions in the transport sector;
c) Increase in negative impacts due to growing transport demands on the quality of life (in terms of noise and air quality pollution, congestion, land use for roads and parking); and
d) Increase of threat of food security through the production of unsustainable biofuels.

2.1 Increase in mobility costs

2.1.1 Transport-related costs in private household budgets

Transport-related expenditure plays an important part in private household budgets. More specifically, private households in the EU have spent approximately **13%** of their **household budget** on transport-related goods and services in 2011, this is more than what people spent on food and non-alcoholic beverages. On average, European citizens spent on an individual basis 1,900€ per year on transport in 2011; this figure ranges from 500€ spent by Slovakian citizens on average to around 2,500€ per Dane.[2]

short-term costs (such as potential financial burdens placed on consumers) versus long-term benefits for consumers does not achieve the appropriate balance.

[2] For more information see EU Statistical Pocketbook on Transport 2013: http://ec.europa.eu/transport/facts-fundings/statistics/doc/2013/pocketbook2013.pdf.

Figure 1 shows the development of consumer prices, as measured by the Harmonised Index of Consumer Prices for the EU.[3] The figure shows that prices for all items purchased by consumers have increased by **18.4%** since 2005 (up until 2012). In contrast, consumer prices for passenger transport have increased since 2005 by **25.5%.** Furthermore, whereas the purchase of vehicles only became 2.7% more expensive between 2005 and 2012, fuels and lubricants for personal transport equipment increased by a staggering **46.3%**.[4]

Figure 1: Development of distribution of transport-related expenditure

HARMONISED INDEX OF CONSUMER PRICES

YEAR 2005 = 100	ALL ITEMS	TRANSPORT	PURCHASE OF VEHICLES	of which: Motor cars	of which: Motorcycles, bicycles and animal drawn vehicles
2012	118.4	125.5	102.7	102.2	107.1
2011	115.4	121.0	102.4	102.0	106.7
2010	111.9	114.3	101.7	101.4	105.0
2009	109.6	108.4	101.2	100.9	103.7
2008	108.6	110.7	101.3	101.3	100.7
2007	104.7	105.6	101.6	101.7	100.3
2006	102.3	103.0	100.6	100.7	99.5
2005	100.0	100.0	100.0	100.0	100.0
2004	97.8	95.7	99.7	99.6	100.4
2003	95.6	92.6	98.9	98.7	100.3
2002	93.6	90.2	97.8	97.6	100.4
2001	91.3	88.6	96.6	96.4	99.4

YEAR 2005 = 100	TRANSPORT SERVICES	of which: Passenger transport by railway	Passenger transport by road	Passenger transport by air	Passenger transport by sea and inland waterway	Combined passenger transport	Other purchased transport services
2012	134.4	134.3	130.8	126.2	144.5	130.6	111.7
2011	128.1	128.6	125.7	120.3	140.3	124.5	109.8
2010	121.3	123.9	121.0	112.2	128.8	119.5	108.8
2009	117.2	118.0	117.9	110.0	128.0	116.5	109.4
2008	113.2	112.8	113.3	110.9	117.8	111.9	109.0
2007	106.6	108.4	107.8	100.3	113.2	107.0	105.7
2006	103.2	103.4	103.8	100.7	106.2	103.6	102.6
2005	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2004	95.4	96.5	95.5	94.5	100.2	96.5	97.8
2003	92.3	93.2	92.0	93.4	102.3	92.2	95.2
2002	89.0	90.4	88.0	91.8	99.6	89.3	93.1
2001	85.8	86.8	84.6	89.5	95.2	86.3	90.0

YEAR 2005 = 100	OPERATION OF PERSONAL TRANSPORT EQUIPMENT	of which: Spare parts and accessories for personal transport equipment	Fuels and lubricants for personal transport equipment	Maintenance and repair of personal transport equipment	Other services in respect of personal transport equipment
2012	135.6	121.3	146.3	126.9	116.8
2011	129.2	118.6	136.7	123.7	114.8
2010	119.2	115.5	120.3	120.2	112.9
2009	109.9	112.8	105.1	117.1	110.8
2008	115.3	109.6	119.0	112.8	107.7
2007	107.5	105.8	108.1	107.9	104.9
2006	104.3	102.5	105.5	103.7	102.2
2005	100.0	100.0	100.0	100.0	100.0
2004	93.7	97.7	90.6	96.3	97.8
2003	89.3	95.4	84.9	92.4	95.9
2002	86.5	94.2	82.2	88.7	93.2
2001	85.1	92.6	82.4	85.0	90.7

2.1.2 Increase in fuel prices

The **increase in fuel prices** over recent years has had the biggest impact on the operational costs of driving. European transport is heavily dependent on oil for 96% of total energy consumption.[5] Oil prices depend largely on supply and demand like other goods do. Due to the strong growth in transport demand, particularly in developing countries such as India and China, the world's use of oil will most likely increase significantly. For instance, if China would reach the same level of car ownership as the U.S. (=840 cars per 1000 people), McKinsey projects that Chinese oil demand would surpass today's *global* oil production.[6]

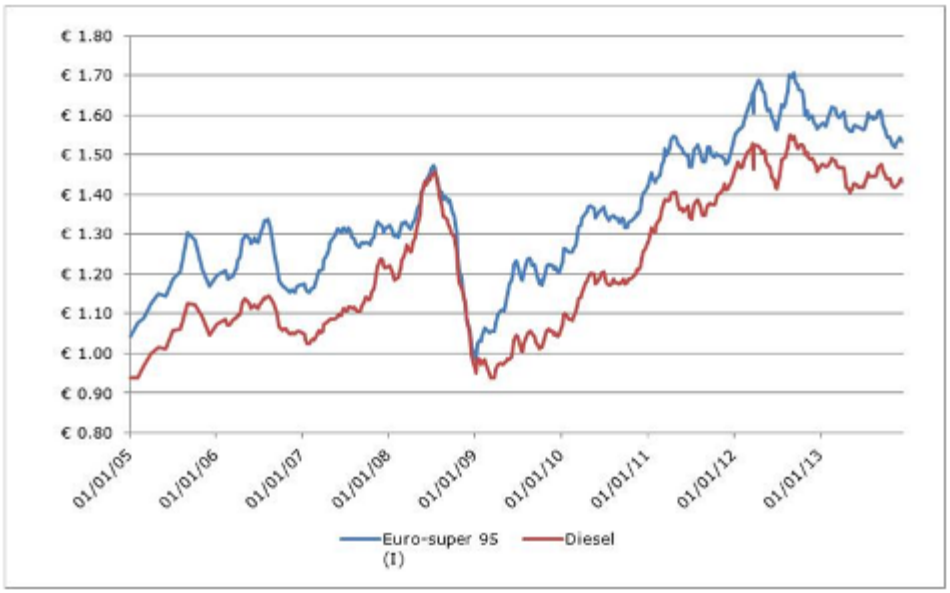
[3] This figure indicates the average changes in the prices of consumer goods and services purchased by households. The figures displayed are index values with the reference year of 2005 (=100).

[4] Source: Eurostat ; published in Pocketbook 2013 : http://ec.europa.eu/transport/facts-ndings/statistics/doc/2013/pocketbook2013.pdf, page 29.

[5] EU Commission (2011): White Paper - Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system, COM(2011) 144final, http://ec.europa.eu/transport/strategies/2011_white_paper_en.htm.

[6] McKinsey (2012): Recharging China's Electric Vehicle Aspirations: http://archiv.iaa.de/2012/fileadmin/user_upload/2012/deutsch/downloads/fv/27/03_Dr_Christian_Malorny_McKINSEY_Fachkongress_Elektromobilitaet_IAA_Nfz_2012.pdf.

Figure 2: Price development of petrol and diesel between 2005 and 2014



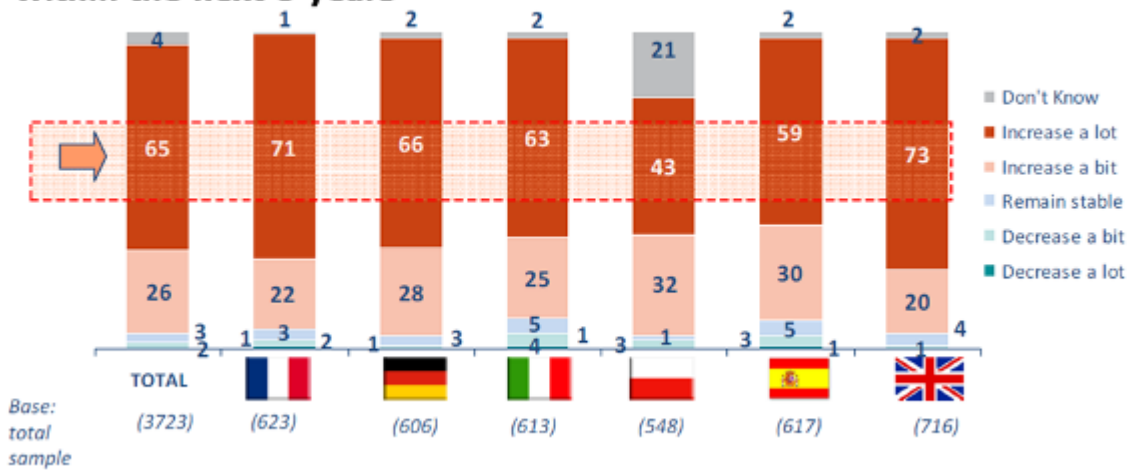
Despite recent discoveries of new oil resources, it is largely expected that fuel prices will increase over the short to long term due to a combination of growing demand for the use of petroleum based products and an expected reduction in their output over time. Indeed, the International Energy Agency expects increases of nominal oil prices to over 128 dollars/barrel in 2035 (in year 2012 dollars).[7] The rising cost of crude oil will naturally translate into an increase in fuel prices for car drivers, following the trend of the past few years. More specifically, gasoline prices have increased by 54% from about 1 Euro to 1.54 Euros per litre between 2005 and 2014 and diesel prices have increased by 54% from about 93 cents to 1.43 Euros per litre between 2005 and 2014[8] (see figure 2). Even if further oil resources can be found, their extraction and use might lead to damaging environmental consequences, which in turn would question the very use of such resources.

2.1.3 Impact of increasing fuel prices on consumers

A recent study published by the Joint Research Centre[9] showed that in all countries where consumers were surveyed, around two thirds of consumers (65%) thought that the price of fuel will increase a lot in the next 5 years. More than a quarter of all surveyed consumers thought that fuel prices will increase marginally over the next five years and only 3% of the sample believed that fuel prices will remain stable. There was hardly anybody holding the view (lower than 2%) that fuel prices will decrease in the next five years (see Figure 3).

[7] 2013 World Energy Outlook: http://www.worldenergyoutlook.org/media/weowebsite/factsheets/WEO2013_Factsheets.pdf.
[8] DG Energy (2014): http://ec.europa.eu/energy/observatory/oil/bulletin_en.htm.
[9] JRC (2012). http://setis.ec.europa.eu/system/files/Attitude_of_European_car_drivers_towards_electric_vehicles-a_survey.pdf.

Figure 3: Expectation about the development of the price of fuel within the next 5 years



The threat of the increase in fuel prices is of vital importance since many people still highly depend on car transport: In 2008 it was found that passenger cars accounted for 83.3% of inland passenger transport across the EU.[10] In countries such as Germany and the UK, more than 82% and 75%, respectively, of all households own at least one car.[11] Car dependency in rural areas, where there is a lack of public transportation infrastructure, is even higher.[12] As consumers predominantly rely on their cars for transport purposes, they see their purchasing power eroding by having to spend more and more of their income on fuel because of increases in fuel prices. This is of major concern as an increasing number of drivers are at risk of becoming socially excluded.[13] If fuel prices increase as expected in the future and the transport system remains as it is, mobility will become ever less affordable for many people. When somebody is excluded from mobility services, he or she is at the same time also excluded from social, economic and cultural life.

[10] Furthermore, in 2009, there were 473 passenger cars for 1000 inhabitants in the EU corresponding to a vehicle stock of 236.1 million passenger cars; see Eurostat (2012) : http://epp.eurostat.ec.europa.eu/tgm/table.do?tab?table&init=1&plugin=1&language=en&pcode=tsdpc340

[11] RAC Foundation (2013): http://www.racfoundation.org/assets/rac_foundation/content/downloadables/factsheet_on_fuel_cars_and_drivers.pdf; ADAC (2010): http://www.adac.de/_mmm/pdf/statistik_mobilitaet_in_deutschland_0111_46603.pdf.

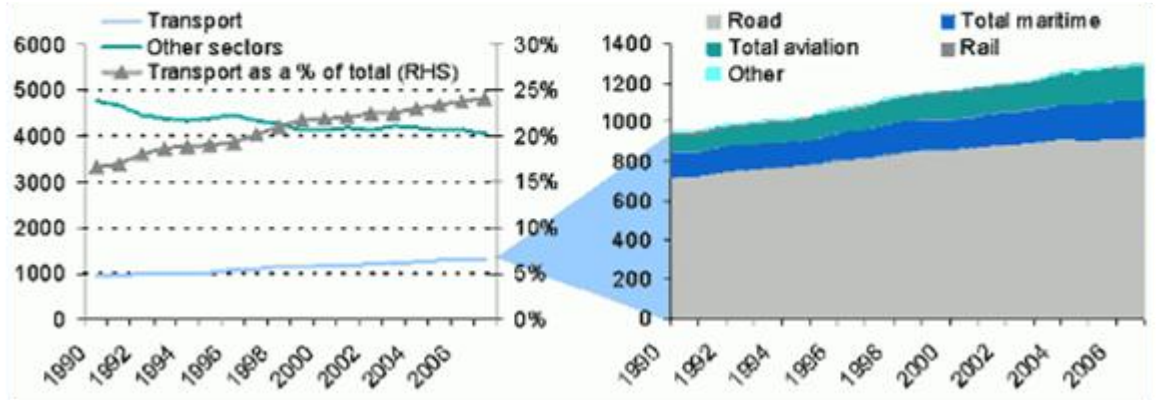
[12] In the UK for instance, 91% of rural households own at least one car, compared to 57% of households in London and 68% in other metropolitan areas. See RAC Foundation (2013) for more information. For many people living in rural areas, mobility is just not possible without a car due to a lack of sufficient infrastructure to guarantee independent travel.

[13] See RAC report on motoring (2012): 9% of drivers in the UK have already restricted their social life due to rising costs and 29% of drivers would consider doing this in case motoring costs increase in the future.

2.2 Increase of greenhouse gas emissions[14] in the transport sector

The **transport sector** is responsible for approximately **a quarter of all EU greenhouse gas emissions**.[15] In comparison with other sectors, transport is the only one which has shown increasing greenhouse emissions since 1990.[16] In fact, all other sectors including the power sector, industrial and residential sectors have successfully reduced their share of emissions (see figure 4[17]). Since 2009, however, it has been shown that emissions from the transport sector followed a slight downward trend. The latest estimates by the European Environment Agency have revealed that emissions from transport actually fell by 2.3% in 2012 in comparison to 2011, following the trend of the previous years.[18] This development may however be linked to the economic and financial crisis and may not continue once the economy recovers.

Figure 4: EU greenhouse gas emissions from transport and other sectors and by mode of transport, million tonnes of CO2 equivalent, 1990-2007



A substantial decline in transport emissions will still be needed however, if the target set by the European Commission in the White Paper on Transport is to be achieved. The White Paper defines a CO_2 emissions reduction target from transport of 60% by 2050, compared to the 1990 baseline. In order to reach this target, a substantial drop in emissions of at least 68% from today in this sector by 2050 is still needed, despite the fact that emissions have declined from 2009 to 2012.

[14] Greenhouse gas emissions include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulphur hexafluoride (SF_6), hydrofluorocarbons (HFC) and perfluorocarbons (PFC).

[15] European Commission (2013): EU transport in figures – EU statistical pocketbook CO_2 emissions from transport – EU-27 by mode: http://ec.europa.eu/transport/facts-fundings/statistics/pocketbook-2013_en.htm.

[16] http://ec.europa.eu/clima/policies/transport/index_en.htm.

[17] DG Clima (2011): A roadmap for moving to a competitive low carbon economy in 2050: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0112:FIN:EN:PDF.

[18] EEA (2013) Transport emissions of greenhouse gases: http://www.eea.europa.eu/data-and-maps/indicators/transport-emissions-of-greenhouse-gases/transport-emissions-of-greenhouse-gases-3.

2.3 Increase in negative impacts due to growing transport demands on quality of life

Since the middle of the 20th century, **urbanisation** in Europe has considerably **increased**. Whereas in the late 50s, only around 50% of all Europeans lived in an urban environment, this figure has gone up substantially since then, reaching almost 75% of the population today.[19] The United Nations expect that about 85% of all European citizens will live in cities by 2050.[20] This development has obvious implications for the quality of life of many people as **externalities of transport** including noise and air quality pollution, congestion, and land use for roads and parking are issues of particular concern within urban environments.

2.3.1 Air pollution

Air pollution has a negative impact on human health. Air pollution can trigger asthma or respiratory illnesses, problems that can contribute to a loss of working hours and increasing healthcare costs. Over recent years and largely because of stricter EU legislation on air quality (that also relates to transport[21]) there has been considerable progress to reduce air emissions. A recent report by the European Environment Agency showed that levels of sulphur dioxide (SO_2) decreased by 82% since 1990, carbon monoxide (CO) dropped by 62%, nitrogen oxides (NOx) fell by 47% and ammonia (NH_3) dropped by 28%. In addition, emissions of fine particulate matter dropped by 15% since 2000.

Nevertheless, despite the existence of stricter emissions standards that have helped protect citizens against being exposed to hazardous pollutants, **most cities still suffer from air pollutant concentrations that exceed the legal requirements**. Levels of particulate matter, ground-level ozone and nitrogen dioxide are particularly worrisome. For instance, according to the World Health Organisation (WHO), over 80% of Europeans are still exposed to particulate matter (PM) levels above the 2005 WHO Air Quality Guidelines.[22] On average, this reduces the life expectancy of a European citizen by 8.6 months. A recent study[23] has shown that air quality has been recognized as one of the most important risk factors for public health. According to this study, exposure to fine particulate matter leads to over 430,000 premature deaths and 7 million years of healthy life lost in Western, Central and Eastern Europe (including Russia).

Given that many problems related to air quality have not been resolved yet, it comes as no surprise that EU citizens are increasingly dissatisfied with this situation. A recent Eurobarometer study[24] showed that more than half of all Europeans (56%) hold the view that air quality has worsened over the last decade whereas only 16% say it had improved. In Italy, more than 8 out of 10 surveyed people hold the opinion that the

---

19 http://europa.eu/rapid/press-release_SPEECH-13-962_en.htm.

20 See for more information: http://esa.un.org/unup/Country-Profiles/country-profiles_1.htm.

21 See for more information: http://ec.europa.eu/environment/air/transport/index.htm.

22 According to the World Health Organization (WHO), long-term exposure to fine particles (PM2.5) can trigger atherosclerosis, adverse birth outcomes and childhood respiratory diseases. In addition, the review by the WHO also points towards a potential relationship of air pollution to neurodevelopment, cognitive function and diabetes, and strengthens the causal link between PM2.5 and cardiovascular and respiratory deaths (http://www.euro.who.int/en/what-we-publish/information-for-theedia/sections/latest-press-releases/newly-found-health-effects-of-air-pollution-call-for-strongereuropean-union-air-policies#.UQprNBLW6yA.twitter).

23 Global burden of disease study (2010): http://www.thelancet.com/themed/global-burden-of-disease. Health and environment alliance (2012): http://www.env-health.org/resources/pressreleases/ article/air-pollution-ranked-as-top-health.

24 Flash Eurobarometer 360: Attitudes of Europeans toward air quality: http://ec.europa.eu/public_opinion/flash/fl_360_en.pdf, published in January 2013.

situation got worse over the last 10 years. In addition, 72% of surveyed European citizens hold the view that public authorities are not sufficiently active to tackle air quality problems. The survey showed that **most Europeans would back further action taken at EU level on air pollution challenges**. More precisely, almost 8 out of 10 people in the EU support further EU measures to tackle air pollution whereas only 16% believe that this should either not be dealt with under EU competence or that current measures are already enough.

2.3.2 Traffic noise pollution

Traffic noise is another burden on European citizens, causing annoyance, stress, hearing loss and sicknesses including cardiovascular diseases. The WHO revealed in a recent report[25] that traffic related noise leads to a loss of over 1 million healthy years of life every year in the western countries of the WHO European region. The WHO also showed that almost every second European is regularly exposed to road traffic noise above the threshold that is believed to put health at risk. According to the recent Eurobarometer, 72% of Europeans believe that noise pollution is an important urban problem.[26]

2.3.3 Congestion

Quality of life is also impacted by the amount of **time** that people need for **commuting**. For instance, people living in Budapest and London are on average travelling more than one hour per day to work.[27] 20% of commuters in London commute two hours a day, summing up to one working day a week.[28] For 76% of all Europeans, road congestion is an importation problem within their city. Maltese (97%), Greek (90%) and UK (85%) respondents were the most likely to say that road congestion in their city was a big problem.[29] In cities such as London, Cologne, Amsterdam and Brussels, drivers are stuck on average 50 hours a year in road traffic jams. This number goes up to 70 hours per week in the cities of Utrecht, Manchester and Paris.[30]

[25] World Health Organisation (2011): Report on the burden of diseases from environmental noise: http://www.euro.who.int/__data/assets/pdf_file/0008/136466/e94888.pdf.
[26] Flash Eurobarometer 360: Attitudes of Europeans toward air quality.
[27] Flash Eurobarometer 277. Perception survey on quality of life in European cities (2009): http://ec.europa.eu/public_opinion/flash/fl_277_en.pdf.
[28] Transport for London (2009): Travel in London.
[29] Special Eurobarometer 406: Attitudes of Europeans towards Urban Mobility (2013): http://ec.europa.eu/public_opinion/archives/ebs/ebs_406_en.pdf.
[30] Inrix European National Traffic Scoreboard (2010), cited by http://ec.europa.eu/transport/strategies/facts-and-figures/putting-sustainability-at-the-heart-of-transport/index_en.htm.

2.3.4 Land use

Finally, ecosystems and quality of life are also increasingly impacted due to higher **land-use**, especially for **roads and parking lots**. In cities, the increase in car ownership and population growth led to an increase in demand for space devoted to the car, adding further pressure on land use and took away land that could be used for a better means. A study by the RAC Foundation revealed that in Great Britain for instance, a vehicle is parked on average 162 hours per week whereas the time the car is in use only amounts to 6 hours per week.[31] In addition, there is also increasing concern that natural disasters such as floods are linked to increasing urbanisation of the landscape with devastating impacts on human life, the economy and the environment.

2.4 Threatening of food security and environment through biofuel production

Sustainable biofuels might play a role in the transition towards a sustainable future, particularly in areas where there is no alternative – at least not in the short to mid-term perspective –such as for airplanes.

However, despite the fact that the impact of biofuel on food security and food prices is hugely complex, there is persistent concern that **biofuel crops**, particularly "first generation" or conventional biofuels, can **compete with food** and thus indirectly have a **negative impact on food prices**. For instance, a recently published study by the European Joint Research Centre (JRC) showed that if biofuels would not receive any EU policy support, the price of vegetable oil would be 50% lower in Europe by 2020 than at present and 15% lower elsewhere in the world.[32] A report with contributions by many international organisations including the Organisation for Economic Co-operation and Development (OECD), the World Bank and the International Monetary Fund showed that biofuels are responsible for a large portion of new demand for agricultural production and have resulted in driving up price volatility in grain crops such as wheat and maize.[33] In the Agricultural Outlook 2013-2022 by the Food and Agriculture Organization of the United Nations (FAO) and the OECD[34], it was also mentioned that crop and livestock products will become more expensive due to a combination of slower production growth and stronger demand, including for biofuels. The UN Human Rights Council's special rapporteur on the right to food expressed his "deep concerns […] in regard to European Union (EU) biofuels policy and the considerable negative impacts this policy is having on the enjoyment of the right to food in a number of developing countries"[35]. Finally, the High Level Panel of Experts, on the request of the Committee on World Food Security, concluded in its report that there is an impact of biofuels on food price spikes and food price volatility in recent years.[36]

---

[31] RAC Foundation (2012): Paced out – Perspectives on parking policy: http://www.racfoundation.org/assets/rac_foundation/content/downloadables/spaced_out-bates_leibling-jul12.pdf.

[32] Joint Research Centre (2013): Impacts of the EU biofuel policy on agricultural markets and land use: http://static.euractiv.com/sites/all/euractiv/files/a%20JRC%20report.pdf.

[33] FAO, IFAD, IMF, OECD, UNCTAD, WPF, the World Bank, the WTP, IFPRI and the UN HLTF (2013): Price volatility in food and agricultural markets: policy responses: http://www.oecd.org/tad/agricultural-trade/48152638.pdf.

[34] OECD-FAO Agricultural Outlook 2013-2022: http://www.oecd.org/site/oecd-faoagriculturaloutlook/

[35] http://www.srfood.org/images/stories/pdf/otherdocuments/20130423_biofuelsstatement_en.pdf.

[36] www.fao.org/fileadmin/user_upload/hlpe/hlpe_documents/HLPE_Reports/HLPE-Report-5_Biofuels_and_food_security.pdf.

In consideration of the evident controversy surrounding the use of certain biofuels, it is essential therefore that decision makers, involved in the development of policy that would impact on the potential production and use of them, take an approach that ensures against the production of biofuels that would otherwise instigate competition with crops grown for food, or cause more environmental harm than good. They should also ensure that mechanisms are established that would ensure consumers are made fully aware of the potential consequences of their buying behaviour (e.g. product labelling).

3.0 Key measures to achieve a sustainable mobility system

When policies in the field of sustainable mobility are developed, it is essential that a **long-term perspective** is taken into account. Here, considering the needs and interests of future generations as far as mobility is concerned, is an essential principle. However, although a difficult balance to achieve, it is also very important that short-term social impacts on vulnerable consumers are considered and that action is taken, as appropriate, to prevent negative impacts on vulnerable members of society.

In order to achieve this, a large number of political measures and instruments will be needed to achieve a fully sustainable mobility system. It is therefore crucial to broaden our approach to meet the challenge of creating a low-carbon transport sector by applying **the best mix of policy instruments** that lead to technology and behavioural changes. Even though the transition itself most likely will take decades, policy decisions need to be taken today in order to permit the shift towards a low carbon future for the benefit of consumers in the medium and long-term perspectives. However, it is important to bear in mind that technology, policies and new business models alone will not be sufficient enough to achieve the transition in the mobility sector. Rather it is of fundamental importance that we profoundly **restructure the way our cities are designed**. In this regard, rather than focusing policy on improving mobility as a means to an end in itself, policy should instead focus on ways to improve quality of life in order to better incorporate the growing acknowledgement, for instance, of alternative approaches to working (e.g. through promoting teleworking, flexitime and staggered work hours etc.”). Such alternatives have of course been largely driven by the internet, which has given rise to the opportunity for many employees in certain sectors to work from home.

In the next sections, we will discuss concrete measures to be taken. We consider them as complimentary, with the following ranking in order of importance (1=most important, 4=least important):

1. Application of the **polluter-pays principle** for defining priorities under the development of policy in general;
2. Wider **promotion of multimodal mobility** including the further strengthening of **attractive public transport systems**, the **diffusion of car and bike-sharing schemes** and an improved **coordination of different modes of transport;**
3. Further **market penetration of more energy-efficient cars and further development of electric mobility** (or other forms of alternative powertrains) in order to reduce CO_2 emissions and lower cost of individual driving;
4. Further development of **sustainable biofuels** (i.e. biofuels that clearly have an environmental advantage and do not negatively impact food prices and biodiversity) in order to reduce CO_2 emissions and dependence on foreign oil imports.

3.1 Application of the polluter-pays principle for defining the general direction of mobility policy

It is impossible to establish a level playing field between different transport modes unless prices reflect the true costs caused by users. In general, it is therefore important to follow the **principle of correct pricing of externalities** of different means of transportation in order to give the right price signal which provides an incentive to consumers to change their behaviour. A recent study showed that a big majority of Europeans support this so-called **polluter pays principle**, which states that those who are responsible for pollution should also be the ones responsible for the costs that society bears for dealing with negative side effects on health and the environment. According to a Eurobarometer survey, 85% of Europeans say that they generally agree with this principle and 37% of respondents support this principle in all cases. However, 48% said that when industry and employment are faced by negative impacts because of measures put in place to tackle their pollution, that the allowance to offset such impacts is also acceptable.[37]

What is also possible under implementation of the polluter pays principle is that the correct pricing of externalities might adversely affect low-income households. Addressing such **equity issues** must be at the core of any mobility strategy. In addition, in order for the price signal to be effective, there must be reliable alternatives. For instance, road pricing schemes will most likely only gain public acceptance when parallel policies are put in place that improve alternative modes of transport. Thus, addressing the issue of external costs needs to be analysed by a case-by-case analysis making use of the right tools (see further information under section 3.3).

As an overarching principle, however, those means of transport that pollute most should not be additionally incentivised by policy makers. Thus, **environmentally harmful subsidies should be phased-out**, provided that there are no good reasons from a social equity point of view to continue a practice which gives the wrong signals. An example of this for instance is the **favourable tax treatment of company cars** or the current European legislation that incentivises air transport by exempting international air transport from VAT and kerosene fuel for international and intra-Community transport from taxation.

Finally, environmental concerns also need to be taken into account when transport projects are financed with public funding or co-funding. The European Union is currently investing billions of Euros per year on transport projects that are co-funded with additional funds by member states and industry. It is of crucial importance that the **environmental performance of projects** should be integrated into the financial decision making.

3.2 Wider promotion of intermodal mobility

Above all, the **development of intermodal transport systems** should enjoy the **highest political priority** in the transition towards sustainable mobility systems. Intermodality is a principle that describes allowing different means of transportation to be combined in an integrated journey by using the advantages of different transport modes to enhance the efficiency without reducing the level of comfort. We therefore ask the following:

[37] Flash Eurobarometer 360: Attitudes of Europeans toward air quality: http://ec.europa.eu/public_opinion/flash/fl_360_en.pdf.

- **Intermodality** must become the **core principle** underlying all mobility policies;
- A **European vision** for a door-to-door intermodal passenger transport information must be developed.

The increased **development of public transportation** will represent the backbone of developing an intermodal system in tackling higher transport demands in cities. At the moment however, public transport often does not meet the expectations of consumers regarding mobility solutions. A recent Eurobarometer survey with car users revealed that: 71% thought that public transport was not as convenient as the car; 72% considered the lack of connections as a serious problem; 64% criticized the low frequency; and for 54% of car users, public transportation represented to them a low reliability of service. Furthermore, 40% of car users highlighted the security concerns of not using public transport. We therefore ask:

- To **prioritise public transport** as the backbone of an attractive mobility system

The interplay between various existing public transport modes must be enhanced. Improving such aspects is essential in order to encourage providers of transport services to initiate and agree on intermodal agreements. As such, **joint planning of networks and coordinating timetables** between different modes of transportation will be vital and the seamless interchange of passengers between different modes of transport will also make such modes more attractive. Passengers must also be made to feel safe and comfortable with a high level of personal security during such interchanges. In addition, travellers need to be able to rely on integrated trip services, which include **better information provision**, the use of **common reservation systems** and **ticketing systems** for the entire trip, **baggage handling** for the full trip but also the guarantee to travel to the final destination without bearing any financial or associated risks concerning transport delays.

Integrating and enhancing the combination of different transport modes would also have the effect of incentivising more consumers to forego the use of their private car as shown by a recent Eurobarometer survey.[38] For instance, the survey showed that half of EU citizens would definitely consider using public transport more often in case there would be an offer for a single ticket which can be used for a complete journey.[39] New advances in the telecommunication industry (i.e. smartphones and applications) and the increase in use of other hi-tech innovations in daily lives has also helped to further strengthen the development of more consumer-friendly public transportation systems.

[38] Flash Eurobarometer 312 (2011): Future of transport – analytical report: http://ec.europa.eu/public_opinion/flash/fl_312_en.pdf.

[39] In addition, the study showed that 72% of Europeans car drivers said that the lack of connections between different modes of transport was a problem. In addition, 71% of car users felt that public transport did not offer the same level of convenience as a car whereas 54% criticized the reliability of public transport services, and 49% the lack of information about schedules.

To sum up, we ask the following:

- The **interplay** between various existing public transportation modes must be enhanced (e.g. by joint planning of networks, coordination of time tables, better information provision, common reservation systems and ticketing systems, common baggage handling, enhancing passenger rights, 'one-stop-shop' travel solutions etc.).

In addition, **public transportation** needs to become more appealing through incentivising their use, such as the creation of special lanes for public transport vehicles, or allowing public transport to receive priority at traffic lights, in order to enable users a fast and reliable service. A recent research in London showed that more than 80% of people living in London support bus lanes and giving priority to buses at traffic lights.[40] In line with this we ask that:

- Public transportation must become more attractive by creating **special lanes** for public transport vehicles and giving **priority to buses at traffic lights**.

In addition, it will be of absolute importance that **passenger rights** (and their implementation) are strengthened. The latest revision of the rail passenger rights (Regulation 1371/2007) has strengthened intermodality for instance with Article 5 which relates to the requirement to provide opportunities to carry bikes on board of a train. Passenger rights are particularly important in order to strengthen the confidence of consumers in public transport, and they should be enlarged to encompass multimodal forms of transport, particularly with regards to the problem of disruption at connecting points in an intermodal journey. We therefore ask that:

- **Passenger rights** for all modes of transport (and their implementation) must be strengthened and enlarged to encompass multimodal forms of transport.

Moreover, it is of fundamental importance that future transport policy sets the right framework conditions to establish an intermodal transport network so that organisational barriers and data management hurdles can be overcome. Passenger transport services should be encouraged to provide **non-discriminatory access to integrated ticketing systems**. The integrated air/rail ticketing system already exists in some countries, as well as services such as checking-in for flights at major rail stations. In addition, European legislation should be developed to ensure that **travel planning information, produced** by transport operators, **must be made accessible in a standardised way**. The ITS Directive[41] includes developing binding specifications for the provision of EU-wide multimodal travel information services. In addition, the rail regulation requires railway undertakings and ticket vendors to bring their travel information and reservation systems in line with common standards adopted in 2011 (TAP TSI).[42] We therefore ask the following:

[40] Transport for London (2009): Attitudes to bus priority schemes: http://www.tfl.gov.uk/cdn/static/cms/documents/attitudes-to-bus-priority-schemes-report.pdf.

[41] Directive 2010/40/EU of the European Parliament and of the Council of 7 July 2010 on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32010L0040:EN:NOT.

[42] http://ec.europa.eu/transport/modes/rail/interoperability/interoperability/telematic_applications_en.htm.

- Passenger transport services should be encouraged to provide **non-discriminatory access** to **integrated ticketing systems**;
- European legislation should require that **travel planning data** must be made **accessible in a standardised way**.

However, we also recognise that public transportation cannot be seen as a panacea either. In fact, public transportation, including metro, bus, trains or trams, is enormously effective in transporting a large amount of passengers from one point to another. Nevertheless, public transportation suffers often with what is known as the **"last mile problem"** which is related to the additional time and hassle passengers are confronted with when accessing public transportation stations and again on the other end of the trip to the final destination.

In order to bridge the last mile problem, we see the enhancement of the attractiveness of **cycling and walking** as crucial. At the moment, even though cycling would have a great potential, bicycle modal share for all journeys is still very low in several European countries. Whereas 26% of all trips in the Netherlands, 15-20% of all trips in Denmark and 10% of all trips in Germany are made by bicycle, the figure is much lower in countries including Ireland (3-4%%) and Great Britain (2%).[43] As a large share of trips in European cities are shorter than 6 kilometres – a distance that can easily be covered by bike – it becomes obvious that by embracing bicycle-friendly policies, the share of trips by bikes can be significantly increased, particularly in many countries with a low level of bicycle modal share. For instance, a study by the Institute of Transport Economics calculated that the potential for growth of foot and bicycle modal share lies at 50% in Norwegian cities and towns.[44]

More precisely, particular attention needs to be given to the safety of vulnerable road users such as pedestrians and cyclists, e.g. by creating special safe and attractive lanes for cyclists (and safeguarding the proper maintenance of bicycle lanes particularly in winter), improving the quality of helmets, improving the road infrastructure and the quality of pedestrian paths. Public bicycle parking space at working places and hubs must be enhanced and made safer in order to promote cycling as a more attractive means of transportation. In general, increasing the use of bicycles can lead to significant environmental benefits. In addition, bicycles take up little space, which is a great advantage in narrow cities and on roads.

[43] Fiets Beraad (2009): Bicycle policies of the European principals: continuous and integral: http://www.fietsberaad.nl/library/repository/bestanden/Fietsberaad_publicatie7_Engels.pdf.

[44] http://www.vegvesen.no/_attachment/60913/binary/13273?fast_title=National+Cycling+Strategy+-+A+summary+in+English.pdf.

We therefore ask that:

- Particular attention must be given to the **safety of pedestrians and cyclists**;
- Public **bicycle parking space** must be enhanced and made safer.

In addition, car parking at major train or metro stations, particularly at stations outside of city centres, can also be another way of helping car drivers living in the country side and who particularly suffer from the last mile problem to make more use of public transportation for their journey (i.e. park-and-ride system). We ask:

- **Car parking** at major train or metro stations outside city centres (**park&ride**) to be enhanced and made safer.

In addition, flexible offers which are tailored to suit market demands are also crucial in addressing the last mile problem. In this respect, new mobility solutions such as **car and bike sharing schemes and car-pooling** must be further developed and expanded, and better combined with public transportation systems in order to achieve truly intermodal transport systems. Such systems would allow a high level of individual freedom and privacy, tackling at the same time the existing capacity restrictions in cities leading to traffic congestion. Research into the effects of sharing systems has shown that they can relax the problem of congestion in urban areas as less cars go on the road. The current success of such schemes goes hand in hand with the reduced importance of the car as a status symbol particularly with young people living in bigger cities who also still rely occasionally on being driven by friends/family.

We support that these new mobility systems receive particular attention from public policy. Public support could include reduced or free tariffs for car-sharing organisations or for parking. It could also mean reduced taxation for car-sharing cars or car-sharing providers, and the offer of research and development programs, and informational tools (e.g. public campaigns, information on car sharing for information packages when new citizens move into a new city or town).[45] We therefore ask that:

- **New mobility solutions** (car and bike sharing, carpooling) must be further developed and expanded, better combined with public transportation systems, and should receive particular attention from public policy.

Finally, and in particular, we urge that in sparsely populated areas or in cities outside the main routes and at off-peak times of the day, accessibility without driving a car or bike must be guaranteed so that consumers can remain mobile at affordable prices. This will be increasingly important given the demographic changes in Member States. Thus, in cases where public transportation with fixed schedules is economically unviable, cheaper and more flexible components of public transportation, including **hailed share taxis** or **dial-a-bus services** should be offered.[46] Thus, last but not least, we ask that:

- **Accessibility without a car** must be guaranteed by offering flexible components of public transport (e.g. hailed share taxis, dial-a-bus services, etc.).

[45] Ressourcenpolitik (2013) : Vertiefungsanalyse 1 : Alternative Nutzungskonzepte . Sharing, Leasing und Wiederverwendung:http://www.ressourcenpolitik.de/wp-content/uploads/2013/04/PoLRess_ZB_AP2-ertiefungsanalyse_alternativ-eNutzungskonzepte.pdf.

[46] An example is the concept "Fleksiskyss" in some districts in the Oppland area in Norway, where there are some bus routes that do not serve certain bus stops unless a passenger is ordering it upfront.

3.3 Further market penetration of more energy-efficient cars and new powertrains

An increased market penetration of more **energy-efficient cars** and the development of new powertrain technologies (e.g. **electric vehicles**) will play a fundamental role in the transition towards a low carbon future. Developing ultra-low carbon vehicles, coupled with a decarbonisation of the electricity mix, will help achieve the EU target of significantly reducing CO_2 emissions from transport by 2050 and help to reduce the dependence on foreign oil imports. In addition, reduction in harmful substances from combustion engines would lead to significant health benefits for consumers.[47] Furthermore, electric vehicles can also be beneficial in the long term as electrical energy storage in order to stabilise electricity production capacity.

However, despite the many advantages that vehicle electrification offers over conventional combustion engines, such as lower running costs, there is still a high number of barriers hindering a fast market expansion of such vehicles, including: limited drive range; lack of availability of refill stations; long recharging times of the battery or the high initial costs of the battery. During a transition period until many of the so-called infancy problems of electric vehicles can be overcome, mass uptake of these technologies will be unlikely. Up until 2025 it is most likely that demand for electric vehicles will still be driven by "early adopter segments", and here there is potential that those market segments who have a clear grasp of the vehicle's total cost of ownership will be involved here. Therefore, and going beyond the expected demand from private owner early adopters, there is also the potential for governmental and company fleets, taxis and car-sharing schemes to name a few to also become early adopters. Demand from such segments in total could in turn provide economies of scale as far as the cost of producing the technologies is concerned and in the long run make it more economical for the average consumer to invest in an electric vehicle. Thus, we support the investment into ultra-low carbon vehicles from green public procurement strategies (e.g. government fleets) so as to ensure rapid uptake of new technologies.

However, as described above, we urge that focusing on swapping conventional cars for greener cars should not be portrayed as "the silver bullet solution" which will successfully transform our future transport system. Many problems such as congestion in cities will not disappear in thin air – after all, "green congestion still remains congestion". This is particularly central as more and more Europeans will be moving into cities over the next decades. Any transport policy therefore needs to consider the trend of further urbanisation in Europe and thus the higher transport demand in areas of already high congestion rates at the top of one's mind. Having said this, we recognise that the **private car** will remain the **most dominant mode of transportation**, at least in the short to medium-term perspective. Without the offer of equally attractive alternatives, private cars as the principal mode of passenger transport will clearly play a dominant role in the life of many European citizens for many years to come.

[47] Electrical vehicles do not emit any harmful particles from the tailpipe as the electricity used is usually generated further from population centres. Conventional fuel combustion on the other hand produces gases and particles that have a significant impact on consumers' health. For instance, emissions from diesel burning engines significantly increase the risk of allergic and asthmatic reactions. It was recently announced by the World Health Organisation that exhausts from diesel engines even can cause cancer, see: http://www.euro.who.int/_data/assets/pdf_file/0003/87573/E72015.pdf.

As a key instrument to achieve further market penetration of more energy-efficient cars and new powertrain technologies in order to reduce CO_2 emissions and lower the cost of driving, we therefore **support setting ambitious emissions targets** for cars as this is the smart route towards cutting fuel costs.[48] In 2012, we therefore welcomed the Commission proposal on setting an emission target of 95 g CO_2/km for the new passenger car for the year 2020 as fuel prices and fuel economy are big concerns to EU consumers. We believe that the additional potential manufacturing costs for meeting the target will on average be paid back to consumers through lower fuel costs within a short time. Consumers will therefore highly benefit from this emissions target as they would see a significant net saving over the period of ownership of the car. We also support the European Commission's endeavours to move forward on setting mandatory CO_2 emission targets for passenger vehicles for 2025. We therefore have high expectations that the Commission's upcoming proposal in 2015 for tighter CO_2 standards for cars will not lack ambition. Thus we ask the following:

- **Ambitious CO_2 emissions targets** for cars should be set as this is the smart route towards cutting fuel costs and achieving overall CO_2 targets.

In terms of regulation, we are also very much supportive of setting ambitious targets for **noise limits and air pollution limits**. With regard to noise limits, unfortunately though, Members of the European Parliament and Member States reached a deal in November 2013 that significantly weakened an initial proposal by the European Commission on vehicle noise limits. Instead of the initial deadline of 2021, the vehicle noise limits will now only fully apply from 2027 onwards. In any future revision of the regulation, noise limits of vehicles would need to be therefore significantly strengthened. Regarding air pollution limits, we suggest cautiously overviewing the implementation of the Euro 6 standards that come into force in 2015 for the registration and sale of new type of cars targeted at reducing nitrogen oxides of diesel cars, and possibly introducing addition Euro 7 standards. We therefore ask that:

- **Ambitious targets for noise and air pollution limits** for cars should be set in order to reduce the negative impact due to growing transport demands on the quality of life in terms of noise and air quality pollution.

In addition, we are also very much supportive of **revising the outdated test to measure fuel consumption of cars**. Currently, in order to determine the fuel consumption values of cars, manufacturers must use as testing mode the New European Driving Cycle (NEDC) that does not represent realistic consumer driving conditions. [49] We are therefore very much supportive of the development of a better, harmonised testing standard. This is the objective of a Worldwide harmonized Light vehicles Test Procedure (WLTP) in the framework of the United Nations Economic Commission for Europe (UNECE) which is intended to enable consumers to get a more realistic picture on fuel consumption which is badly needed. On 14 November 2013, the formal text for the new test WLTP was adopted by the United Nations Working Party on Pollution and Energy.

[48] For more information on our precise policy demands on setting CO_2 emission targets see: http://beuc.eu/publications/2012-00459-01-e.pdf; http://beuc.eu/publications/2013-00208-01-e.pdf.

[49] Consumer organisations members of ANEC and/or BEUC have measured more realistic fuel consumption values up to 47% higher than the figures indicated on the label, see Que Choisir magazine, February 2011: http://www.quechoisir.org/auto/achat-vente-location/enquete-consommation-des-voitures-les-constructeurs-minimisent), Test-Aankoop/Test-Achats magazine, July 2008: http://www.test-aankoop.be/Auto-en-vervoer/Auto-s-en-accessoires/Stadsauto-s-s530123.htm. In addition, a study by the International Council on Clean Transportation also found that the gap between type-approval and "real-world" fuel consumption/CO_2 values increased from about 8% in 2001 to 25% today: http://www.theicct.org/sites/default/files/publications/ICCT_LabToRoad_20130527.pdf.

The World Forum for Harmonization of Vehicles Regulation (WP.29) confirmed the first phase of GTR 15 (Global Technical Regulation) concerning the definition of the test cycle and measurement procedure at its March 2014 session; thus, the European Union will be able to implement the first phase of WLTP into national law. This is a welcome development because consumers are often frustrated that the fuel consumption values given by manufacturers are almost impossible to achieve under normal driving conditions.

The WLTP is considered a more realistic picture of fuel consumption than the current NEDC test that was introduced in 1996. It closes many of the loopholes currently exploited by car manufacturers. The WLTP must now be introduced under EU legislation as swiftly as possible so this new test can be applied to type approval cars by 2017. This WLTP implementation is an urgently-needed first step to ensure the difference is reduced between values measured under test conditions and real life values experienced by consumers on the road. Without such change, specific policies on taxation and agreed CO_2 targets that aim at lowering car CO_2 emissions will be seriously flawed. We also support that in-service conformity checks on production vehicles (i.e. mass produced vehicles that are offered for sale) are introduced in order to better make sure that fuel consumption and CO_2 emissions values match with those of type-approval vehicles. In addition, we would also support the creation of an EU-wide type approval authority to ensure more coherent standards and procedures applied across the EU.[50]
We therefore ask that:

- The **outdated test** to measure fuel consumption and air pollution of cars (NEDC) must be **replaced** by the newly developed Worldwide harmonized Light vehicles Test Procedure (**WLTP**).

In addition, we support a **revision** of the **car labelling Directive** in order to provide consumers with better information on the fuel consumption and environmental performance of cars.[51] It is our assessment that in several EU Member States, this instrument for better consumer information has not reached a high level of recognition and that the scheme has not been implemented in all countries in a way that maximises its impact. Even though we consider setting ambitious emissions performance standards for passenger vehicles as the major instrument to reduce CO_2 emissions from cars, revising the car labelling Directive will also be fundamentally important in order to help enabling consumers to better factor in efficiency and running costs when choosing a car. In addition, improved car labelling should also influence the consumer demand for more efficient vehicles.

Car ad with new colour-coded label

Current style car ad

[50] http://www.transportenvironment.org/sites/te/files/publications/2013%2002%20RWE%20Executive%20summary_final.pdf.
[51] See BEUC position paper on car labelling.

We therefore support a revision of the car labelling Directive by standardising and optimising the format of the label across the European Union in order to make sure that all EU consumers are provided with information that is given in an intuitive and user-friendly way allowing simple and accurate comparisons between cars. We also require that clearer and more visible information must be provided via all kinds of advertisements including the internet as an additional measure to more effectively encourage consumers to buy cars that use less fuel and thereby steer the market towards more sustainable vehicles. To sum up, we ask the following:

- The **car labelling Directive** must be revised in order to provide consumers with **better information** at the point of sale and in advertisements.

Furthermore, in order to promote cars with a low environmental impact, we also support **car taxation** (registration and/or circulation taxes) in the EU to be **adapted** so that emissions (both CO_2 and exhaust emissions) become the key criterion for taxation in all Member States in order to provide incentives to buying lower emitting cars. In a similar vein, we are also very supportive of linking national company car taxation systems to the environmental performance of the car to eliminate distortions and favour the deployment of vehicles with a low environmental impact. The favourable tax treatment of company cars in several member states such as Germany has led to a higher demand of more powerful, but also more polluting vehicles onto the market. A study by the European Commission has found that subsidies for company cars result in a cost to European taxpayers of up to €54 billion annually, which corresponds to 0.5% of the EU's GDP in lost tax revenues.[52] Thus:

- **Car taxation** (registration and circulation taxes) in the EU must be revised so that emissions become the key criterion for taxation in all Member States; for those countries that already correlate the tax base to emissions, the tax levels need to be adapted as soon as the new testing standard (WLTP) is applied.

In addition, we support the wider deployment of cars with a low carbon footprint measured via a lifecycle approach.[53] Consumer perception about ultra-low carbon vehicles is fundamental for successful large scale diffusion. A recent study by the Joint Research Centre revealed that only 44% of respondents strongly agreed to the statement that electric cars were safe whereas a significant 17% strongly disagreed with this statement. This high figure clearly indicates that there is still a long way to go in order to build up the trust for this new technology. In addition, more than 43% of respondents could not judge the approximate charging time of the battery and the cost of the electricity for a distance of 100 km. Lack of information also existed with regard to maintenance costs where a third of the respondents could not even give an answer. This clearly shows that there is a great need for demonstrating the benefits of such new technologies to the consumers and to build up the level of trust.

[52] EU (2010) Taxation papers: Company car taxation: http://ec.europa.eu/taxation_customs/resources/documents/taxation/gen_info/economic_analysis/tax_papers/taxation_paper_22_en.pdf.

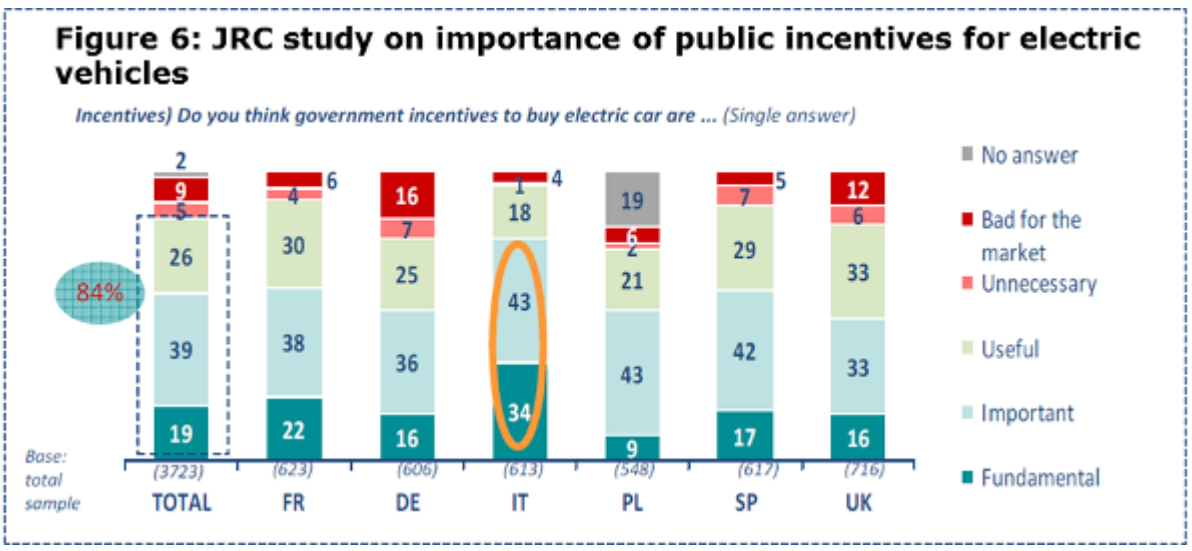
[53] Even though alternative fuelled vehicles such as electric cars or plug-in hybrid electric vehicles do not cause any or only little emissions at the tailpipe they are responsible for emissions at the electric power plant. As sales of such vehicles are likely to increase as more and more car models become commercially available, it is important in the long term to base policy decisions on a well-to-wheel approach as in most cases electric cars are not truly zero emission vehicles.

Most importantly, we support **research and development programmes** and **demonstration projects** on ultra-low carbon vehicles in order to improve some of the performance characteristics of those vehicles (e.g. low range, high costs of batteries) and increase public awareness of those cars, receive first hand feedback from drivers and to test consumer acceptance and market readiness. In addition, public authorities also do have a significant role to play to demonstrate the functionality of those cars. It is also important to increase consumers' knowledge on electric vehicles via information and awareness campaigns and provision of easy-to-understand information on dedicated websites. In Norway for instance, the Norwegian consumer organisation Forbrukerrådet, together with the association of owners of electric cars and the Norwegian Automobile Association (NAF), have established a web-page with detailed information on the availability and performance characteristics (e.g. on driving range, expected lifetime of batteries, etc.) of available electric vehicles on the Norwegian market. We therefore ask the following:

- **Research and development programmes** and **demonstration projects** on ultra-low carbon vehicles should be supported with public money in order to improve some of the performance characteristics of those vehicles and increase public awareness, to receive first hand feedback from drivers and to test consumer acceptance and market readiness.

Furthermore, as a general statement, we support that such public incentives (e.g. co-funding, benefits and privileges) should mainly be directed to develop and improve intermodal transport and public transport systems. Generally speaking, though, we also support privileges for ultra-low carbon vehicles if they do not interfere with the development of public transportation systems. Thus, we support that **privileges** should be given to all ultra-low carbon vehicles in order to help them penetrate the market, but only for a **limited period of time**. As those vehicles will be necessary to achieve further emissions targets in the future, we believe that targeted and predictable incentives are necessary in order to make these vehicles able to compete in the market in spite of their disadvantages such as range or the significant higher purchase price. This is also in line with consumers' views: 84% of Europeans surveyed in the above mentioned JRC study considered government incentives to support the diffusion of electric vehicles as useful (see figure 6).

Figure 6: JRC study on importance of public incentives for electric vehicles



In case financial incentives are given such as tax rebates or purchase price rebates, they should not be financed from the overall public budget as this would lead to a subsidised funding through all tax payers. More preferably higher taxes on cars with high CO_2 emissions should be earmarked for this purpose. In addition, we would support giving non-financial incentives for ultra-low carbon vehicles or car-pools, but only if such measures would not negatively impact users of public transportation and cyclists. For instance, the use of bus lanes should only be allowed after a careful case-by-case analysis and if it has been proven that there will be only a limited impact on the bus service and no increased safety concern for vulnerable consumers such as cyclists making use of bus lane. Moreover it needs to be ensured that there will be no conflict with public transportation in time of high traffic. Generally it is important to make incentives predictable for consumers through introducing incentives gradually and planning accordingly. This would allow consumers the flexibility to buy a vehicle based on planned tax cuts or other advantages of using EVs (such as potential increases in taxes for cars or fuels with high emissions). We therefore ask the following:

- Requirements to integrate ultra-low carbon vehicles into **green public procurement strategies** must be included to ensure more rapid take up of new technologies;
- **Privileges** should be given to all ultra-low carbon vehicles in order to help them penetrate the market, but only for a **limit period of time;**
- **Financial incentives** should not be financed from the overall public budget but preferably by earmarking **higher taxes on cars with high CO_2 emissions** for this purpose;
- **Non-financial incentives** should only be given for ultra-low carbon vehicles that do not negatively impact users of public transportation and cyclists.

In addition, drivers perceive an adequate recharge network as being crucial in the uptake of EVs. For a successful set-up of a recharging network, we believe that the development of a **common standard** for charging electrified vehicles across the EU will be key so that consumers do not need to equip their car with different charging cables to use their vehicles in different countries.

In addition, a certain amount of charging stations will be absolutely necessary to reduce the range anxiety, which relates to the fear of running out of power when driving an electric vehicle. In a recent study by the JRC it was shown that most driving patterns of Europeans would be in line with the use of electric cars.[54] By setting up a representative driving profile of drivers in six European countries, the authors showed that the current performance characteristics of electric vehicles would be largely compatible with current mobility habits. For instance, drivers travel on average between 40 and 80 kilometres per day – a range that most electric vehicles can nowadays easily manage. In addition, the study showed that on average, cars are parked for around 6 hours between several car trips a day which is a duration that would perfectly match the current recharging time required. The study also revealed that after the last trip of the day the car is usually parked for more than 16 hours on average which would allow a full recharge of the battery with slow charging technology. To sum up, we ask that:

- A **common standard for charging electrified vehicles** across the EU should be developed.

[54] JRC (2012); Driving and parking patterns of European car drivers – a mobility survey.

In order to reduce the range anxiety, for a limited period of time we support **charging stations** that are set up at publically accessible locations (e.g. at local libraries, shopping malls, at mass transit facilities, along highways, in cities, etc.) and supported through **public co-funding**.

In addition, charging stations that are set up at locations that are not accessible to the general public but to a larger group of people (e.g. at workplace, apartment blocks etc.) should be supported through public co-funding, but that the amount should be significantly lower than the funding which can be received for setting up publically accessible locations. However, in order to be accessible for a funding scheme, it is important that these charging systems are fully standardised (e.g. in terms of paying systems, charging plugs etc.). Finally, charging stations that are set up at "non-publically accessible" locations (e.g. at one family dwelling) should not be supported through public co-funding. We therefore ask the following:

- **Charging stations** that are set up at publically accessible locations should be supported through public co-funding.

Furthermore, we support better **consumer education** and training on mobility issues. For instance, European driving schools should be required to include in their training programme lessons on how to drive in a more energy efficient manner. We ask that:

- **Consumer education** and **training on mobility issues** to be strengthened.

Finally, in terms of **traffic restriction policies** (e.g. space rationing, congestion pricing, etc.), these can be effective policies to address the issue of negative externalities generated by peak urban travel demand. We believe however that making use of traffic restriction policies should be analysed on a case-by-case basis making use of the right tools and assuring that vulnerable consumers are not left behind.

Due to the fact that public transport and intermodal transport systems are not functioning at the same level across Europe, it is important to recognise that some cities are in a better position to create disincentives to the use of the private car than those cities with a lack of adequate infrastructure. For instance:

- **Congestion prices** might lead to negative social consequences particularly when low-income households cannot pay the congestion charge and consequently such a policy would be of advantage to the middle-class and rich that would benefit from less congestion.

- **Road space rationing** (e.g. measures based on odd and even numbered licence plates, etc.) is often seen as a more equitable policy than congestion pricing. However, also in this case, a possible situation cannot be entirely avoided where higher income households would buy a second car with e.g. a different last digit for the license plate number, in order to avoid the travel restrictions on their first car.

- Another option for dealing with such equity issues is **by granting exceptions to drivers with disabilities, low-income drivers depending on the car for shift work or residents living within a toll zone**.

It is therefore important to always keep in mind that such schemes might adversely affect low-income households and thus addressing such equity issues is important to preserve mobility for disadvantaged groups. Finally, the revenues from such policies should primarily be spent to improve public transport so that negative effects on low-income households can be limited and should not be used to increase public revenue. We therefore ask the following:

- **Traffic restriction policies** should be analysed on a case-by-case basis making use of the right tools and assuring that vulnerable consumers are not left behind;
- Revenues from such polices should primarily be spent to improve public transport so that negative effects on low-income households can be limited.

3.4 Further development of sustainable biofuels in order to reduce CO_2 emissions and dependence on foreign oil imports

We support Europe's endeavours to become independent on fossil fuels in the future. However, this transition will take several decades and in the mid-term perspective transport fuels will still be needed in areas such as aviation or heavy-duty transport and shipping. Therefore we are convinced that biofuels can still play a limited role when attention is given to the drawbacks like competition with food production. However, we believe that biofuels are not central to solving transport-related problems and should therefore be dealt with accordingly.

As a basic position, we support that only biofuels that achieve a significant greenhouse gas emission saving, reduce the impact on biodiversity, do not directly compete with food, and have a truly sustainable benefit taking indirect land use changes into account, should be publically supported. This means that it will be important to reduce the further development of food crop-based biofuels in order to ensure that biofuel production does not interfere with food prices. Generally, we also support that all biofuel emissions (including the estimated global land conversion impacts) should be considered (a) for reporting purposes of the greenhouse gas performance of biofuels and (b) also for accounting purposes to measure the contribution to the carbon reduction targets. We are also supportive of the further development of advanced biofuels i.e. biofuels that do not directly compete with food, e.g. algae, biomass fraction of mixed municipal or industrial waste). On the other side of the spectrum, we however want to stress that high-carbon fuels such as tar sands should not be allowed to enter the European market.

END

Photo credits

All photos credited to Shutterstock and/or Schliemer Fotolia.