Introduction – why cycling?

Using the Health Economic Assessment Tool (HEAT) for Cycling\(^1\), developed by the World Health Organisation (WHO) it has been estimated that all internal and external benefits of cycling together, based on current 7.4% of use in Europe, and adding the turnover of related industries, cycling creates more than €200 billion annually, or more than €400 for every person that lives in the EU. Most of this comes from the health side, with over €110 billion annually\(^2\). There are costs to cycling that although are far less than the health benefits must be decreased in order to maximise the overall benefit of cycling; the major cost being loss of life and serious injuries through road accidents.

More than 30% of trips made in cars in Europe cover distances of less than 3 km and 50% are less than 5 km\(^3\) yet 73% of European believe that cycling should benefit from preferential treatment compared with cars\(^4\). This shows clear potential for moving to cycle use, but one of the major barriers is road safety. Road safety then is an essential part of getting people cycling and of squeezing the maximum social and public health benefits out of this active form of transport. If we are to maximise the health and economic benefits of cycling we must increase safety. We have to reduce the risk and perceived risk if we are to get more people cycling to move from polluting forms of transport to more sustainable and active modes.

Bicycle traffic should be an integral part of an integrated urban development and transport policy. Cycling is being seen more and more by public authorities as an excellent tool in helping alleviate problems in areas such as health, congestion, and decreasing air pollution and CO2 emissions,

\(^1\) [http://www.heatwalkingcycling.org](http://www.heatwalkingcycling.org)
as well as road safety, therefore increasing cycling (and walking) numbers should a major part of many public authorities’ strategies.

The number of cyclists being killed and seriously injured is decreasing, but it is decreasing at a slower rate than for car occupants. While car occupant fatalities has dropped by 50% over the past ten years, cycling fatalities has stalled at around 25% and has even increased slightly in 2014. Although cycling fatalities in Europe has made good progress generally the fall in cycling fatalities is not keeping pace with other road user modes.

Data and understanding road safety needs

Good data is essential; cycling data is lacking in many countries across EU, we need good Killed and Seriously Injured KSI numbers as well as km/time travelled to find good exposure figures to help track down and focus on areas of risk. It is unknown for sure but can be assumed that there is a large number of unreported or misreported crash and injury data regarding cyclists. It is important that this unknown information is understood in order to prepare successful road safety interventions. With this in mind member states should improve their collection of KSI figures particularly for cyclists. Exposure data (KSI per time/distance travelled) is also important to collect in order to establish areas of risk and to understand road safety intervention effectiveness. Of course this data can also be useful for traffic management purposes, which can also be used to improve safety throughout the transport system. Although most cycling fatalities are as a result of crashes with motorised vehicles, most serious injuries are as a result of single bicycle accidents, it is important that we understand the reasons for this in order to find solutions.

Recommendations to member states

- Keep records of the numbers of deaths and serious injuries of cyclists, particularly looking at issues of underreporting and single bicycle accidents
- Member states should establish a serious injury target or contribute to any future EU strategic target to reduce serious road injuries. This could have a major impact on serious injury figures, just as it has for fatalities

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Reduction of speed in urban areas

Speed is an essential element in making urban areas safer for non-protected road users like cyclists and pedestrians. Up to 30% of drivers exceed speed limits on motorways, up to 70% on roads outside built-up areas and as many as 80% in urban areas. Reducing speeds of motor vehicles in urban areas is crucial in getting more people to use bicycles, not only does this decrease the real danger but it also decreases the perceived danger that those interested in taking up cycling, feel.

Recommendations to member states;
- Make 30 km/h the default speed in urban areas or encourage local authorities to do so depending on competence.
- At very least speed limits of maximum 30km/h in residential areas and areas with high levels of pedestrians and cyclists and maximum 50km/h in urban areas should be adopted. Speeds should certainly not exceed 30km/h on roads with possible conflicts between cars and cyclists/pedestrians or where public authorities wish to see more cyclists/pedestrians.
- There should be national enforcement plans and compliance targets for speeding offences (as well as distraction and alcohol offences), particularly in areas with high numbers of unprotected users.
- Intelligent Speed Assistance can be a major revolution in road safety across the EU, however in order to implement ISA successfully there will be the need for action at national and local level.
  - Member states should provide political support and allocate budgets in order to enable digital mapping infrastructure and to provide frameworks for cooperation.
  - Road administration authorities that deal with the road infrastructure would need to collect and consolidate speed limit information. This requires digital maps of all road types to be in place with a highly flexible system for updating (road works or weather changes for example). Local authorities would be the ones responsible for providing speed limit information to road administrations in a timely manner.
  - ISA could be introduced and moved forward by making it compulsory in government vehicle fleets, buses etc. as well as introduced for serious speed offenders.

HGVs and Lorries

Heavy Goods Vehicles make up 3% of the European vehicle fleet and 7% of driven kilometres, yet they are involved in 15% of fatal accidents, costing almost 4000 lives across the EU. In some cities like London HGVs are involved in around 50% of cycling fatalities. Although vehicle regulation is an EU competence there are many things that member states and local authorities can do to improve the safety of larger vehicles and make them fit for purpose particularly in urban areas. Public procurement can be a useful tool to increase the mix of the safest larger vehicles in urban areas. Access regulations can also be used to control when larger vehicles, particularly

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7 http://www.gov.scot/Publications/1999/10/38560fea-6e19-4098-95cd-37be45958aa8
construction vehicles), enter the city. Having specific routes for these vehicles can also be planned in advance with construction or delivery companies in order to minimise the contact with unprotected road users.

Recommendations to member states

- Member states should encourage or promote local authorities projects with public procurement of HGVs to only allow safe HGVs in urban areas. Public sector procurement can play a huge role in increasing the number of safer vehicles in urban areas.
- Urban access regulations - having safer routes for larger vehicles or strategies such as not allowing larger vehicles in the cities at certain times of the day or on certain routes should also be put in place.
- Even better local authorities can ban dangerous HGV vehicles in urban areas, while only allowing larger vehicles with excellent direct vision and low driving positions. An example would be London’s recent banning of construction lorries into the city unless they conform to certain safety and vision standards.

Infrastructure development and Land Use Planning

Good cycling infrastructure can be essential to improving cycling. Cyclists should be able to mix freely with motorised traffic, however if motor vehicle speeds or volumes are high cyclists should be separated from motorised transport. Junctions and intersections are some of the most dangerous where on average 25% of EU cycling fatal crashes occur and need to have particular attention paid to their design. There are many excellent national guides on how to build good cycling infrastructure the Dutch Crow manual, being an excellent example.

Member states should encourage the use of Sustainable Urban Mobility Plans within city areas made available within the context of the European Commission Urban Mobility Package. Plans should adopt the common hierarchy of transport users based on safety, vulnerability and sustainability with pedestrians at the top, followed by cyclists and public transport users. In urban areas comfort for these priority users should also be a main concern, with clear and easy links between walking, cycling, and public transport.

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9 https://www.theguardian.com/uk-news/2016/sep/30/lorries-face-london-ban-plans-improve-safety-cyclists
10 http://www.crow.nl/english-summary
Recommendations to member states

- Where cyclists mix with motorised traffic speed, volume and mass of the motorised traffic should not pose a risk to non-protected users.
- Where there is high speed/high volume motorised traffic, cyclists should be separated.
- Depending on where competence falls there should be a national regulation on how to build good cycling infrastructure, or guidelines/recommendations to local authorities on how to build good infrastructure, particularly around intersections and junctions.
- It is important to maintain roads and cycling infrastructure, single bicycle accidents which cause many serious injuries can be caused by poorly maintained surfaces and infrastructure.
- Modal priority should be put in place in urban areas with walking at the top of the hierarchy, followed by cycling and use of public transport.

Cycling promotion and road safety are interlinked

An increase in cycling leads to a reduced risk for each individual cyclist\(^\text{11}\) (Safety in Numbers). It can also lead to less motorised traffic and so less crashes for all\(^\text{12}\). In other words \textit{increased cycling is not a threat to road safety}. It is one of the healthiest activities that we can bring into our daily lives, as well as having a positive impact on road safety.

Around 50% of motorised vehicle journeys are under 5km and 30% under 3 km\(^\text{13}\). This shows the huge potential of shifting from motorised transport to active modes of transport like cycling. A huge barrier to increasing cycling is the perception of safety risks, so it is important that cycling, as well as being actually safe, \textit{looks} safe and is comfortable therefore the perception of risk and safety is also an important element of cycling road safety and advocacy.

Given the huge health benefits of cycling (health related life-years gained outweigh injury-related life-years lost by 20:1\(^\text{14}\)), it is essential that the Member States recognises the importance of cycling and walking as healthy, socially beneficial modes of transport. Because cycling (and walking) are active modes of transport they have many health benefits not just health costs (passive motorised transport only has health costs of emissions and crashes), these health benefits must be taken into account when promoting/implementing road safety interventions. Therefore road safety interventions should not decreases the number of cyclists or act as a barrier to would-be cyclists as this intervention would almost always bring about a public health \textit{disbenefit} no matter how effective the road safety measure. This also means not

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\(^{11}\) Safety in Numbers. A full literature review on this can be found here (in Swedish) 
http://www.trafikverket.se/contentassets/e2cb00e0ce34744369e293d6d35d1091d/safety_in_numbers_minskar_risken_for_cykloolyckor_med_fler_cyklister_litteraturstudie.pdf

\(^{12}\) http://www.sciencedirect.com/science/article/pii/S0001457510003416

\(^{13}\) WHO http://www.euro.who.int/__data/assets/pdf_file/0009/98424/E89498.pdf

prioritising helmets and mandatory helmet legislation which often has the effect of reducing the number of cyclists and therefore losing the overwhelming health benefits from cycling\textsuperscript{15}.

Recommendations to member states

- Good cycling infrastructure should be comfortable and easy to use
- Cycling should be seen as part of an integrated system with good links to public transport, amenities and services, and parking infrastructure
- A national cycling strategy should be formulated with a view to increasing cycling and the safety of cyclists\textsuperscript{16}
- Member states should encourage the integration of road safety and of cycling promotion into land use and transport planning within Sustainable Urban Mobility Plans
- Any road safety intervention should not reduce the number of cyclists or act as a barrier to future cycling take-up as this will almost certainly bring about a public health disbenefit

Education of road users

Training and education of would-be cyclists on bicycle handling and national road rules can be an excellent way of making sure that cyclists know how to handle riding with other road users. Training should also cover accident anticipation and cycling amongst different road users. Cycling education is particularly important for children as the use of the bicycle for these users brings a huge benefit in independence and discovery of self.

Drivers of large vehicles should have an urban element to their CPC training and/or testing. There are some CPC course that require drivers to spend a day on a bicycle to understand the needs of cyclists and the perspective of the road from two wheels\textsuperscript{17}. Of course having cyclists sit in the cab of a lorry would also be an excellent addition to any cycling training to understand the challenges of driving a large vehicle.

Recommendations to member states

- Every cyclist should have access to some kind of training/education regime, be it with local cycling organisations, local authorities, a national training programme or as part of school curriculum
- There should be an urban road safety element within the professional drivers CPC qualifications and testing regimes which includes how to interact with cyclists, pedestrians, P2W
- Member states should consider how to incorporate knowledge of other road users within general driving license testing and qualifications

\textsuperscript{15} http://www.ecf.com/wp-content/uploads/Helmet-factsheet-\textunderscore 17042015\textunderscore Final.pdf this is new and important research

\textsuperscript{16} An overview of current EU cycling national strategies can be found here https://ecf.com/what-we-do/cycling-all-policies/national-cycling-polices

\textsuperscript{17} http://news.hackney.gov.uk/hackney-leads-the-way-with-cycle-awareness-training-for-hgv-drivers
Policing and Enforcement

Investing in roads policing is a highly effective way of promoting and improving road safety, it also contributes to reducing other forms of crime and should be a priority of national governments. There is good evidence that fear of detection and prosecution is a highly effective deterrent – more so than the severity of the resulting sanctions. The more traffic police there are and the more resources they have, the stronger the chance that bad drivers will be caught and brought to justice. Well-trained traffic officers who investigate road collisions involving cyclists and pedestrians thoroughly can make all the difference to the likelihood of a successful prosecution. This, backed up by well-designed incident reporting systems and appropriate charging decisions, acts as a powerful deterrent against bad driving. Speeding, dangerous driving and alcohol abuse should be prioritised as they form the majority of causes in crashes between cyclists and motorised vehicles.

Recommendations to member states;

- Roads policing should be prioritised by national government and included in all overarching policing strategies and plans
- The police should be trained so that they understand the practical and legal issues facing cyclists and other non-motorised users
- The police should always refer serious injury collisions up to the prosecuting authority for a charging decision, not just those that result in a fatality
- Strengthen enforcement against illegal parking when pedestrian and cyclist facilities are abused by parking on footpaths and cyclists’ paths
- The police should avoid simply sending offending drivers on speed awareness or other remedial courses instead of prosecuting them. Such courses should be available as court sanctions, not as an alternative to prosecution

ECF Cycling Strategy and EU Member State Support

In an informal EU Member State Council meeting on October 7th 2016 under the auspices of the Luxembourg Presidency of the Council of Ministers, ministers endorsed the Declaration of Luxembourg on cycling. This followed on from the European Parliament’s decision to back an EU roadmap for cycling last October, and October 2016 the Committee of the Regions also supported this initiative. EU Cycling Strategy Campaign Mission Statement;

“‘Encouraging more people to cycle more often’ across the EU has the potential to unlock socio-economic benefits worth billions of Euros. Stakeholders from diverse backgrounds have therefore joined forces to develop a blueprint for an EU Cycling Strategy which will recommend objectives and define actions falling within EU competence. Published at the Velo-city 2017 conference in June it will then be submitted to the European Commission as a new inspiration for action.”

ECF are currently working with many partner organisations on a blueprint for an EU cycling strategy which will be presented to the commission to be a part of their work and considers cycling road

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18 Cycling UK - Traffic policing and other enforcement agencies

19 http://cities-today.com/local-regional-authorities-back-eu-cycling-strategy/
safety as an integral part of this strategy. We hope that member states, the European Parliament and the European commission continue to support the work towards a European Cycling Strategy.

Addendum;

EU specific measures for improved cycling road safety

- An EU strategic target to reduce serious road injuries for member states can have a major impact on serious injury figures, just as it has for fatalities. The Commission should reinstate a serious injury target\(^{20}\)
- There should be an urban road safety element within the Professional Drivers Qualification regulations, which includes how to interact with cyclists, pedestrians, P2W
- We would like to see the possibility of extending the application of 2008/96/EC Directive on road infrastructure safety management to urban areas
- Vehicle technology and design are major pillars of road safety and safer vehicles are always a major cycling concern for local authorities. We expect the Commission to include those technologies and designs\(^{21}\) that can increase the safety for those outside the vehicle within updates to the General Safety and Pedestrian Protection Regulations. Some cities (London for example) are currently in the process of banning large vehicles that are unsafe for urban use, though again with regards the vehicle this should be the Commissions work to make sure they are safe at the point of manufacture
- Speed is a crucial element of road safety\(^{22}\). The Commission should include Intelligent Speed Assistance in all new vehicles (General Safety Regulations). 30 kph should be the recognised default speed limit in urban and residential areas\(^{23}\)
- HGVs and lorries are of particular concern. Other than safety within the vehicle itself the Commission could promote the work of local authorities such as Transport for London in their CLOCS programme\(^{24}\) on how the construction industry can work on vehicle safety, or investigate the banning of HGVs in urban areas during the day (such as Paris). This could be included within work on SUMP\(\text{s}\) which has an excellent opportunity to include road safety measures
- Make a commitment to high standards of cycle-friendly design a condition of local/national funding transport-related funding streams\(^{25}\) (for example TEN-T\(^{26}\), SUMP\(\text{s}\), H2020, Structural Funds etc.) where cycling could be impacted or included
- Good data is essential; cycling data is lacking across EU, we need good KSI numbers as well as km/time travelled to find good exposure figures to help track down and focus on areas of risk. We also need good exposure data to find out where risk is greatest and where good cycling safety initiatives are working. With this in mind the commission should look at

\(^{22}\) [http://www.ecf.com/advocacy/mobility/traffic-calming30-kh/](http://www.ecf.com/advocacy/mobility/traffic-calming30-kh/)
\(^{24}\) [http://www.clocs.org.uk/](http://www.clocs.org.uk/)
KSI per distance travelled, or even better by time travelled, Absolute figures gives the impression that the Netherlands and Denmark are the worst places for cycling road safety. It is misleading to continually show absolute figures of Dutch KSI, the Netherlands is the safest country in the world to cycle and should be continuously promoted, providing many answers to cycling road safety problems. Currently the impression is given\(^{27}\) that it is the Netherlands, Denmark, Germany etc. as the main cycling road safety liabilities, while Malta and Bulgaria are the best, this is perfectly incorrect and needs to be clear in road safety strategies and documents

- Provide international comparative statistics for cycle safety, showing how the risk per km cycled (or per cycling trip) is changing over time in different EU countries.
- The Commission could help to define a standard in data collection and in developing a general use tool for VRU data collection
- The Commission can showcase those countries that have high cycling numbers, excellent cycling facilities and safe infrastructure (they will be the same countries since more cyclists equals safer cyclists and vice versa)
- The Commission can support cycling road safety by financing research and even more important critical appraisal of the state of knowledge and dissemination of road safety as well as recommendations/examples of good practice, examples could include;
  - The impact on road safety of electric bicycles, pedelecs and speed pedelecs
  - Elderly cycling and road safety as well as single bicycle accidents
  - ITS, smart cities, advanced vehicle technologies, and safer cycling; positives and the negatives
- Continue the work on driver distraction, particularly with regard to smartphones and new in-vehicle technologies
- To provide local authorities and member states with good information concerning connected vehicles and road safety as well as provide funding and research for smart city development that includes cycling and walking safety and comfort. This includes making sure that connected vehicles are promoted as a major tool to make vehicles safer for cyclists as well as motorised vehicles.