



# EUROPEAN TRANSPORT FORUM 2015

## Memorandum



### Debating the Future of European Transport

Hosted by

**Volvo Group**

# How can we ensure a safe, reliable and secure transport system in Europe?



In its 2015 edition, the ETF focused on trying to answer the question of how we can ensure a reliable, safe and secure transport system in Europe.

Violeta Bulc – European Commissioner for Transport – has made road safety one of her key priorities. The European Parliament has repeatedly underlined the importance of maintaining road

safety as a political priority. So, taking into account the current mid-term review of the European Commission's 2011 Transport White Paper, and its review of the Road Safety Policy orientations with the objective of halving road deaths in the decade from 2010 to 2020, the European Transport Forum looked at the progress made in recent years.

Learnings from the many initiatives that were already taken were discussed, about what makes the biggest difference; and the ETF further discussed what more needs to be done to reach the objective.

## Keynote address

### **Violeta Bulc**

European Commissioner for Transport, European Commission

In her opening statement, Ms Bulc stated that considerable progress has been made in reducing the number of deaths on European roads. She said that since the European Union first set targets for reducing road deaths in 2000, road deaths decreased by 53%.



Ms Bulc indicated that the gains in the years since 2010 were not as notable as in the first years, and in 2014 the numbers of road deaths even slightly increased. She called this “a wake-up call”.

The Commissioner explained that a holistic approach is required, with a mix of measures, such as investments, technology and close cooperation with and between the EU member states, before elaborating on each of these three measures.

According to Ms Bulc, investments are needed to improve EU infrastructure. She stated that in 2015, 13.1 billion € were allocated to 276 different projects in the first Connecting Europe Facility (CEF) call and added that there will be another CEF call before the end of the year.

She also believes that President Juncker’s plan, worth 315 billion €, will also leverage significant private investment.

As a result of these investments it is expected that improved infrastructure will remove bottlenecks, reduce congestion and reduce the number of accidents.

In the field of technology as well, Ms Bulc sees huge potential, pinpointing digitalization of transport as one of her core content drivers. She said that human error, involving speed, alcohol and fatigue, plays an important part in road accidents. Pointing at the Horizon 2020 program and the European Commission’s digital single market strategy launched this year, Ms Bulc explained that work is ongoing to improve technology on road transport to improve safety and added that Intelligent Transport Systems (ITS) will make vehicles safer for their occupants and for vulnerable road users.



Then Ms Bulc came to the third measure: continued close cooperation with member states. She said that EU rules such as the cross-border enforcement directive,

improved safety standards for vehicles, a common EU driving license and the new digital techno-graphs were only made possible thanks to the support of member states.

Earlier this year the commission completed the evaluation of the road safety policy framework, which, Ms Bulc believes, provides encouraging conclusions. She said that despite the slight increase of road deaths in 2014, the strategic target of halving road deaths by 2020 can still be reached. “The evaluation shows that we must refocus our actions on

protecting vulnerable road users such as pedestrians and cyclists, especially in urban areas,” she said.

Ms Bulc concluded that the framework remains relevant; work is ongoing as planned and several big milestones have been achieved; but work on this must continue to achieve the set objective of halving road deaths by 2020.

## Keynote address

### José Viegas

Secretary-General of the International Transport Forum

Member of the United Nations Secretary-General’s Advisory Group on Sustainable Transport

### INTERNATIONAL TRANSPORT FORUM – FACTS

The ITF is an intergovernmental organization with 57 member countries (most of the Northern Hemisphere). The ITF is politically autonomous and administratively integrated with the OECD. Their Governance decisions are therefore made by the Ministers of Transport.

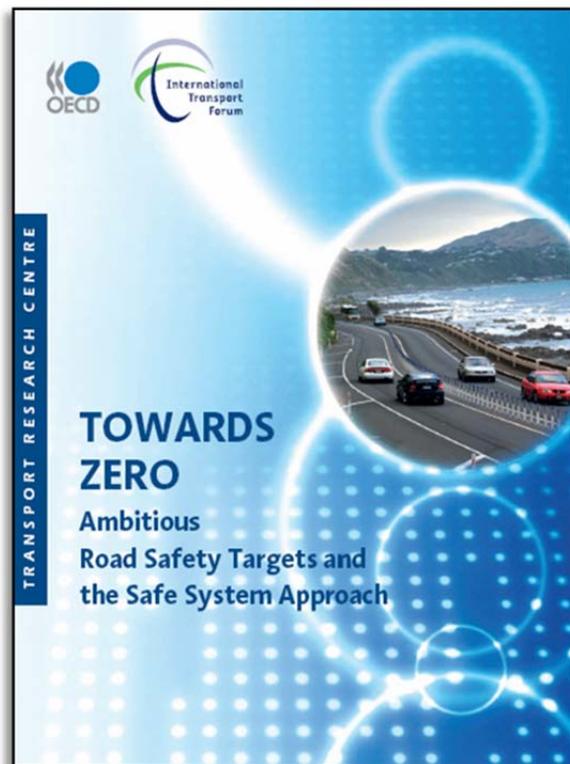
José Viegas started his speech by announcing that the Transport Ministers of the European ITF member countries approved the Quality Charter for International Road Haulage Operation, in which all 43 European<sup>1</sup> countries accepted to bring their legislation and regulation regarding training of drivers, managers, and the preparation of haulage companies in line with EU regulations. In his opinion, this is a major step towards social harmonization in road transport, and will have a substantial effect on improved safety.



Mr Viegas highlighted the importance of having statistics that allow comparability, in order to have a unified interpretation of what the numbers mean. “All stakeholders in transport safety must develop a standard terminology,” he said. This is necessary to ensure that statistics can serve as a basis for analysis and measurement. As an example, he explained that the words *injury* or *death* can mean different things in different countries. “As important as the terminology is the data collection procedure,” he continued, “Often, two countries use the same terminology, but

<sup>1</sup> This refers to geographic Europe – not the Europe Union.

one has a ratio of key variables far higher than the other, due to the different way they collect the data.”



Mr Viegas also pointed out that over the past few years, thanks to improvements made in the body of vehicles, the ratio of serious injuries to fatalities has increased, but political pressure is much more on fatalities. The International Road Traffic and Analysis Database – established in 1988 through the OECD Road Transport Research Programme – wants to concentrate on serious injuries since the number is increasing and deserves more political attention.

Safety has to be seen as an ethical imperative, according to Mr Viegas. He explained that if the road traffic system would be built today, the number of fatalities and injuries would never be accepted. After many years of high death rates, the public has come to expect – almost to accept – the risks involved in traffic.

Another important thing, said Mr Viegas, is the acknowledgement that there is human error, that we are not infallible. “The objective of the ITF is to align decisions with broader societal values – economic, human, environmental, health and consumables.”

Mr Viegas said that the only ethically acceptable target is Zero. Though this may seem a daunting target, he insisted that it is possible to reach and referred to DEKRA statistics of European cities that achieved zero road fatalities for more than four years, thanks to driver education, careful preparation and organization of the traffic system.

Mr Viegas further focused much of his talk on vulnerable road users, with a disproportionate number of victims, since they are not as protected as car passengers.

He talked about the importance of designing and managing a system that protects the most vulnerable road users and explained that the work done in relation to cyclists demonstrates that this can be good for all road users.

“Walking is not safe”, said Mr Viegas, “Especially in relation to the number of km traveled.” He deplored that there are very few statistics with careful characterization of the environments and behaviors that lead to most pedestrian accidents. He explained that among traffic fatalities in the OECD countries, pedestrians represent anywhere between 8 and 37%, indicating a broad variety between relatively small and rich countries.

He stressed the importance of integrating urban design with mobility management and of keeping the pedestrian in mind while designing the system, deploring that very often the car takes central stage and pedestrians come as an after-thought. “We have to give more priority and more space to non-motorized traffic and public transport and to the safe system approach for walking design,” he said.

Another group of vulnerable road users is powered two-wheelers (PTW), where little progress has been made. This group represents 8% of the total fleet, but has 17% of the fatalities, while driving smaller distances than cars. In a “per km” analysis, the rate of fatalities is 30 times higher for PTW than for cars.



Mr Viegas explained that research has pointed to introducing a licensing system by degrees, with in the first year the allowed driving power and speed would be lower. The driver could gradually move to a more ‘accomplished’ driver license and might be downgraded in case of worsening condition.

Mr Viegas also deplored the quality of helmets and the lack of wear comfort and called on the industry to improve this.

Regarding cycling, Mr Viegas commented that using the bicycle regularly is healthy, provided it can be made safe and said that statistically society gets better with more people cycling, reducing sickness in the population. He explained that reducing traffic speed is the most effective way to make cycling safe.

The next subject Mr Viegas covered was the use of ITS. To frame the subject, he described any dangerous traffic situation as composed of three phases: Perception of the danger – Decision on action to avoid an accident – Action actually taken. He explained that IT already provides significant help in the first phase (with warnings, through lane assist systems, etc.) and on the third phase (through fine control of the trajectory, the ABS, etc.). But the Decision phase poses tougher problems and more is needed.

A critical issue, according to Mr Viegas, is early recognition of pedestrians. He believes in the increased use of low cost wearables allowing detection of pedestrian or cyclist movement by cars.

Talking about autonomous driving, Mr Viegas painted a picture of complementarity between car and driver where the car would constantly monitor the physical and mental capacity of the driver and adjust performance of the car. “In many cases the computer could take over,” said Mr Viegas.

According to Mr Viegas, the most difficult issues are ethical, when we allow computers in a car decide which of two options to choose, in cases where both options will result in fatalities. “As a society we are not yet able to decide on the criteria the computer should evaluate to make its decision,” said Mr Viegas. “Society is not ready for cold-hearted decisions like ‘kill these people, not the others’.”

To conclude, Mr Viegas talked about the importance of open dialogue and sharing knowledge and experience. “IT is already helping,” he said, “but it’s not a magic wand.”



## Keynote speech

### Jan Gurander

CFO and interim CEO, Volvo Group

Mr Gurander discussed the importance of transport for the well-functioning of society. He said it is a necessity if we want to ensure that all people live in a prosperous, safe and sustainable society. He acknowledged that while efficient transport is a strong driver of economic prosperity, it doesn't come without challenges, such as accidents, pollution and use of natural resources. “At Volvo, we use our technological leadership to address these issues,” he said, stating that Volvo's imperative is to put people at the center; that safety is part of the Volvo Group culture – and has been since the company was founded in 1927.

Mr Gurander therefore welcomed the fact that transport safety is high on the agenda for both the United Nations and the European Union. He went on to share his thoughts on safety

“Since accidents are largely preventable, the costs associated with them are also largely preventable,” he said, and stressed the fact that to really improve, close cooperation between vehicle producers, infrastructure developers and the people using the transport systems is needed.

Mr Gurander explained that if we are to succeed at developing safe and sustainable transport systems, innovation will be the key and said that the Volvo Group has a long

history of driving innovation and welcomes legislation that improves the safety standard in the industry, citing connectivity and autonomous driving as examples of innovation.

He explained that the vast amount of data that connected vehicles will produce will be very valuable to many public and commercial actors, giving as an example the possibility to use these data as a basis for more effective infrastructure investments, or for insurance companies to create risk evaluations.

Connected vehicles and Intelligent Transport Systems can contribute to increased safety. Whilst they may not be the answer to all road-related issues, next generation transport systems will improve how we move people, move goods, and, where possible, move less. Connectivity will enable greener, safer and healthier transport systems.



With safety as a pre-condition for automated systems, Mr Gurander also sees autonomous driving as a great innovation. “Any automated vehicle or function must quite simply be 100% reliable,” he said, and added that Volvo is encouraged by the fact that automation is a priority in the Netherlands and will be on the agenda during their half-year EU presidency. He also saw automation as creating benefits in increased fuel efficiency, comfort and safety.

Continuous innovation being crucial, Mr Gurander believes that any developments should be fact based and tested. He looks for close cooperation with society in this area and wants to find ways to test innovations in real traffic, for example in cities. Though technical capability of innovations is a pre-requisite, it is vital that

they are matched to human behavior, believes Mr Gurander.

He illustrated the Volvo Group’s dedication to traffic safety with the Volvo Accident Research Team, which has been collecting information and analyzing real world accidents since its creation in 1969 for the Volvo Group to use this knowledge as a basis for product development and features to improve both active and passive safety.

As an example of safe development, Mr Gurander cited the European Modular System, which allows longer and heavier vehicle combinations which are both fuel-efficient and safe for long haul road transports.

Mr Gurander explained that in order to succeed, it is essential that we have a systematic and cooperative approach to improving our transport systems, involving the industry, politicians, authorities, research organizations and other stakeholders. He insisted that to develop a reliable, safe, secure and sustainable transport system, everyone must act together and put their differences aside and always commonly prioritize reliability and safety. This can be done by thinking from a system perspective, including city and traffic planning, traffic management and the construction and maintenance of road and cycling lanes.

As a conclusion, Mr Gurander stressed that there is no single solution for safe and sustainable transport systems. Innovation is a key but needs to be combined with real life demonstrations. Safety and security is complex and must be evaluated under real circumstances. He repeated that cooperation is essential.



## Panel Discussion

### Speakers:

- **Steven Bechhofer**, Vice President Operational Risk Deutsche Post DHL Group
- **Wim van de Camp**, MEP, European Parliament
- **Yves Crozet**, Professor of Economics, Lyon University, Laboratory of Transport Economics (LET)
- **Claire Depré**, Head of Unit, DG Move, European Commission
- **Alain Flausch**, Secretary-General, International Association of Public Transport (UITP)
- **Marek Retelski**, Deputy Secretary-General, International Road Transport Union (IRU)

*Moderated by Jacki Davis*

*The panel members were asked to describe what they believe are the key challenges ahead to build on the progress already made in the area of traffic safety.*



Mr van de Camp finds the way policies are made in the EU is far too slow, looking at how the EU Parliament returns the legislation prepared by the Commission with hundreds of amendments, requiring a lot of time for rework, etc. He also believes more power is needed to take decisions also on road safety.

Ms Depré came back to Commissioner Bulc's request for a holistic approach and wanted to add the concept of holistic and integrated approach, mentioning as an example the need to also think about people behavior in traffic and to that end, include them in the discussion. She also stresses the importance of becoming even more proactive and to not wait for the situation to change before starting to work on legislation.

Mr Retelski believes innovation to be very important. Although a lot has been done, road networks and related infrastructure can still improve. One very important area for the road transport industry is the availability of high-quality professional training for all stakeholders: drivers, managers, etc., such as those provided by the accredited institutes of the IRU academy. Appreciating the recent adoption of the ECMT Quality Charter mentioned by Mr Viegas,



Mr Retelski believes improved legislation for professional training can go a long way towards further reducing the number of road and traffic-related fatalities.

Mr Crozet called the attention to the problem of decreasing return on safety policies. He stated that in European countries the maximum gain took place in the beginning of the seventies. In France the number of fatalities per billions of passengers/km was divided by 15, but the curve shows a steep slope at the beginning of the period, flattening out at the end. This means that there is a threshold where it seems that it becomes more difficult to further reduce accidents. “Due to lower fuel prices resulting in increasing traffic, we can observe more fatalities in France in 2015,” he said.

Mr Crozet added that if the objective is zero fatalities, the safety policies must be changed and we cannot continue to rely only on speed enforcement in combination with active and passive safety devices. To illustrate, he added that the fatalities in cars today represent 50% and more than 40% of the fatalities are pedestrians, cyclists and motor cyclists. In his view, there should be a higher focus on a particular target, such as motorists, young people and drink driving. He brought up the concept of either, putting the responsibility for accidents on IT and removing the driver responsibility, using autonomous vehicles; or putting even more pressure on drivers.

Alain Flausch picked up on the flattening curve and said we need to change the way we work. As a member of the United Nations Secretary-General’s Advisory Group on Sustainable he explained that they try to structure future reports on the “avoid, shift and improve” method. He said that the focus on technology represents the “improve” part of the three-pillar method and added that this means that for public transport, but also biking, walking and collective sharing of transport systems there is a need to focus more on the “avoid” and “shift” pillars. One option to “avoid” is to institute congestion charges in cities like London, Gothenburg or Stockholm, which attempt to reduce useless transport or trips. With regards to the “shift” pillar, considering that it’s 10 times more risky to travel in a car than to by collective transport, enhancing or encouraging this modal shift whenever possible would certainly give much better results in terms of safety, with the added benefit of reducing carbon emission, thus improving population health. Mr Flausch concluded that we should not always focus on technology but also take other options into account.





Mr Bechhofer added as an extremely important topic the need for collaboration across industries, together with stakeholders, and from his perspective as VP Operational Risk with Deutsche Post DHL Group, including employees who have a great deal of real life experience. Mr Bechhofer also believes that the concept of integrated approach mentioned by Ms Depré is key, and added that as a logistics company with a worldwide fleet of more than 90,000 road vehicles the issue of education and training is extremely important. He highlighted some examples where in some countries his organization started initiatives substantially reducing accident rates through defensive driving programs.

He also mentioned the need for continuous improvement and the importance of making sure that mistakes made are recognized and understood, as well as what approaches have worked to enhance road safety.

*The question was asked whether there is too much reliance on vehicle design as opposed to taking a really holistic and integrated approach. Some debate followed on what this holistic and integrated approach means in practice:*

Mr van de Camp explained that the way of working in the member states makes it very difficult for the EU as a government to come to a holistic and integrated approach. As examples, he mentioned training, enforcement, road infrastructure decisions, saying all these are national, regional and urban areas of responsibility, and stressing that urban is – according to the treaty – not an EU responsibility. In his opinion, the task of the EU is to provide a framework, and the task of national governments is enforcement, and then the discussion on what is the task of cities and regions ensues. “Some citizen movements in the EU now say ‘We want our responsibilities back’,” he said.

According to Mr Bechhofer, all safety is local. He believes in a more cultural approach to enhance safety at a daily level and sees the necessity for leaders to literally show the way to safety so that it becomes engrained in the public’s behavior. He believes that Europe offers the platforms to have an exchange about safety.

Like Mr van de Camp, Mr Flausch finds it difficult for the Commission to have this holistic approach, because some member states frequently say “this is not your responsibility”. And indeed, in principle road safety and urban transport are normally not the Commission’s competence.

Mr Flausch said that it’s important for the whole supply chain to come together and applauded the fact that there has been a change in the past 10 years with the divide

between the manufacturing industry and vehicle users which gradually transformed into a spirit of collaboration. He referred to the “European Bus System of the Future” project, funded by the EU, where industry, operators and authorities discussed the kind of bus system we should have in the future.

Coming back to safety, he explained that safety in public transport is very different from safety in a private car, because in public transport – like in goods transport – drivers are thoroughly trained.



Mr Crozet preferred the idea of an integrated approach, consisting of three stages:

1. Infrastructure improvement, traffic management, etc.
2. Human error avoidance
3. Dangerous behavior avoidance

He stressed the importance of making a distinction between human error and dangerous behavior and said that there is also dangerous behavior on the part of cyclists and pedestrians.

Looking at the connection between safety, security and reliability, Mr Crozet believes that with fully automated cars, the road capacity will be reduced since a larger distance is needed between self-driven cars in order for them to be safe. Therefore the reliability of the road system is then equally reduced due to increased congestion.

In Ms Depré’s opinion, holistic represents a mix of different actions or policy measures, while integrated describes how to get there. As an example, she explained that often there is urban planning on one side, and safety policies on the other. She added that since the Commission cannot regulate on the urban environment, they try to be innovative, providing regulation for the network, leaving it up to the member states to identify priority zones. These are mostly urban environments, and cities find the benefits in applying the regulation.

A lot has been done as regards the creation of new regulations at EU level aimed at improving the vehicle safety standards of trucks or buses, said Mr Retelski, who also believes that these regulations have been evolving since the late nineties. In his opinion, the focus should now move more to driver training ensuring drivers can obtain sufficient knowledge about the new technology in today’s trucks and buses.

The question was asked of how to handle the dangers of distracting technology in vehicles and of aging population, among other things. Should goods transport not go via rail instead? Also the need for enforcement of regulations was raised.

Mr Crozet highlighted the fact that some technology causes the responsibility for safety to be transferred to the vehicle or software manufacturer, which brings with it a number of other issues.



Mr van de Camp believes that the citizen's responsibility must be more central and training is one of the key elements to make that happen. Regarding the modal shift from trucks to rail he stated that the model shift has failed and road transport is the most competitive means of transport. And he added that in the mid-term review there is a clear shift to co-modality to use trains, boats and trucks in conjunction.

A behavior based approach is a key lever to safety in terms of reliability, according to Mr Bechhofer. He believes the standardization of processes can help with this, in combination with regulation enforcements. Driver training standards are crucial, as is making sure that there are programs in place to allow and incentivize drivers and their employers. Road safety can be everybody's business as long as it is understood that this goal must be achieved across borders.

Mr Flausch believes driving behavior in Europe has deteriorated and also strongly believes in education, awareness and enforcement – which is lacking.

Mr Viegas also sees a lot of potential in ITS as an education tool, monitoring the driving behavior and alerting the driver in case of wrong or dangerous actions, since humans behave better when they are being watched – even by electronics.

Mr van de Camp is concerned about privacy, when such data are recorded and could be misused. He explained that data protection is currently one of the biggest challenges in the European Parliament, where the new data protection regulation is being discussed for the past five years. He sees an added risk in how such data might be used by insurance companies, for example.

Ms Depré is convinced that ITS can change behavior. Data is available to offer mobility as a service through ITS, and the more data can be integrated, the more targeted mobility solutions for the road user can be provided. The important thing is to put the road user at the center. It can also be linked to modal shift for passengers, and more sustainable behavior – not only for sustainability, but also for safety – can be trained through these systems. The advantage is that ITS – which can certainly help – is not too costly.



Since public transport allows the use of Wifi and is much safer than a private car Mr Flausch believes that further advocating for public transport can lead to reducing accidents.

Coming back to driver training, Mr Bechhofer believes positive incentives to do the right thing are much more productive than repression. Preventive driving training courses are available, linked to an understanding of the risks associated with being on the road.

In addition, Mr Bechhofer says that new technologies need to be tested in real life and in various environments and cultures. We need to have facts before drawing conclusions on their safety or risk.

Ms Depré deplores the fact that there are currently no statistics available on the benefits of ITS. There are discussions underway with the member states to identify the KPIs that can help understand whether cooperative systems will reduce fatalities or injuries, etc. The difficulty is that ITS always consists of a package of measures, which makes it difficult to clearly identify the benefits.

Regarding funding, Ms Depré believes that it should not be limited to roads or rail, but it should also help innovate the ITS infrastructure.

*The question is asked on what drives commercial fleet renewal.*

Since the objective of a business is to make a profit, says Mr Bechhofer, economics are the driver. A very important incentive to fleet renewal is when it becomes clear that safety issues have an economic dimension and new trucks are safer. But from a holistic point of



view, there must be a balance between the environment, safety and economics.

He also believes that a lot more can be done to couple security with safety – and privacy issues. These need to be addressed in a comprehensive fashion and we must make sure to be comfortable with policy makers and our stakeholders

that they don't feel that we're infringing on their privacy by having forward looking cameras or a GPS tracking device, etc.

Mr Crozet stated that in France 99% of the road network is under the responsibility of local governments and municipalities and therefore all the ITS is now in cars and not in the

infrastructure, due to lack of funds. This raises the question of the extent to which the pressure on the driver can be increased, and whether automatic enforcement is an option.

Mr Flausch explains that the take-up of ITS is not an issue for public transport where real time information has dramatically changed the way public transport is used. But he believes that there are very few cities that are mature enough to approach the industry and develop, often due to lack of confidence in the industry.

Mr Retelski sees it as a challenge that on one side of the spectrum there are cars and trucks which have become extremely complex, and on the other side, due to the economic circumstances, there is a shortage of duly trained drivers.

Ms Depré raises the question of whether we want to have a “Google car”, or whether we want to get more out of new technology. If the latter, then it needs to be integrated and talk with the infrastructure, since all the benefits in terms of traffic management are in this connection. She believes that the cost of doing nothing will be higher than investing in ITS infrastructure.

Mr van de Camp sees an issue in the fact that the EU did not take urban development into account in the past 50 years. He says that although urban traffic management is the responsibility of cities, the EU can still play a constructive role, for example by ranking cities.

Mr Viegas says there are no accurate statistics on the difference in numbers of accidents in cities and rural environments because there is no clear definition of where a city ends.



**The concluding question is “What do you want the policymakers to do to ensure safe, reliable and secure transport solutions? And what should the industry do itself to achieve this objective?”**

For Mr Bechhofer it’s driver training and education as well as communication to change the culture of safety throughout communities and European countries. He also sees the need for better collaboration and understanding of how to apply technologies to better the safety of our road network.

This is the role for both policymakers and industry.

Mr Flausch recommends mode shift: making the choice for sustainable transport and start thinking of a society where the role of the car is reduced or limited to places where it is really effective. ITS have a big role to play in this.

Mr Crozet recommends applying more targeted safety policies, making the distinction between motorways, cities and rural areas and their specific risks.

For Mr Retelski the industry needs to continue to embrace innovation in technology, complemented with high quality driver training. All stakeholders – manufacturers, the transport industry as a whole, the European Commission, the national authorities and the city planners and managers – need to be involved in the process. Collaboration is central to success.

In Ms Depré's opinion, considering that mobility will change very quickly, the discussion on modal shift and co-modality must stop. She believes that it will be a challenge to be able to keep today's mobility due to the increase pressure on the environment. We can also ask ourselves the question whether we will still have public transport in 10 years and imagine that we could have more and more personalized mobility. The challenge is to get prepared for that.

She also says that a challenge for the industry will be to find a way to be profitable in the long term, and for public policy level to find a way to support them.

Mr van de Camp says that many people are involved in the European decision making process, but many of the EU plans are stopped by the Council, who have their national interests at heart. Therefore the industry should take care of their national lobby.

He also finds that policy makers absolutely need training, citizens must get responsibility back for safety, and government-owned Road Safety is the wrong way.

The main conclusion from all participants is that the only way to get results is to work together.

