

Digital Transport Days, Tallinn

Introduction

Dear Commissioner, Ladies and Gentlemen,

- Digitalisation is changing our societies and our lives faster than any other big disruption has done in the history of mankind. We need new skills to be competitive in the labour market and we are embracing new ways of working and socialising. Social networks have already changed the way we interact with each other and with service industries.
- We constantly face new challenges, unknown in the past e.g. how do you cope when there is too much information? How to extract what is really needed for you not what others think you might need? How to prioritise?
- Social media has already changed the nature of politics and has brought significant disruption to societies, like Brexit or the election of Donald Trump. It has also changed the nature of information as well as notion of truth and so-called "fake news" is a phenomenon that has emerged with the use of digital social media. It is clear that when there are too many choices and it is hard to choose you tend to go for the easiest option or the one that prevails within your social network of like-minded people with whom you are naturally inclined to link up more.
- The meaning of "what is a fact" has been redefined in the digitalised age – if you cannot extract from the vast amount of information what you need you take what is easy and expressed in 140 characters. And then deeper analyses and facts become less relevant. Attention becomes more important than fact. Bot "fake news" is already over-performing real news, feeding perceptions and cultivating prejudice.
- At the same time digital societies enable a much more equal access to information, services and culture than in the past. More and more human errors can be neutralised and corrected in ways that make our lives safer, more efficient and potentially more enjoyable. Customers and companies are brought in direct contact, with broadened choices, lower costs and prices as intermediaries are cut out.

- Why am I saying this – because I just wanted to put things in the wider context. We cannot talk about digitalisation of transport when we do not see the wider framework of digitalised societies.
- Against that background it is without doubt that transport would be very much in the forefront of this digital change. The impact of the role of transport cannot be overestimated in our daily lives. We tend to sometimes take transport too much for granted and transport is not often adequately reflected among the key political priorities and big political challenges. I think it is a wrong assumption and we work every day to prove the opposite. I believe that, in the last years, we have been able to demonstrate that the transport sector has an important place among key political priorities.
- Transport in Europe directly employs more than 11 million people and, of course, much more indirectly. EU citizens spend ca 10 hours per week on transport and travel on average 34,7 km per day and transport counts for 13% of all individual expenses. So in short – transport matters a lot. And this, in turn, means that digitalisation in the transport sector would have a significant impact on us, our habits and our behaviour.
- With this in mind, and in the context of challenging and disrupting times, it is important that we make the right regulatory choices to embrace the future and not to limit the potential. There lies a lot of responsibility and we have to make it right.
- In doing that we must keep in mind that there is also an evolving wider societal challenge that we cannot push away or kick forward. How to make digitalisation palatable for those who see this as a threat?
- In the past we all embraced globalisation, it seemed a process that was irreversible and served us well. At least that is what we thought. We took this too self-confidently and did not do enough to harness globalisation and now it's more often mentioned in a negative than positive context, with a tendency to often forget the real benefits it has brought.
- We should not repeat the same mistakes with digitalisation. For us it seems natural that this process is irreversible but this not just about continued motivation for ourselves, we need to convince the doubters of the value added of digitalisation.

- People want predictability and are worried about disruption, especially if they feel their well-being could be threatened – their job, their family income etc. Automation in transport does not mean that there is no need for certain jobs; it is that the nature of the jobs is going to change but many jobs will not vanish. If we present things in a way that digitalisation and automation means that millions of people lose their job, then we are making a big mistake. And this is not even true. (But one never knows as in the "fake news" era, it might be used to battle elections and win seats with an anti-digitalisation agenda as we had in the early days of industrialisation. But I hope I am wrong here.)
- Let me bring you an example - take the job of a pilot. How much is an airline pilot today really flying the aircraft? (S)he is actually monitoring the screens, making the necessary adjustments if needed and solving the problem if everything else fails, so (s)he is the last resort. It is the flight computer that does the job. The pilot has become an operator of the plane. It is a very important role (s)he has but it is not the same role that pilots had in 1950s or 1960s. The nature of the job is already different.
- The same will apply in the road sector, the maritime sector, the rail sector, inland waterways etc. Digitalisation in the short and medium term would facilitate and increase efficiencies and create new business models and new ways with service provision. It is not going to replace the human element and we need to be loud and clear about that. Let's keep always in mind that some challenges can be very emotional.
- Even though full automation in transport will not happen tomorrow, it is certain that the transport systems of tomorrow will be more automated than the one today.
- And when full automation advances, we have to be equally conscious of the fact that some of the jobs we know today will no longer exist tomorrow. Politicians must think ahead and be able to answer when asked, what will these people do? How will we retrain them? The solution can only be to manage this transition sensibly, and plan carefully, so that people can be re-trained with new skills.
Forewarned is Forearmed.

Digitalisation of transport at EU level

- If we are to invest so much time and energy into digitalisation, then we must remind ourselves of all the **benefits a fully digitalised,** connected and automated transport system can bring. Let me bring out now some key aspects of transport where the benefits are crystal clear for all of us.
- In terms of safety, digitalisation will bring a huge range of benefits. Big data will be able to contribute to even safer transportation systems by having precise information and helping to identify problems and deficiencies before they become safety risk.
- On the road for example, **in the EU alone, 70 people** a day die in road traffic accidents. Around the world, an estimated **3000 people a day are killed**. We could eliminate a huge number of deaths if we use digitalised solutions better and when automated vehicles will be driving on our roads.
- We can already do more today. Take ADAS for example. If we could mandate this to be retrofitted to all HGVs, buses and coaches we would already be able to reduce road deaths and serious injuries.
- Digitalisation will also increase the **capacity of existing infrastructure** no matter what the transport mode - anything **to make better use of the existing infrastructure** is more than welcome, given the capital costs involved and the challenges related to new infrastructure projects.
- In Europe we already have very successful examples of digitalisation through industry partnerships. I believe it is absolutely essential to involve, listen and embrace stakeholders in order to get our actions right.
- In aviation, SESAR JU is the perfect example of that kind of partnership between public and private sectors. It is a great European success. We have the most advanced framework for the modernisation of ATM and we are the global leaders. Many third countries are very keen to take over these solutions and it has become a really successful export product of European innovation and know-how.
- SESAR solutions mean that regional airports can cut down on ATM costs or stay open to flights for longer hours, thanks to remote

towers. In addition, the implementation of SESAR solutions delivered in last 10 years, has meant an **11% increase in airport capacity**. SESAR solutions help to pave the way in developing a truly "European Single Digital Sky" that should be the aim to strive for.

- In the rail industry, the S2R Joint Undertaking is designed to embrace industry partnership to boost innovation and digitalisation, providing new solutions and supporting new ideas.
- Already today we are advancing in rail signalling systems. The **ERTMS** means that more trains can safely pass through the same stretch of track, increasing the number of passengers, but never compromising on safety. Until now our industry has been somewhat slow of the implementation of ERTMS but it seems they are finally getting their act together and push this forward.
- A big opportunity is the development of an operating framework for drones. RPAS will change many ways goods and services are delivered today. It is a real digital transformation of air services and we are entering into a new era with so many opportunities. We need to put in place a robust safety framework, new U-space for drone airspace and make the commercial service provision possible sooner rather than later. And we are on track to do that.
- Congestion on the roads is estimated to cost **1% of EU GDP every single year**, but it is also causing problems with air quality and **transport overall accounts for a quarter of EU CO2 emissions**. Digitalisation would allow for the **optimisation of traffic flows**, but more importantly, it would allow for a much better integration of all types of transport. This will mean that the user can easily mix and match transport modes according to their needs, reducing car reliance. This is part of the concept of moving towards **mobility as a service**.
- Improved **multimodal integration thanks to digitalisation** will help bring **competitive advantage for EU companies**. Commissioner Bulc has dedicated next year, 2018, as the year to prioritise multi-modality and, paired with digitalisation Europe, this would be able to ensure that our products get to market in the most cost-efficient way possible.
- Take for example the maritime industry where, again, Europe is very much in the global lead. New digitalised solutions have developed

very fast. We would really revolutionise the multi-modal logistic chains when there would be more ship to infrastructure communication. E.g. between ships and ports, ports and railways, trucks etc. Better slot planning would also help to adjust the speed of cargo ships and help to reduce emissions.

- Another example is connected and automated driving that brings together all the work that has been done in very different parts of the Commission on the regulatory side. It has the transport element, telecommunication element, car manufacturing element, privacy and data protection element, security element, safety element, research and innovation element. This shows how cross-cutting the topic is and how important it is to work together with all partners in-house as well as stakeholders outside.
- Digitalisation will not solve all of our problems when it comes to transport. It is not a panacea. And just as **one set of problems will be solved, a new set will appear because of increased digitalisation in transport.**
- **It is those challenges I want to look at now** - I am confident that if we are **forewarned, we can be forearmed** and equip ourselves in order to deal with these challenges successfully, while reaping all of the potential benefits that digitalisation has to offer.

Challenges because of digitalisation

- To date, protecting our transport network from malicious attacks has largely meant trying to protect against physical interruption. However, an ever increased reliance on digitalisation means that, as time goes on, the threats posed by **cyber-security** are becoming just as important, if not more important.
- There were some very high profile cases of **cyber-security** breaches recorded earlier this year, but it is not confined to these few cases. The figures on cyber-incidents are alarming:
- In some EU member states, **50% of all crimes committed are cyber-crimes**, and a massive **80% of European companies experienced at least one cyber-security incident last year.**
- What would happen if terrorists managed to gain control of ATM software, or train signalling software in order to cause a series of accidents? Even on a simpler level, smart traffic lights, already in use

in our cities, could be hacked to create devastating consequences. It is clear that the **cyber security threat is a very serious one that we must deal with head-on.**

- The issue of **data** has many facets. It will be important to have the trust of the general public as more and more data is collected on every aspect of our lives – there will be an increasing convergence between different sectors, but how will we manage to ensure that data can be collected, be useful, be accessible to the right people, while at the same time ensuring that an individual's transport history for the past year does not end up on the internet? Who will own the data of public transport companies, for example, and who will manage the access to this data, so that third parties such as web developers can use this data to build new services?
- Data has become a new 'fuel' for transport. It has a high value. But it can provide personal commercially sensitive information, so access to certain data should therefore be accompanied by safeguards.
- The data protection regulation should not be seen as a burden for businesses. Instead, a strong level of data protection can constitute an element of competitive advantage for European business and help European companies to gear up for the digital age. And let's not forget that Europe is in the forefront of privacy and data protection and the expectations of our citizens are very high. We cannot let them down and we must have a very robust framework in place.
- Let me also drill into one other very important area: multi-modal travel information services where we just published a delegated regulation on the provision of EU-wide multimodal travel information services. I would also add here Computer Reservation Systems.
- It is an area that is evolving very fast and; if we do not understand the complexities; we could be in danger of losing neutral and transparent marketplaces with level playing fields.
- New operators are emerging fast. Google is already in the market with Google flights. And other tech-giants are entering this market as well and buying up companies who do metasearches. It will disrupt the market. Today Google and Facebook control already 50% of global digital advertising. This would not be a problem if all the principles I just quoted - neutrality and transparency - are met. If that is not the case, the big loser is the European consumer and European

interests more generally. Since it is a very complex area, I am afraid that regulators would not be always able to be ahead of the curve. This is a good example of the complexities and potential unwanted consequences we may have to face.

- In network industries it is common policy to separate infrastructure from the service provision. It is so logical because, if you control both, there cannot be fair access to all and a level playing field. The more I think about this the more I am inclined to think that we should have the same logic in digital industries where service provision is concerned and where the interests of European businesses and consumers might become affected.

What are we doing at EU-level to advance digitalisation, overcome the challenges and reap the benefits?

- Ladies and Gentlemen, let me now share with you my personal take of what we are lacking in Europe to achieve even more in digitalisation.
- We need to ask ourselves why there are no tech-giants of European origin. How come that a region as technologically advanced as Europe, which manufactures the most complicated, innovative and unique products and in particular in transport sector, has not been able to establish global tech-giants? I am sure that there are lot of dissertations done on the matter. But if we simplify a bit, then I believe that this is about attitudes and money or, perhaps in one word, it is about risk.
- Major breakthroughs and new innovations always come with risk. If there is something new created that did not exist before and there is no clear reference point; then there is always a major element of risk. In Europe, over decades, we have become quite risk-averse and somewhat complacent. However the logic of the new, digital economy is different. And that might explain a lot.
- Why am I telling you all this? Because, in the future, we cannot become mere sub-contractors to major non-European tech-giants who know so much better what you or me want or perhaps even what we might want. With the development of artificial intelligence and big data, our behaviour will be much more manipulated. Like today, we get commercials, ads everywhere to passively manipulate us but the future will be very different and very proactive,

sophisticated, aggressive and personal digital manipulation will affect the way we act and choose.

- If I talk about attitudes, then in Europe, too often, we also see the glass as half-empty not half-full. When something new comes to the market, usually, we tend to take a protectionist attitude and we become defensive. We do not say – "Wow, great!!" but rather, we try to find reasons why this is not fit for our regulatory framework. And very often it is not. This is logical as our regulatory framework is not developed for all possible new eventualities. But we should keep an open mind and try to accommodate these solutions. In short – we need to take risks and that is what the digitalisation of transport is very much about.
- The same is about money. The risk-capital is very limited in Europe and the reason for that is embedded in the word itself – "risk". Without the ability and the money that is not afraid of taking calculated risks there is little chance that something big in technology/ digitalisation would emerge in Europe.
- At the same time we must also reflect on what is in Europe's interest. We still have a lot of sectors where we have global success, global reputation and where we are globally competitive.
- One of those sectors is transport. We have a very strong base for transport industries and we have very competitive environment and 550 million big internal market.
- If we want to be successful, we need to build on European competitive advantages and avoid mistakes we are actually so well aware of. The key words are interoperability and cross-border service provision. Europe is strong and successful when it tears down barriers and, if we want to have a successful digital transport single market, we need to break down the barriers that might limit to use the potential of digitalisation. Same standards, interoperable systems across Europe are the best recipe and unarguable imperative for success.
- We should also see glass as half-full when we talk about connected and automated driving, platooning, commercial drone service provision, tolling, ride-sharing and ride-pooling etc – in short new solutions and new ideas must be welcomed in Europe.

- Ladies and gentlemen, we are only at the start of a huge transformation, we face a lot of challenges but, above all, there are so many opportunities.
- Let's make Europe a success in digital transport solutions and let's work together to amplify Europe's strengths and think big, as well as outside the box. Let's ensure that the digitalised transport network delivers for Europe, for Business for People and for the Planet.
