[Intro]

Ladies and Gentlemen,

- Let me, first, thank you for inviting me to talk about such a fascinating and timely topic; the future of transport”.

- Your kind invitation was one we could not refuse! It is a real pleasure to be in such esteemed company and to share with you, some of our thoughts.

- It is a timely invitation, indeed, as this is the semester for the ongoing Austrian Presidency of the Council. Our Austrian colleagues have shown determination on seizing the opportunity to work together both at the level of vision (the "big picture") and of practicalities to move towards sustainable, fair, competitive and safe transport systems.

- Practicalities are also our shared concern. We are nearing the end of the mandate of the European Parliament and of this Commission. These next months are decisive for wrapping up the work we have begun in a number of areas. We will work closely with the Austrian presidency (and Member States and Parliament) to deliver on key policy areas.

[Context and challenges]
• Let me start by putting things into a broader context.

• If you look back the last decade, we clearly see how much has changed in our societies, economies – and in transport.

• **Things do change and things will change - profoundly.** Even if we do not always immediately grasp their speed and scope!

• **Take digitalisation.** It is changing our lives and society faster than any other big disruption in the history. Transport is definitely an area where this digital revolution is clearly visible. We need new skills to be competitive and we are embracing new ways of working.

• **Take decarbonisation.** It will bring far-reaching change in the transport sector. The Paris Climate Treaty and the air quality debate are already pushing manufacturers to come up with innovative solutions for both conventional and alternative powertrains. With the increasing advent of electric vehicles - be it battery-electric or fuel-cell electric – the role of a vehicle is changing.

• If decarbonisation is a key challenge, digitalisation will be a key opportunity. In fact, we have to think digitalisation and decarbonisation together and bring in multi-modality when speaking about the future of transport.

**[The relevance of our transport policy]**

Ladies and gentlemen,

• The Transport sector is important for the whole of the EU. Moving goods safely, quickly and cost-efficiently to markets is essential for
economic development, for competitiveness and – in the end – for quality of life and hence for all of us as customers.

- Transport is a core enabler of economic growth. It is also an investment opportunity, representing 5 percent of European GDP and 11 million European jobs. European companies.

- We can be proud of what we have. European companies are among the world leaders in a highly integrated, concentrated global market.

- Thanks to European policies, very effective transport networks across the Union are in place. Our Trans-European Transport Networks corridors demonstrate the value-added of the EU, every day.

- But all of us are also aware that transport represents almost a quarter of Europe’s greenhouse gas emissions with road transport alone responsible for almost a fifth of total EU emissions.

- In order to meet our commitments under the Paris agreement, we need to ensure we are clearly on the path towards zero-emission by 2050. For this to happen, a long-term stable policy framework is indispensable.

[Our Challenges]

- We have well identified the three major challenges for the EU transport sector:
  - To create an effective and efficient single European transport area;
  - To connect Europe with modern, multi-modal and safe transport infrastructure networks;
– To shift to low-emission mobility, thereby also reducing other negative transport externalities.

- We could add that, from a social perspective, affordability, reliability and accessibility of transport are also key. Addressing these challenges will promote sustainable growth in the EU.

- The big majority of Europeans – 72% – live in urban areas already and this percentage is expected to rise considerably by 2050. The impact of urbanisation affects profoundly the way people move and are moved; the way goods and products reach their final consumers.

- People are expecting much more user centric mobility services; on the other hand the pressure to deliver cleaner and safer mobility solutions is much higher. Improving air quality and therefore delivering lower and zero emission mobility as well as reducing accidents are key concepts in many mayors' speeches.

- It is therefore not surprising to see cities think thanking on the interaction between urban planning and urban mobility and trying to find the best organisational models. Nor is it surprising that more and more European cities embraced with stamina the decarbonisation and digitalisation agendas, building on innovative solutions and promoting multimodality, including active modes. Cities in Austria are not exception. Take Vienna or Gratz with the declaration, for instance.
[Road Transport Digitalisation]

- Digitalisation is one of the 10 priorities of the European Commission mandate; by analogy digitising the transport sector is as much relevant.

- Much has happened in the field of data sharing.

  In the context of the ITS Directive, nearly all Member States have now created their national access points that makes it easier to access road safety data, static and dynamic data for real time traffic information services and multimodal traffic and travel data. When available, data is made accessible in a standardised format and updated in a timeliness manner. With these high value data sets, service providers are in a much better position to provide a wider range of services that are expected to inform decisions in a much more accurate manner.

- Data however is not yet enough available in a digital format. We are therefore supporting through funding mechanisms the creation of digital data, for example through the Connecting Europe Facility.

- We are also supporting smoother transmission of regulatory data (such as speed limits, traffic regulations) to digital maps providers. We consider accurate digital maps as a strong enabler for automation and clearly see the need to accelerate our work in this field.
• In this context, we would appreciate getting feedback from the Austrian counterpart regarding the situation in their country and the organisation of the digital data collection. We would be keen in particular to learn more about digitalisation of regulatory information.

• I’m absolute sure that over the past 10 years of GIP.gv.at – Austria has made good use of common digital format – directly available – defined standards and interfaces – based on a common reference system.

• GIP provided tools to be developed for the authorities - which they can then use to keep the GIP up to date and which will make their work easier.

• And the VAO – Traffic Information Austria (EN) enables collaborative traffic information services - based on the GIP, with up to date traffic data, comprising all means of transport for all of Austria.

• Our Commissioner Bulc celebrated yesterday in Brussels, the Year of Multimodality and I’m sure her 5 layered approach from infrastructure to networks was once again shown and explained.

• GIP is also a layered approach to data, bringing together all relevant public and private, transport related, stakeholders to this one-stop-shop, enabling Multimodality.
• Congratulations to you for your birthday and thank you for sharing your lessons with the rest of the EU.

[Multimodality]

• **Digitalisation** is a major enabler for multimodality. Digitalisation generates and allows the exchange of big and smart data – a prerequisite for a seamless passenger experience across modes, and for integrated planning, ticketing and payment services, to which I will come back in a little while.

• **Innovation** is key to developing the applications and new business models necessary for exploiting the full potential of digitalisation and big data for multimodality. For example, Mobility as a Service (MaaS) is highly promising concept, and we will see more innovative ideas to bring it to life!

• And multimodality needs **investment**. Firstly, in transport infrastructure, to connect modes in a smart way, for instance through multimodal hubs. Secondly, in digital infrastructure, which underpins the delivery of multimodal services. This is why we have a flexible funding programme – CEF – that is designed to attract further funding. For the next financial period, we have proposed a budget of EUR42.3 billion, of which EUR30.6 billion would be dedicated to transport.
• **On the legal framework**, already last year, the European Commission adopted a ‘delegated regulation’ on the provision of EU-Wide Multimodal Travel Information Services. The regulation will ensure the accessibility, exchange and update of standardised travel data.

• We are working hand-in-hand with Member States to speed up implementation and ensure data quality. We will see concrete results very soon:
  
  o Next year, data on timetables, access nodes and accessibility for passengers with reduced mobility for all modes should be available.
  
  o In 2020, information on bike-sharing and car-sharing stations, vehicle facilities, standard fares for all modes, and on how and where to buy tickets will be added.
  
  o In 2021, we will see improved information about the cycling network and estimated travel times, again for all modes.

• With this data, multimodal journey planners covering the whole of the European Union can be developed. For passengers, that means accurate and up-to-date information so that they can make informed choices.

[Integrated ticketing]

• We would also like to advance with integrated ticketing. Offering integrated ticketing between different operators and transport
modes implies integrating pre-trip and on-trip information, timetables, pricing schemes, regulatory and organisational frameworks, and booking and payment systems. It also implies sharing fare data and revenues.

- An ongoing study will be finalised at the end of this year, looking into addressing the remaining challenges for EU-wide integrated ticketing and payment systems.

- The single most important barrier to both integrated ticketing and payment seems to be lack of cooperation between operators. There are different reasons for this: sometimes conflicting commercial interests; and the fear to share data that could expose underperforming services with an impact on reputation.

- The study recommends creating a 'code of conduct' that would encourage cooperation between the various stakeholders along the travel information value chain.

**But let me refocus on What are we trying to achieve?**

- As you know, the Commission has put forward several initiatives in the three Mobility Packages adopted over the last year.

- They should help make European mobility sustainable, safer and more accessible. They should also ensure European industry becomes even more competitive and European jobs more secure.

[CCAM]
On Mobility Package III, we have appreciated the Austrian Presidency's determination to advance swiftly on the road safety proposals. Also the strong support towards the coordinated deployment of cooperative intelligent transport systems (C-ITS).

The main idea is to ensure interoperability (making sure everybody is connected to everybody), backward compatibility (making sure everybody remains connected to everybody) and continuity of services (making sure everybody benefits from the same road safety and traffic efficiency services).

This is essential to accelerate EU-wide deployment, give legal certainty to investors and early adopters, and most importantly, ensure maximum road safety and traffic efficiency for all road users as soon as possible. This contributes to the safe system approach of road safety and should start today, rather than waiting for the development – and afterwards rollout – of any new technologies.

Therefore we welcome the Work done under the C-Roads Platform for all the support provided to this approach, reflected in the European strategy on Cooperative Intelligent Transport Systems, adopted by the Commission in November 2016.

For achieving the goals we aim, for passengers and goods, we will need Mobility to become Cooperative, Connected and Automated all together.

This is the purpose of what we are doing - to present some ideas on how these new vehicles, despite their various stages of
automation, will merge together with the existing vehicle fleet. It is a forward looking and ambitious European agenda, that provides a common vision and identifies clear supporting actions for developing and deploying key technologies, services and infrastructure.

- Cooperation and coordination is essential in this interconnected field. In 2018 the Commission will:
  
  - put in place one single EU wide platform (CCAM Platform) grouping all relevant public and private stakeholders to coordinate open road testing, and make the link with pre-deployment activities, and will build on this to establish a public private partnership, under the next research and innovation programme (HorizonEurope) to give a clear long-term framework for the strategic planning of research and pre-deployment on driverless mobility.
  
- Looking at automation from a strong road safety perspective is also crucial in our views.

[Road Safety]

- The Commission welcomes dedicated measures at city level in relation to active mobility. At the same time, this requires making transport in our cities safer. Urban areas account for 37% of the road fatalities in the EU and more than 2/3 of these are pedestrians, cyclists or motorcyclists. Increased use of bicycles and e-bikes, facilitated by bike sharing schemes, small motorcycles
and more interaction with pedestrians represent a real challenge for road safety.

- Vehicle technology can effectively contribute to complement measures that are necessary to make urban traffic safer, like making extensive use of 30 km/h zones or segregated lanes for bicycles.

- The 3rd Mobility Package came with a clear focus on road safety, including the following measures:
  
  - **An upgrade of the vehicle requirements** defined in the General Safety Regulation to raise the safety bar for cars, truck, and buses. Vehicle technology is progressing very fast and we want to make sure that all citizens benefit from the improved safety provided by systems like Intelligent Speed Adaptation, Emergency Braking or detection of pedestrians and cyclists, to mention just a few.
  
  - **An improvement of our legislation** for the management of road safety infrastructure. Safer roads are the basic an essential element to work towards our vision of zero fatalities and serious injuries.
  
  - **A new overarching policy document** defining a new framework for the EU road safety policy for the period 2020-2030 based on the Safe System approach, which we will encourage Member States to apply. It will include a strong focus on monitoring based on 'performance indicators' to better assess the problem areas and the measures to address them.
• We need to act now because road safety figures in the EU are not improving as we all expected just a few years ago. At the same time, new challenges and opportunities for road safety are brought about by automation and connectivity, new mobility patterns and societal changes, like for example population aging.

We need an open and integrated approach

• Now it is time to deliver – and quickly.

• The Commission has set its mid-century long-term climate and energy strategy. It goes without saying that transport will play an important role in ensuring sustainable future for all.

• European car manufacturers have understood the message well. Across the board, we have seen over the past months ambitious strategies and large-scale investment programmes by all major automotive OEMs.

• For the transition to happen, we need to increase the efficiency of the transport system as a whole. I am speaking here about Intelligent Transport Systems, better multi-modality, increased use of public transport, connected, cooperative and automated mobility in the longer-term, active modes of walking and cycling – and continued emission reductions from conventional vehicles.
• At the same time, **we need to encourage a quicker market take up of low- and zero-emission vehicles.**

• These are the broad policy priorities of our Low-Emission Mobility Strategy. They are not going to happen overnight.

[Clean and efficient transport]

• Then, we need each mode of transport to become **cleaner and more efficient.**

• In road transport, in particular, **we need all vehicles to become more efficient, and low- and zero-emission vehicles to roll out faster.**

• There are around 256 million vehicles on the roads in the EU today. Around 700,000 of them are battery-electric and plug-in hybrid, around 1.1 million run on compressed natural gas, and around 7-9 million vehicles run on liquefied petroleum - depending on how you count retrofitting. Hydrogen fuel cells vehicles are still in an earlier market stage. **We need greater impact, now.**

• We have tabled a proposal for new **CO2 emission performance standards** for cars and vans post-2020. We have proposed average fleet emission cuts of 15 percent in 2025 and 30 percent in 2030 relate to 2021, with an incentive mechanism for low- emission vehicles.
• As the Commission, we will work together with the co-legislators to finalise the long-term emission policy framework until 2030. This is essential.

• Vehicles need infrastructure, and infrastructure investment needs safeguarding through sufficient vehicle demand.

• Public procurement is an important complementary driver of market development. We have proposed a **revision of the Clean Vehicles Directive**. An extended scope, a clear definition and minimum procurement targets will create further security of market demand.

• Let’s be very clear at this point:

• From the Commission side, we believe that **all fuels and all policy levers need to be utilised to address decarbonisation of transport**.

• Other policy initiatives will also contribute to overall transport decarbonisation, including the revision of the Combined Transport Directive, the Eurovignette Directive or the proposal for further market opening of the bus and coach market.

Ladies and Gentlemen,

• Let me once more turn to digitalisation, which is the real game changer in the way vehicles will be driven and used.
• In fact, digitalisation is already strongly changing the freight and logistics sector, altering value chains and business models. Think of the impacts of connectivity, and of automation, which is already on the horizon. It will increasingly change personal vehicle mobility, opening up avenues for new mobility services and mobility-as-a-service, having therefore an impact on occupancy rates.

• This is a great opportunity to improve the whole transport system for the consumer but we need to ensure that the direction is right: digitalisation should help us increase transport efficiency but also turn clean.

• We need to look at the whole spectrum of connected, cooperated and automated mobility. We need to remain vigilant so that increasingly autonomous vehicles do not aggravate conditions of congestions in our crowded cities.

• Making public authorities and industry work closely together through a public private partnership will be crucial in that respect.

• For this to happen we need to optimise our transport systems, and our logistic processes, reducing empty runs and eliminating unnecessary moves. We need to promote the use of more efficient modes like rail and waterborne transport.

Where will we be in 10 years time?

[Working Programme for the Revision of the ITS Directive]
• I’m pleased to inform you that the Working Programme for the Revision of the ITS Directive has been unanimously approved during the last ITS Committee, held on the 13th of November, last week.

• Cooperative Intelligent Transport Systems (C-ITS), came quite obviously on the top priorities, to take account of the rapid evolution in the development of new technologies and services.

• Also the Revision of current specifications for EU-wide real-time traffic information services. This activity will consider possible additional data types, in particular relevant data types at urban level (priority area I of the ITS Directive).

• The objective is to extend the geographical scope so as possibly to cover the whole road transport network.

• On Recharging/refuelling points, we will look into the accessibility of static and dynamic information (including pricing information) on the whole territory of the Union (priority area I of the ITS Directive).

• As announced in the Communication on ‘An EU strategy for mobility of the future’, we will consider the need for specifications on access to vehicle data for the needs of public authorities, road operators and any other parties in charge of road operations, in particular for traffic management purposes (priority area I of the ITS Directive).
And eCall on the extension to other vehicle categories, interoperable payment and ticketing, continuity of traffic and freight management services will also be addressed.

These activities will start with a mapping exercise with Member States experts, to be validated by the ITS Committee, for a further clarification of its scope.

[Intelligent Mobility]

Mobility will become intelligent, only, when we are able to increase the efficiency of the transport system as a whole. Intelligent Transport Systems mean to be able to coordinate the mobility systems, complementing a high-quality public transport system with car sharing, ridesharing and on-demand passenger transport services, and soon, by automated collective transport. To combine all that with better multi-modal options and active modes – walking and cycling – while allowing cities to become even more liveable with less congestion and less emissions.

This will also be essential to ensure that the mobility policy of cities can be translated into a more cooperative and integrated management transport system. The interaction of the Intelligent Transport Cooperative Systems domain should not therefore be confined to vehicles and infrastructure. It should be reflected in the orchestration of the various mobility systems and services. This means putting into practice collaboratively, when necessary, appropriate traffic
management measures, seeking to reconcile the needs of individual mobility with the safeguarding of collective interest.

- This data flow should be used to develop a layer of innovative services and applications that are made available through digital technologies to the various networks and transport systems. It is therefore necessary to accelerate the availability and facilitate access to transport data and to ensure that the exchange and re-use of data is in favour of the principles of safer, cleaner and integrated mobility.

- Establishing this digital architecture will require interoperable interfaces and continuity of services in a data ecosystem that is intended to be efficient and secure.

- We are not looking for a ‘big brother’ in Mobility. Quite the opposite.

- The vision of a world where everything is connected (everything, everyone, everywhere) does not have to be incompatible with the diversity of options, freedom of choice and decentralized system governance.

Ladies and gentlemen,

[Conclusions]

- Decarbonisation and digitalisation will fundamentally reshape our transport sector. Future transport will be clean, connected, safe – and it needs to be competitive!
• Because we are in Salzburg, the birthplace of Mozart, I could not have a better excuse to share with you my vision:

• If we imagine the mobility of the future as an 'orchestra' of different transport systems, each one a different instrument, it will be necessary to follow a 'scoreboard' in order to be able to listen to music. Otherwise mobility will turn into deafening noise. The combination of the various systems should, when necessary, contribute in a synchronized, precise and harmonious way to reproduce a particular melody. The so-called 'instrumentalization' of mobility systems. Combinations of different systems for different situations. Music is the result of coordination and collaboration and the ‘scoreboard”, the element that interconnects the different systems: negotiation, collaboration and integration algorithms that make it possible to move from data to action.

• But the 'orchestration of mobility services' will require a 'conductor'. The neutral element that plays no instrument but is essential to music. A role that will undoubtedly be under the purview of the public sector.

• A Conductor that will pursue technological leadership of the EU in the transport sector, which is vital social and economic importance, and define a clear, long-term policy framework.

• It is, therefore, key to realise the quick delivery on all our mobility packages.

• Thank you for your kind attention.