Speech Niklas Gustafsson Volvo Group 20150415 United Nations Economic Commission for Europe

(slide 1 Niklas Gustafsson Volvo Group)

Dear ministers, ladies and gentlemen,

Thank you for this opportunity to address some issues of importance to the Volvo Group.

(Slide 2 One of the world's leading manufacturers of commercial vehicles)

The Volvo Group is one of the world's largest manufacturers of trucks, buses, construction equipment and industrial and marine engines. With our headquarters in Gothenburg the Volvo Group employs about 100,000 people, has production facilities in 18 countries and we sell our products in more than 190 markets.

(Slide 3 The Volvo Groups vision is to become world leader in sustainable transport solutions)

Our vision is to be the world leader in sustainable transport solutions. When we talk about sustainability, we use three definitions: environmental, economic and social sustainability. Traditionally, sustainability in the transport industry has primarily involved reducing the environmental impact. Naturally, the environmental dimension is still very important, but today we have a broader focus.

The Volvo Group has a long history of pioneering innovations within safety and environmental care. And I am convinced that innovations and new solutions in the transport sector can be a catalyst for all three dimensions of sustainability. But in order for this to happen, closer cooperation between business and policymakers is vital.

Today I would like to talk about how the Volvo Group, as one of the leaders of our industry, can collaborate with you as policymakers to make sure that innovations and new solutions are used to the benefit of competitiveness and sustainable development.

Several of the global challenges the world faces are directly or indirectly related to the infrastructure and the transport sector. They include climate change, population growth, urbanisation and a shortage of natural resources and raw materials. All of us here today have a joint mission to facilitate and support the needs of growing global trade, mobility and welfare by increasing transport and resource efficiency. In order to meet these challenges it is absolutely crucial to use existing transport systems in more efficient ways.

Today Europe faces both political and economic uncertainty. In this situation, sustainable transport is a necessity for economic growth, employment and welfare. Access to transport is a precondition for trade and GDP growth. The recovery of the European economy will increase demand for transport and this is a challenge that we all have to commit to.

We have to make sure that the European transport system integrates all modes of transport and allows both citizens and trade to be mobile. In order to contribute to the recovery and future prosperity of Europe, the transport system must allow different modes of transport to interact together in the most efficient way. We need investments in new and intelligent infrastructure which can increase mobility and safety while lowering the environmental impact of transportation.

Mobility is a prerequisite for competitiveness and an important enabler of growth and welfare. Without it, the societies where many of us live would not function. But today transport possibilities are restricted in many places due to poor transport infrastructure. Restraints on mobility have a negative impact on industries and increase emissions, noise, accident risk and social costs.

Most transport systems are efficient in theory, but in reality many are not utilized to their full potential.

So what kind of innovations can increase transport efficiency today? One area where the Volvo Group sees potential for great progress is in ICT, information and communication technology. I believe that ICT can have a positive impact on mobility and pave the road towards transport and resource efficiency. Let me give you some examples of future mobility solutions that involve ICT:

(Slide 4 Pioneering connected transport solutions)

Platooning and automated driving: Platooning is another term for road trains, i.e. vehicles driving in a convoy with narrow gaps between the individual vehicles. Platooning for trucks has demonstrated a fuel-saving potential of 10-20%, due to reduced aerodynamic drag and avoidance of unnecessary acceleration. The Volvo Group is performing demonstrations with commercial vehicles and combinations with trucks and cars.
For isolated sites we also perform tests for construction equipment vehicles at construction sites. The company with the same brand as ours, Volvo Cars, will perform automated vehicles demonstrations in the streets of Gothenburg.

Telematics: Telematics is an area of technology based on vehicles being wirelessly connected. Connected services could change the way transport is carried out in cities and decreasing emissions of CO2 and toxic pollutants . Vehicle manufacturers use telematics to provide additional services and systems that help commercial vehicle operators to make more efficient use of their fleets and decreasing operating costs.

Bus Rapid Transit: BRT has proven to be a game changer for urban mobility: The system can achieve subway speed and capacity at about five percent of the cost.

ITS solutions: ITS stands for Intelligent Transportation Systems, which is about using modern communication technology to make travel smarter, safer, faster, and more convenient. ITS includes applications such as intelligent traffic control systems, traveler information systems, automatic toll collection, Volvo experiments on real urban road networks have indicated positive fuel savings of up to 12%.

City Mobility Programs: In these programs the Volvo Group works collaboratively with public transport and distribution decision-makers to develop and apply new technologies and transport solutions, such as hybrid and electric vehicles. In addition to supplying vehicles, the Volvo Group is providing more and more assistance to cities in planning the infrastructure required for the introduction of electric and hybrid buses.

Technology will provide sustainable solutions only if they are affordable, environmentally sound, and socially acceptable (for example, safe to use). Some new technologies are already mature and cost-effective if the complete life cycle of a vehicle is considered. In other areas, society must support the implementation of new technology in the transport system.

Platooning and automated driving are examples of innovations that rely strongly on state-of-the-art ICT applications involving drivers, vehicles, infrastructure and traffic management. They are now being demonstrated under real circumstances, and a new legislative framework is needed to enable them to be introduced publicly on a large scale. Current legislations are not supportive for introducing this new technology. One of the reasons for stressing this topic is the discussions about amendments of the 1968 Convention on Road Traffic (Vienna Convention). Article 8.5 in the convention states that: "Every driver shall at all times be able to control his vehicle or guide his animals". Should a highly automated vehicle be regarded equal to driver in this respect? The society needs to rethink the roles and responsibility between manufacturers of vehicles, road users and infrastructure suppliers.

(Slide 5 Video demonstrating Collision warning with emergency break.)

Here I would like to show you a quick demonstration of our Collision warning with emergency break.

(Slide 6 Setting a new standard for public transport)

As a final example I would like to mention Volvo´s introduction of fully electric busses in the public transport system in Gothenburg later this summer. We cooperate with a number of players including the City of Gothenburg, the Swedish Energy Authority and Science clusters. We have introduced a public transport system initiative for the full electrification of city buses, named ElectriCity. It will go into operation as a fully commercial bus route in 2015. An important part of the initiative is a set of new ICT applications that focuses on aspects including service for travelers, safety and traffic management. The fully electric bus will deliver silent transport, 99% CO2 reductions, 80% energy savings and no local exhaust emissions, which open up the opportunity for indoor bus stops, such as inside shopping malls.

These cases would never have been possible without strong cooperation and commitment from politicians and authorities. It is important to bear in mind that these cases are interesting as they challenge the present standards for transport solutions and legislation. And they could not have been carried out without a clear business case. Volvo initiated both of the projects, and we are prepared to take a step forward in collaboration with authorities.

In these cases, we are definitely looking at game-changing development. And if we examine what is already out on the roads today, many of our new products contain ICT solutions. Vehicles are becoming increasingly intelligent but roads remain the same as they have been for centuries. Almost all the intelligence is in the vehicles. The lack of ICT solutions in infrastructure means we are not utilizing the potential for sustainable transport systems.

As one of the world's largest manufacturers of commercial vehicles, our investment in ICT is money well spent for our long-term benefit. It certainly contributes to our competitiveness, but at the same time it exposes us to risk if we do not receive the expected pay-off in due time.

We have seen a high interest from external parties for providing remote services while the risks of opening up the vehicles have not been elaborated completely and the exposure for tampering that brings. The industry also need to balance with the privacy of the users, the impact on the environment, the safety and security of the vehicles and in the end consider liability issues when we are opening up the vehicles or providing access points for data created by the vehicles. A free, direct and open access to the vehicles may not be the best solution and an "Open Platform" always comes with a "but". I'm convinced that it is needed to have limitations on data and set conditions on the accessibility for the sake of sustainable traffic solutions.

Implementing Cooperative ITS without serious involvement from vehicle manufacturers and a detailed consequence analysis could endanger the great opportunities C-ITS could provide on the society, and thus creating more harm than good. In this sense it is very important that decision makers are listening to the actors in society that is prepared to take full responsibility. We are prepared to continue securing the interests of our customers, traffic safety and environmental care. My humble request to policy makers is not to rush into decision making without anchoring the technical details in the practical solutions.

(Slide 7 Recommendations for competitiveness and sustainable development)

The industry needs **consistency in policies, long-term continuity and stability** to be able to invest in and develop sustainable transport solutions. Transport solutions should be seen as tools for fair trade and integration of society. To utilize the full potential of the transport system we need to avoid local legislations and standards and promote equal opportunities across country borders. For a global manufacturer like the Volvo Group, **global harmonization** is very important.

At the same time we need the freedom to select the best technical solutions and we need legislations that are not technology prescriptive and that allow flexibility to foster innovation and competition among vehicle manufacturers. Here we need a political leadership.

We also need much stronger support from authorities and society as new paradigm shift concepts are very cost intensive to introduce. Society must be prepared for introducing them, for instance within the framework of infrastructure and connectivity standards.

The Volvo Group has global knowledge and experience which we are more than willing to share. For instance, Volvo Group CEO Olof Persson co-chairs the UN high-level advisory group for sustainable

transport and it is our ambition to deliver concrete actions, in order to accelerate the transition to a sustainable transport system.

As I mentioned in my introduction, ICT solutions can be a catalyst for competitiveness as well as environmental, economic and social sustainability. **Securing the interests of our customers, traffic safety and environmental care.** In this area we have everything to gain from closer cooperation between policymakers and industry. I believe this is vital if we are to address the severe challenges the world is currently facing.

Thank you!