European strategy on cooperative intelligent transport systems

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PURPOSE: to adopt a European strategy on Cooperative Intelligent Transport Systems (C-ITS), a milestone towards cooperative, connected and automated mobility.

BACKGROUND: in the very near future, vehicles will interact directly with each other and with the road infrastructure. This interaction is the domain of Cooperative Intelligent Transport Systems (C-ITS).

Communication between vehicles, infrastructure and with other road users is crucial also to increase the safety of automated vehicles. Digital technologies help **reduce human error**, by far the greatest source of accidents in transport. It is expected to significantly improve road safety, traffic efficiency and comfort of driving, by helping the driver to take the right decisions and adapt to the traffic situation.

They can also create a truly multimodal transport system integrating all modes of transport into one mobility service, allowing people and cargo to travel smoothly from door to door. And they can spur social innovation through new forms of value creation such as the collaborative economy.

The steady trend in improving road safety that the EU has seen over the last decade has slowed down. The **coordinated and rapid deployment of cooperative, connected and automated vehicles** in road transport urgently requires EU action.

The market potential of cooperative, connected and automated driving is estimated to be worth dozens of billions of euro annually and to lead to the creation of many new jobs. The strategy therefore delivers on the Commission's political priorities, notably its Agenda for Jobs, Growth and Investment, the Digital Single Market and the Energy Union.

In the **Declaration of Amsterdam in April 2016**, European transport ministers urged the European Commission to develop a European strategy on cooperative, connected and automated vehicles.

CONTENT: the objective of the European strategy on Cooperative Intelligent Transport Systems is to allow for a **wide-scale commercial deployment of C-ITS as of 2019** in order to avoid a fragmented internal market in the field of C-ITS and create synergies between different initiatives. It addresses the most critical issues, including cyber-security and data protection and interoperability and recommends action at different levels to meet the 2019 target date:

(1) Definition of common priorities: this Communication sets priorities for a coordinated deployment of CITS services by Member States and industry. The Commission considers that a **list of technologically-mature and highly-beneficial C-ITS services** should be deployed quickly so that end-users and society at large can benefit from them as soon as possible. This early deployment list is defined below as the Day 1 C-ITS services list (hazardous location notifications and signage applications). The Commission will support Member States and industry in deploying Day 1 C-ITS services, notably through the Connecting Europe Facility, European Structural and Investment Funds and the European Fund for Strategic Investments.

In a second phase, the Day 1.5 C-ITS services list would be deployed.

(2) Security communications: as the transport system becomes more and more digitised, it may also become more vulnerable to hacking and cyber-attacks. The Commission seeks to develop a common **security and certificate policy** for deployment and operation of C-ITS in Europe. It will publish guidance regarding the European CITS security and certificate policy in 2017.

(3) Data protection: data broadcast by C-ITS from vehicles will, in principle, qualify as **personal data** as it will relate to an identified or identifiable natural person. The implementation of C-ITS therefore requires compliance with the applicable data protection legal framework.

C-ITS service providers should offer transparent terms and conditions to end-users, using clear and plain language in an intelligible way and in easily accessible forms, enabling them to give their **consent** for the processing of their personal data.

(4) Communication technologies and frequencies: drivers expect to receive all information on traffic and safety conditions seamlessly across Europe. The Commission considered that this can only be achieved through a **hybrid communication approach** combining complementary and available communication technologies.

To support all C-ITS services on the vehicle side, the full hybrid communication mix needs to be on-board. Currently, the most promising hybrid communication mix is a combination of WiFi based short range communication and existing cellular networks.

(5) Interoperability at all levels: C-ITS deployment initiatives within the EU should define and publish the technical C-ITS communication profiles needed to ensure the interoperability of Day 1 C-ITS services. They should also develop test procedures to check the interoperability of these profiles. The Commission will make full use of the C-Roads platform as the coordination mechanism for C-ITS deployment at operational level.

(6) Develop the right legal framework: rapid technological developments and the complexity of the issues at stake mean the right legal framework is needed. The Commission believes this framework needs to be developed through learning by experience, using feedback from and interaction between the C-ITS deployment initiatives and the C-ITS Platform.

As a result of this process, and in close cooperation with all stakeholders, the Commission will consider using the ITS Directive 2010/40/EU. Other legal instruments might also be considered, e.g. for compliance assessment processes.

(7) International cooperation: the EU has already benefitted from cooperation with Australia, Japan, Singapore and the US in areas such as research, security and harmonisation of standards.

The Commission will **continue promoting the convergence and coordination** of C-ITS development and deployment activities in cooperation with international partners and initiatives.

In conclusion, the Commission calls upon all parties concerned, and in particular Member States and industry, to support the approach presented in this Communication, and **collaborate at all levels and across sectors** to start deploying cooperative intelligent transport systems successfully in 2019.