EVENT REPORT

Konrad-Adenauer-Stiftung e.V.

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09.02.2017

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Think Digital! Workshop

Intelligent Traffic Management Systems for Europe

08 February 2017| 8.00 am – 10.00 am
European Parliament Brussels

***Intelligent Traffic Management Systems for Europe* was the topic of the second session of our "Think Digital!" event series organized by the European Office of the Konrad-Adenauer-Stiftung in cooperation with Google, Siemens and ZVEI. Under the slogan "Making urban traffic more efficient", the organizers welcomed a panel of policy makers and industry representatives on 08 February 2017 in the European Parliament. Digital technologies have been developed which may drastically change individual transportation. While the participants agreed on the extraordinary benefits of these technologies for safety, pollution levels and traffic congestion, they also expressed concern that Europe would fall behind if implementation was not forthcoming. The debate was initiated by statements from Dita Charanzová (MEP), Dr. Steffen Nolte (Head of Economic and Legal Policy, Corporate Representation of Daimler AG in Brussels), Dr. Gerhard Ploss (CEO SWARCO Traffic Systems GmbH) and Claire Depré (European Commission, Head of Unit B.4 – Sustainable & Intelligent Transport).**

Digital technologies have revolutionized many aspects of our daily life. And although modern cars rely heavily on software to provide assistance to the driver including functions such as automated lighting, traffic warnings and emergency braking assistance, the full benefit of digital technologies in the transport sector will only be realized when cars begin to communicate with each other and with the infrastructure they are using. Communication between cars and with the roadside infrastructure transforms vehicles from autonomous systems into cooperative systems. Traffic management systems which incorporates these methods are called *Cooperative Intelligent Transport Systems* (C-ITS).

During his speech, Dr. Gerhard Ploss from SWARCO recalled how the first programs to develop C-ITS in Europe date back to the 1980s, when there were no industry standards or digital technologies available. Today, as all participants equally stress, the technologies for a full implementation of C-ITS are readily available. Indeed, as Dr. Steffen Nolte from Daimler points out, they have been used since 2003 in the truck business, where connectivity systems are used to monitor and manage the companies' fleets. The panel agreed that it was now time to bring connectivity to all forms of road-transport.

If fully implemented, intelligent traffic systems could bring about a wide range of significant benefits. First, by informing drivers of traffic-light phases and roadworks and by warning them of hazardous situations, such as accidents, obstacles or icy roads, these systems contribute greatly to the safety of driving. Road safety has steadily increased in Europe over the last decades, but recently this progress has slowed down. Intelligent traffic systems are uniquely suited to bring a new boost to safe driving. Second, by coordinating individual vehicles, congestion can be reduced. This allows for a smooth and nuisance-free driving experience, but it also has an important economic implication,

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given that traffic jams are a huge cost to the EU economy. Third, enabling unobstructed travelling has a highly significant impact on the environment. Road transportation is still a major contributor to air pollution. Intelligent traffic systems do not only help avoid congestion, but they may also be used to integrate different forms of transportation, helping commuters to use public transport when available.

Technological Aspects

While the overall benefits of intelligent traffic systems are well understood, it is yet unclear which industry sectors will be involved in their implementation. Within this context, Dr. Nolte of Daimler advocated the *extended vehicle concept*, an industry standard jointly developed by European car manufacturers. The concept provides for external hardware and software extensions for vehicles. These extensions are developed, implemented and managed by the vehicle manufacture, and the manufacturer is also fully responsible for the communication between the various parts of the extended vehicle.

Nolte's remarks mirror a 2014 Strategy Paper by the European Automobile Manufacturers' Association (ACEA), which states that "ultimately, vehicle manufacturers are responsible for the safety and integrity of their products." The strategy contends that vehicle manufacturers have invested "consistently and extensively" in automobile IT systems. The paper warns that a "very small number of companies based outside the European Union could rapidly acquire the same dominant position in the area of in-vehicle services as they already have in the field of data processing, search engines, online services or smartphones."

Nolte explained that the manufacturing industry's standard can guarantee a free flow of data, which means that various third-parties may access the data streams, something that would facilitate innovation and competition. This again finds correspondence in the ACEA strategy paper, which states that the "vehicle manufacturers are fundamentally willing to share selected vehicle data with third parties provided this occurs in a way that meets strict requirements for road and product safety, as well as data security, and does not undermine their liability."

Among all panelists, the questions of data protection and cyber-security were identified as highly relevant. These two points are rightly mentioned in the EU Commission's Communication on C-ITS ("A European strategy on Cooperative Intelligent Transport Systems") as being especially relevant for public acceptance of intelligent traffic management. Dita Charanzová (MEP) stated that the necessary technology exists to fulfil both the privacy and the security requirements, but that the technology is not yet being used on connectivity systems. One particular interesting question was whether an individual driver would be allowed to opt-out of data collection. A participant of the workshop pointed out that location data would fall under the EU's General Data Protection Regulation, which has been adopted on 27 April 2016. Nolte agreed that private data needed to be protected. He thus recommended that all transmitted data should be anonymized, but if an individual preferred that no data be recorded, this would have to be respected. Claire Depré of the European Commission concurred, but said that certain safety-relevant data might ultimately be exempt from privacy protection.

Although much attention naturally fell on the cars themselves, Gerhard Ploss underscored the importance of car-to-infrastructure systems. Depré fully agreed and said: "This is the first time – honestly – since I've been working on this topic that there is a workshop on traffic management. It is usually always about connected cars." Ploss explained that today there are at best individual detectors in the road-network. "Between those detectors we are blind," he said. If cars were to submit their data to the infrastructure management, it would give traffic managers the full picture.

Political Aspects

Given the well understood benefits of intelligent traffic management, and the general consensus that the technologies are ready,

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Charanzová found a neat way to summarize the meeting: "How can we get all these connected cars from the test track to the hands of the EU citizens?"

All participants agreed that the time to act was now. Charanzová said: "If Europe does not act now, we will not be a leader in developing the infrastructure of smart mobility." Depré also said that the Commission was eager to push forward. The Commission's strategy on intelligent transport systems was well received by all present. Nolte was content that the Commission refrained from regulating too much at this point. Premature regulation could lead to technological dead-ends and to disincentives, he said. Depré responded that the Commission would indeed not regulate too much, but that there would have to be rules in certain areas such as interoperability. This reflected the opinion among the speakers that there is a need for an EU-wide framework, to ensure that connectivity functioned in all EU countries equally. Charanzová stated: "If you want to ensure one level EU-playing field, you need, for the sake for all of us, users and industries, to come up with certain rules. We will need one EU package."

Still, the question of why the available technologies were not being implemented remained problematic. Nolte said that the underlining issue was that of a missing business case. He used the truck industry as an example. While there was a business case for truck companies to invest in systems that allowed them to manage their fleets already in the early 2000s, there seemed to be no comparable business case in the private transportation market. Ploss said that cities which are now investing in traffic infrastructure should understand that these systems would stay in place for a long time. "They should be future ready. There is a political will to become connected, but they do not buy it on the ground. And I really wonder why."

Charanzová ended the event by saying that from her point of view, the benefits of intelligent traffic management outweighed all risks. But she also said that one would have to keep an open-mind and be understanding towards skeptics. "We need to have more people who are happy about these new technologies."

Sources

ACEA Strategy Paper on Connectivity, April 2016, Link.

A European strategy on Cooperative Intelligent Transport Systems, a milestone towards cooperative, connected and automated mobility, Brussels, November 30, 2016, Link.