At a glance

Feedback on the Revision of the Directive on Intelligent Transport Systems

What is this about?

As Germany's digital trade association, aiming at fostering a smart and sustainable future for Europe, Bitkom drafted this position paper as a feedback to the EU Commission's proposal on a revised Intelligent Transport Systems (ITS) Directive.

Bitkom's view

Goes into the right direction: Overall, Bitkom welcomes the revision of the ITS Directive and the EU Commission's intention to fully exploit the manifold opportunities offered by the digitalisation of transport infrastructures and mobility services. Bitkom would, however, encourage a clear affirmation of technology neutrality. Furthermore, the revised Directive should provide a legal basis allowing for long-term planning, limiting the room for subsequent adjustments through delegated acts to a minimum.

Core points

- **Facilitate technology neutrality to ensure innovation:**
  A harmonised, technology-neutral regulatory framework is paramount to stimulating innovation and market-based technology choices. In light of fast-paced innovation, where different V2X technologies coexist, interoperability standards should focus as much as possible on the service-layer and non-discriminatory requirements between existing technologies, as long as interoperability is ensured.

- **Establish an industry-driven group of experts to tackle C-ITS issues:**
  Bitkom suggests to establish a permanent industry-driven group of experts (e.g. named "C-ITS Operations Task Force"), which is transparent and open for every industry and company directly involved in the deployment of C-ITS services including suppliers, with a clear mandate to quickly resolve points of disagreement regarding communication technologies and standard compliance.

- **Ensure proportionate data sharing:**
  Data-driven mobility services are key for a sustainable and future-proof transport system. However, mandatory data sharing requirements for mobility providers would hamper the availability and quality of services, ultimately making it detrimental to customers' acceptance. Therefore, it should be left to the market players (i.e. data providers) to determine which data supporting ITS services is best suited for a given use case and event.

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1 General Remarks

Bitkom welcomes the revision of the ITS Directive and the EU Commission's general intention to accelerate the deployment of smart, multimodal, and sustainable mobility. The digitalisation of transport infrastructures and mobility services offers manifold opportunities, which are, at present, not being exploited to the fullest. Therefore, we advocate for establishing a harmonised, technology-neutral regulatory framework, stimulating innovation and market-based technology choices.

In the same manner, we support the Commission's intention to facilitate EU-wide multimodal travel information, in particular information on environmental impact, ticketing and payment, which would allow passengers to make an informed and sustainable choice in an integrated transport system. However, in order to ensure a comprehensive understanding of the 'big picture' and overarching goals, it would be beneficial to link the revision of the ITS-Directive with related legislative initiatives (e.g. the initiative on multimodal digital mobility services).

Moreover, we advocate keeping the door open for new technologies and ITS services, thus providing for technology neutrality. Technology neutrality should primarily relate to higher layers, without however abandoning it on lower layers. Especially on higher layers, technology neutrality can serve as a catalyst for faster market penetration of C-ITS technologies. Based on this approach, new and evolving technologies can consequently also be taken into account (e.g. computer vision).

It is, however, important to ensure that systems, applications, services, and the underlying business processes have the capacity to exchange data and share information in a standardized format across OEMs and with the infrastructure. The exchange of information must take place in a trusted environment, i.e. based on agreed standards for trusted information and data quality. Interoperability assures that the C-ITS information exchanged can be understood by all users. It is key to integrate different vehicle brands, road operators and all road participants to facilitate road safety applications for the benefit of all road users. ITS systems should therefore be engineered bearing in mind life cycles of different players, car OEMs and road infrastructure and ensure that evolution does not impact delivery of C-ITS services.

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Ultimately, the proposal provides for a legal basis to adopt delegated acts to amend the list of data type listed in Annex III as well as the list of deployable ITS services specified in Annex IV. In order to ensure the greatest possible certainty for the deployment of ITS, it is crucial that there is clarity on the types of data and services. Resorting to future regulation through delegated acts might affect this clarity. Where delegated acts are adopted, the impact assessment must thoroughly be carried out through consultations with stakeholders.

2 Ensuring a Coordinated C-ITS Deployment and Establishing an Industry-driven "C-ITS Operations Task Force"

In order to reach the full potential of C-ITS services, particular attention should be given to a coordinated cross-border deployment to maintain the geographical continuity of such services throughout the EU. Such an enabling environment will be conducive to the rapid deployment of C-ITS by vehicle manufacturers and road authorities, delivering upon the EU road safety and climate neutrality goals.

Regarding the provision of trusted and secure communication and accordingly the proposed Security Credential Management System, Bitkom would like to emphasize that it must be possible for receivers of C-ITS messages to determine that the sending C-ITS station and the included data are trustworthy. C-ITS message receivers need to be able to establish trust regardless of communication technologies used. For applications based on direct communications, the appropriate means to establish trust is through certificates issued by a Public Key Infrastructure (PKI). Instead, in network-based communication trust is established through a subscription of the owner of the C-ITS station to a service provider. The service provider takes care of the trustworthiness of the service and, consequently, the data exchanged within the service. If the latter can be ensured, a mandated PKI for long range communication is not necessary.

Ensuring adequate involvement of the industry will be key to a successful and timely deployment of C-ITS. Bitkom thus suggests establishing a permanent industry-driven group of experts (e.g. named "C-ITS Operations Task Force"). The task force could be built on the existing European ITS Advisory Group. It should, however, only focus on issues pertaining to C-ITS. The membership would have to be open to every interested company involved in the deployment of ITS services, including suppliers, to allow for a wide-scale industry involvement. In order to ensure efficient and targeted work, the group shall be tasked with a clearly defined work programme. Above all, the work programme should contain a clear mandate to discuss points of disagreement regarding communication technologies (e.g. the issue being network-based or back-end-based, long rage vs. short range communication) and standard compliance. As a result, the group could thus be tasked with providing industry-driven guidelines meant to support private and public interests. These guidelines could ultimately be evaluated by the member states and the Commission. To prevent redundancies and ensure the added value of such a task force, attention shall be paid to

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avoiding overlaps with existing initiatives. Where common issues arise among existing expert groups, forces should be joined to provide consistency throughout all legislative initiatives.

With regard to currently available technologies, all C-ITS use cases should accordingly be (re-) evaluated by the European Commission. An essential share of socio-economic benefits can be derived from use cases that are enabled and/or supported by Vehicle-to-Network (V2N) communications along with Vehicle-to-Vehicle (V2V), Vehicle-to-Infrastructure (V2I) and Vehicle-to-Pedestrian (V2P) connectivity. Many positive examples of C- ITS applications based on various technologies already exist. In addition to safety gains (reducing road accidents involving vulnerable road users), these will produce more efficient transport, predictable travel time with minimal traffic congestion, and will improve environmental footprint.

In this context, the above-mentioned expert group should always be alert to the difference between safety relevant and non-safety relevant applications. After all, the group should always ensure a consensus-based approach and pay due regard to the need for coordination within the industry.

3 Preserving Technology Neutrality, Increasing Interoperability and Cross-Border Continuity of ITS Applications, Systems and Services

We advocate for establishing a harmonised, technology-neutral regulatory framework, to stimulate the emergence of new technologies and ITS services. Hence, we would like to call for an explicit reference to technology neutrality among the key principles for specifications and deployment of ITS listed in Annex II.

The revised ITS rules should be based on objective KPIs (e.g. decreased incidents for safety, reduced pollution levels for the environment, increased throughput for traffic efficiency etc.) while avoiding mandated technical specifications and should not require any specific technology implementation. Technical details such as standards, specifications, and communication system profiles, including those required to ensure interoperability, should be adopted by European standards developing organisations (SDOs).

By having interoperable, EU-wide solutions rather than fragmented ones, there is a strong potential for network effects and efficiency gains. Individual ITS services can more easily be integrated into combined service offerings, making the ITS market broader and more widely available. Our understanding is that this will inevitably lead to the emergence of a genuine EU-wide ITS services market. Here, the National Access Points (NAPs) will play a crucial role. However, in order to fulfil the aims of data and service delivery (listed in Annex III & IV of the ITS Directive), the NAPs should be improved to make the data and services accessible cross-border and cross devices. In fact, NAPs are not yet set up to exploit their full potential

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and only scarcely deliver data (the Data for road safety's technical setup, for example, is finished but has not yet reached its full potential). In order to improve this setup and most notably the quality of the offered services, possibilities for monetarization along the value chain of mobility data must be granted.

Problems related to interoperability can be addressed by specifically applying well established IoT methodologies e.g. web services and machine-readable interface descriptions to assure EU-wide continuity. The extra benefit of hybrid communication should be considered in the review where the long-range part does not require low latency to provide a benefit. For low-latency covered by direct communication-based applications, the remaining interoperability problems can be solved through innovation. These issues could be well addressed by the suggested "C-ITS Operations Task Force" mentioned in the above.

On the standardization side, a viable path forward to address interoperability issues could be that the "C-ITS Operations Task Force" defines ITS application profiles that are differentiated by their respective technical and safety related requirements. In a second step, the C-ITS Operations Task Force could then map the application profiles to specific V2X technologies in close collaboration with the V2X technology providers. The resulting mapping would serve both as guidance to ITS application providers, IT system integrators, and ITS operators and provide planning security to the ITS technology providers themselves. The application profiles should become part of the framework and directly contribute to the enforcement of the principle of "technology neutrality".

With regard to the digitalisation of the transport infrastructure, digital twins of the relevant physical elements should be created on the long-term in order to provide road users with relevant transport data. The data's reliability is crucial in this matter. Nevertheless, it should be avoided to ask for liability of this information, as this raises a high barrier of digitalisation of the traffic infrastructure. In order to achieve a speedy implementation of digital twins, there are some key area of action to be considered[1]: First of all, digitalisation should start with static elements of the transport infrastructure, the available transport-relevant data incl. their digital images as well as the provision of data via web-enabled interfaces. In a second step, existing traffic light systems, variable message signs, parking guidance systems and level crossings should be enabled to digitally send their dynamic data to traffic management. Building sites and road works are to be digitally mapped as promptly as possible. Funding for new traffic infrastructure, expansions or upgrades are to be tied to digital requirements. In terms of the technical implementation, more specific profiles for the digitalisation of transport infrastructure need to be developed based on already specified standards for data models. As the availability of movement data from transport

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[1] Cf. German National Platform Future of Mobility, WG 3, Digitalisation for the mobility sector: Fourth interim report, Recommendations for the Digitalisation of Transport Infrastructure. URL: https://www.plattform-zukunft-mobilitaet.de/wp-content/uploads/2020/12/20201210-NPM-Bericht-AG3-DVI-final.pdf [as of 18.03.2022].

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users is critical for more efficient traffic management, ensuring their legal use and compliance with basic data protection standards is key. Finally, interoperability and technology neutrality principles are key for the realisation of a digital twin in a striving and growing ecosystem.

4 Ensuring Coherent Legislation and Proportionate Data Sharing

With regard to the availability and sharing of data supporting ITS services, it should be left to the market players (i.e. data providers) to determine which data is best suited for a given use case and event. Innovation between vehicle and infrastructure providers is paramount and the full potential of the data economy is being activated by all vehicle manufacturers. Data availability does not equal mandated data sharing. Moreover, vehicle manufacturers should be put on a level playing field with other relevant data providers in the private industry.

Article 6a of the proposal introduces the mandatory availability and provision of specific data types and ITS services according to Annex III via the NAP. Compared to existing rules which only mandate the accessibility of already existing data on the NAP, this is a significant amendment. It mandates the creation of certain data, which the Commission can define in Annex III by resorting to Delegated Acts. When drafting and implementing such Delegated Acts, considering the proportionality and expediency of data sharing should always be paramount.

Along these lines, it is crucial that the revised regulatory framework does not mandate vehicle data sharing in subsequent delegated acts, since vehicle manufacturers invest heavily in data-sharing models, including but not limited to those related to safety. Considering the fact that business models are nascent and evolving, sharing such vehicle data should remain on a purely voluntary basis and in the framework of commercial contracts between vehicle manufacturers and other actors of the value chain. Any mandatory requirements would inevitably hamper the availability and the quality of services in Europe and would ultimately be detrimental to customers' acceptance. Instead, the main focus should be put on improving government-to-business (G2B) data sharing, and notably regarding mobility related data. Beyond availability, data *accessibility* should not be overlooked in the legislative framework. In any case, a lack of respective monetisation possibilities will result in a loss of competitive advantage for the European automotive value chain.

It further needs to be pointed out that the consideration of data privacy requires further attention beyond the scope of the proposed Article 10. In addition to the bilateral commercial agreements between consumers and manufacturers (e.g. automotive OEMs), any sharing extends the original scope of this agreement out of the control of the original

data processor. This can only be mitigated by a consistent definition of necessary anonymization and pseudonymization measures for the shared data.

Ultimately, the Commission should bear in mind existing data regulations and initiatives, also on a national level, before any new sector-specific rules on data sharing are being considered. This particularly relates to the planned Revision of the Delegated Regulation 2017/1926 (to be based on the revised ITS-Directive). Existing initiatives on a national level include e.g. the German Mobility Data Space for voluntary sharing of commercial data, or the German "Mobility Data Regulation" (Mobilitätsdatenverordnung") for regulated data. In particular, the principle of sovereignty for dynamic data should be respected. Dynamic data can be a business asset for many companies. As such, it is already being shared based on commercial arrangements, in line with economic and business considerations.

5 Establishing Cooperation and Safeguarding Investments

Connected and automated transport requires significant cooperation, on top of investments, between the private and public sector, without prescribing a specific technology while at the same time ensuring interoperability. Investments in smart infrastructure can be ensured by stimulating synergies of mobile network infrastructure and intelligent road infrastructure (e.g. RSUs) along with cohesive funding mechanisms (e.g. Connecting Europe Facility). Investments in infrastructure must be subordinated to the condition of interoperability. Intelligent traffic monitoring, management and control on TEN-T and other important transport corridors should be an EU-wide priority, as it will enhance road safety and improve both transportation system efficiency and sustainability. We believe that road authorities and public road operators should make available high-quality road and traffic data to improve its accessibility, exchange, re-use and update.