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**COMMISSION STAFF WORKING DOCUMENT**  
**EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT**

*Accompanying the document*

**Commission Delegated Regulation**

**supplementing Directive 2010/40/EU of the European Parliament and of the Council  
with regard to the deployment and operational use of cooperative intelligent transport  
systems**

{C(2019) 1789 final} - {SEC(2019) 100 final} - {SWD(2019) 96 final}

## Impact assessment on the Delegated Regulation on cooperative intelligent transport systems

### A. Need for action

#### What is the problem and why is it a problem at EU level?

Over the past decade, many technological developments have facilitated cooperative intelligent transport systems (C-ITS). However, this has not yet led to large-scale deployment, despite the recognised potential benefits. In 2011, EU vehicle manufacturers jointly (through the CAR 2 CAR consortium) declared their intention to start large-scale deployment by 2015. However, it became clear that this would require a common approach by all main (public and private sector) stakeholders at EU level, as regards both technical and non-technical aspects.

#### What should be achieved?

The main policy objective is to contribute to more sustainable road transport, *inter alia* by improving road safety, reducing congestion, optimising transport efficiency, enhancing mobility, increasing service reliability, reducing energy use and environmental impacts, and supporting economic development. To achieve this, a clear framework is needed that sets minimal requirements for the interoperability, backward compatibility and continuity of services, and thus provides legal certainty in support of the large-scale deployment of C-ITS.

#### What is the added value of action at EU level (subsidiarity)?

Turning the major societal benefits of C-ITS into business cases for all relevant stakeholders is challenging. Furthermore, these benefits can be achieved only if everybody is willing to invest at the same time. Deployment makes sense for vehicle manufacturers only if they are sure that things will be harmonised, and in particular that vehicles will benefit from infrastructure services, across the EU. Similarly, although the business case is calculated differently for the public sector, it makes no sense to invest unless large parts of the fleet are expected to be equipped in the near future.

### B. Solutions

#### What are the various policy options to achieve the objectives? Is there a preferred option? If not, why?

**PO1:** Light intervention based on non-legislative measures, including non-binding guidelines on the interoperability of 'day 1' services, secure communication, data protection and compliance assessment;

**PO2:** Moderate intervention based on specifications under the ITS Directive. This would include elements similar to those in PO1, but make them legally binding through a Delegated Regulation. Nevertheless, Member States and industry remain free to decide whether or not to deploy C-ITS;

**PO3:** Strong intervention based on a vehicle-to-vehicle (V2V) mandate and the setting-up of governance bodies. This option builds further on the legally binding specifications in a stepwise approach, by ensuring that all new vehicles are equipped with C-ITS stations, drastically increasing the uptake rate and thus meeting the threshold for effective service delivery (related to the network effect) much quicker. PO3 includes additional measures that support the deployment of C-ITS and cannot be introduced through a delegated act alone:

- a legislative measure can provide a legal basis for the lawful processing of personal data relating to C-ITS. This will reduce uncertainty and probably result in the provision of more C-ITS services; and
- assigning governance roles to legal bodies will further ensure coordination and oversight on C-ITS deployment, thus ensuring that barriers to C-ITS uptake are reduced to a minimum.

On the basis of the assessment, PO2 is clearly preferred over PO1, as it secures significantly greater benefits and is more coherent. PO3 is even more effective and coherent, providing more certainty on deployment and more effectively addressing the problem drivers of data protection and lack of coordination; however, the V2V mandate would also involve significant compliance costs. The preferred approach is PO3 – a stepwise approach as provided for in the ITS Directive, where, after the adoption of specifications, a separate initiative for deployment will be considered, further analysing the efficiency and proportionality of a mandate based on the continued development of the C-ITS sector.

#### What are different stakeholders' views? Who supports which option?

PO1 has not received strong support from stakeholders, as the positive effect in terms of addressing the problem drivers and thus the deployment and interoperability of C-ITS are seen as limited due to the lack of legal certainty.

The largest group of stakeholders considered PO2 to be the most appropriate to achieve the objectives. Nevertheless, many respondents, mainly from the telecoms sector, do not support this option as they intend to introduce competing C-ITS technology that is currently not interoperable with mature technologies. Also, some stakeholders oppose binding regulations on interoperability and a common security policy, as they would have to adjust their services to integrate them into C-ITS.

Stakeholders were moderately favourable regarding the V2V mandate in PO3. Many respondents indicated that it would provide the requisite certainty on deployment, but argued that specific circumstances and the maturity of the system should be reconsidered before such a mandate was defined. Stakeholders interviewed for the deployment case studies were supportive of the establishment of EU governance, policy and operational bodies, as this was considered important for coordinating deployment across Europe.

### **C. Impacts of the preferred option**

#### **What are the benefits of the preferred option (if any, otherwise of main ones)?**

The main benefits are a reduction of accidents and fuel costs, and travel-time savings. In addition, there is a slight reduction in the external costs of CO<sub>2</sub> emissions and air pollutants. Total monetised benefits come to EUR 78.9 billion relative to the 2020-2035 baseline. This figure would rise to EUR 128.9 billion with the introduction of a V2V mandate.

#### **What are the costs of the preferred option (if any, otherwise of main ones)?**

The main costs relate to C-ITS equipment in vehicles and in roadside infrastructure. Other compliance and administrative costs are assessed, but considered minor in comparison. Total monetised costs amount to EUR 19.1 billion relative to the 2020-2035 baseline, or EUR 32.3 billion with the introduction of a V2V mandate.

#### **What are the impacts on SMEs and competitiveness?**

SMEs are likely to play a significant role in C-ITS, as they are well represented in the supply of C-ITS technologies, and as data and transport companies. They are also active participants in the current C-ITS deployment projects. The enhanced regulatory certainty and deployment of C-ITS may give them greater roles in providing the market with innovative products and services.

#### **Will there be significant impacts on national budgets and administrations?**

Although 90 % of the costs relate to equipping vehicle fleets, the cost of equipping infrastructure will largely be borne by the public sector. However, Member States remain free to decide whether or not to deploy.

#### **Will there be other significant impacts?**

Large-scale commercial deployment of C-ITS in the EU would give operators an advantage in terms of global competitiveness, giving rise to new jobs in the manufacture, installation, maintenance and operation of C-ITS stations and services. The information made available through C-ITS would also accelerate research and development in this field and the search for innovative applications for the data, making the systems more useful and enabling automation.

#### **Proportionality?**

Compliance with the specifications would be mandatory only where C-ITS services were deployed. While binding EU specifications would require existing C-ITS stations and new technological solutions to adapt to the requirements, such requirements are essential to ensure the EU-wide interoperability of C-ITS services and the planned review allows for flexibility in the development of technological solutions.

A mandate would oblige vehicle manufacturers to equip all new vehicle types with C-ITS stations. The proportionality and necessity of such a mandate can and will be assessed further, in line with the stepwise approach provided for in the ITS Directive.

### **D. Follow up**

#### **When will the policy be reviewed?**

The Commission will evaluate the new legislation at the latest three years after its entry into force. It is expected that the specifications will be revised before that date in the light of new developments (such as additional harmonised services) or more technologies (such as the existing cellular networks).