

# **Study objectives**



Objective of the study:

Support Commission with evidence based analysis to revise the ITS Directive and the related policy framework for intelligent transport systems

- The general objective of the revision of the ITS Directive is to:
  - Increase the deployment and operational use of ITS services across the EU in order to improve the functioning of the road transport systems and enable interfaces between all modes
  - Reduce the negative external effects of road transport and benefit all transport users

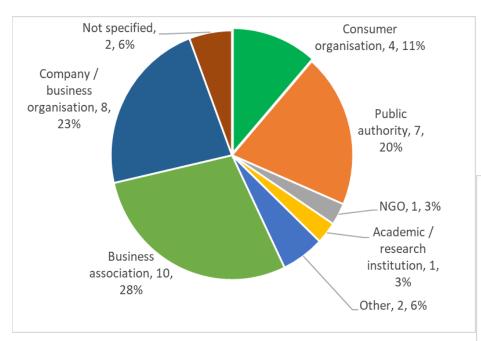
## **Study timeline**



- Inception phase (Nov-Dec 2020)
  - Draft problem definition
  - Initial list of measures
- Analytical phase (Dec-Feb 2020)
  - Problem definition (final)
  - Baseline development
  - Policy measures/options (final)
- Assessment of impacts (Mar-May 2020)
  - Impact assessment (incl. modelling of options)
  - Comparison of options
- Stakeholder consultation (throughout the study)
  - Survey
  - Interviews
  - Workshops
  - Inception Impact Assessment (closed) / Open Public Consultation (open)

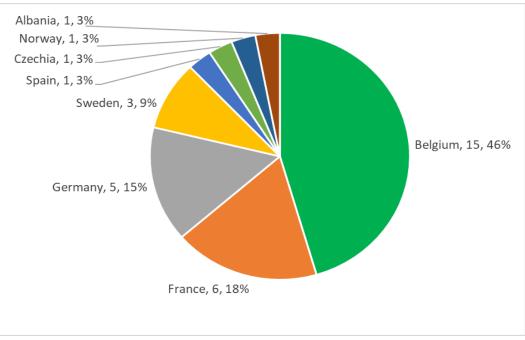
# **Overview of responses to the Inception Impact Assessment**





Summary of responses by stakeholder type (number and % of responses)

# Summary of responses by country (number and % of responses)



Consultation live between 8 October and 19 November 2020

## The Inception Impact Assessment: Introduction



- Commission identified 'three key problem drivers':
  - A lack of interoperability and continuity of applications, systems and services;
  - A lack of concertation and effective cooperation among stakeholders; and
  - Unresolved issues related to the availability and sharing of data supporting ITS services
- Around one third of the responses focused on one aspect of the third of these i.e.
   data availability and sharing
- Around another third of the responses covered all of these drivers
- The final third focused on a particular service(s), including
  - Traffic management services
  - Mobility as a service
  - Railways
  - Electric vehicle recharging
  - Tolling
  - Cycling

# **The Inception Impact Assessment: Responses**



The aim of the following summary is to provide and indication of the responses received.

Where a sector is mentioned, the response should not be taken as being necessarily representative of the views of that sector.

# Data availability and sharing (1) - In-vehicle data



- Automotive / telecommunications sectors:
  - Market players should be left to decide what data was best suited for different use cases and events
  - Data sharing voluntary if a market failure has not been identified
  - Importance of a level playing field and if data sharing was mandated, this should be through a vehicle manufacturer backend in accordance with ISO extended vehicle standards
  - No overlap of processing of real-time traffic information and safety-related information
- There were also calls for:
  - Regulation on data access to preserve user choice and allow operators of innovative services to have equal access to vehicle resources
  - Drivers to retain ownership of their data and be able to give informed consent on their use, and that drivers should have the right to choose their preferred service providers and to consent to their vehicle transmitting data

## Data availability and sharing (2) – public transport data



- From the perspective of public transport operators, when data was shared:
  - Commercial interests needed to be protected
  - Competition should not be distorted
  - Operators should not bear the costs of providing data to third parties who make a profit from this
  - Risk of third party misuse should be avoided
- It was noted that there were already a range of requirements on rail re data sharing
- There were also calls for:
  - Integration of historic, static and dynamic data (from users and providers) and for its provision and access to be open. Data sharing should be both ways – from users, public transport operators and authorities.
  - Mandatory data sharing requirements on public transport operators, as otherwise there was a risk of a concentration of information and market power that might deprive consumers of innovative services.

# Data availability and sharing (3) – Mobility as a Service (MaaS)



- MaaS providers:
  - Voluntary approach to data sharing (particularly for processed and analysed data), rather the prescriptive requirements, underpinned by privacy and data protection considerations
  - Market should be left to arrive at the best outcome for consumers
  - Data sharing to be based on data reciprocity and to support SME involvement

- There were also calls for:
  - Interoperability of data and connectivity of relevant systems needed to facilitate MaaS

# Data availability and sharing (4) – Accessible/open data and C-ITS



- There were calls for:
  - Sector-specific governance regimes that ensured non-discriminatory access to data across all mobility markets, while upholding consumer rights, and which empowered consumers to exercise their rights
  - Non-discriminatory access to transport data for all distribution channels to facilitate the development of a seamless, multimodal transport system
  - Open licencing of data to enhance availability and data sharing

#### In relation to Cooperative ITS (C-ITS):

- Open access to mobility data needed to support deployment of vehicle-2-X technology
- Mandatory exchange of information between connected vehicles and road network manager
- ITS to be able detect, control and manage unwanted behaviour in autonomous vehicles

# Data availability and sharing (5) – Other responses



- In relation to consumers' data:
  - ITS systems should be designed so that consumers had to actively give their consent
  - ITS to avoid using personal data, if possible
- There were calls for:
  - Exploration of categories of actor that produce or hold data to identify where any obligation would be most effective.
  - Need for frameworks for the governance of data to ensure they are trustworthy, of sufficient quality, and available
  - Provision of navigation data to drivers and vehicle operators, e.g. relating to urban vehicle access restrictions, should be covered by the Directive

## **Cooperative ITS**



- Manufacturers had begun to equip vehicles with ITS-G5 standard in line with C-ITS Security and Certificate Policies – need to accelerate deployment of roadside stations
- Framework needed (regulatory or otherwise) to address lack of interoperability / continuity and bind applications to current / upcoming backward compatible technologies
- Spectrum to be kept technology neutral ITS-G5 and 5G-V2X access to non-safety part of the ITS spectrum might be considered
- Need to secure availability of current spectrum and to plan for its extension
- GDPR blocks C-ITS (as requires these to be "off by default"); call for a list of approved C-ITS, which had privacy protection mechanisms in place (to be "on by default")
- Frameworks needed for **self- and third party certification** of security and functional aspects to ensure interoperability and continuity

Stakeholder input from IIA - not study

## Other issues raised by automotive (and telecomms) sector



- Lack of interoperability and continuity:
  - Support for a hybrid communication approach
  - Access to National Access Points (NAPs) with minimum set of data coherent in EU
- Lack of concertation and cooperation:
  - Better coordination of infrastructure / services deployment, integration of NAPs
- Priorities for the revision of the Directive:
  - **Technology neutrality**, choice of communication technologies left to market (if interoperability, scalability and harmonisation of ITS services could be ensured).
  - Synchronise revision with UNECE's roadmap on ITS
  - Work towards a common definition of ITS, in line with Action 1 of UNECE roadmap
  - More balanced approach between regulatory and non-regulatory measures
  - Directive to be aligned with other relevant legislation (data protection and privacy)
  - Timely / structured engagement of car industry in negotiation of delegated acts
- Need to update eCall Regulation to implement Next Generation eCall standards

# Issues raised by the public sector



- Options for extending a service or its geographical scope to be based on clear evidence, while external costs should be addressed, administrative burden limited and there should be no discrimination between sectors and economic actors
- Increasing demand for public data untenable need for debate on the monetisation of public data
- As public authorities hold a lot of non-machine readable data, this should also be made machine readable in clearly defined and well justified use cases
- Importance of not mandating services on public authorities that did not meet local needs
- Creation of ticketing interfaces was a matter of subsidiarity
- There was a need for progress on interoperability and continuity to improve replicability of solutions
- Need to clarify relationship between ITS and other relevant legislation on data and privacy
- Need to ensure that private and commercially-sensitive data is sufficiently protected

# Other specific services mentioned



- Traffic management services
  - Need to define and collate the data needed to promote development of these
  - Need for a strong framework for cooperation of stakeholders so that this work together by competing and cooperating for the attainment of a common benefit

#### MaaS:

- Need to build trust and decrease fragmentation, supported by an open system approach that included non-discriminatory access to critical assets and services (e.g. ticketing)
- Enforcement of competition rules and further development of NAPs to support MaaS providers
- Electric vehicle recharging:
  - Call for the Directive to ensure access to high quality data, while preserving privacy and commercial sensitivity, which could be facilitated by the development of sectoral approaches.
  - It was important to ensure non-discriminatory access to relevant electric vehicle data, within a standardised framework and for communication systems to be harmonised

#### Other services / issues mentioned



- Tolling on motorways:
  - Importance of ensuring co-existence of ITS and road charging applications;
     consideration of road user charging in the revision of the Directive
  - ITS Directive to support deployment of ITS and European Electronic Tolling Services
- Cycling:
  - Should be covered by EU ITS policy to ensure that it makes its contribution to MaaS
- Technology neutrality regarding communications technology:
  - It was suggested that this could be counter-productive and so there was a call for a single communication technology to be mandated
- Awareness of ITS:
  - There was a call for more information, particularly to citizens, to raise awareness of the benefits of ITS



#### Thank you!

**Original responses at:** 

https://ec.europa.eu/info/law/betterregulation/have-your-say/initiatives/12534-Revision-of-the-Intelligent-Transport-Systems-Directive-/feedback?p\_id=9170088

#### **Problem definition**



- Three problem drivers:
  - A. Lack of interoperability and continuity of applications, systems and services (across different Member States and modes of transport)
  - B. Lack of effective stakeholder coordination at an EU level
  - C. Unresolved issues related to the **availability**, **quality and sharing of data** supporting ITS services
- Study needs to support targeted action to address those key unresolved issues issues can be categorised under two broad themes:
  - The need to tackle potential shortcomings of the current regulatory framework for ITS
  - 2. The need to **future-proof the ITS Directive** to maximise the benefits of *emerging* ITS solutions, including in the fields of C-ITS, CCAM and MaaS



Root causes Drivers Problems

A1: Uneven and lagging deployment of ITS infrastructure due to financial and administrative capacity limitation

A2: Unaddressed barriers to interoperability and continuity of services across MS

A3: Emerging ITS services require new common standards and principles (for promoting urban use and integrating other modes of transport)

C3: Lack of incentives and benefit awareness to collect and share data

Driver A: Lack of interoperability and continuity of applications, systems and services (across different MS and modes of transport) Slow and fragmented deployment of ITS leads to suboptimal functioning of the road

functioning of the road transport system (including intermodal interfaces and emerging ITS services)



**Drivers Problems** Root causes

**B1:** Unclear capacity of cooperation mechanisms to create a suitable governance framework for new ITSrelated topics

requirements for

Driver B: Lack of concentration and effective coordination among stakeholders

Slow and fragmented deployment of ITS

leads to suboptimal functioning of the road transport system (including intermodal interfaces and emerging ITS services)

B2: Lack of common and comprehensive Member State reports

Lack of comparable monitoring

MS



Drivers **Problems** Root causes

**B2:** Lack of common and comprehensive requirements for Member State reports

C1: Long standing (trust) issues with data protection, privacy and liability

C2: Emerging data protection, privacy and liability requirements linked to technological and legislative developments

C3: Lack of incentives and benefit awareness to collect and share data

Lack of comparable monitoring MS

> **Driver C**: Unresolved issues related to the availability, quality and sharing of data supporting ITS services

Limited data usage Slow and fragmented deployment of ITS leads to suboptimal functioning of the road transport system (including intermodal interfaces and emerging ITS services)

# **Target service bundles**



- Resolving the Problem
  - Reduce the negative external effects of road transport
  - Increase deployment and operational use of ITS services
    - Service bundles as means to assess deployment of ITS services is the scope of services sufficient?

No.	Service bundle	ITS service type
1	Travel information services	<ul> <li>Travel information service (road) (C-ITS service overlap)</li> <li>Multimodal travel information service (including linking between modes)</li> <li>Multimodal travel information and booking/re-selling service (MaaS)</li> </ul>
2	Traffic and freight management	<ul> <li>Real-time traffic information service</li> <li>(Enhanced) Traffic network management systems</li> <li>Parking (and pricing) information (C-ITS service overlap)</li> <li>Re-charging/re-fuelling location and pricing information (C-ITS service overlap)</li> <li>Intermodal interfaces</li> </ul>
3	Road safety and security applications (excluding C-ITS)	<ul> <li>Road safety-related minimum universal traffic information service</li> <li>Safe and secure truck parking location information system</li> <li>Safe and secure truck parking location reservation system</li> <li>eCall (current scope)</li> <li>eCall extension (such as HGV, buses and coaches, etc.)</li> </ul>
4	Connected and Automated Mobility	<ul> <li>Day 1 &amp; 1,5 Safety C-ITS (excluding bundles 4 and 5 for the C-ITS IA)</li> <li>Day 2 C-ITS (including support for CCAM and excluding services already covered in bundle 2)</li> </ul>

#### Mapping interactions with other legislation



Crucial to avoid duplication, identify synergies and enhance clarity

- 1. Account for coherence with relevant legislation that came into effect after the introduction of the ITS Directive (e.g. GDPR, General Safety Regulation)
- 2. Strategies that have a direct relationship with the ITS regulatory framework:
  - 1. Fit for 55 Package emissions ambition (e.g. AFID revision
  - 2. Data strategy (e.g. Common European mobility data space)
  - Sustainable and smart mobility strategy (SSMS) e.g. TEN-T revision → realised on 9<sup>th</sup> December,
- Other relevant legislation of major impact?

# **Opportunities for involvement**



- Survey
  - launch expected mid-January
- Interviews
  - approach early January

#### **Workshops – open participation:**

- 1. Introduce timeline and objectives of the study, discussion on definition of main problems, drivers, relevant root causes (today)
- 2. Present and discuss emerging final policy options (measures and packages) and their potential impact on deployment rate (early March)
- Presentation of draft final results (May)



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