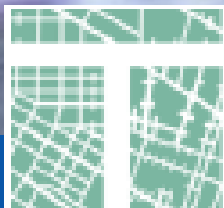# DG MOVE Support Study for IA of Cooperative Intelligent Transport Systems

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Stakeholder workshop

9th February 2018

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TRT
Transport and
Environmental
Policy
Research

Objectives

- Overview of study objectives and overall work programme

- Provide update on activities and progress to-date

- Introduce baseline and policy options under consideration

Agenda

- **Overview of study objectives and overall work programme**
- Update on activities and progress to-date
- Problem definition
- Stakeholder engagement activities
- Introduction of baseline and policy options
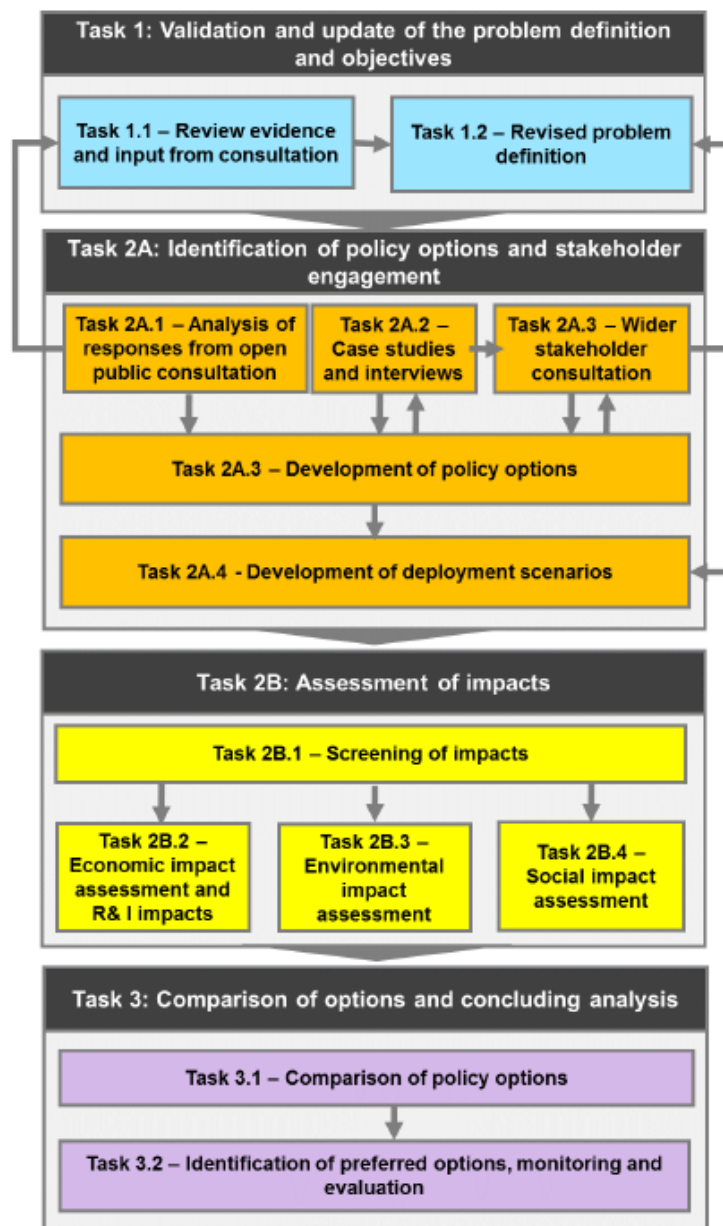
Study objectives

Background and context

- C-ITS seen as potentially major contributor to EC's aims in terms of road safety
- C-ITS Platform report in January 2016 set out a common vision for the deployment of C-ITS in EU, as well as highlighting a number of areas for continued work
- Commission published its C-ITS strategy in November 2016:
  - Set out a number of next steps to ensure the successful deployment of C-ITS, including a list of Day 1 and Day 1.5 services
  - Included a series of specific actions for key industry and public-sector actors to support deployment in a number of areas, e.g. security, interoperability, privacy, communications, etc.
  - Defined a list of potential C-ITS related delegated acts that the EC could implement to support C-ITS, as part of the ITS Directive

Study objective

To support the Commission as it seeks to develop the legal framework required to support the widespread deployment of Day 1 C-ITS services by 2019 as set out in the C-ITS Strategy document, implemented via a delegated act of the ITS Directive

Three main tasks, drawing on a variety of research tools

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Activities and progress to-date

Study runs through April 2018

Task	Progress
Task 1: Problem definition	Ongoing.
Task 2A: Stakeholder consultation and development of policy options	• <u>Public consultation</u>: Completed. • <u>Case studies</u>: Completed. • <u>Wider consultation</u>: Additional interviews and data requests. • <u>Policy options</u>: Baseline and 3 draft policy options under review.
Task 2B: Assessment of impacts	• Model structures complete. • Modelling assumptions drafted for baseline & policy options. • Ongoing updates to model inputs. • Model runs will begin after all model inputs & assumptions updated and finalised.
Task 3: Comparison of options and concluding analysis	To be undertaken after Task 2B completed.

Any additional volunteers from deployment projects today for the submission of cost data?

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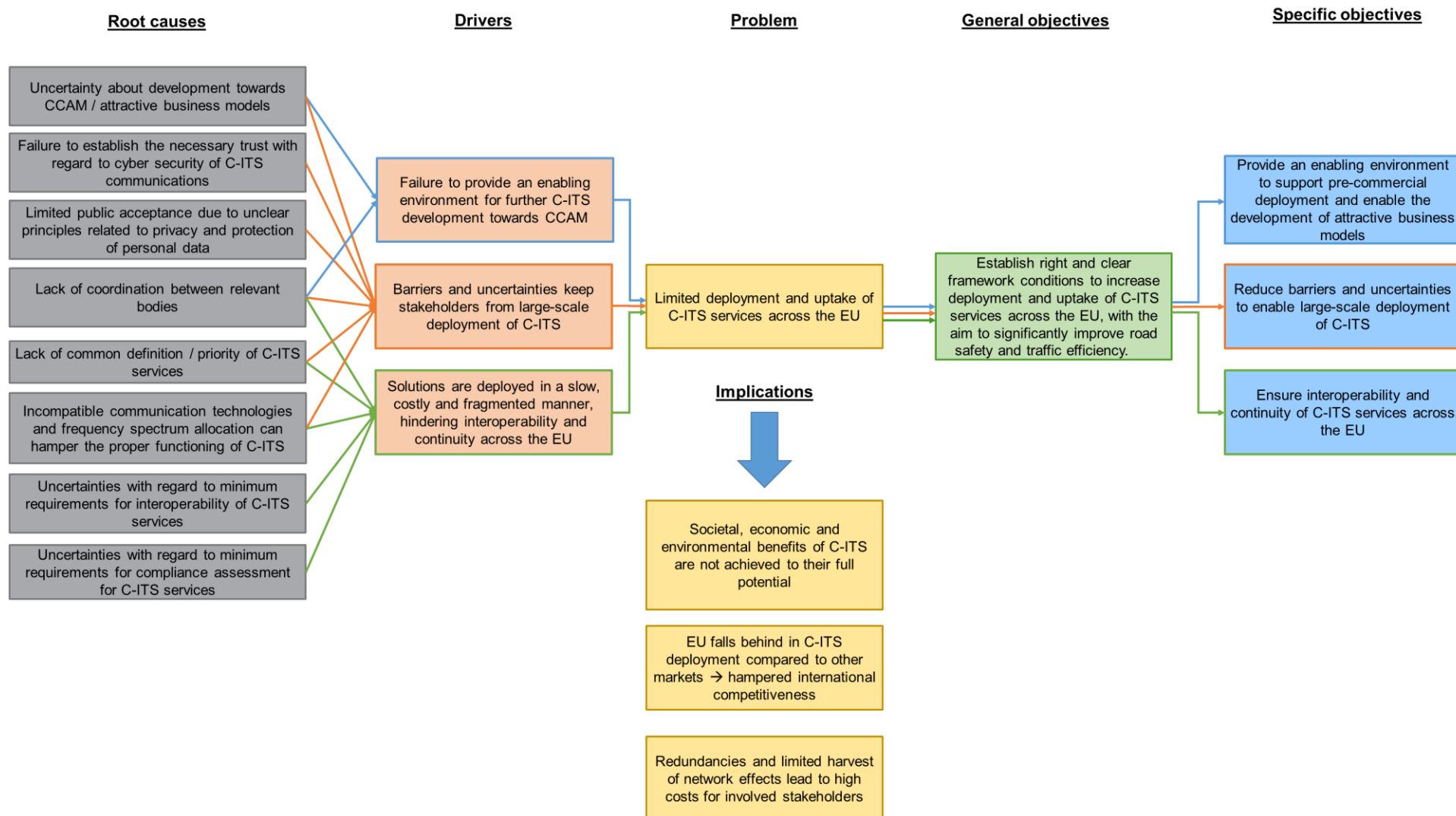- Introduction of baseline and policy options

We updated the problem definition based on a thorough review of the literature and input from stakeholders

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Validation and update of the problem definition and objectives

- Reviewed evidence and input from the consultation:
  - Literature on key barriers to widespread C-ITS – including C-ITS Platform Final Report, the Amsterdam Group Roadmap, as well as deliverables from current EU-funded deployment projects and previous projects such as DRIVE C2X, SAFESPOT, etc.
  - Barriers from major national and overseas deployment projects, e.g. C-Roads projects, US Department of Transport Pilot Deployments, Australian Cooperative Intelligent Transport Initiative (CITI).
  - Supplementing review with inputs from case studies and stakeholder consultation

- Revising the problem definition:
  - Drew on insights collected
  - Initial revised problem definition based on discussions with Commission, C-ITS expert groups at kick off meeting, and literature review
  - Final revised problem definition in progress – taking into account views of stakeholders (case studies/wider consultation)/Public Consultation

8 root causes and 3 key drivers of the problem

Root causes

Uncertainty about development towards CCAM / attractive business models

Failure to establish the necessary trust with regard to cyber security of C-ITS communications

Limited public acceptance due to unclear principles related to privacy and protection of personal data

Lack of coordination between relevant bodies

Lack of common definition / priority of C-ITS services

Incompatible communication technologies and frequency spectrum allocation can hamper the proper functioning of C-ITS

Uncertainties with regard to minimum requirements for interoperability of C-ITS services

Uncertainties with regard to minimum requirements for compliance assessment for C-ITS services

Drivers

Failure to provide an enabling environment for further C-ITS development towards CCAM

Barriers and uncertainties keep stakeholders from large-scale deployment of C-ITS

Solutions are deployed in a slow, costly and fragmented manner, hindering interoperability and continuity across the EU

Problem

Limited deployment and uptake of C-ITS services across the EU

Implications

Societal, economic and environmental benefits of C-ITS are not achieved to their full potential

EU falls behind in C-ITS deployment compared to other markets → hampered international competitiveness

Redundancies and limited harvest of network effects lead to high costs for involved stakeholders

General objectives

Establish right and clear framework conditions to increase deployment and uptake of C-ITS services across the EU, with the aim to significantly improve road safety and traffic efficiency.

Specific objectives

Provide an enabling environment to support pre-commercial deployment and enable the development of attractive business models

Reduce barriers and uncertainties to enable large-scale deployment of C-ITS

Ensure interoperability and continuity of C-ITS services across the EU

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Case studies contribute to our problem definition, the design of policy options, and informing our assessment of costs and benefits

9 Deployment cases

- InterCor: Netherlands, UK, Belgium, France

- NordicWay: Denmark, Finland, Sweden, Norway

- C-The Difference: France, Netherlands

- C-Roads Austria

- C-Roads Czech Republic

- C-Roads France

- C-Roads Germany

- C-Roads Slovenia

- Interview with Secretary General for the C-Roads Platform

3 International cases

- The US

- Australia

- Japan

Organised by key areas:
1. Overview and introduction
2. Progress to date
3. Barriers and challenges for problem definition
4. Views on proposed Delegated Regulation on C-ITS (see Key Themes)
5. Data collection on performance of C-ITS services

Covering key themes:
1. Continuity of services
2. Security
3. Privacy / protection of personal data
4. Communication
5. Interoperability
6. Compliance testing
7. Coordination
8. Enabling environment

Three key modes for wider stakeholder consultation

Expert group

- National stakeholders representing Member States

Workshop attendees

- Including road/transport authorities; C-ITS service providers; road operators; telecom service providers; tier one suppliers; public administration; manufacturers and operators/drivers

Other stakeholders

- Experts in specific fields related to key inputs required for study

Five key meetings

- Coinciding with project milestones (inception, intermediate, draft final report and final report)
- Validation of approach and findings to date, input into baseline and scenario definitions

Single workshop today

- Wider stakeholders to comment on :
  - Progress and findings to date (Intermediate Report)
  - Preliminary policy options for detailed analysis

Ad-hoc teleconferences

- Validation of modelling data
- Provision of commentary on specific issues, e.g. data protection, security etc.

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Scenario overview

Policy Option	Summary
Baseline	Existing C-ITS activities: • ITS Directive • Regional & national deployment projects • EU funding in the area e.g. under CEF
Policy Option 1	Package of soft policy measures e.g. guidelines, reference to existing standards / definition of services
Policy Option 2	PO1 + Package of legal measures limited to specifications e.g. definition of Day 1 services
Policy Option 3	PO2 + Package of legally binding measures e.g. mandatory deployment of V2V communication

Stakeholder views on policy measures underpinning our 3 policy options from case studies

- Most policy measures supported by stakeholders consulted to date
- In many cases, activities required already underway within C-Roads projects

- In particular, stakeholders highlighted:
    - Importance of creating **technical profiles** for communication technologies and C-ITS services
    - Remaining **technology neutral**, thus encouraging development of all current and future communication technology options
    - Prioritisation of Day 1 **safety critical services**

Baseline definition

Privacy and protection of personal data, including access to data and data quality	Security		Interoperability		Compliance assessment		Continuity	Enabling conditions
	Requirements & procedures	Roles/Bodies	Services	Communication specifications	Requirements & procedures	Roles/Bodies		
o ITS Directive o Regional and national deployment projects e.g. C-Roads o EU funding in the area e.g. under CEF o Industry deployment of C-ITS								
All requirements in GDPR, e.g. mandatory Data protection impact assessment	Non- binding guidance from C-ITS platform	Non-binding guidance from C-ITS platform EU C-ITS Security Credential Management System - Pilot 2018 - 2021	List of Day 1 services in C-ITS platform & 2016 EC Strategy	Existing standards developed Common service profiles available / being developed	ETSI Conformance test specifications Existing compliance assessment processes	Station manufacturers voluntary apply ETSI conformance test specifications	Ongoing harmonization & deployment in C-Roads and ITS Committee	Existing MoU C-Roads and C2C-CC Work of Amsterdam Group / CODECS / HL Dialogue Horizon2020 / 5GAA / EATA work Self-regulation

Any views or comments on the proposed baseline?

Policy Option 1 definition

	Privacy and protection of personal data, including access to data and data quality	Security		Interoperability		Compliance assessment		Continuity	Enabling conditions
		Require-ments & procedures	Roles/Bodies	Services	Communication specifications	Require-ments & procedures	Roles/ Bodies		
PO1: soft measures	Non-binding application guidelines for GDPR for lawfully processing data with limitations	Non-binding guidelines including detailed require-ments on CP/SP	Non- binding guidelines on governance structure/ bodies, recommendat ions to assign roles	Non-binding guidelines to support provision of services in Day 1 list	Refer to existing standards for EU-wide service profiles in guidelines Mandate to EU level standard. organisations for standard. beyond Day 1 list	Non- binding guidelines on compliance assessment process for Day 1 services	Non- binding guidelines to assign roles and responsibiliti es	Coordination & Policy Advice with stakeholders through stakeholder platform	Funding for development beyond Day 1 list Other measures e.g. MoUs with key stakeholders Inclusion of C-ITS stations in (EuroNCAP)
Policy Summary	Package of soft policy measures e.g. guidelines, reference to existing standards / definition of services								

Policy Option 2 definition

Privacy and protection of personal data, including access to data and data quality	Security		Interoperability		Compliance assessment		Continuity	Enabling conditions
	Requirements & procedures	Roles/Bodies	Services	Communication specifications	Requirements & procedures	Roles/Bodies		
PO2: specifications only — EC adopts application specifications for GDPR for C-ITS. Establishing purposes for lawfully processing data with limitations.	Contents of CP/SP put into EU law. Possibility to update the CP/SP, e.g. review clause.	Definition of roles put into EU law, plus requirement to provide information to EC on bodies in charge, if set up.	Definition of Day 1 services in spec. C-ITS stations to support all Day 1 Services. Updatability of services and their definitions.	Mandate compliance with existing interoperability standards and EU-wide service profiles of Day 1 services in spec. Possibility to update spec.	Definition of CA criteria for Day 1 C-ITS services in spec. Approval process for C-ITS stations provided in spec.	Define in the spec. requirements for roles for approval process of C-ITS stations + information to EC on bodies in charge, if set up.	PO1+ Enhanced deployment coordination.	PO1+ Strengthen funding of deployment, including requirements on data reporting and exchange. Fund EU deployment coordination after piloting phase.
Policy Summary	PO1 + Package of legal measures limited to specifications e.g. definition of Day 1 services							

Policy Option 3 definition

	Privacy and protection of personal data, including access to data and data quality	Security		Interoperability		Compliance assessment		Continuity	Enabling conditions
		Requirements & procedures	Roles/ Bodies	Services	Communication specifications	Requirements & procedures	Roles/ Bodies		
PO3: mandate for V2V	PO2 + Lawfully processing data based on legal obligation/ public interest.	Same as PO2	PO2 + Assignment of roles to legal bodies.	Same as PO2	Same as PO2	Same as PO2	PO2 + Assignment of roles to legal bodies.	PO2 + Mandatory deployment of V2V communication	Same as PO2
Policy Summary	PO2 + Package of legally binding measures e.g. mandatory deployment of V2V communication								

Policy Options 1-3 Discussion

Any views or comments on policy options 1-3?

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