



Visit the DIRIZON project website at www.dirizon-cedr.com where further information can be found on;

- The Project Background
- The Project Objectives
- The Consortium
- Workshops
- Dissemination Events
- Output and results from the Project including Deliverables and Publications

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**Advanced options for
authorities in light of
automation and
Digitilisation
horIZON 2040**

www.dirizon-cedr.com

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About Dirizon

The Digitalisation of road networks and the rapid developments in Automated Driving will affect the core activities that national road authorities (NRAs) carry out and provide them with new and more efficient ways to achieve goals for road safety, traffic efficiency, the environment and customer service.

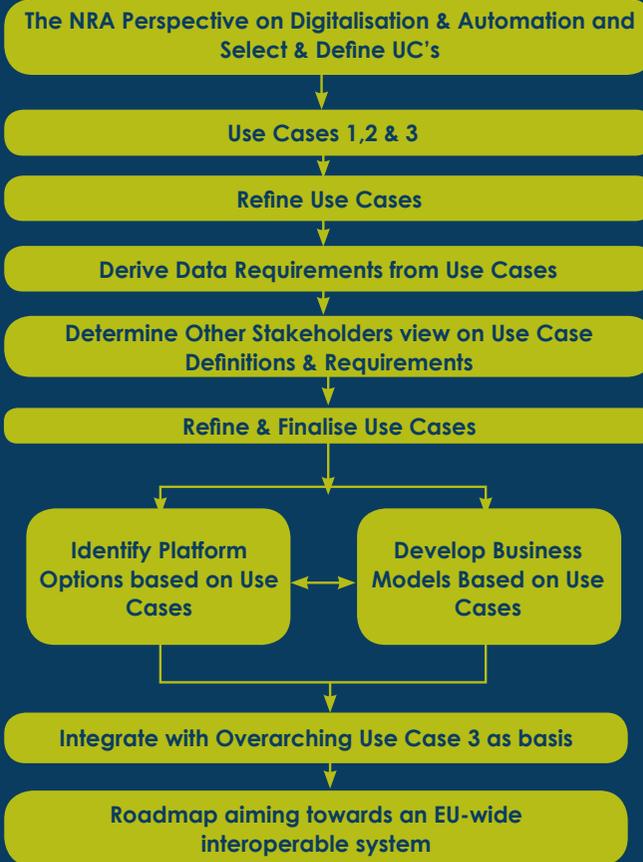
Completed in November 2020, the goal of the DIRIZON project was to assist NRAs in identifying how these developments will affect their operations and their interaction with other stakeholders and relevant parties, culminating in a Roadmap which provides recommendations for an EU wide Interoperable system for a step-by-step transition towards the full digitalisation of the NRA road network.

In achieving this goal, DIRIZON focused on three core topics (or Use Cases) relevant to the topics of Digitalisation and Cooperative Automated Driving (CAD) as follows:

1. Provision of High-Definition Maps for Automated Mobility,
2. Distribution of Digital Traffic Regulations and
3. Infrastructure Support for Cooperative Automated Driving

Project Evolution

The objective was achieved through a series of work packages, each contributing to the evolution of the project, as depicted below, from gaining an understanding of NRA's and Stakeholders current position future thoughts in respect of Digitalisation and CAD; determining the data requirements and data issues related to the core topics, defining a data exchange concept based on the IDS concept to enable a collaboration between NRAs, OEMs and Service Providers and exploring appropriate business models, culminating in the Roadmap.



Key Roadmap Actions:

A selection of key actions for NRAs (focusing on internal & organisational steps) include:

- Data should be made available (in machine-readable format and agreed standards) and competencies in data analysis should be strengthened.
- In respect of Physical & Digital Infrastructure, the relevant infrastructure elements should be digitised, NRAs should partake in the planning process of pilots and testing sites and the road network and required functional infrastructure should be categorised.
- Legal / Institutional Framework should be realised to enforce communication and collaboration on all levels; agreements on roles and responsibilities are needed.

Specific Actions:

The NRA's & Other Stakeholders Perspective:

- Collaboration among the actors is essential for building 'trust' and eliminating the barriers and mitigating the risks associated with Digitalisation and AD.
- Active participation of NRAs in pilot tests is important for the implementation of C-ITS and AD.
- Development of action plans/strategies are needed from the NRAs to harmonise Digitalisation & AD across countries.
- Legislative frameworks should be put in place to deal with regulatory, standards and legal issues.

Deriving Data Requirements:

- Learn from outcomes of the Proof-of-Concept of the Data Task Force and other pilots and refine data needs & quality standards, implementations, and profiles.
- Engage with OEMs to achieve Operational Design Domain extension of connected and automated vehicles. Consider the use cases in a pan-European context.

Identifying Platforms Options:

- Approve the provided Future Mobility Data Exchange Concept based on the IDS concept and evaluate its requirements and feasibility.
- Initiate an "IDS-ified" version of the Data Task Force's Proof of Concept.
- Further "institutionalise" the governance structure from e.g. C-Roads and ensure pilots are "IDS-ified", for replicability and sovereignty.

Developing Business Models:

- Include sub-national authorities in the governance structure.
- Ensure commercial implementations in public-private collaborations are "IDS-ified".
- Expand legitimacy of governance structure to include advancing "European Values".
- Extend governance structure to include automotive and small tech.
- Profile and monitor regional and national infrastructures and upscale / replicate of DS-ified pilots and (commercial) best-practices.