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DIGITALEUROPE's use cases and principles for the EU Sustainable and Smart Mobility Strategy



Executive Summary

Automated and connected mobility will lead us to better road safety, a reduction of fuel consumption, better environmental stewardship and increased public satisfaction.

The COVID-19 pandemic showed the importance of new mobility concepts that build on connectivity and automation. Digital technologies have kept our economy functioning while protecting citizens, as in the case of last-mile delivery, automated transport and sanitation robots (i.e. drones) used in hospitals. They will now be a key ally in achieving a safe, resilient, sustainable and smart mobility ecosystem in Europe in the long-term. The Commission must recognise the critical role of digital in transport and fully unlock their potential in its upcoming Sustainable and Smart Mobility Strategy.

To achieve that, we recommend the EU to focus on:

- ▶ Promote a data partnership culture in Europe while respecting contractual freedom in this space
- ▶ Recognise the crucial role of digital technologies in driving down CO2 emissions to serve the Green Deal goals in mobility
- ▶ Ensure harmonisation and coherence in any possible regulatory initiative relevant for mobility, such as on Artificial Intelligence (AI)
- ▶ Speed up the deployment of digital infrastructure in mobility, embracing 5G solutions and replacements of radio systems in urban railways



Europe as a smart mobility pioneer

Digitalisation is a driving force for sustainable mobility. It is also a key enabler for innovation in road and air transport. We strongly recommend the Commission to consider the following in its mobility measures to come:

- ▶ **Promote a data partnership culture.** Partnerships will encourage the creation of new business models based on B2B and B2G data-driven services, whose potential to boost transport sustainability is large. The building blocks of a data partnership culture lie in strong data literacy skills and industry-driven standardisation aligned with global initiatives and fora. The EU should guarantee them. Importantly, any EU effort in should respect the value of contractual arrangements.

Examples

Intel / Mobileye

MaaS technology deployment in Europe

Over the course of 2022-2023, Intel and its Mobileye subsidiary plan to start the commercial deployment of their automated driving technology in partnership with vehicle manufacturers and local operators. European markets will be pioneers in hosting MaaS (mobility as a service) technology based on Intel's breakthrough RSS automated vehicle safety concept.

More info:

<https://www.mobileye.com>

<https://www.intel.com/content/www/us/en/automotive/autonomous-vehicles.html>

Ericsson

Talking Traffic

The Partnership Talking Traffic is a collaboration between the Dutch Ministry of Infrastructure and Water Management, 60 regional and local authorities and national and international private companies.

These partners are working together to accelerate development and deployment with regard to retrieving and organising traffic light data (cluster 1), to process, enrich and distribution of a wide variety of data and convert this into real-time and made-to-

measure data sets and information (cluster 2) and to provide this information to a wide variety of road users (cluster 3) through their smart phones, PNDs and in-car systems. This joint co-investment program seeks to enhance the availability of intelligent data for a wide group of road users (cars, trucks, public transport, emergency services, cyclists). This way, the safety and sustainability of traffic and transport can be enhanced resulting in the reduction of travel times and, eventually, lower public expenditure

More info: <https://www.talking-traffic.com/en/>

► **Place digital technologies at the core of any measure to make transport more sustainable.** Automation and connectivity solutions can make the EU a global pioneer in reducing CO2 emissions to serve the Green Deal goals. They should spearhead EU efforts to optimise infrastructure capacity, make transport inter-modal, improve traffic management and launch next-generation shared mobility solutions.

Examples

Qualcomm

5G CARMEN

5G CARMEN focuses on the Bologna-Munich corridor to leverage 5G advances to provide a multi-tenant platform that can support the automotive sector delivering safer, greener, and more intelligent transportation. The ultimate goal is to enable self-driving cars. Cooperative maneuvering, situation awareness, video streaming, and green driving are the cross-border use cases targeted by 5G-CARMEN pilots in order to maximize the project commercial and minimize societal and environmental impacts.

Use cases include:

- Cooperative lane merge
- Situation awareness (Vehicle sensor to detect danger, change in weather condition, obstructions unforeseeable by drivers)
- Green Driving (electrical driving, dynamic speed advisory)

More info: <https://5gcarmen.eu/>

► **Ensure harmonisation and coherence in any possible regulatory initiative relevant for mobility**, especially in the following:

- **Artificial intelligence and road safety:** any Commission initiative stemming from the AI White Paper should not lead to duplication nor inconsistency with applicable road vehicle legislation. It is key any regulatory approval applicable to AI continue to be defined within the framework of the existing Type-Approval rules, which have proved their worth. They help to build consumer trust in automation technologies, which is fundamental to deploy automated vehicles across European roads. Ensuring regulatory coherence will speed up the deployment of automated road vehicles to reduce traffic fatalities. The EU has already done a lot to bring them down, but more is needed 25.000 people are still killed in road traffic accidents every year in Europe. In this regard, we welcome the Commission's efforts on future EU safety requirements through Type-Approval rules for automated vehicles, both at EU and international level.
- **Air transport:** the Commission should finalise the update of the Single European Sky legislation and help restore confidence in passenger air travel post-pandemic. It should also provide clarity of the regulatory framework around drones for last-mile delivery.

► **Speed up the deployment of digital infrastructure.** Connecting Europe Facility (CEF) for Transport in the MFF and the Next Generation EU funds should accelerate the deployment of cutting-edge 5G network technology, which will spur the development of new connected mobility solutions. Funding should embrace, too, the creation of 5G coordinators and measures to foster economic synergies between 5G infrastructure and road V2X infrastructure. They would be critical to upgrade traffic management systems.

We also need in Europe an investment mechanism that, firmly anchored on technology neutrality, seeks to replace radio systems used by infrastructure providers and vehicles in urban railways. Upgrading these radio systems would allow their seamless integration into the future multimodal C-ITS¹ envisaged in the CCAM² strategy.

¹ Cooperative Intelligent Transportation Systems

² European Commission Cooperative, Connected and Automated Mobility

Examples

Ericsson

NordicWay 2

NordicWay 2 is a C-ITS pilot project that enable vehicles, infrastructure and network operators to communicate safety hazards and other information from roads in the Nordic countries between different stakeholders. The projects are a collaboration between public and private partners (like Ericsson and Volvo) in Finland, Norway, Sweden and Denmark and build on the achievements from the previous NordicWay project.

More info: <https://www.nordicway.net/>

Qualcomm

ConVeX

ConVeX is implemented on the digital test field A9 in Germany. It is co-funded by the German Federal Ministry of Transport and Digital Infrastructure (BMVI) and announced as the world's first-announced C-V2X trial. It is based on C-V2X direct and network-based complementary technologies for connected vehicles and ITS. Tests were designed to provide further evidence of the complementary nature of short-range direct and cellular wide-range communication with C-V2X and received results demonstrating the reliability and performance of V2X technology.

Use cases include:

- Blind Spot Warning/Lane Change Warning (BSW/LCW)
- Emergency Electronic Brake Light (EEBL)
- Intersection Movement Assist (IMA)
- Left Turn Assist (LTA)
- Slow/Stationary Vehicle Warning (SSVW)
- In-Vehicle Information (IVI)
- Roadworks Warning (RWW)
- Follow Me Information (FMI)
- See Through (ST)
- Range Extension by Cellular Communication (RECC)
- Shock Wave Damping (SWD)

Link: <https://convex-project.de/>

FOR MORE INFORMATION, PLEASE CONTACT:



Ray Pinto
Digital Transformation Policy Director
ray.pinto@digitaleurope.org / +32 472 55 84 02



Vincenzo Renda
Senior Policy Manager for Digital Industrial Transformation
vincenzo.renda@digitaleurope.org / +32 490 11 42 15



Thomas Hellebrand
Policy Officer Digital Transformation
thomas.hellebrand@digitaleurope.org / +32 492 46 78 17

About DIGITALEUROPE

DIGITALEUROPE represents the digital technology industry in Europe. Our members include some of the world's largest IT, telecoms and consumer electronics companies and national associations from every part of Europe. DIGITALEUROPE wants European businesses and citizens to benefit fully from digital technologies and for Europe to grow, attract and sustain the world's best digital technology companies. DIGITALEUROPE ensures industry participation in the development and implementation of EU policies.

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