



European  
Commission

JRC PORTFOLIO 06

## DECARBONISED, SMART AND SAFE MOBILITY

Mobility is the lifeblood of society and the economy, but can also be harmful to the environment, through pollutant and greenhouse gas emissions (GHG) and increased energy consumption. Negative impacts also include accidents, congestion, noise, loss of public space and other externalities. Since 1990 transport has been the only sector with continuously increasing energy consumption and emissions, contributing about one quarter of the EU (European Union) GHG emissions. The EU Climate Law's objective of reducing GHG by at least 55% in 2030 and the transport sector target of 90% lower emissions by 2050 require ambitious policies and action. At the same time, continuous efforts at different levels are essential to meet the 'zero fatalities from mobility' and zero pollution goals.

### The portfolio aims to:

Provide comprehensive expertise in the transport sector, for both passengers and freight

Anticipate solutions and support the development of policies for decarbonising transport and moving towards smarter, safer, cleaner, fairer and energy-efficient mobility systems and technologies

Explore options to limit transport dependence on privately-owned road vehicles and fossil fuels in the short- and medium-term

## Delivering on anticipation, integration and impact of EU policies

- ▶ helping to accelerate the transition to low energy consumption transport and low and zero-emission transport modes,
- ▶ carrying out studies of new concepts for advanced and automated vehicles and mobility, and assessing new technologies and social trends for optimising transport systems,
- ▶ verifying of compliance with the existing legislation on vehicles and components placed on the market,
- ▶ studying the impacts of new mobility concepts on the future urban ecosystems.

## Time frame

The portfolio's activities cover different time horizons, from **short-term support** to the European Commission policies and initiatives in the transport field (such as the updates of CO<sub>2</sub> targets for light and heavy-duty vehicles, or the definition of standard and requirements for low-carbon, automated and connected mobility) to its **forward-looking ambition** of anticipating future policy options. The portfolio is also responsible for carrying out the market surveillance of road vehicles on behalf of the European Commission, in the **coming years**.

## Main partners

### Partner DGs

CLIMA, CNECT, DEFIS, EMPL, ENER, ENV, GROW, MOVE, REGIO, RTD, TAXUD

### Selected stakeholders

EEA, EU-Rail, UNECE, UN's Task Force on Emission Projections and Inventories

Mobility

Congestion

Land-use consumption

Pollution and energy consumption

Accidents

Road safety

Automated vehicles

Zero-emission

TRIMIS

Multimodality

Urban mobility

Connectivity

Accessibility

Drones

Renewable Fuels

Decarbonisation

## Find out more



**DECARBONISED, SMART AND SAFE MOBILITY**

<https://joint-research-centre.ec.europa.eu/jrc-research-portfolios/mobility>

© European Union, 2023

## Science for policy

Joint Research Centre

[joint-research-centre.ec.europa.eu](https://joint-research-centre.ec.europa.eu)

The Joint Research Centre provides independent, evidence-based knowledge and science, supporting EU policies to positively impact society.

@EU\_ScienceHub

@EU\_ScienceHub

@EU\_Science

EU Science, Research and Innovation

EU Science Hub - Joint Research Centre

PRINT  
PDF

ISBN 978-92-76-99475-6  
ISBN 978-92-76-99474-9

doi:10.2760/131962  
doi:10.2760/821577

KJ-04-23-206-EN-C  
KJ-04-23-206-EN-N