

# Enabling "Automation-Ready" Transport Planning





This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 723201

### What is CoEXist?

CoEXist is a European project (May 2017 – April 2020) aiming to prepare cities for the transition phase during which connected and automated vehicles (CAVs) and conventional vehicles will coexist on the roads. The mission of CoEXist is to build the capacity of road authorities and other urban mobility stakeholders to get ready for this transition.

### **Key Outputs**

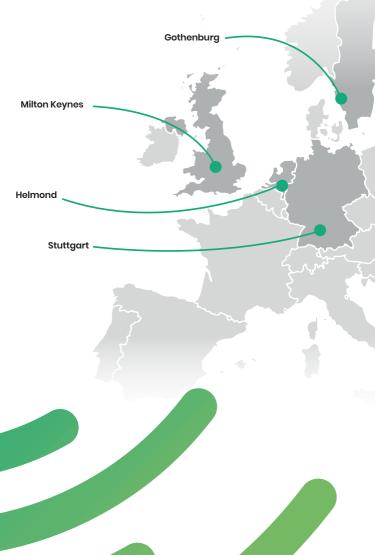
Over the course of the project, CoEXist partners will produce a series of documents and training materials to help cities become Automation-ready.

### These materials include:

- Description of an Automation-ready framework
- Software: An Automation-ready microscopic traffic flow simulation tool (Vissim extension) and an Automation-ready macroscopic transport modelling tool (Visum extension)
- Recommendations for designing an
  Automation-ready hybrid road infrastructure
- Guidelines on how to become an Automation-ready road authority
- Webinars for technical staff & planners
- Training session for technical staff & planners

## **CoEXist Use Cases**

CoEXist will foster technological development of microscopic and macroscopic modelling tools, connected and automated vehicle (CAV) simulators, and CAV control logics. The modelling tools are demonstrated in eight use cases in four different European cities with different urban structures and traffic compositions.





### Gothenburg, Sweden

- Shared space
- Accessibility during long-term construction works



### Helmond, the Netherlands

- Signalised intersection including pedestrians and cyclists
- Transition from interurban highway to arterial



### Milton Keynes, United-Kingdom

- · Waiting and drop-off areas for passengers
- Loading and unloading areas for freight



### Stuttgart, Germany

- Impacts of CAVs on travel time and mode choice on a network level
- Impact of driverless car- and ridesharing services

For more information and updates on the use cases, please visit **www.h2020-CoEXist.eu** 

# CoEXist Approach

Automation-ready transport and infrastructure planning in cities are a key precondition for fulfilling the promises of CAVs to reduce road space demand and improve traffic efficiency and safety. CoEXist is addressing three key steps in transport and infrastructure development:



### Automation-Ready Transport Modelling

Develop a validated extension of existing microscopic traffic flow simulation (PTV Vissim) and macroscopic transport modelling (PTV Visum) tools to include different types of CAVs (passenger cars/light-freight vehicles with different automation levels).



### Automation-Ready Road Infrastructure

Create a tool to assess the impact of CAVs on safety, traffic efficiency and space demand, and develop design guidance for hybrid infrastructure (for both conventional and CAVs) to maximise the potential benefits and to mitigate the potential negative impacts.



### Automation-Ready Road Authorities

Elaboration of eight use cases in four local authorities (Gothenburg, Helmond, Milton Keynes and Stuttgart), used to evaluate – with the CoEXist tools – the impacts of CAVs on safety, traffic efficiency and road space requirements and making detailed hybrid infrastructure design recommendations.

### **CoEXist Partners**



### Duration May 2017 – April 2020

### **More Information**

www.h2020-CoEXist.eu

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