

D2.6 – Visualisation of the Policy Support Tool

Deliverable D2.6 – WP2 – Lead: POLIS, Support: SWOV



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Work package 2, Deliverable D2.6

Please refer to this report as follows:

Nemeth, B., van Gils, S., Visualization of the Policy Support Tool, Deliverable D2.6 of the H2020 project LEVITATE.

Project details:	
Project start date:	01/12/2018
Duration:	36 months
Project name:	LEVITATE – Societal Level Impacts of Connected and Automated Vehicles
Coordinator:	Andrew Morris, Prof – Prof. of Human Factors in Transport Safety Loughborough University Ashby Road, LE11 3TU Loughborough, United Kingdom
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Deliverable details:	
Version:	Final
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	This deliverable was originally designated as the PST User Guide. As it is not possible to write the user guide until the development of the PST is complete towards the end of the project, this visualisation document has been created in its place. The PST User Guide will be finalised and submitted to the portal by month 36.

Lead contractor for this deliverable:

Balazs Nemeth – POLIS

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Revision history

Date	Version	Reviewer	Description
20/04/2020	Preliminary draft 1	Suzanne Hoadley, Balazs Nemeth, Maria Jose Rojo	Review round 1 – Feedback
14/05/2020	Preliminary draft 2	Hitesh Boghani, Apostolos Ziakopoulos, Bin Hu	Review round 2 – Feedback
04/09/2020	Final	Balazs Nemeth, Sanne van Gils, Suzanne Hoadley	Final visualisation

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About LEVITATE

Societal Level Impacts of Connected and Automated Vehicles (LEVITATE) is a European Commission supported Horizon 2020 project with the objective to prepare a new impact assessment framework to enable policymakers to manage the introduction of connected and automated transport systems, maximise the benefits and utilise the technologies to achieve societal objectives.

Connected and automated transport systems (CATS) are expected to be introduced in increasing numbers over the next decade. Automated vehicles have attracted the public imagination and there are high expectations in terms of safety, mobility, environment and economic growth. With such systems not yet in widespread use, there is a lack of data and knowledge about impacts.

The potentially disruptive nature of highly automated vehicles makes it very difficult to determine future impacts from historic patterns. Estimates of future impacts of automated and connected mobility systems may be based on forecasting approaches, yet there is no agreement over the methodologies nor the baselines to be used. The need to measure the impact of existing systems as well as forecast the impact of future systems represent a major challenge. The dimensions for assessment are themselves very wide, including safety, mobility and environment but with many sub-divisions adding to the complexity of future mobility forecasts.

Specifically LEVITATE has four key objectives:

1. To incorporate the methods within **a new web-based policy support tool** to enable city and other authorities to forecast impacts of CATS.
2. To develop a range of **forecasting and backcasting** scenarios and baseline conditions relating to the deployment of one or more mobility technologies that will be used as the basis of impact assessments and forecasts. These will cover three primary use cases – automated urban shuttle, passenger cars and freight services.
3. To establish **a multi-disciplinary methodology** to assess the short, medium and long-term impacts of CATS on mobility, safety, environment, society and other impact areas. Several quantitative indicators will be identified for each impact type.
4. To apply the methods and **forecast the impact of CATS** over the short, medium and long term for a range of use cases.

Visualisation of the Policy Support Tool

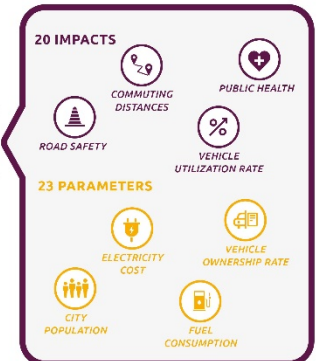
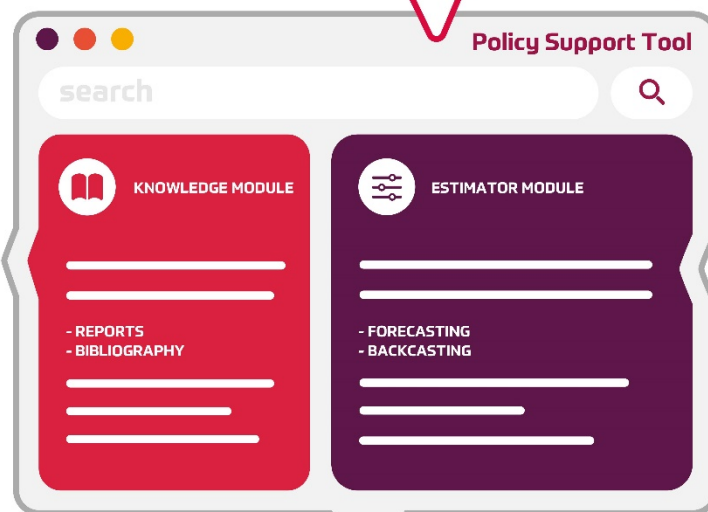


What the user gives:

1. Selection of automation use case (e.g. Park pricing)
2. Definition of initial parameter values (e.g. GDP per capita, inflation, city population)
3. Definition of scenario of automation penetration (neutral, pessimistic, optimistic)
4. Selection of sub-use case (e.g. parking ban, park outside, return to origin)
5. Selection of policy implementation year (from 2020 to 2050)



What policies can provide positive impacts from CATs?



What the user gets:

- A) Systemic impacts, such as:
1. Amount of travel
 2. Congestion
- B) Wider impacts, such as:
1. Road safety
 2. Pollutant levels due to vehicles (NOx, CO2, PM10)
 3. Commuting distances



Prediction of impacts based on your selection