

D2.4 Intermediate Exploitation Plan

Deliverable D2.4 – WP2 –PU




D2.4 Intermediate Exploitation Plan

Work package 2, Deliverable D2.4

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Executive summary

It is intended that the LEVITATE Policy Support Tool (PST) will remain in operation for long term after the end of the project and it will be gradually become a reference Information System. D2.4 Intermediate Exploitation Plan outlines the range of exploitation actions that are scheduled within this project in order to capitalize the knowledge developed and for the advancements of technology utilized, as well as for bringing the value generated to both open market (from business perspective) and society (from the societal perspective).

The exploitation strategy description is developed in the following sections:

- Definition of exploitation objectives, target audience and project results to be exploited.
- Presentation of the overall exploitation strategy based on the project's principles.
- Identification of individual exploitation plans for each partner
- Identification of the accelerating exploitation measures to be adopted by the partners in LEVITATE consortium.
- Definition of the exploitation roadmap, following the project's timeplan.

The exploitation strategy will be further developed and enhanced along with the project's progress.

1 Introduction

1.1 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.

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 Connected and Automated Transport Systems (CATS) on urban areas. The methods developed within Levitate will be available within a tool box allowing the impact of measures to be assessed individually. A Decision Support System will enable users to apply backcasting methods to identify the sequences of CATS measures that will result in their desired policy objectives.
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, operational design domains and environments and an **extensive range of mobility, environmental, safety, economic and societal indicators**. A series of case studies will be conducted to validate the methodologies and to demonstrate the system.

1.2 Work package 2 and Deliverable 2.4 within LEVITATE

The purpose of this WP is to create awareness about the possibility to estimate the impact of connected and automated transport with the tools developed within LEVITATE. Specific objectives are:

- To inform and involve local, regional and national transport authorities.
- To provide a framework and process for an effective peer-to-peer transfer of know-how and experience to selected stakeholders.
- To make the tools accessible through events, training and workshops for knowledge consolidation.
- To promote exploitation of the tools by authorities and private stakeholders.

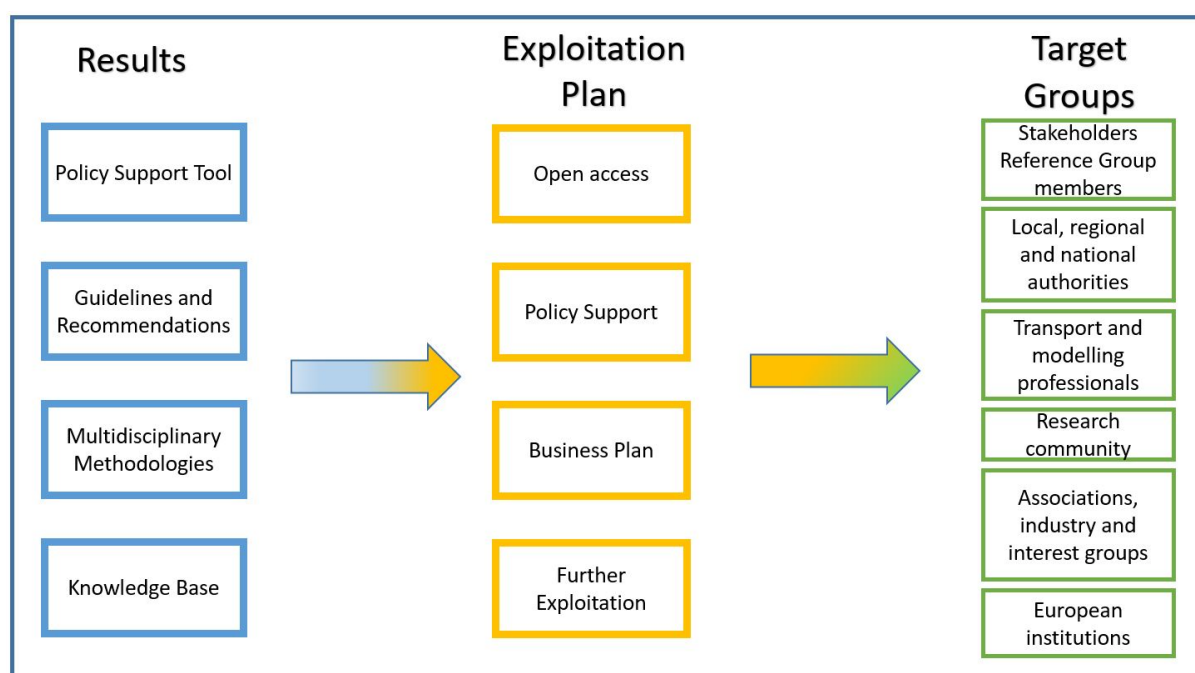
The objective of the deliverable D2.4 Intermediate Exploitation Plan, is to define the work that will be done in terms of exploitation of the project results. It describes the



exploitation strategy, based on measures to maximise impact of project results for the target audience. D2.4 specifies how to achieve LEVITATE's exploitation objectives.

2 Objectives, audience and results

The success of an innovation project, like LEVITATE, depends on the **post project exploitation strategy**, that will assure that the LEVITATE Policy Support Tool (PST) will remain in operation after the end of the project. Our intention is to start planning and executing exploitation activities at an early stage, although it is clear that all plans must be in a provisional state as the project continues to evolve (Yannis, Roussou, 2019). The exploitation of LEVITATE is considered an ongoing activity throughout the project. The project consortium also aims to identify exploitation benefits for each individual partner, as presented in chapter 4, with the aim for each partner to become a highly visible focal point for automation impact assessment in Europe and internationally. The overall exploitation strategy is presented in the following figure.



At the end of the project, LEVITATE will provide an overview to the use of results in terms of Technology Readiness Level (TRL) classification and progress to either commercial exploitation or further development, at the deliverable 2.8 - Post-Project Exploitation Plan.

2.1 Objectives

Exploitation of project results aims to merge project results and knowledge with partner interests, market and regulatory needs to develop business models and manage Intellectual Property (IP) issues to produce plans and agreements for post-project exploitation. Specific objectives are:

- **To promote and raise awareness** about the project's contents, developments and results in association with the communication and dissemination strategy (deliverable D2.1)

- To **cooperate** with decision-making bodies and organisations identifying specific channels for exploitation events in Europe and internationally
- To **harmonize** the exploitation activities of the partners for a more efficient and effective communication
- To contribute to **policy**
- Generation of **further research** on the basis of the developed methodologies,
- To provide an **open access** toolkit
- Decision Support System as an **interactive webtool** and
- Further exploitation to efficiently **spread and implement** the results: in-depth assessment based on forecasting and backcasting, complemented with simulations and consultancy for an efficient roll-out of the results.

2.2 Audience

For the effective exploitation of LEVITATE, the following main target groups and key actors have been identified as **potential end-users** to adopt or apply the results of the project, and potentially benefit from the knowledge produced. LEVITATE's work is relevant for the following target audience:

- Stakeholder Reference Group (SRG) members (The group consists of people representing local/regional authorities, national authorities, European decision makers, global initiatives, operators, think tanks, groups representing pedestrians, cyclists, public transport, motor vehicles, researchers, consultants)
- Local and Regional Authorities
- National Authorities
- Transport and modelling professionals
- Research community
- Associations, industry and interest groups
- European and International Institutions

2.3 Project results

Developing a strategy to exploit the results of the project requires knowledge of the results that the project will offer as a whole, but also to each target group. For this reason, a detailed description of the methods of exploitation of the project will be preceded by a description of the **expected results** for the target audience.

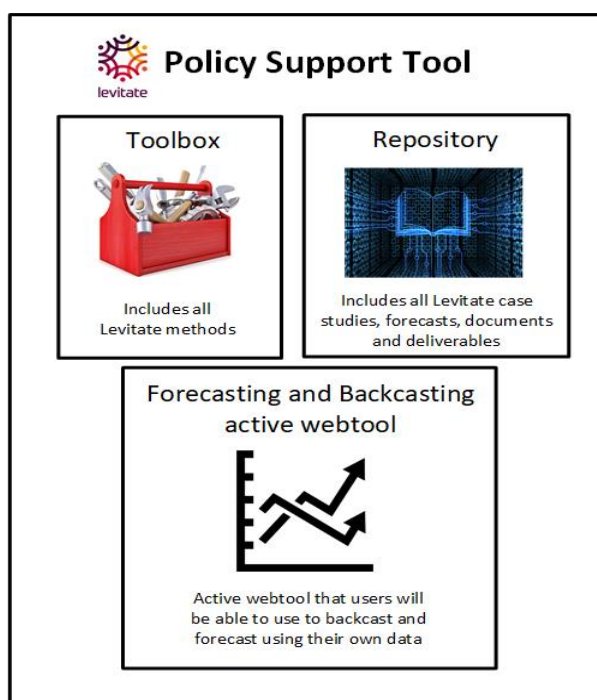
The LEVITATE project purpose is to provide policy support to cities, regions and infrastructure providers regarding the implementation of CATS. To this end, LEVITATE will deliver a **Policy Support Tool**, concerning the impact assessment for CATS. This tool will enable policymakers to manage the introduction of connected and automated transport systems, maximize the benefits and utilize the technologies to achieve societal objectives. LEVITATE provides a **forum for stakeholders** and authorities on the impact of connected and automated road transport (via the SRG). Finally, the project will make available a **knowledge base** of all relevant literature.

2.3.1 The LEVITATE PST

The Policy Support Tool will be an **open access, web-based system** that will provide future users with access to LEVITATE methodologies and results (Dragomanovits et al., 2020). The detailed design will be informed by the specific needs of the key stakeholders and it will provide access to related bibliography, project results, documentation of tools

and methods, excerpts from CATS policy recommendations, as well as a Decision Support System with forecasting and backcasting capabilities.

The toolkit can be advocated as a **global reference system** for Connected and Automated Transport Systems (CATS) impact assessment, to be used by decision makers, stakeholders and experts at all levels (city, regional, national, European, global). Based on the above concept, the LEVITATE Policy Support Tool is suggested to comprise two main modules: the Knowledge module (static component) and the Estimator module (dynamic component).



The **Knowledge module** will consist of a static repository, searchable through a fully detailed, flexible and documented way. The user will be able to search by any parameter to adjust and customize the search according to preliminary results and to access all background information about any stage of the project. More precisely, the Knowledge module will include namely:

- the **bibliography** of all relevant literature concerning impact assessments of CATS,
- the project **results**, including the case studies on the participating cities (scenarios and baseline conditions, results) and the predefined impact assessments,
- the documentation about the **toolbox of methods developed in LEVITATE**, to enable cities to explore the expected impacts of CATS in the users' circumstances (including underlying models, data and impact assessment methods),
- excerpts from **CATS policy recommendations**.

The **Estimator module** will provide estimates for different types of impacts (including cost-benefit ratios) and allow comparative analyses. It will include two parts: the forecasting and the backcasting sub-system.

In the **forecasting sub-system**, the user will be able to select a CATS application or policy intervention (or group of interventions), define the required parameters (or accept

pre-defined values) and the module will provide quantified and/or monetized output (depending on the impact) on the expected impacts. The impact assessment results will also include:

- an assessment of uncertainty in the estimates (e.g. confidence intervals or qualitative assessment);
- references on the methodology applied for the impact assessment (i.e. how were the respective relationships estimated: literature review, questionnaire survey, simulation study, etc.).

Predefined values for each parameter not influenced by the intervention will be available; however, the user will be able to change these values if needed. Also, indications on the evolution of the estimated impacts over time - short (5 years), medium (10 years) and long term (25+ years) impacts - will be included.

In the **backcasting sub-system**, the user will be able to select a policy objective, i.e. a targeted impact, and the PST will provide relevant interventions that are expected to result in this impact. Similarly, as with the forecasting sub-system, predefined values for parameters will be available, with the option to be modified by the user.

More details on the contents, the interface and the foreseen operation of the aforementioned modules are presented in WP8 deliverables.

2.3.2 Added value of the PST

The PST is a valuable tool for achieving societal objectives related to CATS. The PST enables users to understand the impacts of different policy interventions and select the most appropriate and cost-effective approaches to maximize the benefits of introducing CATS. After the second SRG workshop, where stakeholders proposed their suggestions for improvement, the PST will go above and beyond existing policy support systems by:

- Providing an innovative impact assessment approach concerning CATS
- Demonstrating the combined effect of selected sub-use cases, parameters and impacts
- Comparison between scenarios
- Ensuring cooperation with city macroscopic transport models
- Rigorous selection criteria to prioritise the highest quality evidence
- Presentation of key information about each included study without the user requiring access to the original source
- Providing communication between projects
- Including a sensitivity analysis
- Providing cost benefit analysis for selected sub-use cases
- Providing guidelines for the introduction of CATS
- A user friendly and easy to use interface design
- Applying a rigorous quality assurance process to all content

As a consequence of the dedicated design approach it is the only PST with the following features:

- Impact assessment results concerning automated urban transport, passenger cars and freight transport will support the users to decision making
- Takes a holistic approach considering impact assessment for CATS
- Provides comprehensive and accessible information for users of various backgrounds



The added value of the PST has been recognized by the stakeholders as evidenced by the positive feedback received at the second SRG workshop. During the workshop there was a widespread view that the PST has a great potential to support decision making and thus it should be continued beyond the end of the project.

3 Overall exploitation strategy

The exploitation of the LEVITATE project outcomes is based on **three main inputs**: (i) the market context, (ii) the project capabilities and constraints and (iii) the individual partner interests and opportunities.

The **market context** helps to identify and evaluate opportunities for the exploitation, positions the project with respect to other initiatives (commercial or research) and leads to strong market position towards potential competitors. The market analysis will focus on the specific areas of opportunity for LEVITATE exploitation. The market context will continue to evolve through time as the project will develop and thus identify clear areas for exploitation.

Capabilities and constraints of the available technology determine what can and cannot be done. Innovative solutions provide the uniqueness which will give the project potential results in a commercial environment. The licensing decisions taken by the consortium and the ability of the partners to form commercial endeavours after the project end are also included in this input.

In light of the above, the LEVITATE exploitation will be split into **two paths**. The first path will seek to define a longer-term vision for LEVITATE which partners can shape as they see fit (overall exploitation). The second path will seek to enable each partner to take advantage of the project results and exploit them to their own ends, as part of their individual exploitation strategy.

Concerning the partners' joint exploitation strategy, it is intended that the LEVITATE PST will remain in operation for the long term after the end of the project and will gradually become a reference Information System in which more and more experts and organizations can contribute their studies alongside quantitative results. The project results exploitation strategy is based on the following principles:

- Provision of **open access** toolkit and decision support system
- Contribution to **policy support**
- Development of a **business plan** to define future aspirations for the decision support system, in order that the PST becomes a service for impact assessments for CATS.
- **Further exploitation**

3.1 Open access

Due to its open access, but sustainable business model, LEVITATE PST will remain a reliable, meaningful, scientifically proven and **up-to-date source** of data and automated transport assessment to all potential users. This will enable the users to actively plan and steer the implementation of CATS following pre-defined transformation paths in order to reach prioritised policy goals. Users will have access to impact assessment results, as well as all knowledge module contents. The models used for simulation will not be into the open access version as they are part of the intellectually protected software of Aimsun. Training sessions for the assessment of individual and detailed use cases will be provided

at the end of the project and afterwards. **Training sessions** for the assessment of individual and detailed use-cases will be provided at the end of the project and afterwards.

3.2 Policy support

The LEVITATE policy support tool will be further maintained in terms of data, policies and methodology. To raise awareness of its availability, the online toolkit – being part of the full policy support tool – provides easy-to-use quick assessment for the public. Once the decision support system is online, an **online forum** and **network** will be established (as part of the website) to guarantee knowledge and contact exchange of early adopters and follower cities. Members of this sustainable network will meet once a year. These tools will be easily distributed and disseminated to the public from the project partners in all targeted actions or more overall inclusions in the partner portfolios.

3.3 Business plan

Although the LEVITATE PST will be developed within the Horizon 2020 Levitate project, funded by the European Commission, the intellectual property is owned by the Levitate Consortium. It is necessary to develop a business plan to define future aspirations for the decision support system, in order that the PST becomes a **service for impact assessment** for CATS. This business model will be further discussed and developed as the project evolves.

The main objective of the **marketing package** is to explore the possibilities for the continuation of the operation of the LEVITATE PST after the end of the project and the period covered by European Commission financing (up until 31 December, 2021). Finally, the **innovation management** is an inherent component of the project and will be an agenda topic at Steering Committee, Consortium and Stakeholder Reference Group meetings and as direct input to developing the project business model(s) as results evolve.

The business plan will be fully described in deliverable 2.5 “Intermediate report on innovation & business model development”.

3.4 Further exploitation

It is necessary to develop an operational framework to ensure the project facilities can be accessed and updated beyond the completion of LEVITATE. **Future research** activities will enrich the knowledge base developed in LEVITATE. It will especially address the identified knowledge gaps in order to systematically increase the understanding of influencing factors and impacts. Early adopters build trust for **follower cities**, both in the implementation of policies and CATS. OEMs and cities / regions can follow an iterative process to learn from each other in the development of technologies, policy goals, user needs etc. with regards to CATS.

In order to achieve a more **global perspective**, the PST will include studies from outside Europe, provided by LEVITATE partners from Australia, China and the United-States of America. It is also proposed to include studies from other cities and countries and studies in **other languages**. Furthermore, the knowledge base and innovative methodologies in the LEVITATE PST provide a basis for continuous expansion. To this end, LEVITATE intends to build up a **sustainable network** to exchange growing knowledge on newest



methodologies. Evidence collected in similar research activities in and beyond Europe will contribute to it as well. Post-project, the respective SRG members – as priority users – will further provide input for further detailed scenarios.

4 Individual Exploitation Plans

4.1 Exploitation objectives for all partners

The LEVITATE consortium has already engaged in a number of exploitation activities, the majority of which aimed at promoting the project objectives by means of presentations at related events, and publications in conferences and journals, as well as on-line. The **key objectives** that should be followed by all partners are:

- Establish and maintain mechanisms for **effective exploitation**
- **Inform** stakeholders and targeted end-users via a two-way interaction and encourage interactions as well as networking
- **Coordinate** all levels and types of exploitation of the knowledge produced by the project
- Ensure that **information is shared** with appropriate audiences on a timely basis and by the most effective means
- Channel the project's results to a truly **wide international audience**, in particular in those areas where implementing automation is an immediate goal.

Within LEVITATE, these objectives should be addressed in the **individual exploitation** plans by the project partners. All partners are involved, and this will have significant exploitation impact especially during the later stages of the project.

4.2 Research Partners

Academic partners, are non-profit organisations, which **expect significant benefits** from the project outcomes, as they play a significant role for further research on the basis of successful deployments. The work carried out in LEVITATE and the availability of the LEVITATE PST long after the project terminates is expected to be a valuable asset for research partners in terms of building new partnerships and engaging in future projects.

4.2.1 Loughborough University (LOUGH)

LEVITATE outcomes will be very useful to cities and local authorities in supporting their decision-making processes especially when the problem is multi-faceted with pros and cons in all facets. LOUGH aims to use the outcomes from the project to help cities and local authorities with trials and implementation of CATS technologies to harness their positive impacts. There are currently several **trials** of autonomous vehicles **ongoing** within the UK and local authorities will find the project outcomes timely.

One important aspect of the impact assessment is the **validity of conclusions** to city administrators who wish to use the findings in their decision-making. As this project is addressing the transferability of models built from previous studies, they would be very useful in establishing the confidence in using them. So, LOUGH plans to use the findings from trials within the cities and counties in the UK in validating the models and further exploitation of the PST. Also, the forecasts will be used to **develop testing capabilities**

and scenarios in CAV trials within the Smart Mobility Living Lab (SMLL) as well as on other similar platforms within the UK.

LOUGH is currently involved in the **CCAM platform** as well as the **Trilateral Impact Assessment Framework** subgroup through LEVITATE. The results from the project will be exploited to inform the international research community and further the international effort in impact assessments in their local areas. Furthermore, the materials from the project would be very useful in teaching activities to provide industry relevant materials to students in higher education.

4.2.2 Austrian Institute of Technology GMBH (AIT)

Through the increased visibility due to the dissemination activities, AIT expects a range of exploitation possibilities. These can be organised in the following categories.

- **Dissemination** of results and findings of the LEVITATE project at national and international conferences and peer-reviewed journals.
- Generation of **further research** based on the methodologies developed in LEVITATE. This leads to further collaboration possibilities or future projects among the partners and beyond.
- Contribution to **policies and guidelines** for cities and municipalities based on the results of the project.

4.2.3 National Technical University of Athens (NTUA)

NTUA aims to organize **demonstration workshops** in order to promote the work carried out within the LEVITATE project and attract more city authorities that will use the PST to support decision making related to CATS. Additionally, the LEVITATE outcomes will be presented by NTUA at various national, European and international conferences, in order to invite more users and funders as well as to interact with other academic organizations for future project synergies.

Although the project results will include the fully developed system of the PST focused on the impacts of specific interventions in an urban environment, there will be many possible improvements and extensions. These potential extensions are identified in chapter 3.4 and are worth developing. NTUA will **continue the research** in order to enrich the knowledge base. Additionally, the continuous research will contribute to adding more impacts and sub-use cases in the PST estimator module. Furthermore, NTUA will contribute to further develop the PST in order to provide results applicable for different cities increasing transferability.

The LEVITATE PST will be used by cities and regions to support decision making. NTUA working with organisations from different countries will help in **establishing connections with public bodies** in various regions, promoting the PST to more users. The LEVITATE PST will also be used by NTUA in future projects focusing on CATS. More specifically, the exploitation of the PST will provide input to new projects, where the LEVITATE impact assessment methods will measure the impacts of existing technologies and forecast that of future systems. On the other hand, the integration of the PST into the overall impact assessment tools of other projects will contribute to further developing

both modules of the PST, providing a range of impact studies of new and future mobility technologies. To this end, it is intended to exploit the LEVITATE PST, in the **H2020 project SHOW**, where all CATS parameters will be considered and analyzed based on data from field demonstrations and simulation experiments, including data referring to the interaction between CATS and other road users. This research synergises with other universities, research centers and organisations and will support the continuation and development of the LEVITATE PST after the project end.

Additionally, NTUA will further exploit the outcomes of the project by providing **seminars or courses** on suitable subjects emerging from the experience of LEVITATE. These seminars or courses could include elements that cover decision making and impact assessment related to CATS. The concepts of decision making, impact assessment and development of a successful policy support tool could be incorporated in these seminars to teach participants about the importance of policy support systems for decision making. This could attract students and researchers to join the research groups of the respective partners.

Finally, as per the aforementioned, NTUA aims to continue efforts regarding scientific **publications in conferences and journals** of all aspects of the project that it is involved in as partner. These publications will provide a means of showcasing the scientific and technical merits of LEVITATE outcomes and will offer additional validation of the high quality of the results of the project. Additionally, they will provide a bridge towards additional relevant scientific audiences, and will offer increased spotlight and promotion to the project overall.

4.2.4 Institute for Road Research (SWOV)

The mission of SWOV is to contribute to safer road traffic using our knowledge from scientific research. Therefore, the exploitation activities of SWOV are focused on the results related to road safety. Furthermore, SWOV was also involved in developing the methodology and is also interested in further exploitation of the findings related to **methodological aspects** and the conceptual framework that shows the interrelations between different types of impacts. More concretely, SWOV is interested in carrying out the following exploitation activities:

- **Dissemination of results** related to road safety at national and international conferences and in peer-reviewed journals.
- **Conduction of further research** building on the knowledge developed in the Levitate project. This includes knowledge related to road safety impacts of CATS and knowledge regarding research methods to forecast impacts of CATS and to determine which policy interventions are needed. SWOV are interested in exploring future collaboration opportunities with partners of the Levitate project.

SWOV has close contacts with the Ministry of Infrastructure and Water Management and with different cities in the Netherlands. SWOV intend to promote the PST within the Netherlands and can **advise them in relation to road safety impacts**. Furthermore, SWOV can bring them into contact with Levitate partners in case they have questions or need advice on other aspects of the PST.

4.2.5 Institute of Transport Economics (TOI)

TOI has invited the **Norwegian Public Roads Administration** to join the stakeholder reference group and presented Levitate in seminars held in the offices of the Public Roads Administration. Five popular science presentations of Levitate have been published in the web-based journal "Samferdsel", published by TOI. This journal is widely read by transport professionals and journalists in Norway.

A **scientific paper** was recently published in Economics of Transportation (Elvik: The demand for automated vehicles: a synthesis of willingness-to-pay surveys, Economics of Transportation, 23 (2020), 100179). Another scientific paper (Elvik, Yannis, Thomas) is under consideration in European Transport Research Review. A third scientific paper is in preparation, dealing with the taxonomy of potential impacts of connected and automated vehicles. A fourth paper is planned, dealing with the risk of cyberattacks.

4.2.6 Queensland University of Technology (QUT), Tongji University (TJU), University of Michigan (UMTRI)

QUT, TJU and UMTRI will be strongly involved as multipliers into their regions and countries beyond Europe and will support the promotion of the PST as they will provide their cities and regions with direct access to the PST. Additionally, they provide a wide range of city types, which contribute to the coverage, accuracy and comparability of output data of the PST. In order to further exploit the LEVITATE outcomes these universities will use the LEVITATE PST in future **national and international projects** focusing on CATS and will participate to the **consultation** of follower cities in detail.

4.3 Other Partners

As with the research partners, Polis, Transport for Greater Manchester and the city of Vienna are not commercial bodies. Polis is a networking body and therefore its exploitation focus is on leveraging its extensive network to create traction for the various Levitate outputs, with a particular focus on the PST.

As transport authorities at city or city-regional level, Vienna and Transport for Greater Manchester are potential users of the Levitate tools to support internal capacity building, strategy building and planning activities for automated road transport systems.

Aimsun is the only Levitate partner that has a commercial purpose.

4.3.1 Promotion of Operational Links with Integrated Services (POLIS)

As a network of local (transport) authorities - mainly cities - and an organisation that is embedded in the mobility ecosystem in Brussels and beyond, Polis is very well placed to disseminate to a **very wide audience** the findings and outputs of Levitate during and beyond the lifetime of the project. In addition, Polis is involved in **many European projects** and in several European **multi-stakeholder initiatives** related to automated transport systems, which would be interested in, and potentially users of, the Levitate results.

The specific fora that Polis will take advantage of for promoting the Levitate findings include:

- Polis' membership of the EC's CCAM platform: a multi-stakeholder platform set up to promote a coordinated approach to **pre-deployment activities**
- Polis' involvement in the creation (and potential membership) of the proposed **European CCAM research and innovation** partnership, including the task of building a Strategic Research Innovation Agenda (SRIA)
- Polis' participation in the **ERTRAC Automation Working Group**
- Polis' co-chairing role of the **ERTRAC Urban Mobility Working Group**
- The **Polis Traffic Efficiency Working Group**, a Polis members-only Working Group dealing with traffic management and ITS matters.
- Levitate's **partnership with ALICE** through Polis will help promoting the freight and logistics segment of the PST.

Polis will also seek to build on the Levitate results in other automated transport projects that it is currently involved in or is liaising with, including:

- Partner of **PAV project**: an Interreg project dealing with the integration of automated vehicles in spatial planning
- Partner of **Dynaxability4CE project**: an Interreg project aiming to improve the ability of cities to plan for vehicle automation.
- Advisory board membership of the **SHOW project**
- Link with the **ART-Forum Interreg project**
- Link with the **ARCADE project**

POLIS will make use of the research findings (in particular, the impact assessment) to inform its position on CCAM and the way it communicates about CCAM in Europe and beyond. It will also promote the tools individually (knowledge repository, back-casting and forecasting methods and impact assessments) and collectively (PST) throughout the Polis network and its far-reaching communication channels.

4.3.2 Transport for Greater Manchester (TfGM)

TfGM is the local government body responsible for delivering Greater Manchester's transport strategy and commitments. TfGM's expectations by joining the LEVITATE team, are to get high level and detailed impact assessments for the short-, medium- and long-term implementation of CAT, as well as to gain / exchange knowledge on other regulations, policy goal orientations (political attitudes). Additionally, TfGM participating to the exploitation of the LEVITATE outcomes, expect to position as **early adopter** in the field of CATS, and consult follower cities.

4.3.3 City of Vienna

As a city administration the City of Vienna also deals with upcoming digitization-driven changes in mobility, including C-ITS, automated driving, delivery and sharing mobility. To tackle these issues the city administration follows research projects and contracts tailored research to **build and expand its knowledge** basis and seek consultancy. Vienna city administration considers Levitate Project to be an important part of these activities.

4.3.4 AIMSUN

Aimsun will **demonstrate and validate** the PST solution through its promotion to a number of clients worldwide, both in the government and consultancy sectors. Dissemination of product upgrades, PST, and project output as a whole, will comprise a set of actions specifically targeted at individuals or groups with a known interest in the project results and in a position to use the information from the Aimsun client list. These actions will include scientific publications, the presentation of key project findings at **conferences** and policy/ industry/ academic **meetings** and **workshops**, and a number of worldwide Aimsun User meetings will be promoted using existing Aimsun media channels and through global involvement in trade shows and conferences.

5 Accelerating exploitation measures

The partners in the consortium dispose all the background expertise and capacity to achieve the targeted exploitation plans as mentioned above and accelerate the path to the targeted stakeholders. The PST itself will be used as promotion tool as a quick assessment on the basis of a few but meaningful data. This PST demonstration is easily doable and will be presented in promotion activities by the partners. To guarantee a long-lasting exchange of knowledge, new findings on more innovative methodologies, new regulations, user needs, data etc. a network will be brought up to live. An Online Forum on the Website will foster the exchange of experiences among users, and 1 physical network meeting at the TRA or ITS will enable the scientists to exchange scientific knowledge.

The proposed measures to accelerate exploitation during the project's progress are:

- **Communication activities** launched and followed-up on a regular basis to keep target groups informed
- **Active participation** in EU stakeholder and advisory groups (EC DG MOVE, DG Research, DG Climate/Environment, ERTRAC, etc.)
- **Liaison** with other projects/initiatives (ALICE, SHOW, ARCADE, etc.)
- **Promotion of project findings** through open access scientific journal publications (Accident Analysis and Prevention, Transportation Research Part C: Emerging Technologies, etc.) and presentations in conferences (TRA, TRB, ISHGD, ICTR, etc.)
- Learn about the features needed to **extend LEVITATE results** and the use of PST to various cities and regions
- Integrate the same policy across different parameters in order to achieve **geographic generalization** of the results to be applicable to other areas
- **Present the results** of the project to various administrations and authorities in particular in charge with the implementation of CATS into cities and regions
- Establish a list of **potential end-users**
- **Contribution** to standards, good practice and related policies
- **Workshops** and industry exhibitions
- Involve existing **clients network**
- Negotiation with the consortium partners the right to **directly exploit** the results
- **Commercial exploitation** by consulting municipalities
- In order to enable urban/transport/traffic planners in the city/regional authorities and infrastructure providers to use the PST, **training sessions** will be provided
- Generation of **further research**

6 Exploitation RoadMap

From the above exploitation plan description, it is evident that input from WP8 as well as from the final consultation workshop is necessary in order to further develop and realize these plans. This initial exploitation plan is created early in the time plan in order to evolve along with the project and the development of the PST, as well as to provide useful information about the foreseen exploitation.

The following time plan is suggested for the PST exploitation plan, which reflects to the timeplan of the LEVITATE as a whole.

- **Intermediate** Exploitation Plan (M20 – July 2020)
- Intermediate report on innovation and **business model** development (M20 – July 2020)
- Establish and follow a **tight time schedule**, starting with the operation of the PST (anticipated for M22 – September 2020)
- **Demonstration workshops** (from M22 – September 2020 to M34 – October 2021)
- Development of a comprehensive **marketing strategy** and a professional marketing package (M24 – November 2020) that includes:
 - Explanation of the system
 - Explanation of the system's value
 - Address governance issues
 - Highlight the added value for funding organizations
- **Dedicated visits** to potential funding organizations (from M25 – December 2020 to M34 – October 2021)
- **Post-Project** Exploitation Plan (M36 – December 2021)

This exploitation roadmap will be further developed and enhanced along with the project's progress.

7 Conclusion

The LEVITATE PST is a user-friendly, interactive policy support tool, which can be used to support decision making related to the introduction of CATS in the urban environment. The goal of this exploitation strategy is to offer the best possible path in order to assure that the LEVITATE Policy Support Tool (PST) will **remain in operation** after the end of the project. The current document was compiled after: (i) a successful discussion between various partners, (ii) consultations on the exploitation requirements for all H2020 projects and (iii) reviewing all deliverables produced during the first half of the project. It will serve as a basis for D2.8 Post-project exploitation plan, in order to define future opportunities and possibilities for increasing the impact of the LEVITATE results. It also harmonises actions needed for **promoting and raising awareness** among the partners by looking into the project's strengths, weaknesses, opportunities and threats that might limit the future commercialization of the LEVITATE PST after the lifetime of the project.

References

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