D7.2 Impact Generation Strategy

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PROJECT PARTNERS

Partner	Country	Short name
TEKNOLOGIAN TUTKIMUSKESKUS VTT OY	FI	VTT
IAV GMBH INGENIEURGESELLSCHAFT AUTO UND VERKEHR	DE	IAV
TELESTE OYJ	FI	TEL
TELESTE VIDEO NETWORKS SP. Z O.O.	PL	TVN
TELESTE INFORMATION SOLUTIONS OY	FI	TIS
UNIVERSITAT LINZ	AT	JKU-ITS
SKODA TRANSTECH OY	FI	STRT
UNIVERSIDAD DE ZARAGOZA	ES	UZ
CARR COMMUNICATIONS LIMITED	IE	CARR
HI IBERIA INGENIERIA Y PROYECTOS SL	ES	HIB
SKODA DIGITAL SRO	CZ	SDIG

LIST OF ABBREVIATIONS AND ACRONYMS

Abbreviation / acronym	Definition
PT	Public transport
GA	Grant agreement
CCAM	Connected, Cooperative and Automated Mobility partnership
REA	European Research Executive Agency
CINEA	European Climate, Infrastructure and Environment Executive Agency
GDPR	General Data Protection Regulation
KER	Key exploitable results
EC	European Commission
KPI	Key performance indicator

Executive Summary

D7.2 provides the OptiPEx project's impact generation strategy, offering the plans, frameworks, actions, and tools to facilitate and enhance the impact of the project results. In line with this intention, this document outlines the strategies that will be used to target the realms of industry, society, economy, and EU policy. It is built on three key areas: 1) the dissemination plan (including clustering); 2) the communication plan; and 3) the exploitation plan.

The dissemination plan presented in this document, outlines the tailored approach to reach specific targeted audiences interested in OptiPEx activities and results. It covers various tools and channels, including academic work dissemination through scientific publications and participation in relevant events and workshops. The communication plan outlines OptiPEx's overall communication strategy, including key activities, tailored messages for each stakeholder group, and a comprehensive overview of the project's presence on social media platforms (X/Twitter, LinkedIn, YouTube) and its website. The exploitation plan identifies different phases of the plan and the various tools that will be employed to facilitate the identification, management, and further commercial/academic utilisation of the project's exploitable results.

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1 Introduction

1.1 Purpose of Document

The OptiPEx strategy for impact management and assessment formulates and presents methodologies, processes, and tools to disseminate and communicate the scientific, societal, technological, and economic value of the project beyond its immediate outcomes. The plan is structured around three essential pillars: dissemination, communication and exploitation. This document outlines a tangible framework by which impact creation efforts within the project will be steered. It identifies specific target groups for dissemination and communication activities, describes the methods of outreach, and discussed the channels that will be employed. In so doing, this document details the primary dissemination and communication tools that will effectively generate awareness and maximize the project's impact and outcomes. The key objectives of this deliverable are:

- Develop and outline the dissemination and communication plan;
- Identify key stakeholder groups and develop tailored tools for communicating project results and impacts to them;
- Develop a framework for creating synergies with relevant initiatives and actions, to disseminate project results, collect feedback, and promote policy activities;
- Develop a strategy for the successful exploitation of the project's results.
- Define impact assessment processes and tools to be used throughout the project's duration.

Achieving these objectives will enhance OptiPEx's profile in the market, preventing its results from becoming stagnant. Despite differences in the nature, functions, and audiences of dissemination and communication activities, the aim of all three pillars is to extend and maximize the impact of OptiPEx by effectively communicating project details, underlying results, and research outputs (e.g., software, algorithms, data, and guidelines/strategies) and facilitating the uptake of them.

The primary goal of the OptiPEx's impact generation strategy is to promote collaboration among partners and stakeholders and effectively showcase the project's results, strengthening the leadership of Europe in public transport experiences. This will be done by involving them to provide input through surveys and focus groups, and the continuous exchanging of ideas via open collaborative communication channels in developing an improved experience for users of public transport.

The OptiPEx project will utilize the clustering to increase impact creation by building and maintaining networks, creating links with relevant stakeholders and projects as well as engaging in knowledge transfer activities throughout the lifetime of the project.

1.2 Relation to Other Project Work

Through the impact generation strategy outlined in this document, the project directly contributes to the fundamental goal of enhancing the passenger experience, comfort, and safety. In practical terms, due to the broad scope of dissemination, communication and exploitation activities, this deliverable lays the foundation for realizing the entire spectrum of OptiPEx objectives indirectly through the impact generation strategy:

- to assure the inclusion of passengers and other stakeholders throughout the design process of the adaptive and interactive PT services to be developed in OptiPEx. [OptiPEx Objective 1];

- to develop tools and trustworthy AI/ML algorithms to recognise passengers with special needs, assess human behaviour and environmental situations that require support actions in an unobtrusive and privacy preserving manner. [OptiPEx Objective 2];
- to build the PT vehicle technology infrastructure integrating hardware and software solutions enabling: (a) efficient, secure, and reliable data acquisition and collection (b) real-time data analysis on edge (c) close to real-time adaptation of vehicle functionalities in response to assessed passenger behaviour or needs. The work will focus on OptiPEx environments (tram and shuttle bus) but also consider the applicability of developed solutions to different types of PT vehicles e.g., buses and trains. [Objective 3]
- to develop an OptiPEx service framework that enables the creation of adaptive and interactive services for passengers across different modes of PT such as railways, buses, and trams, with passenger experience, safety, and comfort at the core. By leveraging state-of-the-art technologies and incorporating latest emerging design principles, WP5 aims to develop the service framework, which enables creation of the passenger services using predefined building blocks and assuring compliance with the regulation. This framework will be developed out of inputs from objectives 1, 2, and 3 [Objective 5];

The foundation for the OptiPEx impact generation strategy, to be followed throughout the project implementation, has been adapted from previous impact generation strategies, to suit this project's specific needs. The subsequent documents (D7.3 and D7.5) will provide detailed reports on the actual deployment of the impact strategy, covering dissemination and communication, specifically covering the underlying activities and outcomes.

Beyond the specified tasks and deliverables, this document is closely tied to all project achievements that require dissemination and communication.

1.3 Intended Readership

This strategy plays a crucial role in shaping the activities of the project, as all external communications and dissemination opportunities will be based on what is established in this document. As this deliverable is labelled public it is accessible to the project team, the European Commission (EC) services, all stakeholders and the general public.

1.4 Glossary

Project Results: Any tangible or intangible output of an action, such as data, knowledge, and information whatever their form or nature, whether they can be protected (e.g., standalone software, software artifacts, guidelines, policy recommendations, etc.).

Dissemination: Dissemination refers to slightly more targeted activities compared to those of communication, comprising of sharing the research results and services of the project with potential end users and stakeholders in the fields of industry, academia, civil society, and policy making.

Communication: The word communication refers to taking strategic and targeted measures for promoting the project's actions and results to a multitude of audiences, including the media and the public, and possibly engaging in a two-way exchange in the process.

Impact Generation: This refers to the carrying out of all the activities that aim to increase the economic, scientific, and societal impact of the project's results (mostly revolving around the dissemination, communication and exploitation actions) that take place during the implementation of OptiPEx

Synergies: This term is used to describe all the collaborative actions that are made with relevant initiatives, associations, organisation, and any other bodies, to diffuse the impact of the project results and to exchange feedback.

Standardisation: Refers to contributions made to standardisation bodies, stemming directly from the research results of the project activities.

2 Impact Generation Strategy Overview

2.1 Strategic Objectives

The primary objective of the OptiPEx project is to improve the safety, security and comfort of passengers by co-creating ethical, passenger-aware PT services together with user target groups (including wheelchair passengers, passengers with large objects, fragile passengers with limited mobility, tourists, and students) to develop perception solutions; behavioural analysis and modelling methods; adaptive and interactive vehicle technologies; and digital services. The developed solutions will be demonstrated and validated with the user target groups and other stakeholders in three living labs: Lyyli tram (FI); IAV shuttle (DE); and Linz tram (AT). The successful adoption of these results will be facilitated by strategic dissemination, communication, and exploitation plans (all of which will be laid out in upcoming deliverables), and done in collaboration with the Connected, Cooperative and Automated Mobility (CCAM) partnership. This involves ensuring that all results are accessible to relevant stakeholders and effectively communicating their interest, benefits, and relevance, which will ultimately serve to facilitate the widespread adoption of the project's results.

To achieve this, the project breaks the primary objective down into six strategic objectives. A table outlining these can be found below:

SO1
Passenger-centric development of vehicle technologies and mobility solutions

SO2
Continuous on-board passenger behaviour and experience analytics, and situational awareness.

SO3
Advanced vehicle technologies for on-board experience optimisation

SO4
Vehicle adaption and interactive services must meet passengers needs and increase their safety

SO5
Validation of OptiPEx on-board experience optimisation solutions

SO6
Acceleration of implementation of connective, cooperative, and automated mobility technologies and systems for PT services

Figure 1 1OptiPEx Strategic Objectives

2.2 Approach and Goals

The approach for OptiPEx's impact-generating activities seeks to incorporate communication and dissemination principles to optimize the project's results and achievements. This will be done via the

dissemination and communication of the project's outcomes, thereby contributing to the anticipated outcomes of this work package. The goal of carrying out various dissemination and communication activities is to extend the project's influence on the broader scientific, economic, and societal impacts within the work program destination.

To effectively oversee our impact generation initiatives, coordinate tasks and activities, and track the progress and impact key performance indicators (KPIs), an activity tracker has been developed where consortium members are to regularly update the document, making note of every dissemination and communication activity carried out. It will also be used by CARR to lay out and share details of our own dissemination and communication activities, which often requires input from partners.

The objectives of the OptiPEx impact generation strategy include:

- Identifying and effectively disseminating the project's exploitable results to key stakeholder groups, ensuring the transfer of knowledge, innovative solutions, methods, and guidelines for optimal utilization by stakeholders.
- Ensuring that project partners are the initial beneficiaries of the project results, either through their own efforts or by facilitating exploitation via other routes, such as making results available under open licenses.
- Identifying and implementing suitable dissemination channels tailored to the key stakeholders of the project.
- Maximizing the impact of research conducted during the project by highlighting the ways in which the project results can be used beyond the original focus and diffusing it accordingly.
- Monitoring, evaluating, and refining the effects of OptiPEx dissemination, communication, and exploitation activities.

2.3 Strategy Overview

The OptiPEx impact generation strategy is realized through the design of dissemination, communication, and exploitation plans, which are framed by a general framework detailing definitions, core objectives, focus, and target audiences, as presented in Table 2.

Table 1 OptiPEx Impact Generation Overview

	Dissemination Strategy	**Communication Strategy**	**Exploitation strategy (covered in D7.4 and D7.6).**
Definition	An operational plan with tailored actions and tools to share the project's results (with particular focus on the key exploitable results (KERs) of the project) to a targeted set of stakeholder groups (i.e., industrial, academic,	A framework of actions (implemented throughout the entire project lifetime) with targeted measures for communicating about the project and its results to a broad audience, including the media and the public, to exchange	A targeted strategy to be followed throughout OptiPEx to facilitate the proper utilisation and adoption of the project's methods, innovative solutions, intangible assets, and academic research results by industrial and/or academic stakeholders,

	Dissemination Strategy	Communication Strategy	Exploitation strategy (covered in D7.4 and D7.6).
	public authorities) in order enhance the value creation of OptiPEx and increase its impact.	feedback about the project.	ensuring the exploitation and sustainability of the project results after its contractual lifetime.
Objective	Facilitating the dissemination and application of OptiPEx results to empower stakeholders, thereby maximizing the project's impact.	Engage with the broader European community and demonstrate the positive effects and advantages of OptiPEx in improving the passenger experience of public transport services.	Maximize the utilization of project outcomes through commercial, academic, societal, and policymaking channels, to enhance the influence of OptiPEx.
Focus	Effectively describe and distribute the project outcomes, ensuring accessibility for external stakeholders.	Provide details about OptiPEx's activities and share information regarding its strategies and creative solutions.	Make use of research results.
Target Audience	Parties keen on utilizing the outcomes (such as industrial collaborators, European Union enterprises, academic establishments, and policymakers).	Addressing various audiences beyond the project's local community, such as the media and the wider public within the European Union.	Industrial organizations, academic institutions, and policymakers, including OptiPEx partners, are encouraged to actively utilize the project outcomes. This involves collaborating with external groups of stakeholders to translate the results into tangible benefits.

The sharing, communication, and utilization of OptiPEx activities has been and will continue to be initiated in various stages throughout the project's duration. There will be multiple opportunities to enhance project communication efforts, particularly at key project milestones. The following provides an overview of the actions to be undertaken in each phase, and a roadmap of the impact generation activities is outlined in the OptiPEx Impact Generation strategy (figure below).

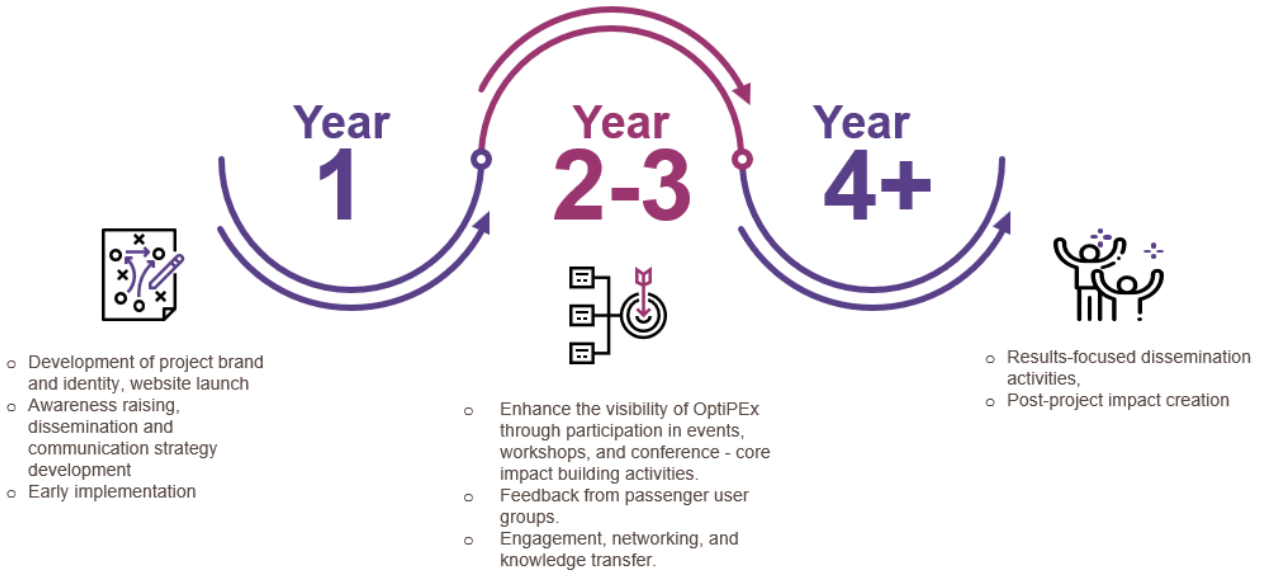

Figure 2 OptiPEx Impact Generation Strategy Timeline

2.4 Target Audiences

The OptiPEx project endeavours to improve the user experience of public transport services, with a specific focus on various user groups, including wheelchair passengers, passengers with large objects, fragile passengers with limited mobility, tourists, and students. The project's key objectives, distinctive features, and technological advancements outlined in the OptiPEx GA are designed to resonate with various target audiences. From the project's initiation, we have identified and engaged the specific stakeholder groups who are the primary audiences for our communication and dissemination strategy.

Throughout the project's duration, the mapping of target audiences remains an ongoing process, evolving and becoming more detailed as partners identify new entities of interest in the course of their work. This strategic approach delineates the diverse audiences that the dissemination and communication activities will be targeted at. We consider audiences at various levels, spanning from local to regional, national, and European contexts. These audiences are not viewed merely as direct target groups; rather, they represent a broader spectrum to whom we direct our communication efforts.

Stakeholders, or user groups, on the other hand, encompass interest groups or individuals directly affected by the project, being those who possess a vested interest or are actively participating in project activities. As members of the target audiences engage with the project, they transition into stakeholders. The primary target audiences for OptiPEx are categorized into five groups, as illustrated in the figure below.

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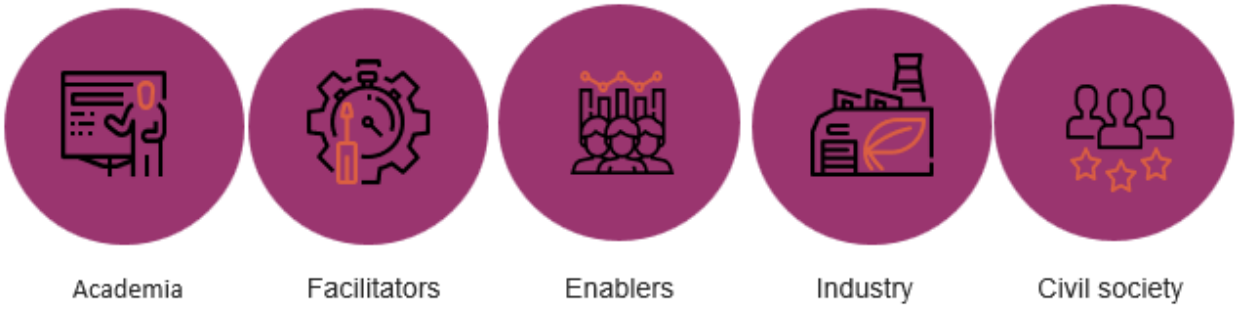

Figure 3 OptiPEx Target Audiences

2.4.1 Academia

Key target audiences in academia include the digital technology, human-machine interaction and transport R&I community; data analytics and mobile service experts; Association for Advancement of AI; European Association for AI (EurAI) and national associations; and related R&I projects.

2.4.2 Facilitators

Key target audiences among potential facilitators include providers of funding and support such as REA and the European Climate, Infrastructure and Environment Executive Agency (CINEA); the CCAM partnership (VTT and JKU-ITS are members); EIT Urban Mobility; POLIS; Eurocities; ERTICO – the European Road Transport Telematics Implementation Coordination Organisation; ITEA Smart City Advisory Board (HIB is a member); existing AI initiatives and clusters incl. Big Data and AI Initiative of PLANETIC (HIB is a member); AI Working Group of AMETIC (HIB is a member); AI, Data and Robotics Partnership (VTT is a member); AI high level expert group (HLEG); European AI Alliance; Digital Innovation Hubs; AI Intelligence Centres; SMEs; startups; investors in automotive intelligent technologies; trade representatives; European Digital SME Alliance; tech funders; and mobile service providers.

2.4.3 Enablers

Key target audiences amongst possible enablers for this project include PT authorities, European and national policy makers, ministries of business & innovation and transport, regulators, standardisation bodies (in cabin sensing etc.), and interest groups (such as UITP – International Association of Public Transport).

2.4.4 Industry

Key target audiences among industry representatives include vehicle manufacturers incl. OEMs (VW, Audi, BMW) and rolling stock actors (Škoda Group, Alstom, Siemens, Stadle); automotive supply chains Tier 1 suppliers (such as Valeo); European rail supply industry UNIFE (Teleste participating); the International union of railways (UIC); and Big Data Value Association BDVA (VTT is a full member).

2.4.5 Civil society

Key target audiences in civil society include Public Service Unions (Disability, Health and Law Department, Austria); the Association of Wheelchair Users; Transport Association that serves the core area of Linz; LINZ LINIEN GmbH; international and national passenger interest groups (such as EPF – European Passenger Federation, EDF- European Disability Forum); international and national citizens' associations; and parents'

groups. The broader community, including consumers, local community members, media entities, and citizens, will also be engaged in the project's development.

2.4.6 Additional audiences

We acknowledge that there will be other groups that will play a crucial role in amplifying key messages:

- Journalists: Media professionals operating at both European and national levels serve as valuable assets in disseminating essential information to diverse audiences. Their role extends to explaining the project's impact on everyday lives within the context of personal safety.
- Other types of civil society organizations: Practitioners and advocates, located in Europe and associated countries, are pivotal in gaining insight into user group experiences in PT usage.

3 Dissemination Strategy

CARR oversees planning and developing the dissemination and communication strategy and activities, in close cooperation and consultation with the whole OptiPEx consortium, and the coordinator and specific partners are consulted on relevant issues when necessary.

As this deliverable is written during the first stage of the project (M6, October 2024), the primary focus of the following plan is to present the communications strategy and describe how it will be implemented throughout. Several actions within the strategy have already begun implementation which will be reported in D7.3 First dissemination and communication report and submitted in M18 (October 2025). The strategy has been active since the very beginning of OptiPEx (M1, May 2024) to convey the project's activities, establish a presence both on and offline, and to create awareness about the project in general.

The strategy builds on the objectives, focus and identification of key audiences in Section 2.4 "Target Audiences". Additionally, it expands on the project's dissemination and communication goals and objectives and describes the strategy behind the key messages and channels that will materialise.

Dissemination includes activities that aim to share results with potential users, scientific and industrial communities, commercial players, relevant organisations, and networks as well as policymakers.

3.1 Management of Dissemination Activities

All partners will report any dissemination actions to CARR via the OptiPEx dissemination and communication tracker or via email. All reported dissemination activities are registered into the dissemination tracker (a sheet of the activity tracker).

The dissemination and communication tracker will be maintained by CARR as a continuously updated database of all OptiPEx dissemination and communication activities in the OptiPEx SharePoint. The dissemination tracker registers the following activities: 1) Conferences; 2) Clustering activities; 3) Presentations; 4) Meetings; 5) Other scientific collaborations; 6) Other. There is also a separate sheet for the collection of information of publications in scientific journals and/or theses. The dissemination and communication tracker may be updated with new sections if new relevant dissemination activities not yet classified arise. A more detailed description of the OptiPEx dissemination and communication tracker can be found in D7.1 Brand and communication channels.

3.1.1 Dissemination Reporting, Compliance, and Obligation to Disseminate Results

The obligation to disseminate results are specified in Article 17 of GA. According to Article 17.1, where it is stated that the beneficiaries must promote the action and its results by providing targeted information to multiple audiences (including the media and the public), in accordance with Annex 1 and in a strategic, coherent, and effective manner.

In addition, a beneficiary that intends to disseminate results must give advance notice to the other beneficiaries of – unless agreed otherwise – at least 30 days, together with sufficient information on the results (please see paragraph 2 of Article 17 of Annex 5 of GA). Any objection to the planned publication shall be made in accordance with GA in writing to the Project Coordinator (VTT) and to the partner(s) proposing the dissemination result within 15 days of receiving the notification (paragraph 3 of Article 17 of Annex 5 of GA). If no objection is made within the indicated period, the dissemination may proceed.

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Informed consent is always obtained from individuals taking part in dissemination activities. We will notify in advance about any video/photo/audio recording and obtain consent for using edited materials for dissemination purposes within this project. Collected materials, such as photo and video records, will be managed by CARR. An example of the consent form for dissemination activities is presented in Annex I of this deliverable.

The details on data management and compliance with the General Data Protection Regulation (GDPR) are described in the D1.3 Data Management Plan (due in M6, updates with D1.4 Second Data Management Plan in M18, D7.4 Third Data Management Plan in M42).

3.2 Publications

The scientific community represents an important target audience for OptiPEx, and the publication of the project results in relevant journals and conference papers will be a key dissemination activity for the project. The added benefit of scientific publication is independent peer review, which enhances the innovative potential of the project and provides new openings for research collaboration.

As the OptiPEx project covers several fields and aims to reach different types of stakeholders, given the difference between the project case studies, the expectation is for the outputs to interest various scientific fields. OptiPEx is strongly committed to promoting open science research, and all the scientific articles and conference papers produced will be published according to the Horizon Europe Open Access guidelines and will be publicly available. Special arrangements will be made to guarantee the security and confidentiality of restricted information.

To guarantee that publications can proceed as planned, the lead partner of the publication should follow the following steps:

As early as possible and at least 30 days in advance, the lead partner informs the Project Coordinator (VTT) and the Dissemination Manager (CARR) about a planned scientific publication.

Provide the following provisional details of the planned publication:

- Author(s), partner organisation(s);
- Title of the publication;
- Links to relevant project task(s);
- Research data to be used;
- Target journal(s);
- Planned submission date;
- Open access arrangement.

All publications will be recorded on the publications sheet in the OptiPEx dissemination and communication tracker (more details provided in D7.1 Brand and communication channels) by CARR, with the support of all partners. The publication tracker will keep record of the project scientific publications and create a valuable database. It is essential that each partner assesses and chooses the most suitable publication based on the following criteria: field, ranking, scientific impact, prestige, readership, and open access policy. From the onset of the project the partners have started compiling a list of journals that can be relevant and useful to the partners:

Table 2 Journals Relevant to OptiPEx

#	Journal title	Publisher	Subject area	Link	Open access
1	Journal of Public Transportation	. Elsevier	Public transport	Journal of Public Transportation | ScienceDirect.com by Elsevier	Yes
2	International Journal of Sustainable Transportation	Taylor and Francis	Interactions of transportation systems with urban subsystems and publishes interdisciplinary research on global or local sustainable transportation	International Journal of Sustainable Transportation | Taylor & Francis Online (tandfonline.com)	Hybrid
3	Transactions on Intelligent Vehicles	IEEE	Intelligent vehicles, and in particular in automated vehicles	IEEE Transactions on Intelligent Vehicles (T-IV) - IEEE ITSS (ieee-itss.org)	Hybrid
4	Transportation Research	Elviser	A diverse journal, focussing on a broad range of transportation related topics	Transportation Research | Journal | ScienceDirect.com by Elsevier	Yes
5	Journal of Urban Mobility	European Institute of Innovation and Technology	Focus on areas of urban mobility that will accelerate solutions that improve collective use of livable urban spaces	Journal of Urban Mobility | ScienceDirect.com by Elsevier	Yes

6	Intelligent Transportation Systems Magazine	IEEE	Research and application challenges in all areas of intelligent transportation systems	IEEE ITS Magazine - IEEE ITSS (ieee-itss.org)	Hybrid

3.3 Open Access to Scientific Publications

OptiPEx strictly follows the open access approach to all peer-reviewed scientific publications in accordance with Article 17 of GA.

In the scope of OptiPEx dissemination activities, open science is here defined according to the Horizon Europe Programme Guide [7]: “Open science is an approach based on open cooperative work and systematic sharing of knowledge and tools as early and widely as possible in the process”. It is an obligation of each beneficiary to ensure open access to scientific information (paragraph 5, Article 17 of Annex 5 of GA). It details the scientific information that is collected in the framework of the project and the main principles for the generated data can be found in the Data Management Plan.

OptiPEx scientific publications will be published following two main routes to open access practices, evaluated on a case-by-case basis:

- Self-archiving / 'green' OA – the representative (CARR – Dissemination Manager) archives (deposits) the published article or the final peer-reviewed manuscript in an online repository before, at the same time as, or after publication. The following depositories will be utilised: OpenAIRE, Open Research Europe, Zenodo, which allows to deposit the research data needed to validate results presented in scientific publications.
- Open access publishing / 'gold' OA – an article is immediately published in open access mode. Researchers can also publish in open access journals, or in hybrid journals that both sell subscriptions and offer openly accessible individual articles. In this model, the payment of publication costs is shifted away from subscribing readers. Monographs can also be published either on a purely open access basis or using a hybrid business model. Publications will be made accessible through a repository (OpenAIRE/ Zenodo/ Open Research Europe) upon publication.

To ensure open access using the repository, it is essential that the bibliographic metadata that identify the deposited publication is included (paragraph 9 of Article 17 of Annex 5 of GA). The following information must accompany all scientific publications and submitted to CARR:

- The terms “European Union (EU) and “Horizon Europe”
- The publication date, and length of embargo period if applicable
- The persistent identifier (e.g., a Digital Object Identifier – DOI)
- The unique and persistent digital identifier for the author and contributors (e.g., Open Researcher and Contributor ID - ORCID)

OptiPEx partners can use the dissemination and communication tracker with the publication tracker tab to enable CARR to correctly archive and deposit the scientific publication to the online repository. The table below indicated what information will be required from partners for this purpose. CARR will also maintain an internal database of scientific publications and asks all OptPEx partners to update periodically their dissemination activities on the dissemination tracker, including scientific publications.

Table 3 Information Required from Partners for Publications

OptiPEx partner	Acronym used in the OptiPEx project
Type of scientific publication	Peer-reviewed scientific article / monograph / edited volume / chapter in an edited volume / conference proceedings / report / dataset / other
Title of publication	
Author(s)	
ORCID	
Title of journal/ edited volume/ special issue	
Editor / Publisher	
Publication date	
DOI number	
URL (if applicable)	
ISSN / ISBN (if applicable)	
Other persistent identifier	
Open access to publication	Green OA / Gold OA
Research data	Research data needed to validate the results
Embargo period (if applicable)	
Additional information	

3.3.1 Research Data Management

In addition to ensuring that publications will be Open Access, in accordance with the Horizon Europe Grant Agreement, OptiPEx scientific publications will manage the research data generated in line with the FAIR principles, as follows:

- as soon as possible and according to the deadlines set out in the DMP, deposit the data in a trusted repository;
- as soon as possible and according to the deadlines set out in the DMP, ensure open access — via the repository — to the deposited data, under the latest available version of the Creative Commons Attribution International Public License (CC BY) or Creative Commons Public Domain Dedication (CC 0) or a licence with equivalent rights;
- following the principle 'as open as possible as closed as necessary', unless providing open access would be against the beneficiary's legitimate interests, including regarding commercial exploitation, or be contrary to any other constraints;
- provide information via the repository about any research output or any other tools and instruments needed to re-use or validate the data.

Metadata of deposited data must be open under a Creative Common Public Domain Dedication (CC 0) or equivalent (to the extent legitimate interests or constraints are safeguarded), in line with the FAIR principles (in particular machine-actionable) and provide information at least about the following: datasets (description, date of deposit, author(s), venue and embargo); Horizon Europe or Euratom funding; grant project name, acronym and number; licensing terms; persistent identifiers for the dataset, the authors involved in the action, and, if possible, for their organisations and the grant. Where applicable, the metadata must include persistent identifiers for related publications and other research outputs.

However, in accordance with Open Research Europe guidelines, exceptions to open access to research data underlying publications in Open Research Europe are permitted according to the relevant policy of Horizon Europe. These consider the obligation to protect results, confidentiality obligations, security obligations, the obligation to protect personal data and other legitimate constraints. Where open access is not provided to the data needed to validate the conclusions of a publication that reports original results, authors should provide the relevant access needed to validate the conclusions to the extent their legitimate interests or constraints are safeguarded (see paragraph 18 Article 17 of Annex 5 of GA).

More information on this can be found in the first data management plan, due in M6 (October 2024).

3.4 Acknowledgement of EU Funding and Use of EU Emblem

Acknowledging EU funding in dissemination activities is a legal obligation of every beneficiary under Article 17.2 of GA. All dissemination activities (including in electronic form, or via social media) related to the OptiPEx project must display the EU emblem and include the following text:

For dissemination and communication activities: (Article 17.3 of GA): "Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them. Grant Agreement no. 101146513 – OptiPEx."

The EU emblem must be displayed in high resolution. Consortium members are asked to consult the detailed graphics guide to the European emblem, which includes geometrical descriptions and the regulation colours.

It can be downloaded in high resolution from the European Union website, and it must not be modified or merged with any other graphic elements or text. When displayed together with another logo, the EU emblem must have appropriate prominence, according to paragraph 4 Article 17.2 of GA.

3.5 Risk

Risk management includes activities and processes that aim to mitigate and manage all types of risks within the project duration and minimize their impact on implementing project activities. The risk management plan is already in place, and risk mitigation measures are described in the Project Quality Management Plan. As this deliverable focuses on risks related to communication and dissemination activities, risk mitigation measures involve ensuring awareness raising and engagement through a broad and diverse range of dissemination activities tailored to key stakeholder groups. Queries from stakeholders will be responded without delay.

CARR oversees filtering of irrelevant and inappropriate content and comments posted on any of OptiPEx social media accounts. If negative feedback is received in the project's social media channels, it will be acknowledged, taken offline, resolved in cooperation with the Project Coordinator (VTT) and finally addressed online. If the nature of the feedback is abusive, blocking and reporting the user in question will be considered. As the project's resources are limited, CARR heavily relies on all partners and their extended networks to flag any content or issues that need to be addressed. This includes cases where other languages, such as the languages of the OptiPEx consortium members, are in question.

There is also a need to be prepared for unforeseen and unexpected risks in dissemination activities. A sudden, unexpected event related to OptiPEx dissemination results, such as a publication in a high-ranking journal, a conference presentation, or an academic event, may call for an instant reaction from the OptiPEx consortium. All partners need to keep up to date the Dissemination Manager (CARR) about any specific concerns, follow turns of event and notify the relevant members of the consortium.

As stated in paragraph 2 Article 17.2 of GA, before engaging in a dissemination or communication activity expected to have a major media impact, the beneficiaries must inform the granting authority. Such these activities could be major media coverage, including in online or printed press, broadcast media, and social media platforms, that will go beyond having a local impact and which could have the potential for national and international outreach. The OptiPEx partners are aware of this obligation and compliant with this requirement.

3.6 Clustering, Networking, and Engagement with Media

Clustering and networking are important tasks of dissemination and exploitation activities: to implement the work of OptiPEx, the project builds on close cooperation with other research and innovation projects and relevant stakeholders in the improving the user experience of public transport and self-driving vehicles. Pre-existing networks and research collaborations, especially where project partners are already involved, will be used to achieve a broader impact, and ensure a wider adoption of the developed technologies and other state-of-the-art research outputs by end-users.

3.6.1 Clustering

Clustering aims at sharing and exchanging ideas and concepts, including insights and best practices while avoiding duplication of efforts and results; they also facilitate awareness of the action and project activities,

increases the size of audiences, and amplifies the project visibility through collaboration (e.g., joint newsletters, joint press releases, cross promotion on social media).

Collaboration opportunities with the other CL5-2023-D6-01-01 projects and other relevant Horizon Europe projects will be sought to facilitate effective communication and ensure far-reaching impact. Joint information and dissemination activities will be undertaken to increase synergies between projects, as well as the visibility of EU research and innovation actions. The use of the Horizon Results Booster service from the European Commission will be considered; this will allow to identify a common portfolio of results and design a common dissemination strategy to reach end-users and to advance exploitation efforts.

Since its start, OptiPEx has been in contact with the CCAM partnership, established with the support of the European Commission under the Horizon Europe programme, that brings the relevant stakeholders and resources together in one dedicated place to help overcome fragmentation, so that automotive innovations (research, products, solutions) will be accelerated. The inclusion on this platform will support OptiPEx dissemination efforts, as it functions as a European automotive innovation driver, offering a critical mass of resources, community networking effects, and rapid development and growth.

OptiPEx will actively seek international cooperation with the following CCAM related projects funded by Horizon Europe Programme: SELFY for verification & validation tools, CONDUCTOR for experience in traffic management, and SINFONICA & SUNRISE for societal aspects such as engaging citizens and elaborating related data. Furthermore, we will adapt good practices from DIAMOND project (H2020) for data mining and analytics for inclusive transports.

A first list of related Horizon Europe research and innovation projects has been compiled, which fall under overlapping programmes to OptiPEx has been composed and it will be continuously updated as the project progresses:

Table 4 Related EU Horizon Research and Innovation Projects

Project	Extended title
CCAM-ERAS	CCAM-Employment Realization through the Acquisition of Skills
IMPROVA	Injury Mitigation to Promote Vision-Zero Achievement
SAFARI	Safe, ClimAte Resilient Infrastructure
CLEVER	Creating Legitimate Emission Factors for Verified GHG Emission Reductions in Transport
ProtAct-Us	ProtAct-Us from long-term consequences of road crashes
FRODDO	Federated cybeR-physical infrastructure for ODD cOntinuity
EvoRoads	Evolutionary Solutions for Realising a Holistic Safe System Approach for All Road Users

Diversify-CCAM	Diversify CCAM by Integrating the European Cultural and Regional Variations in the Design and Implementation of Citizen-Friendly Systems to Foster Mobility Equity
CulturalRoad	Cocreate, Embrace
TRA2026	Transport Research Arena 2026: Budapest
Synergies	Real and synthetic scenarios generated for the development, training, virtual testing and validation of CCAM systems
iDriving	Intelligent & Digital Roadway Infrastructure for Vehicles Integrated with Next-Gen Technologies

Only two projects are funded under the User-centric development of vehicle technologies and solutions to optimise the on-board experience and ensure inclusiveness (CCAM partnership); those being OptiPEx and another project called Autonomous self-adaptive services for TRansformational personalized inclUsivenesS and resilience in mobility (AutoTRUST).

3.6.2 Networking

OptiPEx will network with pre-existing communities, initiatives, and associations to ensure active engagement and involvement of diverse stakeholders in the project activities. All OptiPEx partners have pre-existing networks of contacts, clients, and business partners; these communication channels will be used to reach and engage with different stakeholders, instead of building networks from scratch only. Communications partnerships will also be established with experts and professionals of the project use cases. All partners are committed to contribute to networking through a variety of activities including attending events, issuing newsletters, and organising seminars and workshops.

3.6.3 Towards an OptiPEx Community

As expressed in the Grant Agreement, OptiPEx aims to establish and maintain an impactful community. Dissemination and communication activities are an integral part of this work, the foundations of which lay in the development of a strong OptiPEx brand identity, so it becomes synonymous with ethical, passenger-aware interactive and adaptive public transport services. This is paired with the establishment of communications partnerships with pre-existing communities, networks and associations focused on ethical, passenger aware interactive and adaptive public transport services, helped with an active presence and stakeholder engagement on the OptiPEx social media platforms.

On such foundation, the project consortium will work together with the CCAM partnership to foster networking with key stakeholders and to facilitate effective knowledge transfer for policy, industrial, research and societal use. The partnership will allow professionals in the same industry or with similar interests to make contacts, share content, keep informed and join discussions on relevant topics.

4 Communication Strategy

OptiPEx uses diverse communication and dissemination channels in order to ensure far reaching impact and effectiveness of the strategy. Following best practices in research communications, the most useful approach is to explain and present the same research output in different formats and channels to appeal to different audiences. As such this communications strategy will work in support of the dissemination strategy that was just outlined.

4.1 Communication Activities

An organisation's communication goals are the broad statements of what it hopes to achieve with its communications strategy. On the other hand, an organisation's communications objectives are the measurable needs to be completed to achieve the goal, in a defined timeframe. Based on the communications SWOT (strengths, weaknesses, opportunities, and threats) analysis of OptiPEx below, the project's communications goals and objectives are as follows:

- Communication Goal: To establish the OptiPEx project outcomes as a brand being synonymous with ethical, passenger-aware interactive and adaptive public transport services
- Communication Objectives (by M42):
    - Build awareness and understanding of the project's results amongst the research community, use cases operators, and civil society.
    - Foster networking and collaboration within the project and outside to create a to leverage on synergistic opportunities.
    - Promote public transport solutions that are developed beyond use case operators, to those who do not yet use OptiPEx solutions for passenger comfort and safety.

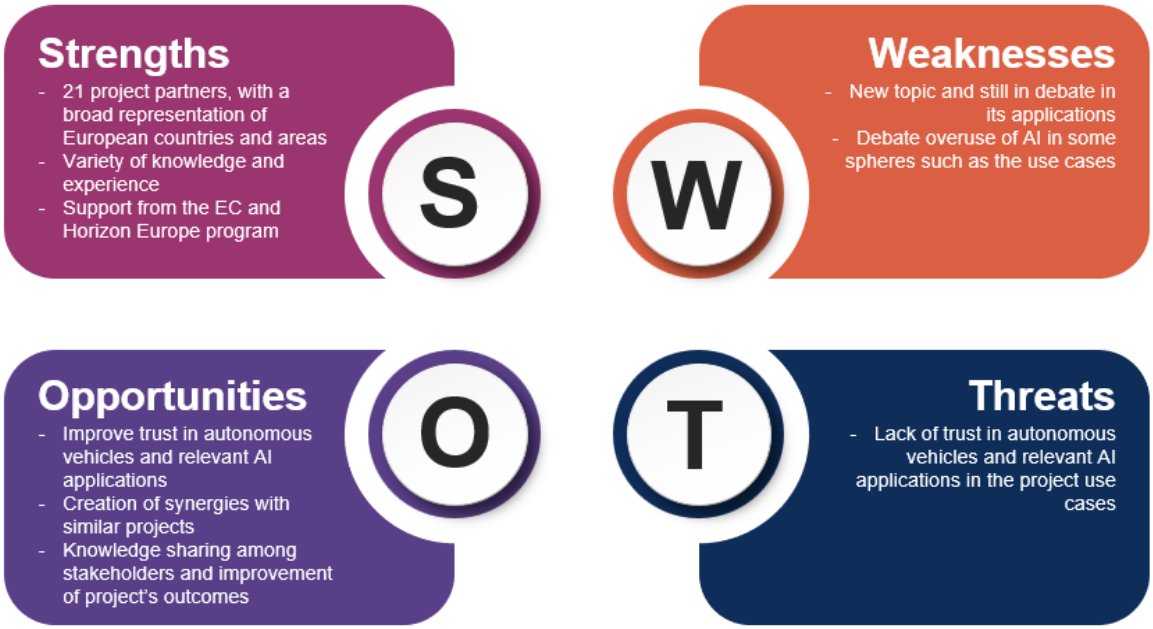


Figure 4 Communications SWOT Analysis

The communication manager, CARR, along with the support of the Consortium, will capitalise on events, publications, and all other communications activities by ensuring that the partners who are involved in them communicate the relevant aspects of the project.

Communication will be constant throughout OptiPEx and content creation will be aligned with information on the project's research results, technology breakthroughs and deliverables for target audiences. Ongoing communication will involve a clear and strategic definition of the project's activities in the European context of OptiPEx, highlighting the enormous potential of the OptiPEx solutions in terms of positive impact on individuals, setting the scene for the project results when they come to fruition for dissemination.

4.2 Key Messages

Effective key messages will be supported by a tailored strategy and the use of the appropriate form and content, depending on the goal, context and target audience for the given communications activity. Additionally, key messages will address some of the core principles of strategic communications including:

- Timeliness
- Transparency (including evidence-based information)
- Consistency
- Expertise (credibility)
- Accuracy
- Relevancy

Using the knowledge that will be continuously collected on the project's target audiences, these principles will act as a guide for the formation of its key messages. Following the project's communication goals and

objectives will help facilitate a measurement of the performance of key messages, by setting a benchmark to compare with. To ensure that OptiPEx messages are targeted and that the above principles are followed, the plan adapts the Message Mapping strategy developed by Covello [i] for risk and crisis communication to the use of the project, especially in cases of delivering particularly important information and messages.

Stakeholder: **Question or concern:**		
Key message 1	Key message 2	Key message 3
Supporting information 1-1	Supporting information 2-1	Supporting information 3-1
Supporting information 2-1	Supporting information 2-2	Supporting information 2-3
Supporting information 3-1	Supporting information 3-2	Supporting information 3-3

Figure 5 OptiPEx Message Planning

The use of this map will support in the communication of a broad message to a larger public while also addressing more targeted groups with audiences that may require specific information. The supporting information will bring the necessary facts and proofs to sustain the message transmitted. This ensures that only the essential information is communicated, and that no question or concern is left unturned when working with a diverse audience.

The key messages for each communication activity will depend on the content that will be linked to it, but it will always be streamlined according to relevance to the target audience. As the project strengthens and more research is developed, the key messages for OptiPEx will be expanded on. The project's key messages (in the form of specific objectives) were developed by the project partners during the proposal phase of the project and reviewed and finalised by CARR for clear communication. These key messages along with new additions stemming from M1-M6 are shown in below.

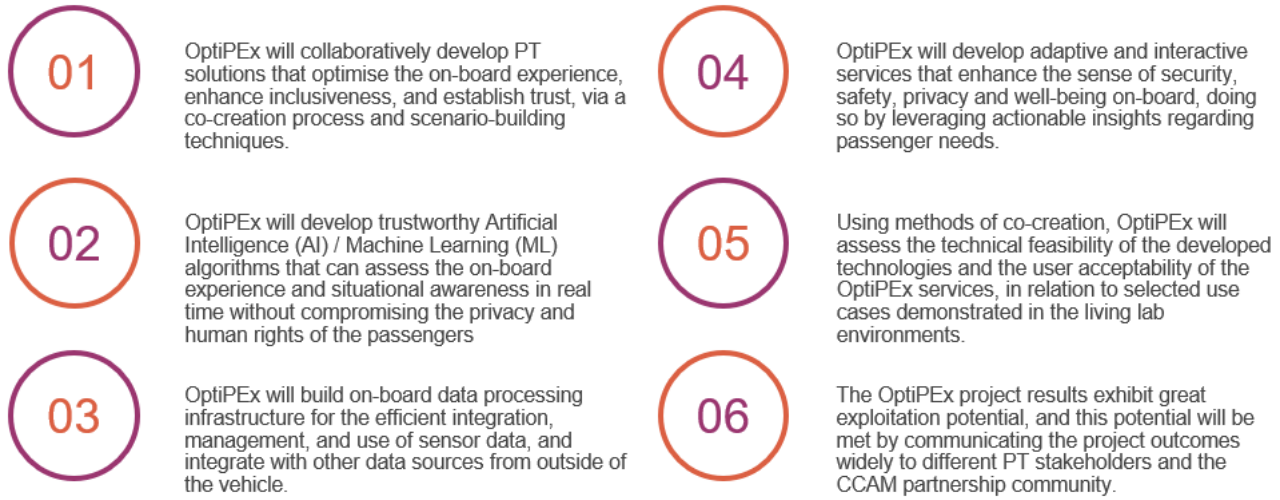


Figure 6 OptiPEx Key Messages

The individual messages shown in the table below were outlined per target audience and build on the core messages in the figure above. The aim of these individual key messages is to break down the technical information of the project and apply directly to the audience. As the project develops, further activities can be held with the Consortium to keep our communications current.

Table 5 Key Messages and Relevant Target Audiences

Key Message	Target Audience
OptiPEx will collaboratively develop PT solutions that optimise the on-board experience, enhance inclusiveness, and establish trust, via a co-creation process and scenario-building techniques.	PT industry, civil society, enablers, facilitators
OptiPEx will develop trustworthy Artificial Intelligence (AI) / Machine Learning (ML) algorithms that can assess the on-board experience and situational awareness in real time without compromising the privacy and human rights of the passengers.	Academia, facilitators, civil society
OptiPEx will build on-board data processing infrastructure for the efficient integration, management, and use of sensor data, and integrate with other data sources from outside of the vehicle.	PT industry, academia, enablers
OptiPEx will develop adaptive and interactive services that enhance the sense of security, safety, privacy and well-being on-board, doing so by leveraging actionable insights regarding passenger needs.	PT industry and civil society
Using methods of co-creation, OptiPEx will assess the technical feasibility of the developed technologies and the user acceptability of the OptiPEx services, in relation to selected use cases demonstrated in the living lab environments.	Civil society

The OptiPEx project results exhibit great exploitation potential, and this potential will be met by communicating the project outcomes widely to different PT stakeholders and the CCAM partnership community.	PT industry and government

4.3 Communication Tools and Channels

The communication channels and their timing have been planned out to align with the core elements of the OptiPEx brand, target audience and Description of Action. Each channel will be maximised to communicate the key message required for the relevant target audience while also achieving the project's Key Performance Indicators (KPIs). Over the course of the project, OptiPEx will communicate information through the following channels.

4.3.1 Project Website

Purpose: Central project information hub for the project to communicate its key messages, news, events and results.

Measurable Result: Visits to the project website (10,000 by M42); downloads (200); news updates and blogs (biweekly).

The website functions as a powerful communication tool and a key element of engagement with the project's target audiences. The website presents the project brand and provides non-confidential project information in a clear and user-friendly format. Additionally, it provides a partner profile for each member of the Consortium with further details on their organisation and role in the project. Since the project website went live, its updates from M3 to M6 have included the OptiPEx News page which currently has two posts.

The OptiPEx website will evolve and mature throughout the lifetime of the project. The process of updating the website is continuous. News, videos, events, blogs, and updates will be posted as they become available. Input will also be sought from partners to provide the latest news on the progress (also providing a clear record of project activities and outcomes) of their various WPs. The website will also include a Deliverables, and Publications. Shortly. A new webpage for similar projects will also be added once the project starts its clustering activities. Details of the different components of the OptiPEx Strategies and Tools will be added as results are generated. While the project waits for its Deliverables to be approved by the EC for this information to be shared via the website, the aim in the interim is to upload news and updates to the website on a campaign and ad-hoc basis.

To measure the activity of the website, CARR will use Matomo to track visits, downloads, usability and other key metrics that will show how the website is performing and whether any changes need to be made. The website will also serve as a central virtual hub for all post-project activities and as stated in the project GA, "dissemination channels will stay live for 5 years after the end of the project which includes the website for post-project sustainability." A website privacy policy and cookie policy outline how the website collects and uses personal data and what cookies it run. A screenshot of the OptiPEx landing page is presented in Figure X below.

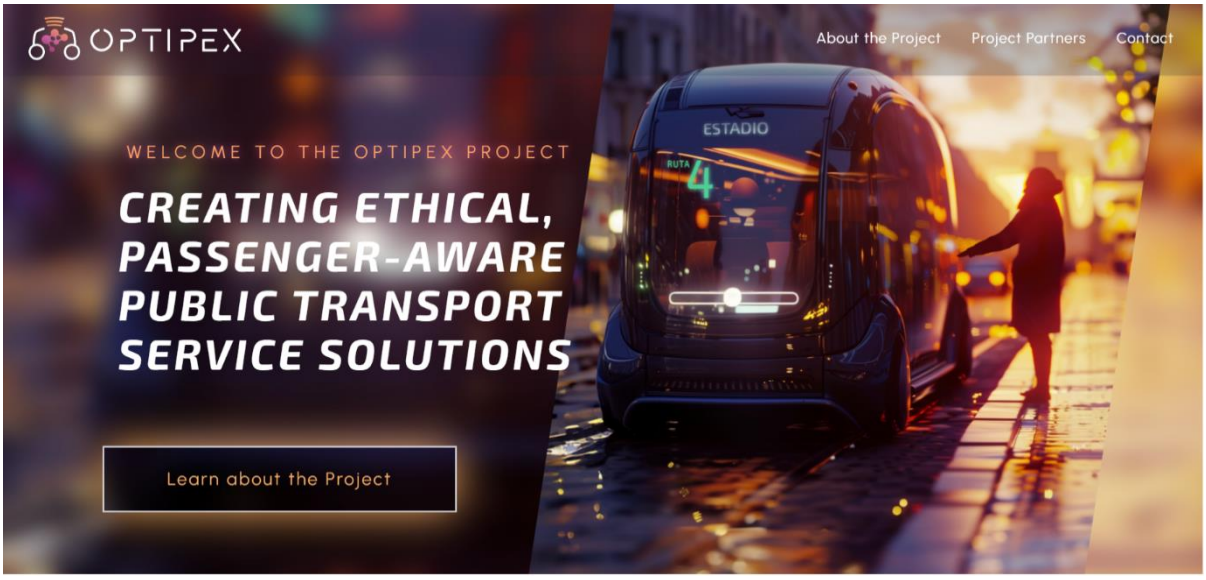


Figure 7 OptiPEx Website Landing Page

4.3.2 Social Media Channels

Purpose: OptiPEx's social channels will act as a key communication tool for project updates, milestones, and general information for the project's target audiences and beyond.

Measurable Result: Twitter followers (1,000); LinkedIn members (500); weekly posts on both platforms; YouTube videos (20); newsletters (8); podcast episodes (6).

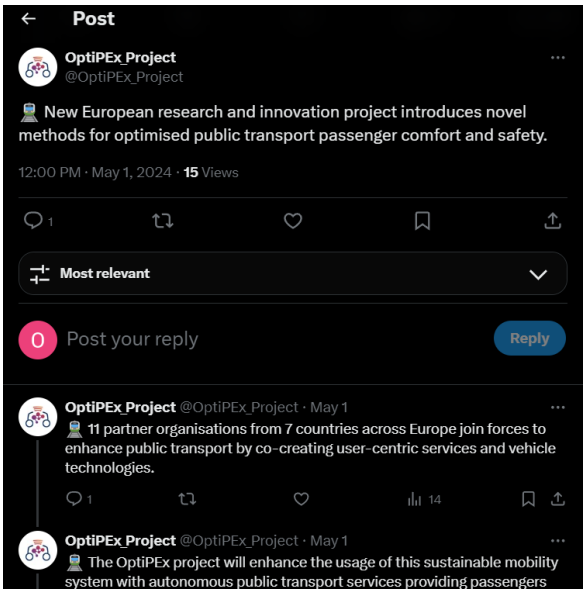
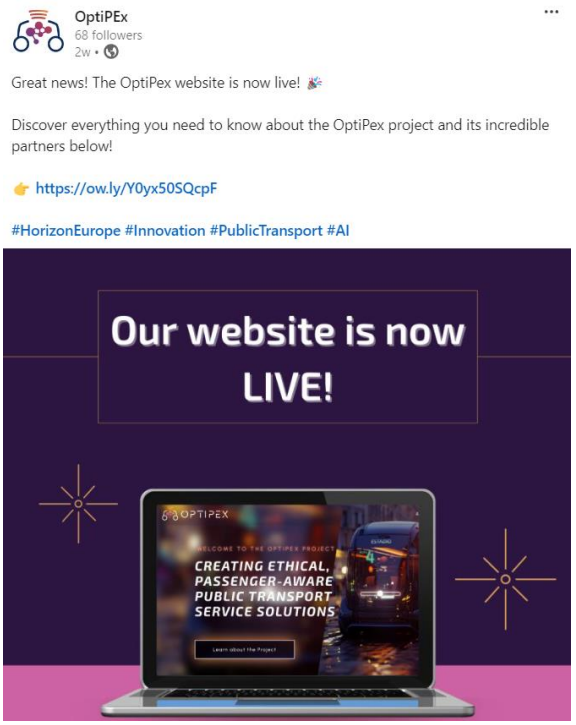
Social media has become an integral part of modern communication[ii]. Three social channels have been established as communication tools for SUNRISE and have been active since the beginning of the project: Twitter, LinkedIn, and YouTube (Figure 13).

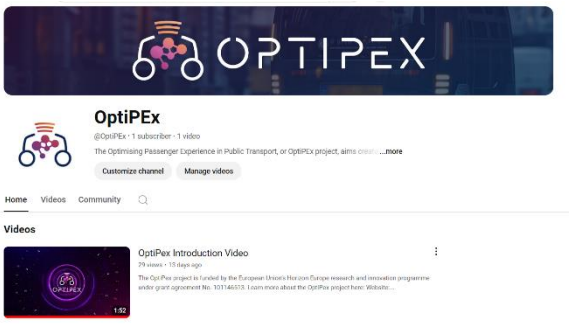
A key part of the project's growth strategy on LinkedIn and Twitter consisted of ensuring that all the partners' social media channels and relevant accounts are followed, in a bid to make SUNRISE visible to those who might be interested in the project and its outcomes. The social media accounts of other Horizon Europe projects were also followed – particularly those relevant to SUNRISE, such as the active projects of the European Cluster for User-centric development of vehicle technologies and solutions to optimise the on-board experience and ensure inclusiveness (CCAM partnership).

The table below shows the types of content that have been published thus far and will continue to be published on the project social media accounts.

Table 6 OptiPEx Published Content

Theme	Objective	Post

Project introduction thread	• Raise awareness of the start of OptiPEx • Brief, digestible format to educate and inform audience about OptiPEx	
Project updates and news	• To keep audiences up-to-date with project developments • Drive traffic to the website	

Press releases	• First one was posted on LinkedIn, however future ones will be posted on the website and linked to in posts • Drive traffic to website • Keep audiences informed about project developments	
OptiPEx Video Series	• The first video is centred around introducing the project and the KoM • What will follow is a series of informational videos about OptiPEx innovations	

Going forward, relevant accounts on Twitter and LinkedIn will continue to be identified and followed, in order to grow the OptiPEx following and maintain an engaged audience, while continuing to observe and monitor the analytics of each platform to ensure Key Performance Indicators (KPI) targets are being met.

4.3.3 Promotional Materials

Purpose: To promote OptiPEx's to target audiences, using a variety of materials produced and updated throughout the project

Measurable Result: Leaflets, posters, banners, infographics, newsletters (8 with 500+ readers).

A range of printed and electronic materials will be produced as promotional material for OptiPEx. These materials will include leaflets, posters, banners, and infographics that will be reviewed and updated annually. Additional materials will also be created on an ad hoc basis for activities such as conferences, workshops, clustering and other stakeholder meetings where partners may require specific materials. Most of the content will be produced in a digital format to minimise the burden on the environment. There is a section on the OptiPEx website for 'Downloads' where all promotional material is available to download, as it becomes available.

A PowerPoint template to be used in both internal and external presentations was created in M1, in advance of the OptiPEx kick-off meeting. A branded banner will also be developed to promote OptiPEx at exhibitions,

meetings, and events. It will contain a QR code that leads back to the OptiPEx website. Additionally, the elements of the banner may potentially attract the project's target audiences, particularly during events where there is a key opportunity to initiate new networking relationships, making room future collaborations.

A project leaflet will also be produced which will contain infographic information about OptiPEx. It will contain more information about the project, its partners, its expected results, and the overall expected impact. The leaflet will be made available to the partners via SharePoint, where they have the option to print it. It is however encouraged to share the leaflet digitally, where possible.

All these promotional materials will be updated as the project progresses and results become available. Additional promotional materials will be considered and developed for specific opportunities, as they arise.

Although the newsletter is a promotional material, it will be dealt with in its own section.

4.3.4 Newsletter and Project Blog

Newsletter

Purpose: A dedicated LinkedIn newsletter to act as a further communications tool for relevant stakeholders and those interested in learning more about the project.

Measurable Results: 8 newsletters with 500+ readers

Following M6, and a predictable uptick in project news, the newsletter will be published on a quarterly basis. However, it will also be used to provide updates on project milestones progress and results, past and upcoming events, and collaborations with related projects on an ad hoc basis. LinkedIn will be the chosen platform for the newsletter as the project has already established a following on this channel. OptiPEx page followers will be shown the newsletter when it is published and invited to subscribe to it, creating a fully opted in list, that is therefore GDPR compliant.

LinkedIn also favours content that is engaged and interacted with, so the more interest the OptiPEx newsletter generates, the more likely the algorithm is to share OptiPEx content beyond those who already follow the page. The newsletter will also be used to drive traffic to the OptiPEx website, by including links within its content.

Blog

Purpose: The OptiPEx blog is being used as a platform for project news and milestones, as well as topics of interest, such as participation in events, workshops, publications, key results and outputs, and any other type of relevant project / partner activity.

Measurable Results: Biweekly posts

The blog is a beneficial communication tool that allows the project to share ideas with an authentic audience and engage in a conversation with them. It will be used as a place for project updates and milestone announcements. Thus far, two blogs have been published on the website. First a press release and then an announcement of the introductory video that was posted on YouTube.

4.3.5 Project Podcast

Purpose: The OptiPEx podcast will be used as a communication tool for the project and will allow partners to share detailed updates and insights with an engaged audience.

Measurable Results: 6 episodes

Podcasts are an increasingly popular communications tool, and as such, it is important that the OptiPEx project leverage on this demand for audio content. The OptiPEx project will create one podcast miniseries over the course of the project. This will be a valuable communication tool as it allows the project to communicate directly to a relevant and captive audience, with a clear interest in the topics being discussed.

It will only be possible to deliver the podcast once the project progresses and has more tangible results. CARR predicts this will be in the second half of year two to the beginning of year three. Ideas for the series will be discussed and refined, being largely dependent on the project's results. Some initial ideas include:

- A series focussed on OptiPEx innovations
- A series focused on the before and after experience of using transport that has been retrofitted with OptiPEx tools
- A series on the specific work of a selection of partners and its impact on the project.

4.4 Communication Pathways

Based on the project scope, OptiPEx has identified three different types of communication:

- General communication: communication to non-specialist audiences about research
- Technical communication: communication of technical subject matter
- Promotional communication: communication to the desired market

In the figure below, the various OptiPEx communication channels have been assigned to each type of communication, based on the appropriateness of each to convey different messages to different audiences, creating three communication pathways.

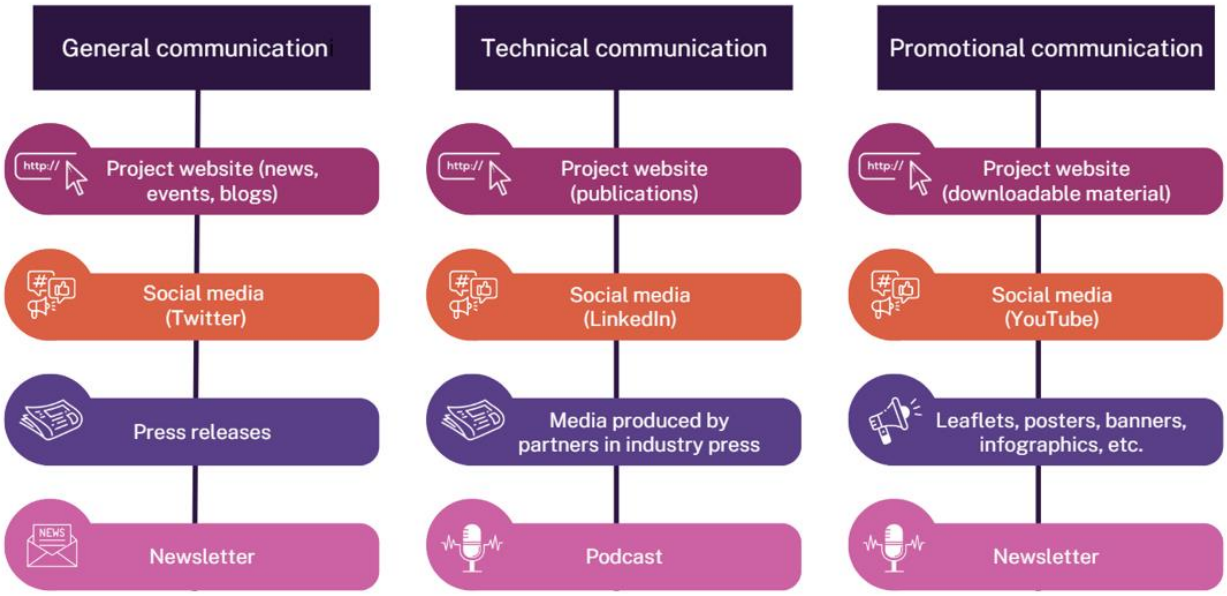


Figure 8 OptiPEx Communication Pathways

5 Communication and Dissemination Impact Monitoring

This chapter details the initial dissemination KPIs and provides an initial timeline for planned activities up to M18, as defined in the Grant Agreement (GA). It also discusses performance measurement and analysis, with details on tools and methods to be used for continuous monitoring of activities. The section on the management of dissemination activities presents the procedures for dissemination reporting and outlines the open access approach for scientific publications and the risk management strategy.

The dissemination and communication strategy will be evaluated and reviewed based on the performance indicators at M18 and M36, and necessary adjustments will be included in the updated versions of this deliverable.

5.1 Key Performance Indicators

When it comes to dissemination activities, measuring and monitoring are core elements of successful implementation. However, not all success factors are tangible, since not all dissemination elements can be quantified. Therefore, we propose two approaches for monitoring dissemination and communication activities: quantitative monitoring via Key Performance Indicators (KPIs) and qualitative monitoring via impact narrative analysis.

First, there are quantitative targets that facilitate the measurement of how the project progresses towards its dissemination and communication goals. These targets (KPIs) are specified in Table 9, based on the GA, and they reflect the outlook prior to the commencement of the project. The quantitative targets will be monitored and reviewed on an ongoing basis, which will provide an opportunity for potential readjustments (up or down) at M18 and M36 if need be.

Dissemination KPIs

Table 7 Dissemination KPIs

#	Activity	Indicator	Goal (M42)	Source
1	Peer-reviewed scientific papers in leading journals as well as top-tier transport research conferences identified in	Number of papers	10+	Project records (D&C tracker)
2	Publications in the proceedings of top-tier international conferences	Number of publications	10+	Project records (D&C tracker)
3	University theses on OptiPEx topics	Number of theses	6 MSc, 4 PhD	Project records (D&C tracker)
4	Workshop presentations	Number of presentations	15+	Project records (D&C tracker)

5	Papers citing OptiPEx research	Number of citations	100+	Monitoring progress online, databases / Google Scholar
6	Participation in conferences	Number of events	20+	Project records (D&C tracker)
7	Trade fairs/exhibitions	Number of events	20+	Project records (D&C tracker)
8	Seminars and/or workshops (attending or hosting)	Number of events	5/year	Project records (D&C tracker)
9	Living labs	Number of living labs	3	Project records
10	Meetings with relevant projects/initiatives at national/EU level	Number of meetings	10	MS Teams (If held online)
11	Joint technical/ dissemination workshops	Number of events	3	Project records (D&C tracker)
12	Training sessions familiarising users with the OptiPEx system	Number of events	10	MS Teams (if held online)
13	White paper (for Networking, clustering and knowledge transfer)	Number of papers	1	Project records (D&C tracker)
14	Participation in services such as Horizon Results Booster	Participation	1	HRB documentation and outputs
15	Collaboration opportunities through the CCAM partnership, EIT Urban Mobility and related funded actions addressing similar challenges will be sought	Number of instances of collaboration	1	MS Teams (if held online)
16	Organisation of a public final event showcasing the results to policymakers, industry and academia.	Number of events	1	Event media

Communication KPIs

Table 8 Communication KPIs

#	Activity	Indicator	Goal (M42)	Source
1	High quality communications collateral including logo, brand guidelines, leaflet, technical poster and presentation template.	Brand guidelines and communications collateral pack including poster, brand guidelines, leaflet and presentation design with continuous updates, equipped with a QR code leading to the OptiPEx website	1+	Project SharePoint
2	Website	Number of visits	10000	Matomo
		Number of posts	Bi-weekly posts	Matomo
3	Twitter	Number of followers	1000	Twitter
		Number of posts	1 weekly	Twitter
4	LinkedIn	Number of followers	500	LinkedIn
		Number of posts	1 weekly	LinkedIn
5	YouTube videos	Number of videos	20	YouTube
		Number of views	1000	YouTube
6	Podcast	Number of episodes	6	Spotify, Apple podcasts (streaming platforms)
7	Newsletters	Number of newsletters	8	LinkedIn
		Number of readers	500+	LinkedIn

8	Press releases	Number of press releases	2	Project records (D&C tracker)
		Instances of media coverage	15	Online monitoring / Google alerts / partner sources
9	Policy briefs	Number of policy briefs	3	Project records (D&C tracker)
10	White paper (contributing to vehicle technology debate including)	Number of white papers	1	Project records (D&C tracker)
11	Focus groups	Number of individual focus groups	8	Communicate with partners
12	Interview sessions with use case groups	Number of Interviews	10	Communicate with partners
13	End user workshops (one per case study topic)	Number of workshops	3	Project records (D&C tracker)
14	Public webinars	Number of webinars	2	MS Teams
15	OptiPEx included in academic courses	Number students engaged in academic courses (including OptiPEx content, 6 MSc and 4 PhD theses on OptiPEx topics)	75	Communicate with partners
16	Final high-level event	Number of events	1	Project records (D&C tracker)

5.2 Performance Measurement Tools

In measuring the quantitative impact, we will rely on several available tools, such as Matomo Analytics, LinkedIn Analytics, Hootsuite Analytics, and YouTube Analytics.

Matomo is leading open-source analytics, which is GDPR compliant. This web analytics tool helps us to understand and analyse the overall performance and trends of the OptiPEx website. It is used to measure website traffic patterns, such as the total number of visitors, pageviews, duration of visits, downloads, and the geographical spread of visitors. This information is used to gain insights into the performance and provides

feedback on how we can improve and optimize the website structure, so that the content and the design of the project website attracts as much traffic as possible. The website will undergo an annual review, based on the analytics and feedback from the partners to improve its performance. For example, if a particular section proves to be frequently visited, it may be made more prominent on the website and ensured that the navigation journey becomes easier for visitors.

LinkedIn Analytics provide a performance overview for the OptiPEx Newsletter, including figures like the number of newsletter subscribers, the number of views of the newsletter, the number of clicks on the links. By tracking how readers interact with each issue of the newsletter, it is possible to identify potential improvement areas.

Hootsuite Analytics is used to analyse and monitor the performance of OptiPEx social media accounts (X, LinkedIn). Analytical reports will help to measure the activity and optimize performance on X and LinkedIn in terms of the number of posts, best times for posts, profile visits, new followers, and impressions. Although the number of followers was chosen as the main performance indicators, the impression metrics and the number of shares to improve our engagement rate and the overall performance in social media posts, helps when it comes to adjusting timing, tags, and the number of posts to optimize our social media calendar.

YouTube Analytics will allow monitoring of the performance of the OptiPEx YouTube channel and posted project videos in terms of number of views, watch time, demographics, specifications in devices used for watching.

Apart from automated analytical tools, CARR will keep records of all dissemination activities, including conference attendance, research outputs, publications in different media, and media clippings in the dissemination and communication tracker. A thorough content media analysis will be conducted in M18, to review the performance and engagement obtained and introduce suitable adjustments if needed.

5.3 Impact Narratives

In addition to these quantitative measures, a qualitative analysis will also be conducted through reviewing impact narratives in media, scientific reports, policy documents that refer or mention OptiPEx research results, and other actions.

In doing this analysis, CARR can analyse and evaluate how dissemination activities helped in reaching specific target audiences or objectives. This will be used to improve how the project is described and features in scientific and media discourses. The qualitative analysis will include content analysis of media and assessment of best practices during OptiPEx events and media engagement. The aim is to achieve, at the end of the project, impactful narratives about OptiPEx that engage different groups of end-users and are represented at different levels.

5.4 Timeline for Communication and Dissemination Narratives

The roadmap of future activities for the implementation for the dissemination and communication plans is presented below.

Table 9 Narrative Timelines

Activity	Type	Methods / Tools	Phase
Creation of the OptiPEx website	Communication	Via the WordPress hosting platform	Awareness phase
Creation of the OptiPEx communication plan	Communication	Via deliverable 7.3	Awareness phase
Creation of the OptiPEx dissemination plan	Dissemination	Via deliverable 7.3	Awareness phase
Creation of the initial OptiPEx promotional material	Communication	Via project information and partner input	Awareness
Implementation of the OptiPEx communication plan	Communication	Via project development and activity	Positioning phase
Implementation of the OptiPEx dissemination plan	Dissemination	Via project development and activity	Positioning phase
Update on the OptiPEx promotional material	Communication	Communication and input from partners	Positioning phase
Engagement with key stakeholders	Dissemination	Working with project partners, events, conferences, focus groups, etc.	Outreach phase
Review and report of communication activities	Communication	Via D7.3, D7.4, D7.5, and D7.6	Sustainability phase
Review and report of dissemination activities	Dissemination	Via D7.3, D7.4, D7.5, and D7.6	Sustainability phase
Maintenance of project website	Communication and dissemination	Via website hosting platform Wordpress	Sustainability phase

6 Exploitation Strategy

To facilitate the proper uptake of the project results by relevant stakeholders, an exploitation strategy for OptiPEx will be devised by M18. It will provide the methodologies, processes, and tools to partners to ensure proper exploitation of the OptiPEx results. The ability of partners to ensure that innovative ideas, technologies, and methodologies reach their exploitation potential will be fully identified and analysed. In this framework, the project's exploitation strategy supports the creation of value of the exploitable results and facilitates successful innovation. The main objectives are the following:

- Describe the exploitation plan and how project partners will identify the KERs and communicate their benefits and added value to relevant stakeholder groups.
- Perform market research for the project's KERs, along with competition analysis and dedicated business model based on the distinct features of each KERs.
- Describe the IPR management methodology to be followed within the context of the project.
- Identify the unique selling points and support the market research activities of the project.
- Develop a strategic roadmap and a business model for the innovative solutions/tools, focusing on the KERs, to ensure their sustainability after the end of the project.

To address these objectives, we follow a practical exploitation plan, identifying different phases of the plan and employing various tools to facilitate the identification, management, and further commercial/academic utilisation of the project's exploitable results.

6.1 Exploitation Definition

Utilizing the OptiPEx project results for further development, improving and creating products and services. Ensuring long-term utilisation of the project results for a) further research activities; b) the development and promotion of new tools and processes; c) the creation and provision of new products and services.

6.2 Exploitation Objectives and Methodology

The OptiPEx exploitation methodology relies on 1) identifying the key exploitable results, whether these constitute technology, contributions to standards, services or tools; 2) conducting a thorough market analysis aiming at identifying the market towards which the project's results are targeted, its segmentation, the positioning of current competitors and all emerging trends; 3) developing a holistic IP management strategy based on the principles outlined in the Consortium Agreement; 4) defining and evaluating the sustainability and viability of possible business models as part of the exploitation roadmap.

6.3 Exploitation Plan Phases

6.3.1 Phase 1: Mapping of the OptiPEx Results

Phase 1 on the exploitation plan involves several key steps. These are show below:

- Identification of Key Results: Clearly defining and documenting the main results and outputs of the project. This includes tangible products, services, technologies, methodologies, and any significant data or findings.

- Stakeholder Analysis: Identify and categorize stakeholders who can benefit from the project results. This includes potential users, industry partners, policymakers, and other relevant entities. Understanding their needs and interests is essential for effective engagement.
- Value Proposition: Articulate the value and benefits of the project results to different stakeholders. This involves highlighting how the results address specific problems, improve processes, or create new opportunities.
- Dissemination Channels: Identify and utilize appropriate channels to disseminate the project results. This can include academic publications, industry conferences, social media, project websites, and stakeholder networks. Effective dissemination ensures that the results reach the right audience.
- Exploitation Pathways: Develop clear pathways for exploiting the project results. This can involve commercialization strategies, licensing agreements, partnerships, or further research and development. Each pathway should be tailored to the specific nature of the results and the target market.
- Monitoring and Evaluation: Establish mechanisms to monitor the uptake and impact of the project results. This includes setting key performance indicators (KPIs) and regularly assessing progress. Feedback from stakeholders can be invaluable in refining the exploitation strategy.
- Sustainability Plan: Ensure that the exploitation of project results is sustainable in the long term.

6.3.2 Phase 2: Analysis of Market Aspects

Analysing market aspects involves several key steps to understand the market environment, identify opportunities, and mitigate risks. Evaluate the market potential of the project results. This includes analysing market size, growth trends, competitive landscape, and potential barriers to entry. Understanding the market dynamics helps in positioning the results effectively.

6.3.3 Phase 3: Formulation of Joint/Individual Exploitation Pathways

Formulating joint and individual exploitation pathways in a project with multiple partners requires careful planning and clear communication. In order to reach the common goals it is important to establish a shared vision and common goals for the exploitation of project results. This ensures all partners are aligned and working towards the same objectives. The joint exploitation strategy outline how the project results will be used collectively and shared benefits shared among partners. Regular meetings and updates can help keep everyone on the same page.

For the individual objectives each partner shall define their own specific objectives for exploiting the project results. This could involve further research activities, development of new tools and processes, or creation and provision of new products and services. To ensure each partner can maximize their individual benefits, partner specific exploitation strategy will be developed for each partner based on their unique strengths, position, and resources. This requires also identifying the resources each partner will need to implement their individual exploitation strategies.

6.3.4 Phase 4: Market Analysis

After gathering initial data and insights, a market analysis is implemented through a diving deeper into specific areas. Below highlights the key points in the market analysis:

- Clearly outline the goals of market analysis

- Consider whether the technology is to be commercialised, and identify new technology, potential partners, and understand market demand
- Determine who are potential customer or stakeholders
- Conduct a competitive analysis
- Determine market area and size, needs and trends
- Identify unmet needs or underserved segments within the market
- SWOT analysis

6.3.5 Phase 5: Business Modelling

The table below is the preliminary Business Model Canvas, which will be reviewed and refined periodically to ensure maximum impact.

Table 10 OptiPEx Preliminary Business Model Canvas

<table>
<tr><th>Key partners</th><th>Key Activities</th><th>Value Proposition</th><th>Customer channels</th><th>Customer segments</th></tr>
<tr><td rowspan="4">-Vehicle technologies stakeholders in academia and industry
-Enablers and regulators incl. policy makers
-Facilitators incl. European partnerships such as CCAM and EU bodies</td><td>-R&D integration
-End-user training
-Piloting with use case actors
-Business development
-Networking, promotion, sales</td><td rowspan="4">-In-depth insights into drivers of change that affect the passenger experience on public transport
-Increased understanding of the vulnerabilities and dependencies impacting passenger safety, comfort, inclusiveness
-Enhanced user-centric automation in public transport technologies
-Contribution to overall CCAM objectives</td><td>-Existing business networks and public private partnerships (PPP)
-Special community and industry events
-OptiPEx workshops and promotional campaings
-Open-source communities
-Accelerators</td><td rowspan="4">-Operators in vehicle supply chains
-Stakeholders of public transport
-IT/service/ consultancy providers</td></tr>
<tr><td>Key Resources</td><td>Customer relationships</td></tr>
<tr><td>-Relevant legal frameworks and data
-Transportation researchers, software engineers
-Business development team</td><td>-Partnerships with national authorities and government bodies, EU level orgs.
-Partnerships with vehicle manufacturers and suppliers for data collection
-B2B relationships</td></tr>
</table>

	-Initial financial investment			

Cost structure	**Revenue streams**
-R&D, maintenance, consultancy -IT infrastructure -Business development, marketing -KER-specific costs	-One-off sale of the solutions and consultancy -Recurring revenues generated annually through software licenses, maintenance upgrades, consultancy

6.3.6 Phase 6: Visibility of Key Results

Increasing the visibility of key results is crucial for ensuring that project's outcomes are recognised and utilised effectively. As such, the communication and dissemination plans will be used for enhancing the visibility of key results. As a part of this, stakeholders should also be involved early in the project and regularly updated with progress and key findings.

6.3.7 Phase 7: Go-to-Market Strategy

A go-to-market strategy is a comprehensive plan that outlines how to launch OptiPEx products or service and ensure it is successfully exploited. The key components to include:

- Market Research: Conducting thorough research to understand the PT-market landscape.
- Target Groups: Defining target audience and stakeholders. Understanding their needs, preferences, and pain points.
- Value Proposition: Clearly articulate the unique value your product or service offers. Explain how it solves a specific problem or meets a need better than existing solutions.
- Positioning and Messaging: Develop a positioning statement and key messages that resonate with your target audience. Ensure consistency across all marketing channels.
- Marketing Plan: Outline your marketing strategies and tactics, including digital marketing, content marketing, social media, and PR. Specify the channels you will use to reach your audience.
- Distribution Plan: Plan how you will distribute your product or service.
- Launch Plan: Create a detailed launch plan with timelines, milestones, and responsibilities.
- Risk Management: Identify potential risks and develop mitigation strategies.

6.3.8 Exploitation Roadmap

Below is a gantt chart that illustrated the exploitation roadmap. It highlights the various phases of the exploitation plan and their respective timelines.

Table 11 Exploitation roadmap timelines

OptiPEx Exploitation Routemap	Months																		
	1-17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Development of the exploitation plan																				
Phase 1: Mapping of the OptiPEx Results																				
Phase 2: Analysis of Market Aspects																				
Phase 3: Formulation of Joint Exploitation Pathways																				
Phase 4: Market Analysis																				
Phase 5: Business Modelling																				
Phase 6: Visibility of Key Results																				
Phase 7: Go-to-Market Strategy																				

6.4 IPR Management Strategy

6.4.1 IPR Management Framework

An intellectual property rights (IPR) management framework is a structured approach to managing and protecting intellectual property assets within the project partners and stakeholders. This involves identifying and documenting all intellectual property assets, such as patents, trademarks, copyrights (including copyrights to computer software), database rights and trade secrets.

Protection methodologies are an important part of IPR management. Implementing measures to protect the assets legally, filing for patents, registering trademarks, and securing copyrights. Establish clear agreements on data ownership and usage rights among all project partners and stakeholders, including collaborators.

6.4.2 IPR Log

An IPR log is a record-keeping tool used to document and manage the intellectual property rights of the project's assets. This log helps to maintain an organized overview of IP assets and related activities. IPR log includes:

- IP Asset Details
- Information of ownership and rights
- Protection Measures
- Exploitation and Commercialization:
- Review and Updates
- Documentation

6.4.3 IP Management Strategy: Key Steps

The actual IRP management strategy is broken down into four steps. These are:

1. Project planning phase, including initial IP audit and developing IP management strategy.
2. Project development phase, documenting the IP assets, implementing confidentiality measures.

3. Project implementation phase, finalizing protection (e.g. patents, trademarks), update IP documentation.
4. Post project phase.

6.4.4 IP Management Strategy: Roles and Responsibilities

It is essential to clearly define and document the roles and responsibilities to avoid conflicts and ensure all parties benefit from the collaboration. Each party might have several roles and related responsibilities, especially when comes down to data ownership and usage. As such, ownership and rights need to be clearly defined and documented.

6.4.5 IP Management Checklist

To aid the IP management strategy, OptiPEx has developed a checklist that can be applied to all IP assets of the project. The checklist is below:

- IP Asset Details
- Information of ownership and rights
- Protection Measures
- Exploitation and Commercialization
- Review and Updates
- Documentation

6.5 Initial List of KERs

Key Exploitable Results (KERs) refer to the significant outcomes of the project that have potential for generating value in the fields of further research activities or creating, developing and promoting new tools and processes. In the context of public transport research, these results could include new technologies, methodologies, data sets, or policy recommendations that can improve public transport services. They can be tangible (like a new software tool like new measurement technologies) or intangible (like a novel methodology like analytics methods). Initial list of KERs which are identified in the project preparation phase:

1. **Passenger perspective and service concepts for the autonomous PT services of the future.**
    - **Related WPs:** WP2, WP5, WP6
    - **Target groups:** Scientific community and PT service operators

2. **Data analytics methods for passenger behaviour and experience insight**
    - **Related WPs:** WP2, WP3, WP6
    - **Target groups:** Data analytics solution developers
    - **TRL:** (Technology Readiness Level): 5

3. **In-vehicle measurement technologies for passenger experience monitoring**
    - **Related WPs:** WP3, WP4
    - **Target groups:** Vehicle manufacturers, measurement technology developers
    - **TRL**: 5

4. **Vehicle technology infrastructure**

- **Related WPs:** WP4
- **Target group**s: Vehicle manufacturers
- **TRL:** 6

5. **Edge processing support for adaptive vehicle solutions**
   - **Related WPs:** WP4
   - **Target groups:** In-vehicle technology providers
   - **TRL: 5**

6. **Connectivity with transport control systems and third-party services**
   - **Related WPs:** WP4, WP5, WP6
   - **Target groups:** PT service operators, third-party service providers
   - **TRL:** 5

7. **Integrated in-vehicle services optimizing passenger satisfaction**
   - **Related WPs:** WP4, WP5, WP6
   - **Target groups:** Vehicle manufacturers
   - **TRL:** 5

Each KER involves different project partners and expected value depends on role in the project. Each partner also has their individual exploitation plans. The strategy for enhancing and implementing the results is continuously updated as the project advances.

7 Conclusions

This deliverable has been written with the goal to map and detail the dissemination, communication, and exploitation strategy for the OptiPEx project and is done in harmony with the strategic objectives of the project. It provides a detailed account of what activities have been already set up to both implement and monitor these activities. It also provides guidelines of important steps in preparing publications and dissemination activities, and in engaging with media, that should be useful to the partners throughout the project timeline.

The strategy identifies key target audiences, messages, and channels that will be used to maximise the impact and raise awareness about the project and its activities. It also maps opportunities for clustering and networking that will be further explored and strengthened as the project progresses, and it provides clear guidelines on steps for preparing scientific publications and participating in external events.

The strategy also includes sections on monitoring and analysing dissemination and communication activities and presents an indicative timeline of the described activities and initial KPIs that will be continuously monitored and, if needed, revised to achieve the strategic objectives. The deliverable integrates information on regular reporting, the open access approach for scientific publications, and the risk management strategy for external communication and dissemination activities.

The exploitation plan for the project focuses on maximizing the impact and value of our results through effective dissemination, utilization, and robust IPR -management. The exploitation methodology involves identifying key exploitable results, conducting thorough market analysis, developing a holistic IP management strategy, and evaluating sustainable business models. This comprehensive approach ensures our innovations are effectively protected, targeted, and brought to market successfully, which ensures that our findings are not only accessible but also beneficial to a public transport and future development.

This report marks the first full draft of the OptiPEx impact generation strategy. Its contents will inform and guide the reports on communication and dissemination activities in M18 (D7.3 and D7.4) and M42 (D7.5 and D7.6). The next instalments will also evaluate the activities and present any changes and adjustments to the strategy. The strategy here presented serves as a base for ensuring that the project results that are generated are disseminated effectively and systematically.

This project has used a standard methodology already developed in TANGO, SecureFood, OPTIMAI and teXtended projects (Grant Agreement number: 101120763; 101136583; 958264; and 101091575), following EU recommendations. Ad hoc modifications were added to comply with the Grant Agreement conditions for OptiPEx (Grant Agreement number: 101146513).

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