

MOBIDATALAB

Labs for prototyping future mobility data sharing solutions in the cloud

| **Exploitation Plan - initial**

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Project partners

Organisation	Country	Abbreviation
AKKA I&S	France	AKKA
CONSORZIO INTERUNIVERSITARIO PER L'OTTIMIZZAZIONE E LA RICERCA OPERATIVA	Italy	ICOOR
AETHON SYMVOULI MICHANIKI MONOPROSOPI IKE	Greece	AETHON
CONSIGLIO NAZIONALE DELLE RICERCHE	Italy	CNR
HOVE	France	HOVE
HERE GLOBAL B.V.	Netherlands	HERE
KATHOLIEKE UNIVERSITEIT LEUVEN	Belgium	KUL
UNIVERSITAT ROVIRA I VIRGILI	Spain	URV
POLIS - PROMOTION OF OPERATIONAL LINKS WITH INTEGRATED SERVICES	Belgium	POLIS
F6S NETWORK IRELAND LIMITED	Ireland	F6S

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0.3	02/07/2021	AETHON, POLIS	all	Review
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Executive Summary

This document provides the initial exploitation plan including the initial exploitation strategy from partners. It is a working document that will be updated regularly throughout the project's life cycle according to MobiDataLab progress and outputs, the findings on the market assessment, and results of the exploitation workshops.

The document starts by trying and identifying a global value proposition of the project as a whole and then refines it by contemplating related product and services as main outcomes of the project. By identifying the preliminary key exploitation results, it is possible to define strategic partnerships within and outside the consortium that will play an important role in the transferability and sustainability of the project results. Finally, the consortium identifies the necessity of starting immediately the elaboration of a Memorandum of Understanding (MoU) as a key element of the consortium shared exploitation plan. It shall progressively incorporate in the course of the project details about the objects of collaboration and shall as well anticipate future responsibilities and possible share of costs/revenues for maintenance and evolution of the MobiDataLab Open Knowledge Base (MOKB), the MobiDataLab Transport Cloud (MTC) and the virtual living labs beyond project life. The exploitation working group in the consortium is in charge of the elaboration of this MoU, of management and monitoring of Intellectual Property Rights (IPRs) and Research Data.

Table of contents

1. INTRODUCTION.....	9
1.1. PROJECT OVERVIEW.....	9
1.2. PURPOSE OF THE DELIVERABLE.....	10
1.3. INTENDED AUDIENCE.....	9
2. VALUE PROPOSITION.....	10
2.1. GLOBAL VALUE PROPOSITION.....	10
2.1.1. Target segment.....	10
2.1.2. Problems.....	11
2.1.2.1. Privacy concerns.....	11
2.1.2.2. Risk of losing competitive advantage	12
2.1.2.3. Fear of losing control of data	12
2.1.2.4. Lack of cloud solutions	12
2.1.3. Teams.....	13
2.1.3.1. The consortium	13
2.1.3.2. The MobiDataLab Advisory Board.....	13
2.1.3.3. The reference group of stakeholders.....	14
2.1.4. Solution.....	14
2.1.5. Benefits.....	15
2.2. PRODUCTS AND SERVICES VALUE PROPOSITION.....	16
2.2.1. Value of the open knowledge base	16
2.2.2. Value of the Transport Cloud.....	16
3. EXPLOITATION BY THE PARTNERS.....	17
3.1. AETHON.....	17
3.1.1. Value of the Living & Virtual labs.....	17
3.1.1. Key exploitation results.....	17
3.1.1.1. New insights into UI design	17
3.1.1.2. New data for user needs and requirements.....	17
3.1.1.3. MobiDataLab Virtual Lab.....	18
3.1.2. Initial exploitation strategy	18
3.2. AKKA.....	19
3.2.1. Key exploitation results.....	18
3.2.1.1. MobiDataLab Transport Cloud and its Data Processors	18
3.2.1.2. MobiDataLab Open Knowledge Base.....	19
3.2.2. Initial exploitation strategy	19
3.3. CNR.....	20
3.3.1. Key exploitation results.....	20
3.3.1.1. New techniques for semantic enrichment of mobility data	20

	3.3.1.2. New insights into cloud technologies for federating transportation data sources	20
	3.3.2. <i>Initial exploitation strategy</i>	20
	3.4.1. <i>Key exploitation results</i>	21
	3.4.1.1. Network of corporates and startups	21
	3.4.1.2. New services for corporates and startups	21
3.4. F6S	3.4.2. <i>Initial exploitation strategy</i>	21
	3.5.1. <i>Key exploitation results</i>	22
	3.5.1.1. Interoperable interfaces for exchange of mobility relevant data and services	22
3.5. HERE	3.5.1.2. Tools and services	22
	3.5.1.3. Available data sets	23
	3.5.1.4. Datathon and developer engagement	23
	3.5.2. <i>Initial exploitation strategy</i>	23
3.6. ICOOR	3.6.1. <i>Key exploitation results</i>	23
	3.6.1.1. Evaluation framework for the transport data sharing culture	24
	3.6.1.2. Acceptance assessment methodology for Transport data sharing business models	24
3.7. HOVE	3.6.2. <i>Initial exploitation strategy</i>	24
	3.7.1. <i>Key exploitation results</i>	25
	3.7.1.1. New commercial channel for journey planner	25
	3.7.1.2. New and enhanced journey planning parameters	25
	3.7.1.3. API usage monitoring	26
3.8. KUL	3.7.1.4. Access to journey planner data	26
	3.7.1.5. Enhanced conversion tools	26
	3.7.2. <i>Initial exploitation strategy</i>	26
3.9. POLIS	3.8.1. <i>Key exploitation results</i>	27
	3.8.1.1. Legal and regulatory analysis	27
3.10. JRV	3.8.1.2. Data governance mechanisms	27
	3.8.2. <i>Initial exploitation strategy</i>	28
	3.9.1. <i>Key exploitation results</i>	28
	3.9.2. <i>Initial exploitation strategy</i>	28
	3.10.1. <i>Key exploitation results</i>	29
	3.10.1.1. Protection mechanisms applied to mobility and transport data	29
	3.10.2. <i>Initial exploitation strategy</i>	29

4.1.1. Management of IPR.....	33
4.1.2. Knowledge transfer.....	33
4.1.3. Memorandum of Understanding (Sustainability)	34
4. JOINT EXPLOITATION PLAN	31
4.1. EXPLOITATION WORKING GROUP	33
4.2. EXPLOITATION THROUGH THE EXTERNAL STAKEHOLDERS.....	34
5. CONCLUSION	35

List of figures

Figure 1: MobiDataLab global value proposition at a glance	10
Figure 2: Value chain and geographical coverage of the MobiDataLab project	13
Figure 3: Concept of the MobiDataLab project	15
Figure 4: MobiDataLab Project TRL	32

Abbreviations and acronyms

Abbreviation	Meaning
API	Application Programming Interface
B2B	Business to Business; takes place when a business delivers and/or sells its products and services to other businesses
B2C	Business to Consumer
B2G	Business to Government; takes place when a business delivers and/or sells its products and services to government agencies and/or more generally organisations acting in the public sector
CRM	Customer Relationship Management
DCAT-AP	Data Catalog Vocabulary (Application Profile)
GTFS	General Transit Feed Specification
IPR	Intellectual Property Rights
ITS	Intelligent Transport Systems
KER	Key Exploitable Result
MaaS	Mobility as a Service

MDS	Mobility Data Specification
MoU	Memorandum of Understanding
MOKB	MobiDataLab Open Knowledge Base
MTC	MobiDataLab Transport Cloud
NeTEx	Network Timetable Exchange
OGC	Open Geospatial Consortium
ORDP	Open Research Data Pilot
RDF	Resource Description Framework
ROI	Return on Investment
TRL	Technology Readiness Level
UI	User Interface
UITP	Union Internationale des Transports Publics (International Association of Public Transport)
WPL	Work Package Leader

Introduction

1.1. Project overview

1.

There has been an explosion of mobility services and data sharing in recent years. Building on this, the EU-funded MobiDataLab project works to foster the sharing of data amongst transport authorities, operators and other mobility stakeholders in Europe. MobiDataLab develops knowledge as well as a cloud solution aimed at easing the sharing of data. Specifically, the project is based on a continuous co-development of knowledge and technical solutions. It collects and analyses the advice and recommendations of experts and supporting cities, regions, clusters and associations. These actions are assisted by the incremental construction of a cross-thematic knowledge base and a cloud-based service platform, which will improve access and usage of data sharing resources.

1.2. Purpose of the deliverable

This initial Exploitation Plan has been designed at the beginning of the project as a working document and updated regularly throughout the project's life cycle according to MobiDataLab progress and outputs, the findings on the market assessment, and the results of the exploitation workshops.

A two-step process will be used to build the exploitation plan:

- V1 (initial – this document): Understand, define, and refine the products and services' value proposition with the consortium partners and through literature review considering the results of a first market assessment, the potential alliances and collaboration within and outside the consortium.
- V2 (final): Build financial models describing the cost and revenue projections for each Key Exploitable Result (KER) and how it will help calculating the profit margins as well other financial indicators such as payback and Return On Investment (ROI)

1.3. Intended audience

The dissemination level of this deliverable is 'public' (PU). It is addressed to the whole MobiDataLab partners, inside and outside the project and then a larger audience of organizations that are interested in how the different outcomes of the projects will be exploited and maintained during and beyond project life.

AKKA will be the Exploitation manager, in charge of coordinating the exploitation strategy at the consortium level, according to all partners' feedback involved in the deliverable.

Value proposition

MobiDataLab study on data exchanges and the data sharing culture has an equally analytical and productised/tangible approach. In the former, the consortium will holistically study use-cases, actors' needs, requirements and generally generate knowledge of the data sharing culture. This knowledge will be reflected in the creation of different products in MobiDataLab that will be tested and demonstrated to actual users. The process has its climax during the execution of the Living Labs that will put all products towards the same goal of delivering innovation through data sharing and collaboration. The focus of the project on the tangible products that will be delivered is reflected throughout the Work Breakdown Structure, which is perfectly suited to the result-oriented attitude of the consortium members. All members strive to extend this attitude to the next steps.

2.1. Global value proposition

As pointed in section 1.2, this document will evolve during project life and will reflect evolution of the consortium views and strategies evolutions. MobiDataLab exploitation model relies in the identification, refinement and formalization of a value proposition specification. This specification is structured along the following generic items:

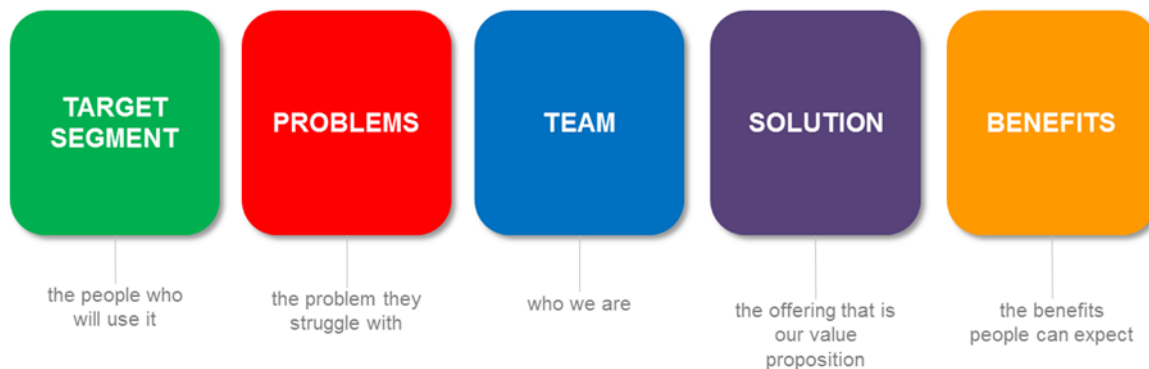


Figure 1: MobiDataLab global value proposition at a glance

The following sections browse these different categories of elements that are currently deemed relevant for the exploitation plans in the Consortium.

2.1.1. Target segment

In the value proposition model of a given product, the target segment represents the people who will use the product in question. In the case of MobiDataLab, two main categories of actors are targeted, according to B2B and B2G business models:

- Mobility Organising Authorities (cities, regions, etc.) & Transport Operators
- Start-ups/SMEs & Innovators

Transport operators are mainly identified as “data providers” and innovators/developers as “data users”. However, both of them will be able to upload or make available their data to the MobiDataLab platform. Indeed, digital companies and start-ups interact more and more directly with users of transport systems (due to the growing digital disintermediation between transport operators and their customers), and therefore exploit to a large extent travellers data for developing and improving their services. Through the MobiDataLab platform and dedicated services, they will be able to process these data, once anonymized.

The future MobiDataLab Transport Cloud is not a B2C solution and therefore is not intended to be directly useable by individuals and/or travellers.

2.1.2. Problems

Once the different actors at stake are identified, we have to contemplate the main issues they are confronted with. The consortium globally identified in the proposal phase and during first months of the project a couple of barriers to data sharing, mainly linked to privacy concerns, risk of losing competitive advantage and ambiguity of data ownership. These aspects are developed in the following paragraphs.

2.1.2.1. Privacy concerns

Mobility data are highly unique and regular data, and so their collection, sharing, and release put the privacy of individuals at risk. An attacker with arbitrary background knowledge (e.g., a few places an individual has visited) can, with high confidence, match her data with single individuals in a released unprotected (or insufficiently protected) database. The MobiDataLab project aims to propose existing or develop new mechanisms that can protect mobility data while maintaining a sufficient level of data utility.

Several protection mechanisms have been proposed in the literature, based on different techniques, that provide different levels of protection to mobility data and that preserve the utility of the data to different extents. Unfortunately, no single anonymization method can effectively anonymize data while maintaining their utility for all purposes and, additionally, metrics for privacy and utility are oftentimes hard to define. URV will analyse several mobility data anonymisation methods to decide on the most appropriate ones taking the project’s use cases into consideration.

Clarity on GRPD legislation is a fear for public authorities and the partners will tend to analyse how clarity can be improved on legal framework.

2.1.2.2. Risk of losing competitive advantage

The risk of losing competitive advantage or market share is a major concern from public and private transport organisations. This perceived risk is mainly due to the fact that they would lose some competitive advantages in sharing data they collected/calculated since data sharing has most benefits only if a holistic approach based on a global strategy is followed. This strategy should cover data governance, data sharing culture and risk assessments. The data strategy sets the foundations of how an organisation interacts with data and is crucial when choosing data sharing business models and assessing their sustainability. In particular, a data strategy should align with wider corporate purpose and objectives – this ensures that it is always clear why particular data is being shared.

2.1.2.3. Fear of losing control of data

As soon as data sharing is decided, accompanying governance and technical measures must be put in place as, e.g. specific licences, knowledge of legal issues and data management recommendations/directives, monitoring and control mechanisms for tracing and keeping history of licences, quality insurance and management plans, exploitation manuals, etc. This represents commensurate work and requires robust management procedures for ensuring sustainability of processes and long-term benefits.

These issues and associated requirements in terms of teams, processes, tools prevent many organisations to develop a data sharing culture. Data sharing is perceived as a possible one-shot action that is difficult to make sustainable and profitable.

Through its Knowledge Base, the consortium intends to notably produce a comprehensive analysis on licences so the solution can be exploited with a minimum of constraints linked to the chosen licenses.

2.1.2.4. Lack of cloud solutions

Cloud hosting landscape has changed dramatically in the last few years. Application providers can choose among large variety of options to host their application and data – both in terms of hosting abstraction (e.g., virtual machine versus containers) as well as various non-functional specifications and business models (e.g., private vs. public). The sharing of data securely in cloud computing is a very crucial method. The semantic approach is to be a key element to take into consideration when building the virtual lab.

2.1.3. Teams

2.1.3.1. The consortium

The MobiDataLab H2020 project involves 10 partners from 7 countries and gathers all the necessary background and expertise to achieve the objectives of the project. It will furthermore exploit and leverage on tasks results from the constituted Advisory Board and the Reference group of stakeholders as keystones of the project.

The consortium gathers partners skilled in:

- Stakeholder (cities, citizens and start-ups) engagement and Living Lab management: POLIS, F6S, AETHON, HERE, HOVE
- Business, legal and Data Privacy: ICOOR, KUL, URV
- Technological bricks: HOVE, HERE, CNR, AETHON, AKKA

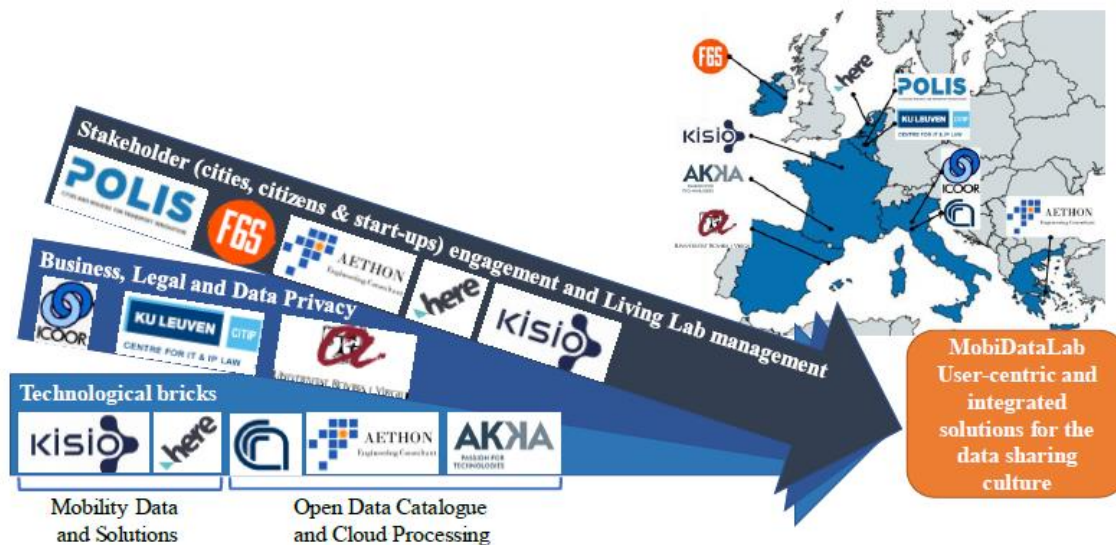


Figure 2: Value chain and geographical coverage of the MobiDataLab project

2.1.3.2. The MobiDataLab Advisory Board

An Advisory Board helps the consortium members and is composed of several expert individuals from the transport and data sharing ecosystem and notably from past/ongoing R&D projects, namely:

- International Association of Public Transport (UITP) <https://www.uitp.org/>
- Mobility-Data <https://mobilitydata.org/>
- ERTICO / ARCADE project <https://ertico.com/>
- MaaS Alliance <https://maas-alliance.eu/>
- La Fabrique des Mobilités <http://lafabriquedesmobilites.fr/>

- Catalan Data Protection Authority <https://apdcat.gencat.cat/en/inici>
- ARMIS ITS <https://www.armis.pt/intelligent-transport-systems/>
- The Open Data Institute <https://theodi.org/>

The main role of the board is to provide the MobiDataLab consortium with specific advices and strategic orientations in order to guide the developments of the project, especially for the development of the Open Knowledge Base and of the Transport Cloud through the identification of resources and elicitation of innovative use cases that the project will contemplate. The members of the Advisory Board are invited by the project to join General Assemblies for a specific workshop once a year.

2.1.3.3. The reference group of stakeholders

The Reference Group, composed of relevant mobility stakeholders (local or regional authorities, transport authorities, transport associations/clusters, transport operators, etc.), provides concrete real life mobility problems related to, e.g. parking/public transport/road traffic and data sharing opportunities. The Reference Group participates in the Living labs to co-create activities, evaluates the transport cloud, and validates project results.

2.1.4. Solution

Data sharing has become a major strategic issue for improving the mobility as it comes with very important benefits for different actors:

- Offer the best and most adapted service to the user;
- Improve services' performance and coordination;
- Create new collaboration and business opportunities.

The following diagram show the overall concept of the MobiDataLab solutions, based on a State-of-the-Art study and the development of a Proof of Value, which will be put into practice and exchanged by a board community of transport stakeholders, and whose impact and potential for scalable exploitation will be assessed.

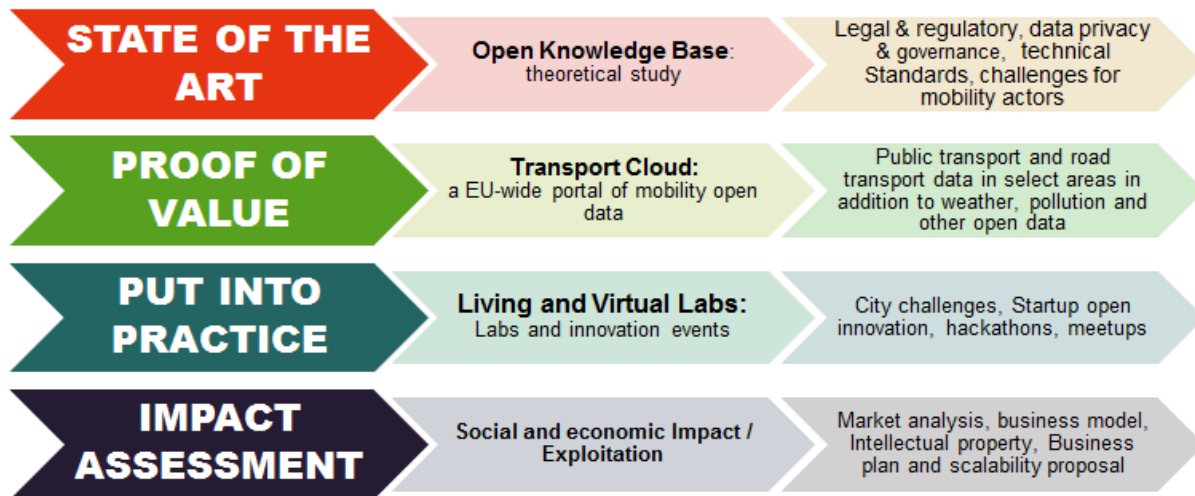


Figure 3: Concept of the MobiDataLab project

2.1.5. Benefits

By design, MobiDataLab takes a holistic approach that researches, collects, references and puts in action data sharing best practices and solutions. Simultaneously the project identifies, analyses and addresses operational bottlenecks of various types and dimensions (societal, legal and technological). Some particularities of the action and expected results are identified as main benefits various stakeholders may expect from the project:

- Labs, reference group and advisory board that are characterized by a mixed population of stakeholders (e.g. not only public authorities altogether as it is often the case in dedicated events/conferences/workshops);
- Open Knowledge Base featuring many Return-On-Experience (REX) Cities/Municipalities and public authorities are often calling for REX in different settings as necessary material for designing their own actions;
- Technical solutions for Data privacy Preservation which is a highly-evaluated “selling point”;
- A cloud-based platform of services as an Open solution without vendor locking and openness for new entrants. Many Mobility as a Service (MaaS) platforms are emerging, and two models are possible: either “winner takes it all” (undesired) or open ecosystem (desired). the “Open MaaS” model is in line with MobiDataLab objectives. This approach is built upon a Transport Cloud Prototype using proven open source solutions, complemented by innovative data enrichment processors and anonymisation solutions, validated and continuously improved by Living and Virtual Labs. The Transport Cloud solution shall facilitate mobility data access and exchange for MaaS companies and developers;
- Living and Virtual Labs themselves as open innovation ecosystem to improve the data sharing culture.

2.2. Products and services value proposition

2.2.1. Value of the open knowledge base

Interoperability issues are one of the main barriers which prevent mobility data providers to share their data. For solving this interoperability issue, MobiDataLab proposes to conduct theoretical studies and to consolidate **an Open Knowledge Base** of standards as part of the WP2 of the project. More specifically, the aim of MobiDataLab throughout Task 2.3 (Standard Requirements) is to define a standardisation roadmap for both integrating existing data sharing standards (GTFS, NeTEx, SIRI, MDS, OGC features, CSW, DCAT-AP, etc.) and for promoting standardisation results. In the end this task will result in the mapping of technical requirements to current standards and any necessary extensions for development across all relevant WPs.

To achieve this objective, two steps are defined: a first one consisting of a state of the art of the different standards existing today in the field of data sharing and their applicability to MobiDataLab (M6 – July 2021), and a second one proposing suggestions about future standards and norms to be adopted for improved data sharing (M30 – July 2023).

2.2.2. Value of the Transport Cloud

The Transport Cloud will demonstrate a cloud-based prototype platform for sharing transport data, accessible to all mobility actors involved in B2B and B2G models, evaluated by a Reference Group of data providers and data users through Living Labs participation. It is technically designed according to federated cloud principles and integrates access and interaction with internal and external resources in a one-stop interface. This innovative cloud solution will showcase how to facilitate the access to mobility data, in an open, interoperable and privacy reserving way, developing open tools and making them available. The transport cloud is primarily designed to demonstrate and offer solutions to reduce and, in some cases, remove current technical limitations identified as barriers to data reuse.

2.2.3. Value of the Living & Virtual labs

The Living Labs are places where experts and users meet, share and exchange ideas leading to context-aware innovations, where context is a city, an industry or a region. The value of Living Labs lies in the diversification of the background of participants which can be citizens, experts, business people, governmental officials and in their alignment given a specific challenge that they all deem worth investigating and solving. Solutions coming out of Living Labs are pragmatic aiming to solve tangible problems of all participants. The combination of physical and virtual labs, enhances this even further allowing increasing the inclusion of more participants that would otherwise not be able to attend, either due to how those participants calculate their participation's cost-benefit ratio, due to other personal obligation or due to their inability to participate given mobility problems (e.g. people with reduced mobility).

Exploitation by the partners

In the following section, we describe initial thoughts, plans and strategic steps that each partner is envisaging for long term exploitation of project outcomes. Next chapter will elaborate possible joint exploitation plans that would not only accommodate with each partners objective but also would benefit from well-designed collaboration of the partners during and after the project.

3.1. AETHON

3.1.1. Key exploitation results

3.1.1.1. New insights into UI design

AETHON is WP5 leader and leads the T5.1 - “Creation of the Virtual Lab – Extension of cloud’s UI”. This task will extend the User Interface with functionalities that empower it for becoming a Virtual Lab. Through this work, AETHON will gain new information for UI design, that will benefit other projects and private initiatives. Moreover, the UI functionalities can be part of a toolset kit as something that companies or municipalities can use.

The virtual Living Labs will contain functionalities that support its purpose and that closely resemble a social network with the addition of functionalities for data sharing and usage. Those will be modularised for adaptation to other projects that AETHON is working on (e.g., EFFICIOUS). AETHON also has an internal policy for releasing and maintaining open-source code in the company's GitHub account which will be considered at the end of the project. Last but not least, the functionalities developed in MobiDataLab will be extended towards improving the final offering of the project and align with the project’s post-finalisation aspirations and goals to create a Living Labs implementation toolset.

3.1.1.2. New data for user needs and requirements

AETHON is leading the T3.1 - “Actors’ needs and cooperation framework”. This task aims to explore the actors needs and identify the main actors that partake in data sharing in order to develop data sharing scenarios. The knowledge gained will lead AETHON to expand its capabilities into actor’s needs and requirements elicitation thus, improving its level of service. Moreover, these insights may lead to new projects and ideas.

The Delphi method that was implemented in T3.1 is very significant in the sense that it generated data on experts’ consensus with regards to the future of data sharing in Europe for the domains and use-cases of MobiDataLab. AETHON is actively working on data engineering for the domains of transportation and smart cities and the activities of the company align perfectly with the requirements

generated in the task and through the survey(s). The requirements will allow better service adaptation and customisation for future tasks and offerings.

3.1.1.3. MobiDataLab Virtual Lab

AETHON will analyse user requirements with respect to creating the virtual Living Lab (e.g., social features: messaging, commenting, or data exchange features: APIs for data sharing, security). The requirements will lead to modules generated for the purposes of the virtual Living Lab of which their usage could be generalised to other products (3.1.1.1). As a whole, the virtual Living Lab is expected to be a paradigm of building Living Labs interfaces with respect to the architecture and the modules (software artefacts) that support the UI. AETHON will examine whether the UI could be extended to become a standalone product or whether specific modules could be reutilised in other products.

3.1.2. *Initial exploitation strategy*

AETHON is a transportation engineering consultancy and expects to leverage the results from MobiDataLab both indirectly and directly. In the former case, AETHON will use the data and conclusions from the Delphi survey and the product definition of the Virtual Lab (user story maps, use-cases etc) to better understand the actor's and the stakeholder's needs and enable improved design of similar interfaces in the future through better understanding of the user. This extends to the testing/demonstration of MobiDataLab that will collect feedback on the Virtual Lab. In addition, AETHON will build upon the results of creating the Transport Cloud in terms of acquiring knowledge on open data sources and on data privacy. Last but not least, through MobiDataLab, AETHON will gain insights and knowledge on the data sharing culture in the transportation field allowing the tailored creation of products and services that address the needs and concerns of users (cities and Transport Service Providers – customers of AETHON). Through the Living Lab instances and events, AETHON will gain significant experience related with methodology of collecting data during the Living Lab instances. This methodology can be transferred to other projects and initiatives and can be offered as a service in the relevant stakeholders. In the latter case, AETHON aims to exploit the Virtual Lab directly as a solution of the Transport Cloud or separately, through the reuse of functionalities (code snippets) in other products and projects.

3.2. AKKA

3.2.1. *Key exploitation results*

3.2.1.1. MobiDataLab Transport Cloud and its Data Processors

AKKA is WPL of WP4 “Transport Cloud prototype” whose aim is to prototype a platform for searching, accessing and fusing multimodal mobility data in the cloud. Targets promised in the Grant Agreement

are 200 datasets to be integrated, including metadata, data license information and privacy utility metrics (see T4.5).

Data Processors will be treated in Task 4.4 that aims to build richer and more powerful datasets combining them, and to contribute to the development of open tools allowing the enrichment of data. This task will start with the identification of datasets which could greatly be enhanced by combining the data with other datasets and gathering additional results. Different data enrichment techniques will be provided as open tools: semantic enrichment (combining with the Linked Open Data cloud, RDF/SPARQL) and geographical enrichment (tools for geocoding / projection, cross-referencing with spatial datasets, geodata APIs, OpenStreetMap data, etc.). The cloud federated architecture and the enrichment techniques are used for improving analysis of mobility data.

3.2.1.2. MobiDataLab Open Knowledge Base

AKKA is leading WP2 dedicated to Open Knowledge Base. MOKB aims to consolidate an Open Knowledge Base derived from the most important projects and initiatives implemented to date in the domain of transport data sharing. This open collaborative Content Management System, with metadata catalogue of knowledge categories and search functions, will follow a Wikimedia-based approach. The knowledge categories will document legal and regulatory aspects, data privacy, data governance, standards and cloud frameworks.

3.2.2. Initial exploitation strategy

AKKA, as a consulting and engineering company, expects to use the results as a set of reference solutions when proposing the development and integration of smart and collaborative systems for connected and automated operations in smart cities, railway triage stations, airports and harbours. These operations can be coupled with our expertise in addressing possible extensions to the management of smart grids and energy flexibility sources, the further development of innovative data exchange and processing platforms based on open industrial standards (e.g. oneM2M, OGC Features and Sensor Things services, etc.).

Moreover, AKKA will design and establish specific partnerships with start-ups or selected SMEs in order to accompany them in new markets (abroad and/or targeting other vertical markets) thanks to AKKA's scaling factor (+20k engineers, worldwide implantation, with strong presence in the EU) and expertise in numerous vertical industry sectors. As a summary, initial plans are based on the following action paths:

- AKKA recognized as a key technical provider for evolutions of the MOKB and the MTC while maintaining and expanding the in-place R&D partnership;
- A Freemium model is envisaged for selling the usage of MobiDataLab services; particular care will be spent on the evolution of the MobiDataLab Value Proposition for defining different level of services in the use of the MTC beyond the project;
- Ensure coherence and positioning of MobiDataLab outcomes with the company's Global Offer Portfolio (GOP);

- Leverage on AKKA customers large portfolio for expanding the reputation and adoption of MobiDataLab technical solutions.

3.3. CNR

3.3.1. *Key exploitation results*

3.3.1.1. New techniques for semantic enrichment of mobility data

The novel semantic enrichment techniques designed by CNR will be used within the project for improving the analysis of mobility data possibly offering actionable insights for the project partners and other stakeholders.

All the software tools and the methodologies developed by CNR will be made available to the scientific communities in the areas of mobility and transportation with open software licenses favoring reuse and grow of the communities.

3.3.1.2. New insights into cloud technologies for federating transportation data sources

CNR will gain new insights from the conception, definition and design of the open solution supporting the MobiDataLab cloud federation enabling the European-wide sharing and trans-national access to heterogeneous sources of mobility data. Novel expertise will come from the evaluation of the different cloud solutions and frameworks that can be used within the project for transport data sharing. The development of demonstrators for the data sharing architecture will enrich the portfolio of advanced solutions offered by CNR for ensuring efficient data access in a secure and seamless way.

All the software tools and the methodologies developed by CNR will be made available to the scientific communities in the areas of cloud federations and data sharing with open software licenses favouring reuse and grow of the communities.

3.3.2. *Initial exploitation strategy*

As a non-profit, academic institution, CNR intends to be involved in challenging, real-life problems so as to extend its expertise and research interests to new impactful areas and thus advance and proliferate scientific knowledge. The exploitation of the project outcomes from CNR will be in the context of its mission and the national strategic plans, which extend in the following directions: advancements of knowledge, education, promotion and dissemination of (multi-disciplinary) research, support of open-source initiatives, innovation and technology transfer towards the national industries. Specifically, CNR will benefit from the scientific advances obtained from the cooperation

with all other partners in the project and will exploit the novel methodologies developed and the expertise acquired by presenting project results at scientific events and publishing them in international, high-impact venues. CNR will transfer and share acquired expertise with other researchers (universities and research institutes) with the aim of creating, advancing, and disseminating the knowledge acquired. The project output will be exploited to fertilise new collaborative research work in the context of novel approaches for mobility data sharing, semantic enrichment of mobility data, new services with major added value. Furthermore, the novel methodologies and the knowledge learned will be transferred to students in the PhD and Master courses taught.

Finally, CNR will exploit the increased skills and domain knowledge learned to contribute in new regional, national, and international research projects and will collaborate with partners and other stakeholders willing to incorporate MobiDataLab research results in their products/services in order to improve its positioning for future and enhanced opportunities of cooperation with industrial realities.

3.4. F6S

3.4.1. Key exploitation results

3.4.1.1. Network of corporates and startups

F6S participates in WP3 “New data sharing services and business models” and WP5 “Living and Virtual Labs”. The tasks run in the scope of both WPs are expected to enlarge the F6S community and platform members. Throughout this work, F6S will have access to a network of corporate innovators from the mobility/transport sectors (i.e., data providers) and data-driven startups (that solve challenges and experiments), and from that close contact it is expected to add more users to its network and reach out to different market segments.

3.4.1.2. New services for corporates and startups

As a community builder and services provider, F6S currently has 3.5 million users, and its constantly testing and validating new revenue models that can generate value to other users. By participating in WP5 “Living and Virtual Labs”, F6S will learn from other more experienced project partners on how to design and implement challenge-based events and engage corporates and start-ups, with the goal of incorporating those activities as future added-value services provided by F6S, either through its platform or by participating in other similar European and international projects.

3.4.2. Initial exploitation strategy

F6S is much experienced in animating the innovators network, being the largest startup/SME community globally. Thus, with its involvement in the MobiDataLab project, it is expected to attract more corporate innovators from the mobility/transport sectors and data-driven startups to be part of its network of already 3.5 million users. The main goal is not only to enlarge its community, but also to reach out to the market segments represented at MobiDataLab, i.e., transport and data sharing, and extend to all other sectors where data sharing is an added value. This is expected to be done mainly by participating in WP3 “New data sharing services and business models” and WP5 “Living and Virtual Labs”.

F6S delivers more than €2 billion every year to startups and SMEs with leading CRM for deal flow, corporate challenges, structured programmes, startup services, corporate partnering, recruiting, government grants and free startup resources. F6S is also the leading platform for application management for commercial, corporate, government, university, and other accelerator programmes, helping more than 17.000 such initiatives worldwide. With a strong participation in WP5 “Living and Virtual Labs”, in the engagement of tech startups and SMEs, F6S intends to learn with other more experienced project partners in the organization of hackathons/datathons/codathons and the methodology used, to explore these activities as future added-value services. Other activities can also be considered, based on lessons learned from the overall project.

Finally, as leader of Task 6.5 “Cooperation with other projects and initiatives”, F6S intends to closely engage with other entities, initiatives and projects to enlarge its network.

3.5. HERE

3.5.1. Key exploitation results

3.5.1.1. Interoperable interfaces for exchange of mobility relevant data and services

Interoperable interfaces are key success factor for data exchange and data usage. HERE, as a platform company will pay a particular attention to the technical solutions envisaged and will ensure the most possible usage of open standards for the different technical modules, data formats and communication protocols.

3.5.1.2. Tools and services

Tools and services that enable the usage of data and/or providing services based on mobility data will be another result of the MobiDataLab project. These assets will support and accelerate the growing of the ecosystem(s) around mobility data. The tools and services are also used to connect between platforms to make use of different datasets across the systems.

3.5.1.3. Available data sets

With the role of HERE as a content provider, an outcome of the MobiDataLab project will be the accessibility of data via tools and services. The definition of interoperable APIs and data formats and its usage for mobility data aligned with requirements, such as data privacy and protection are a further exploitation result for HERE.

3.5.1.4. Datathon and developer engagement

The datathon as one of the living labs is another key exploitable result. Events like hackathons, datathons, codagons etc. are accelerators for inventions that can be made with provided data and services within a fruitful environment. These events can be seen as incubator events or “initial seeding” to test and grow the developed early stages within the project stakeholder group.

3.5.2. Initial exploitation strategy

HERE is engaged in many relevant standardization bodies and communities to define and establish standards. The outcomes and learnings made within the MobiDataLab project will be integrated in standards discussions, the refinement of existing standards and will influence the discussion on new standards.

To extend the ecosystem of tools and services for using data/services and interacting with data for manifold use-cases, MobiDataLab results will be integrated into existing ecosystems as reusable assets.

With the initial “seeding” of ideas in the living labs new ideas will be generated and existing ideas will be reviewed, evaluated and extended by the participants of the living labs. They can also be seen as incubators and influencers to scale the usage of platforms, data, tools and services.

3.6. ICOOR

3.6.1. Key exploitation results

ICOOR main Key Exploitable results can be summarized as followed:

- The evaluation framework developed in T3.5 Societal and Environmental Impacts of Data Sharing Assessment Framework constitutes a general methodology that can be scaled up to measure the impact of data sharing services over the economy, society and environment. This task can also be the starting point for further research that can constitute papers to be presented in specific conferences. Moreover, the evaluation framework can be proposed as new methodology to be used in new research and innovation projects.

- The acceptance assessment methodology of business models for stakeholders' collaboration in the data-sharing culture will be a fundamental starting point for the actual stakeholders' engagement and, consequently, for the exploitation of the results to the interested stakeholders.

3.6.1.1. Evaluation framework for the transport data sharing culture

In T3.5 Societal and Environmental Impacts of Data Sharing Assessment Framework, ICOOR will provide a generalised evaluation framework that could be used to assess the impact of data sharing services also on stakeholders' trust and collaboration. Within this framework, a questionnaire investigating users' acceptance of data sharing services and of new business models will be provided. Furthermore, in the context of T5.2 Quantification and measurement of data exchange culture, the questionnaire will be used to assess the impact of the data sharing culture with the participation of the Living Labs.

3.6.1.2. Acceptance assessment methodology for Transport data sharing business models

As WP3 New data sharing services and business model leader, ICOOR will guide the actions within this work package in order to analyse the market's state-of-the-art and enhance the potential impact of digitalization and data sharing on different actors and on different areas of mobility and transport (economic, social, environmental, etc.). In particular, WP3 goals are related to:

- Understanding of the state of the art in terms of actors involved, their needs and identify the current best practices in stakeholders' collaboration in data sharing;
- Definition of the current market potential in terms of supply of new products and services and in terms of potential improvements in transport flows efficiency;
- Determination of the novelties that can be introduced to improve the Transport Cloud;
- Support of new business ideas;
- Guide of the evaluation of the new data sharing services and of new business models.

Within the evaluation framework, a specific methodology to assess the stakeholders' acceptance of the novel business models will be developed.

3.6.2. Initial exploitation strategy

Within MobiDataLab, ICOOR will support initiation, operation and evaluation of solutions comparable with those conducted in this project. The skills and knowledge gained within this project will also

provide a better understanding and further qualification of the research and implementation of digitalisation and data sharing in transport solutions.

The research methodology proposed within MobiDataLab will be used in future public research as well as in applied research and innovation projects for industrial and other commercial clients. ICOOR will use the knowledge generated through this project for:

- generating new research and innovation projects related to ITS, big data analytics, smart city;
- establishing new strategic partnerships with industry actors;
- educational purposes, for instance by organizing training sessions in the different locations of the Interuniversity Consortium. Students will get in touch with the project and will be offered the possibility to carry out research on different aspects related to the project.

3.7. HOVE

3.7.1. Key exploitation results

3.7.1.1. New commercial channel for journey planner

Journey planner is the core business of HOVE. However, the results of a journey planner are about as good as the availability of quality of data.

This project would allow HOVE to extend this business model to include additional data sets to improve its coverage in the European market. Moreover, it would allow HOVE to extend its product offering by including data sets other than public transport in its journey planning results – notably other types of open data such as road data or weather data.

In fact, HOVE would propose to commercialize private mobility data sets within its journey planning package as a premium offer. This will be based on a shared revenue model to encourage private mobility actors to provide access to their data sets.

3.7.1.2. New and enhanced journey planning parameters

By leveraging additional data sources, HOVE could add new parameters to Navitia journey planner that would help user to plan journeys according to his own criteria, for example:

- Occupancy
- Comfort
- Pollution
- Accessibility
- Traffic
- Arrival time

These new or enhanced criteria could be combined with existing parameters to help user find the journey that best suit his needs

3.7.1.3. API usage monitoring

One way to retrieve and share data from journey planner is to track API usage. This requires the use of an API Manager which might be part of the MTC.

By using such an API Manager, HOVE will better understand customer needs which in turn will allow us to fine tune Navitia roadmap according to these user needs.

3.7.1.4. Access to journey planner data

MobiDataLab will create a solution to access data generated by HOVE's journey planner. This will need a legal analysis on who the data belongs to and if authorization from the transit agency is needed.

Such data could be very useful to identify and maybe more importantly to predict usages. For example, we have the historic of all journey planning requests. If we correlate these search requests with for example ticketing data, we can create a model that will predict, based on actual search requests, the journeys that will be done. With such model, a public transport authority could better organise and manage public transports to make sure the offer will meet the expected demand.

3.7.1.5. Enhanced conversion tools

HOVE will identify, develop and contribute to the creation of open tools to facilitate the conversion from one standard to the other (e.g. NetEx, SIRI, GTFS, MDS, GBFS, etc.), the combination of different types of data, and the verification of their quality.

Such tools will be used in the context of the MobiDataLab project but will also benefit HOVE as they will be used also by HOVE data quality teams to facilitate integration or open or private data for HOVE customers.

3.7.2. Initial exploitation strategy

HOVE will provide access to our core product suite Navitia, which is an intermodal passenger information system, access to our open-data portal Navitia.io, which provides access to high quality open data for public transport in over 30+ countries, as well as access to tools, API, infrastructure that facilitate access to public transport to rapidly innovate and deploy new solutions.

Further on the technical side, we will co-develop new prototypes or modules for Transport Cloud to provide access to tools such as access control (API management) as well as explore an easy-to-access means to reuse mobility data including public transport data.

At least once a year, HOVE will call the partners for a meeting dedicated to the exploitation of the results and the Intellectual Property Rights (IPR) management. The objectives of these meetings will be to review the developments realised within previous year, anticipate the results to come and solve any dispute that may occur between partners on that matter.

Each partner will plan how to turn the results of the project into commercial products and business opportunities. In doing so, IPR issues will be considered carefully and in full transparency.

3.8. KUL

3.8.1. Key exploitation results

3.8.1.1. Legal and regulatory analysis

Various EU legal frameworks impose or incentivise data sharing in the EU. The existence of multiple legislation has however led to a fragmented landscape which hinders public authorities and private operators alike from understanding and assessing data-sharing obligations. At the same time, a number of legal challenges remains. KU Leuven (CiTiP) will examine the existing legal instruments and regulatory framework with a view to, first, conducting an assessment of the potential legal bottlenecks that hinder data sharing, and second, propose recommendations on how to address them.

The findings of both analyses can be used by:

- public/regulatory authorities, who can reflect on the legal and regulatory changes that may need to be performed, at EU or national level, thereby driving the policy debates forward.
- private actors, who can get a better understanding of the obstacles that need to be overcome to increase data sharing and how they can organise their business accordingly. On that basis, they can also become better equipped to participate to the EU or national policy debates.

3.8.1.2. Data governance mechanisms

In the current EU policy context, data governance is mainly referred to as an organisational and legal framework that could serve the objective to facilitate access to and reuse of data. From a legal standpoint, data transactions (as uni-, bi- and multi-lateral exchanges) through which data sharing and reuse are realised make up the kernel of this framework. Many different data governance mechanisms can be designed, such as data commons and data pools, data trusts and various forms of independence stewardship of data. KU Leuven (CiTiP) will first map the existing and suggested

forms of data governance mechanisms, and second, provide recommendations for the mechanisms that can lead to optimum forms of data sharing.

The findings of both analyses can be used in similar ways as those described under 3.8.1.1.

3.8.2. Initial exploitation strategy

Being an academic research centre, CiTiP's objective is to advance the already existing knowledge and to examine the compliance of new information technologies with the European legal frameworks related to data and to ICT. The research serves to expand the existing knowledge and establish and expand CiTiP KU Leuven's spheres of competence. The results will be used in future research and exploited mainly by publishing in (scientific) journals, contributing to conferences, through the Centre's education activities, by leveraging the findings to other business sectors and by contributing policy recommendations.

3.9. POLIS

3.9.1. Key exploitation results

As a network of city and regional authorities promoting transport innovation and sustainable mobility, POLIS is most interested in the knowledge built and insights gained within the project related to data sharing challenges, opportunities and governance models. Data is a high priority of the POLIS agenda for several reasons. Firstly, the role of POLIS members (public authorities) in the data space is expanding rapidly through activities such as open data, data acquisition from the market to support different transport tasks and functions and crowd-sourced data, and data analysis to gather travel insights. Secondly, the EU's itself has adopted an ambitious data agenda, of which data sharing is a key component and which is building on the ITS Directive in the mobility data domain. POLIS is particularly interested in the tasks and associated deliverables dealing with legal frameworks, data sharing technologies, standards, technological developments, business and revenue models, societal and environmental impacts.

3.9.2. Initial exploitation strategy

POLIS plans to bring the knowledge, insights and potentially the tools developed to its members (local and regional authorities) through various channels, notably the POLIS Traffic Efficiency Working Group. The Working Group has established a data stream comprising webinars and workshops to enable members to share experiences and pain-points on their data-related activities. Data sharing is a central issue of the data activities, alongside other topical issues such as data privacy, data governance and standards, which MobiDataLab can shed light on.

POLIS is actively involved in other many other data activities and is regularly consulted by the European Commission on developments related to the ITS Directive, specifically those

developments having an impact on local authorities. These activities provide good opportunities to promote MobiDataLab work in progress, findings and outputs.

3.10.URV

3.10.1. Key exploitation results

3.10.1.1. Protection mechanisms applied to mobility and transport data

Mobility data, collected via location-based services, sensors and RFID tags, or service-related metadata, among other sources, and typically compiled into (trajectory) microdata sets can be highly valuable to improve public health, transportation, urban planning, economic planning, etc., by learning the mobility patterns of citizens.

However, trajectories serve both as quasi-identifiers (i.e., certain combinations of positions or the combination of a trajectory with other attributes can uniquely identify a person) and as sensitive information. Thus, trajectories are personally identifiable information on its own right and hence, according to the EU General Data Protection Regulation, they must be adequately protected and/or anonymized before releasing them for any secondary use. Anonymization cannot be limited to suppressing the attributes containing the subject's identity, because the origin, the destination and even the intermediate points of a trajectory may allow re-identifying a subject.

The standard approach to build anonymized data sets is centralized: the subjects send their original positions over time to the data controller, who takes care of producing an anonymized data set. Hence, providing the data controllers of useful mobility data anonymization methods or synthetic mobility data generators is essential to encourage the sharing of mobility data.

However, the standard approach has a significant drawback: Even though the released anonymized data set may not disclose personal information, all mobility data are fully disclosed to the data controller. This is a serious privacy threat (e.g., due to possible attacks and data leakages) and requires subjects to blindly trust the data controller.

An alternative to the standard approach is to empower the subjects with the ability to anonymize their trajectories locally. In this way, they do not need to release their original trajectories to a central data controller. A user could anonymize her trajectory by aggregating it with a set of similar trajectories obtained for other (unknown) subjects, thanks to exchange protocols which run on a fully decentralized peer-to-peer network. In this way, for example, an administration could collect already-anonymized mobility data from the citizens who accepted to install an official application in their smartphones.

3.10.2. Initial exploitation strategy

The anonymization of mobility datasets and the collection of mobility data in a privacy-preserving way are core research interests for URV, more so in current times, where this kind of information is gaining attention because of their utility to design strategies to manage pandemics and to mitigate climate change by optimizing transport.

For example, due to COVID-19 pandemic, the use of contact-tracing applications was adopted in several countries. Most of these apps were based in a centralized approach, where data was sensed by the app and all sent to a nation-wide server. This approach raises concerns about citizens' privacy and needlessly strong digital surveillance, thus alerting us to the need to minimize personal data collection and avoiding location tracking.

The methods, algorithms and methodologies developed within the project could be shared as open source in platforms as GitHub¹, integrated in already-existing open-source libraries as MovingPanda¹ or Scikit-Mobility², or deployed in new software tools together with other MobiDataLab outcomes.

URV is also interested in technology transfer contracts derived from this new generated knowledge. We will improve our expertise in the anonymization of mobility datasets so we will add this enhanced service to our catalogue. We will also be able to advise companies which need to gather and process mobility data in order to do it in a GDPR compliant way.

Finally, as an academic institution, URV is always eager to extend its expertise in data protection and PETs in the mobility data context in order to gain scientific knowledge and fulfil its academic and educational role. The knowledge generated within the project, and the availability of new enhanced mobility datasets will constitute the basis for further research activities, including PhD theses. This will produce long-term research objectives and new research projects. Generated knowledge will be included in existing courses (e.g., URV's "Cryptography and Data Security", "Privacy Protection"), and will also foster the creation of new courses.

¹ <https://github.com/>

Joint exploitation plan

Chapter 3 presented how each partner aims to separately exploit the outcomes while this chapter aims to bring those views together towards a common exploitation action. Indeed the consortium believes the MobiDataLab platform to be greater than the sum of its parts.

During the course of the project, different business models will be considered by the partners, both on a consortium and individual level. The exploitation working group (see below) will take care of the evolution of the Value Proposition, of the monitoring of identified partners, potential users/customers, costs and revenues in order to maintain a consortium business model.

Tentatively yet confidently, the consortium believes that MobiDataLab can become **a framework for Living Labs' implementation, both physical and virtual by expanding the Transport cloud**. The transport cloud is a cloud-based prototype which aims to offer solutions to current barriers of data usage. What is clear for the consortium is that the idea of an hybrid approach featuring the possibility of having a central data centre on one hand and a data catalogue that points to the location of the data in other hand, in addition with collaboration, co-creation and co-design functionalities that the virtual Lab will contain, is a valid proposition that can genuinely assist citizens, companies and governmental organisations to achieve innovation by opening up and exchanging ideas and data.

As a result of first discussions of the exploitation working group, it is already agreed that the virtual Lab development shall be open source by default. Consequently, a discussion is to be led on the features to be selected so that the virtual lab is modular orientated rather than a monolith. Partners expect that from the living/virtual labs conducted in the project, we will have a community of potential contributors/reusers of the GitHub project.

As the **MobiDataLab Open Knowledge Platform**, exploitation strategy will be linked to the new knowledge (legal frameworks, technological standards, business models, impact) catalogued, documented and classified and on methods for promoting the tools to the community and therefore for contributing in building data sharing culture with local governments

MobiDataLab prototypes **a scalable cloud solution for sharing transport data (the MTC)** showcasing the most effective means to facilitate access to and exchange of mobility data. The exploitation strategy of the MTC must distinguish the different facets of this solution to analyse their contribution to the overall value proposition and identify the most interested stakeholders. These modules that compose this multi-faceted solution include:

- a catalogue of reference Open Data,
- a platform itself providing centralized access to mobility data,
- data processors for adding value to the data (semantic enrichment, geographic transformations, etc.)

For all these results (see Grant Agreement), the goal of the project is to reach TRLs generally situated at level 5-6. Direct improvements to existing partners platforms already in use will make them reach higher TRL levels such as for HOVE's Navitia achieving TRL 8-9, HERE's Route planning/Analysing achieving TRL 6-7.

The exploitation plans will nevertheless try and contemplate possible paths towards higher TRLs and examine feasibility of designing the necessary steps to go beyond experimentally validated platforms. A generic TRLs-oriented strategy is depicted below. It shall serve as guideline for preparing the after-the-project strategy.

Targeting TRLs 8-9 would require vertical and horizontal research and development where vertical aims to evolve the project through its TRL levels and horizontal aims to evolve the project to other domains. The latter is undeniably a research activity, not unlike what MobiDataLab executes; new requirements will need to be determined, as well as new actors and use-cases. The former is an innovation activity that will require development of new modules and extending the existing functionalities of MobiDataLab while focusing on extended testing and business activities (business planning). Both vertical and horizontal axes are depicted in the next figure.

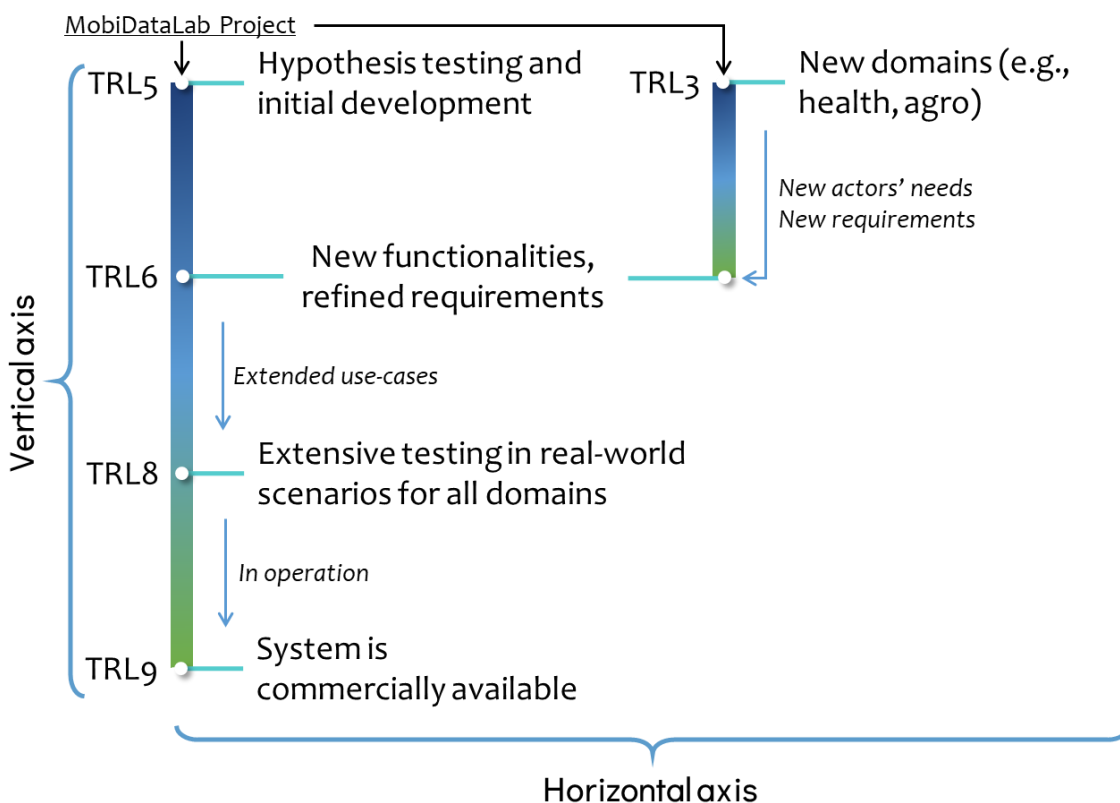


Figure 4: *MobiDataLab Project TRL*

The above figure demonstrates a projected high-level pathway for complete MobiDataLab offering development and extension to a commercial product. The figure depicts a main line from TRL 5-9 that demonstrates the path of the product which can be extended by research on other domains prior to reaching TRL 7-8 that will require extensive testing and demonstration activities. Again, the project is defined for reaching TRL5-6 levels of the lighthouse results, experimentally validated.

4.1. Exploitation working group

Preparing and managing the project's heritage, an exploitation working group has been created consisting mainly of industrial technical and service providers of the Consortium (HERE, HOVE, AKKA, AETHON). The group is constituted of: AETHON: Alexandros E. Papacharalampous; HERE: Johannes Lauer; FS6: Nadine Teles; POLIS: Suzanne Hoadley; HOVE: Bertrand Billoud; CNR: Beatrice Rapisarda; ICOOR: Giulia Renzi; URV: Jesus A. Manjon; AKKA: Thierry Chevallier, Benoit Baurens.

Its mission notably entails:

- Management of IPR,
- Research Data Management (FAIR principles, constant update of referencing platforms like Zenodo48), - see methodology an application of ORDP rules in D1.4 - Data Management Plan (M6, with further updates in M18 and M36);
- Ensure evolution of the Value Proposition, monitoring of partners potential users than can be also considered as customers for certain services, costs and revenues in order to deliver and maintain a consortium business model;
- Elaboration of a MoU (Memorandum of Understanding) that shall outline the rights, the intent and commitment of partners for sharing duties for setting up a sustainable collaborative maintenance effort on main project outputs, including the Open Knowledge Base and the Transport Cloud Platform in coherence with the expressed individual exploitation plans of the partners on these assets.

Beside discussions so far in dedicated WP6 remote meetings (because of COVID situation-last on 2021/05/28), the exploitation working group will have a dedicated session during the next General Assembly in September 2021 (M9) (hopefully as its first physical meeting) and will of course address these elements in its agenda.

4.1.1. Management of IPR

Knowledge management and protection encompasses the use and sharing of background information as well as Intellectual Property (IP) for the use, dissemination and exploitation of the project results. Key results of the project will be protected by intellectual property rights accordingly to preliminary plans presented in the Grant Agreement. The partners declared to use knowledge which as far as known is not under on-going infringement procedures and agree to respect individual intellectual property rights.

4.1.2. Knowledge transfer

The update of the State-of-the-Art will provide exploitable new knowledge for the project.

The MobiDataLab **Open Knowledge Base** will provide a web-based tool for searching, querying a large set of resources linked to challenges and emerging principles for data sharing. Informed and

driven by an extended *Expert Committee*, MobiDataLab will define a structured methodology to build on the results of the most relevant projects to date, in the domain of transport data sharing. This committee will select most appropriate recommendations, reports and tools to provide mobility data providers with requirements on how to improve the quality, accessibility and usability of their data in different data sharing models and environments. This Open Knowledge Base (improved with the analysis of use cases and concrete problems faced by mobility stakeholders) will serve as a reference on practices and solutions responding to interoperability, the applicable legal frameworks, privacy, licensing, data governance mechanisms in place, standards and technological challenges.

4.1.3. Memorandum of Understanding (Sustainability)

In a nutshell, the partners identified so far 3 main assets as key joint exploitation results:

- Open Knowledge Base of mobility data standards and mechanisms;
- Transport Cloud solution facilitating mobility data access and exchange for MaaS companies and developers;
- Living and Virtual Labs as open innovation ecosystem to improve the data sharing culture.

The partners must discuss and find agreements between them but also possibly with external stakeholders and members of the Reference Group who - de facto - have a significant role in the elaboration of these results, for defining commitments, actions, responsibilities in the exploitation of these (e.g. for maintaining in operational conditions the MTC, allowing further life of the MOKB, etc.). A Memorandum of Understanding is contemplated as the necessary step in order to materialize these agreed commitments. A MoU can provide flexibility for new mobility solutions to evolve over time. However, when there is greater clarity on the service to be provided, then peer2peer contracts (for example) can be designed as legal framework for sustainable developments.

In this global results sustainability approach the partners will additionally include collaborative tools such as social network accounts (twitter, Facebook), project's web site, Wiki, possible CRM tool for mailings and contacts management, bug tracking system for further use during MoU operation.

4.2. Exploitation through the external stakeholders

After the end of the MobiDataLab project, the consortium will carry out the necessary actions to bring the experimental tools and methodologies to a TRL6. These actions will include:

- Creation and continuous improvement of operating procedures and good practices for the use of the MobiDataLab tools and methodologies;
- Improve the design of the MobiDataLab tools and methodologies to have the most versatile solution possible for a wide variety of stakeholders;
- Continuation of the dissemination and marketing activities, through all the channels described in the MobiDataLab dissemination plan;
- Interactions with financing institutions and policy makers in order to ensure the rapid and efficient expansion of the results.

Conclusion

This document provides an overview of the exploitation strategy and key activities that the MobiDataLab consortium will execute to maximise the benefits and impact of the project's research outputs and deliverables in collaboration with the stakeholders, initiatives and projects listed herein. The joint exploitation strategy is based on regular evaluation and increments of the Value Proposition and on the elaboration of a consensual Memorandum of Understanding and possible accompanying contracts for binding those partners that will financially (and/or with workforce) sustain the results beyond project's life.

This Exploitation Plan should not be considered static and, beyond submission of this first version, is subject to be used by partners as a structured working artefact that is incrementally updated / documented.

It is used by Exploitation Working Group who monitors the performance of the plan and ensure changes as necessary under the guidance of WPLs, Advisory Board Members, Reference Group stakeholders and the Project Coordinator. A final version of this document will be delivered at M36 of the project.

| MobiDataLab consortium

The consortium of MobiDataLab consists of 10 partners with multidisciplinary and complementary competencies. This includes leading universities, networks and industry sector specialists.



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