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TWIN TRANSITION AND CHANGING PATTERNS OF SPATIAL MOBILITY: A REGIONAL APPROACH

MOBI-TWIN D5.5 EXPLOITATION, IPR MANAGEMENT AND SUSTAINABILITY PLAN

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Abstract	This document presents the first version of the project “Exploitation, IPR Management and Sustainability Plan” of the MOBI-TWIN project. It explains the main terms and methodology. It contains an overview of the MOBI-TWIN background, foreground and main assets of the project. The elements of IPR are considered exploratory and may be revised in later versions of the plan on an ad hoc basis. The final IPR strategy will be presented at the end of the project.
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0.1	31/10/2023	WR	Draft outline
0.2	10/11/2023	WR	Draft outline shared with partners for comments and input
0.3	24/11/2023	All partners	Comments and input
1.0	30/11/2023	WR	Final version ready for submission

EXECUTIVE SUMMARY

Sound Innovation and Intellectual Property Rights (IPR) management is critical in order to enable the successful exploitation and market deployment for all MOBI - TWIN assets. Therefore, the consortium of MOBI - TWIN places great emphasis in managing IPR in the framework of the project, with a view to effectively pave the way for the smooth exploitation and sustainability of its results following its completion.

Along these lines, the current report presents the initial version of the Exploitation, IPR Management and Sustainability Plan of the MOBI - TWIN Project. It sheds light on the key terms pertaining to the management and protection of intellectual property and lays down the main components of the relevant methodology to be applied throughout the project.

Preliminary description of the project results, along with initial identification of the contributing partners, protection types and access rights are provided within the report. An overview of MOBI - TWIN's assets as envisioned at this stage of the project is also presented, as well as the initial considerations of Background and Foreground IP Knowledge, as currently perceived by the project partners. The methodology applied is supported by the IPR Matrix that facilitates registration of all background and foreground IPR and helps the timely identification and resolution of any potential conflict in this respect.

The report will be further elaborated and updated on a regular basis as the project progresses. The final version (M36) of the IPR Strategy will be delivered by the end of the project, to guide post-project exploitation of MOBI - TWIN's results. **As such, several elements presented in this document are considered exploratory, preliminary and subject to revision and change; therefore, their status will be validated during the final versions of the Exploitation, IPR Management and Sustainability Plan.**

NOTE: This project has used a standard methodology already developed in the InnoRate project (Grant Agreement number: 821518), following EU recommendations. Ad hoc modifications were added to comply with the Grant Agreement conditions for MOBI-TWIN (Grant Agreement number: 101094402).

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LIST OF TERMS AND ABBREVIATIONS

ACCELI	ACCELIGENCE LTD
AB	Advisory Board
AUTH	ARISTOTELIO PANEPISTIMIO THESSALONIKIS
BG	Background
CA	Consortium Agreement
RDI	EREVNITIKO PANEPISTIMIAKO INSTITOUTO PERIFERIAKIS ANAPTIXIS
EC	European Commission
EU	European Union
ER	Exploitable Results
EM	Exploitation Manager
ESF	FONDATION EUROPEENNE DE LA SCIENCE
FG	Foreground
GA	Grant Agreement
UH	HELSINGIN YLIOPISTO
IP	Intellectual Property
IPR	Intellectual Property Rights
POLIMI	POLITECNICO DI MILANO

PC	Project Coordinator
RUG	RIJKSUNIVERSITEIT GRONINGEN
TBD	To be Decided
UB	UNIVERSITAT DE BARCELONA
WR	WHITE RESEARCH SRL
WP	Work Package
WIPO	World Intellectual Property Rights Organization

1 INTRODUCTION

1.1 PURPOSE AND SCOPE

The MOBI - TWIN partners focus on producing results that will be sustainable after the project's completion and ensuring that innovative ideas, methodologies, and results of the project will be fully identified, preserved and considered in terms of wider availability to all relevant stakeholders. Thus, the consortium defines basic principles, from the early stages of the project, that will yield a solid management framework for the Background (BG), as well as the Foreground (FG) Intellectual Property Rights of MOBI - TWIN. The MOBI - TWIN Exploitation, IPR Management and Sustainability Plan sets the ground for monitoring the protection of IP and IPR within the consortium, which eventually will support the creation of value as regards the exploitable results of the project and facilitate successful innovation and deployment. The current report presents the **first version of the MOBI - TWIN** Exploitation, sustainability and IPR management which aims to identify the project's key assets, set the premises for the determination of their underlying IPR, as well as for the development of a common understanding regarding their exploitation framework after the end of the project.

1.2 DOCUMENT STRUCTURE

The initial version of the report is comprised of 6 distinct chapters, as follows:

- **Chapter 1** provides introductory information about the context in which this report has been elaborated as well as its targets and structure.
- **Chapter 2** clarifies the key terms pertaining to IPR management of the project, defines the underlying objectives and explains the main intellectual property protection instruments to be employed.
- **Chapter 3** outlines the IPR management strategy and its underlying stages in the context of MOBI - TWIN and describes the methodology to be followed in this respect.
- **Chapter 4** introduces the IPR Matrix and explains the procedures followed in order to identify the MOBI - TWIN background and foreground IP, as perceived at this stage of the project.

- **Chapter 5** offers a preliminary overview of the project's assets to be co-created, as identified at this stage of the project, as well as the background and foreground IPs as perceived by all MOBI - TWIN partners.
- **Chapter 6** concludes on the next steps towards the exploitation of the assets of the project.

The MOBI - TWIN exploitation, sustainability and IPR management will be systematically updated and further elaborated during the project. In particular, an updated version of D5.5 is expected at the end of the project (M36). This will include the description of the final assets of the project and the consortium's plans regarding their IPR protection and main exploitation routes that will facilitate their use after the end of the project.

2 IPR MANAGEMENT OVERVIEW

2.1 OBJECTIVES

MOBI - TWIN's Exploitation, sustainability and IPR plan objectives reflect the need to protect all project's assets with a view of managing efficiently all the outcomes that will stem from the project's activities and ensuring the wider availability to all relevant stakeholders and, where relevant, the commercial rollout of MOBI - TWIN's exploitable results after the project's completion. To this end, the main objectives of the MOBI - TWIN Exploitation, sustainability and IPR Plan are the following:

- Define and agree on the MOBI - TWIN IPR management methodology to be followed within the context of the project.
- Identify the assets that will emerge from the activities foreseen within the lifecycle of MOBI - TWIN thus, determining an assets' portfolio from the early stages of the project.
- Develop a common understanding among MOBI - TWIN partners, concerning terms and issues of the Background (BG) and Foreground (FG) IP and respective access rights.
- Conceptualize a preliminary frame of the IP protection that will be employed in each identified exploitable result of MOBI - TWIN.

- Prevent and, if not possible, define and eventually dissolve any possible conflicts in IP within the consortium and beyond.
- Establish common guiding routes and actions within the consortium so as to safeguard the smooth operation of the IPR strategies to be implemented.

The Exploitation, sustainability and IPR is setting out how the following elements related to IP in MOBI - TWIN are to be managed within the project's context, with a view on creating a path for post-project exploitation of the relevant assets:

- Background IP
- Foreground IP
- Exploitable Results
- Access Rights
- Protection of Results
- Dissemination

The above-mentioned key concepts are normally considered for designing the Exploitation, IPR Management and sustainability Plan of Horizon Europe projects. Definitions of these concepts are provided in the definition section below and have been communicated to and agreed by all MOBI - TWIN partners.

2.2 DEFINITIONS

2.2.1. BACKGROUND IP

Background IP can be **defined as data, know-how or information – including any rights - owned or licensed to a project partner prior to the commencement of the agreement and needed to implement the action or exploit the project's assets.**¹ The background needed for carrying out the project activities or exploiting the underlying results must be accessible to the other project partners **on a royalty-free basis**. Under this frame, all project partners must identify the background as pertinent for the project

¹ See Article 16 of the MOBI - TWIN Grant Agreement, p.32.

actions and grant access rights to this IP.² The background of a project can be identified and agreed:

- (i) Within the consortium agreement, after the internal evaluation of pre-existing knowledge, or
- (ii) in a separate agreement (“agreement on the background”).

In this respect, there are two main aspects to consider when dealing with the background of a project:³

- **Identification of background:** Naming of the assets that each project partner provides to the consortium and which are imperative for the successful implementation and exploitation of the project actions.
- **Definition of Access Rights:** Clarification of the rights to use knowledge under the terms and conditions agreed within the consortium and align with the underlying background rules and obligations set by the EC in order to ensure the smooth implementation of the project.

2.2.2. FOREGROUND IP

Foreground refers to **the results and assets that are generated through the implementation of project activities**, including pieces of information, materials, and knowledge.⁴ These results comprise any tangible or intangible output of the project’s actions which can be protectable or not. In this respect, foreground IP can arise and be obtained from project partners in order to protect and exploit the underlying exploitable results of the project. It includes intellectual property rights (e.g., copyrights, industrial designs, patents), similar forms of protection (e.g., rights for databases) and unprotected know-how (e.g., confidential material). It should be noted that results generated outside the project activities cannot be defined as foreground.

² See Attachment 1 in the Consortium Agreement for a detailed description of the MOBI - TWIN background and the access rights granted.

³ European Commission, European Innovation Council and SMEs Executive Agency, Scherer, J., Weber, S., Alveen, P., et al., *European IP Helpdesk : successful valorisation of knowledge and research results in Horizon Europe : boosting the impact of your project through effective communication, dissemination and exploitation*, Publications Office of the European Union, 2022, Available at: <https://data.europa.eu/doi/10.2826/437645>.

⁴ For a detailed definition of the Foreground see: <https://iprhelphdesk.eu/glossary/foreground>. Last accessed: 3/1/2023.

MOBI - TWIN's Consortium Agreement and Grant Agreement establish that results of the project are owned by the project partner who generates them.⁵ Given the collaborative nature of the project, some results can be jointly developed by several partners. In this case, **joint ownership can arise among the contributing partners and is subject to the agreement on the allocation and terms of the exercise of their joint ownership**. Although regulations concerning the frame of joint ownership are embedded in the MOBI - TWIN Grant Agreement,⁶ it would be best practice for partners to establish during the project implementation a separate joint ownership agreement in order to define the allocation and terms of exercising their ownership. Each joint owner can grant non-exclusive licenses to third parties to exploit the joint-owned results unless otherwise agreed in the CA or the joint ownership agreement.

2.2.3. EXPLOITABLE RESULTS

Exploitation of project's results means the utilisation of results in further research activities other than those covered by the action concerned (e.g. in other research activities; or in developing, creating and marketing a product or process; or in creating and providing a service, or in standardisation activities).⁷ Under this scheme, an **exploitable result** is defined as a project result (expected or achieved) that meets the following two conditions:

- Has commercial/social/academic relevance;
- Can be commercialised/exploited as a standalone result (e.g. product, process, service, etc.).⁸

Therefore, exploitable results can be a combination or part of a foreground result(s). Not all foreground items may meet the above conditions.⁹ Furthermore, exploitable

⁵⁵ See section 8 of the MOBI-TWIN Consortium Agreement, p.15, and article 14 of the MOBI - TWIN Grant Agreement, Annex 5, p.4.

⁶⁶ See section 8 of the MOBI-TWIN Consortium Agreement, p.15, and article 14 of the MOBI - TWIN Grant Agreement, Annex 5, p.4.

⁷⁷ European Commission, Glossary, Available at: <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/glossary>, Last accessed: 13/1/2023.

⁸⁸ A patent for licensing is also an exploitable result.

results are not necessarily market ready; they may require further R&D, engineering and validation before becoming commercially exploitable.

2.2.4. ACCESS RIGHTS

Access rights refer to one partner's rights for requesting access to another project partner's background and foreground to implement its activities under the project or to use its own results. Additionally, access rights can be used as long as they are needed for exploiting the project's results. The provisions governing access rights within a collaborative Horizon Europe project follow specific rules pre-defined in the Grant Agreement and the Consortium Agreement. Access rights within MOBI - TWIN are presented in the table below:

Table 1. Access Rights

Purpose of access	Access to Background	Access to Results
Project implementation	<ul style="list-style-type: none"> ● Royalty free ● Unless otherwise agreed by participants 	<ul style="list-style-type: none"> ● Royalty free
Exploitation of Own results	<ul style="list-style-type: none"> ● Subject on individual agreement ● Granted under fair and reasonable conditions 	

2.2.5. PROTECTION OF RESULTS

It should be noted that when considering IP protection, IP assets can be protected by several types of IPR, and therefore, the most appropriate protection strategy must be chosen. The selection of the most suitable form of IP protection depends on the nature and specific characteristics of the results under consideration and the objectives of the IP owner.

⁹⁹ European Commission, Communication, Dissemination And Exploitation Why They All Matter And What Is The Difference?, Available at: https://ec.europa.eu/research/participants/docs/h2020-funding-guide/imgs/quick-guide_diss-expl_en.pdf, Last accessed: 13/12/2023.

There are various types of instruments that may be considered for protecting IP. Under the frame of MOBI - TWIN, meaningful IP protection instruments that can be used are the following:

- Trade and service marks;
- Patents;
- Utility models;
- Copyrights;
- Trade secrets;
- Confidentiality agreements.

Further details about each of the above-mentioned protection instruments are provided in the subsections below.

2.2.6. TRADEMARKS AND SERVICE MARKS

TRADE MARKS

A trade mark constitutes an exclusive right over the use of a sign in relation to the goods and services for which it is registered.¹⁰ Trade marks consist of signs capable of distinguishing the products (either goods or services) of a trader from those of others. The main function of a trade mark is to identify the commercial origin of a product. This does not mean that it should inform the consumer of the actual person who has manufactured the product or even the one who is trading in it. It is sufficient that consumers can trust in a given enterprise, not necessarily known to them, being responsible for the product sold under the trademark.

SERVICE MARKS

In modern trade, consumers are confronted not only with a vast choice of goods of all kinds but also with an increasing variety of services which tend more and more to be offered on a national and international scale. There is therefore a need for signs that enable consumers to distinguish between different services such as insurance companies, car rental firms, airlines, etc. These signs are called service marks and fulfil

¹⁰ For the definition of trademark in Europe, see: <https://iprhelppdesk.eu/sites/default/files/2018-12/european-ipr-helpdesk-your-guide-to-ip-in-europe.pdf>, Last Accessed: 13/1/2023.

essentially the same origin-indicating and distinguishing function for services as trademarks do for goods. Since service marks are signs which are very similar in nature to trademarks, the same criteria could be applied. Thus, service mark protection has sometimes been introduced by a very short amendment to the existing trademark law or simply by providing for protection of service marks under of the provisions of the trademark law.¹¹

PATENTS

A patent is an exclusive right granted for the protection of inventions (products or processes) that offers a new technical solution or facilitates a new way of doing something. The patent holder has the exclusive right to prevent third parties from commercially exploiting their invention for a limited period. In return, the patent holder must disclose the invention to the public in the patent application.¹²

Patent owner has the right to decide who may or may not use the patented invention throughout the period during which the invention is protected. Additionally, the patent owner may give permission to other parties, or permit them, to use the invention on mutually agreed terms. The owner may also sell the right to the invention to someone, who then becomes the new owner of the patent. Finally, patents are granted only country by country, some regionally (e.g. European), and may also be used in non-patented territories (although in such case they would not enjoy the patent protection). Once a patent expires, the protection ends, and the invention becomes part of the public domain, meaning that owners do not hold exclusive rights any longer. Therefore, it becomes available for commercial exploitation, free of charge, by others.¹³

UTILITY MODELS

Also referred to as a “petty patent”, a utility model is an exclusive right granted for an invention, which allows its owner to prevent others from commercially using the

¹¹ See WIPO Intellectual Property Handbook 2008: Policy, Law, and Use. Chapter 2: Fields of Intellectual Property Protection, p. 68f.

¹² Definition of patents in the European context retrieved from: <https://iprhelppdesk.eu/sites/default/files/2018-12/european-ipr-helpdesk-your-guide-to-ip-in-europe.pdf>, Last accessed: 13/1/2023.

¹³ See WIPO Intellectual Property Handbook 2008: Policy, Law and Use. Chapter 2: Fields of Intellectual Property Protection, p. 17.

protected invention, without their authorisation, for a limited period.¹⁴ The inclusion of utility models into the intellectual property system in some countries has the primary objective of nurturing the rapid evolution of indigenous innovativeness, particularly in small and medium-sized enterprises and among individuals.¹⁵

COPYRIGHTS

Copyright (or author's right) is the term used to describe the economic and moral rights that creators have over their literary, scientific and artistic works. It is important to note that copyright only protects the expression of ideas represented in a physical embodiment, not the ideas themselves, and provided the expression is original.¹⁶ There is not an exhaustive list containing the works that can be protected by copyright. However, there are several works usually covered by copyright at an international level:¹⁷

- Literary works such as novels, poems, plays, newspaper articles;
- Computer programmes, databases;
- Films, musical compositions, and choreographies;
- Artistic works such as paintings, drawings, etc; and
- Advertisements, maps, and technical drawings.

Copyright protection also includes moral rights, including the right to claim authorship of a work, and the right to oppose changes to it that could harm the creator's reputation. The creator - or the owner of the copyright in a work - can enforce rights administratively and in the courts, by inspection of premises for evidence of production or possession of illegally made "pirated" goods related to protecting works. The owner

¹⁴ Definition of utility models in the European context retrieved from: <https://iprhelppdesk.eu/sites/default/files/2018-12/european-ipr-helpdesk-your-guide-to-ip-in-europe.pdf>, Last accessed: 13/1/2023.

¹⁵ See WIPO Intellectual Property Handbook 2008: Policy, Law and Use. Chapter 2: Fields of Intellectual Property Protection, p. 40.

¹⁶ See WIPO Intellectual Property Handbook 2008: Policy, Law and Use. Chapter 2: Fields of Intellectual Property Protection, p. 40.

¹⁷ Definition of copyrights in the European context retrieved from <https://iprhelppdesk.eu/sites/default/files/2018-12/european-ipr-helpdesk-your-guide-to-ip-in-europe.pdf>, Last accessed:13/1/2023.

may obtain court orders to stop such activities, as well as seek damages for loss of financial rewards and recognition. Finally, it is important to note that copyright only protects the expression of ideas represented in a physical embodiment, not the ideas themselves, and provided the expression is original.¹⁸

TRADE SECRETS

Any confidential business information that provides a competitive advantage to an enterprise can be considered a trade secret. The type of information that could be protected as a trade secret is therefore highly diverse. It could include know-how, technical knowledge (potentially protectable as a patent), but also business and commercial data such as lists of customers, business plans, recipes or manufacturing processes.¹⁹

CONFIDENTIALITY AGREEMENTS

Confidentiality is an extremely important issue for participants in innovation projects, from the setting-up stage to the implementation and exploitation phases. Exchanging valuable information with other partners is generally a necessity that regularly occurs in collaborative initiatives or undertakings. Accordingly, confidentiality issues and measures should be taken into consideration to safely exchange information, facilitate the project development and ensure the non-disclosure of sensitive technology, business or commercially confidential information. Confidentiality agreements provide protection and security to an organization that is about to share or make available information to another organization by ensuring that confidential information will be used only for the permitted purposes agreed between the signatories of the agreement and will not be used or revealed to third parties without consent. Therefore, the signature of a confidentiality agreement could be a very important step to keep confidential information secret in order to maintain a competitive edge.²⁰

¹⁸ See WIPO Intellectual Property Handbook 2008: Policy, Law and Use. Chapter 2: Fields of Intellectual Property Protection, p. 40.

¹⁹ Definition of trade secrets in the European context retrieved from <https://iprhelppdesk.eu/sites/default/files/2018-12/european-ipr-helpdesk-your-guide-to-ip-in-europe.pdf>. Last accessed: 13/1/2023.

²⁰ See confidentiality agreements on the WIPO website: https://www.wipo.int/sme/en/documents/disclosing_inf_fulltext.html. Last accessed: 13/1/2023.

There are specific criteria to determine a confidentiality agreement as legally enforceable:

- The information must be secret, i.e. not readily accessible to people that normally deal with this kind of information;
- It must have commercial value;
- The owner must have taken reasonable steps to protect it.

3 APPROACH

Throughout the MOBI -TWIN project, key IP and exploitation and sustainability management will build on the pillars of identifying a common understanding concerning the background, foreground, ownership (including joint ownership), access and usage rights, dissemination and exploitation during and after the project development. In this respect, the MOBI -TWIN Exploitation and Sustainability plan applies on a comprehensive framework which separates the IP management processes of the project in the following stages:

1. Grant Agreement preparation stage;
2. Project implementation stage;
3. Post-project stage.

In this respect, the following figure illustrates the IPR management stages, as considered within MOBI -TWIN.

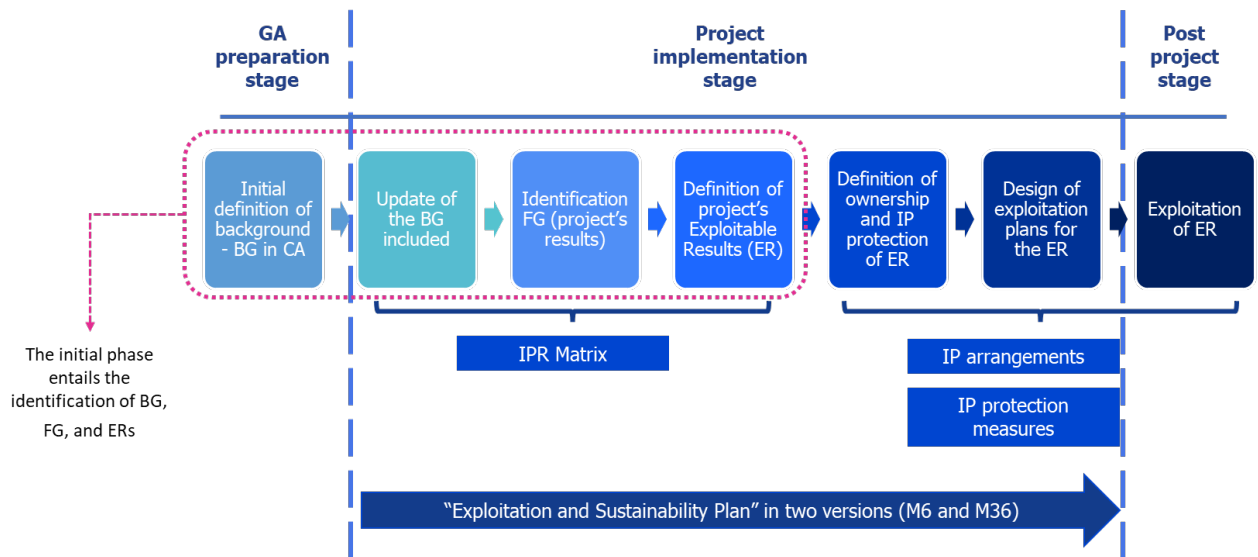


Figure 1. IPR Management stages

3.1 PREPARATION STAGE

Both the Grant Agreement and the Consortium Agreement constitute documents which include a description of several issues related to IPR. Their unique provisions represent a reference point for IPR issues within the project partners. Thus, **any further advancements regarding IPR actions to put in place by project partners will be facilitated under the underlying provisions.**

3.1.1 GRANT AGREEMENT

The Grant Agreement constitutes a contract which sets out the key rules and conditions of the project. It is signed between the EC and the MOBI -TWIN partners and represents the main contractual basis for MOBI -TWIN while its main points and sections which refer to IPR are included in article 16 “Intellectual property rights (IPR) — background and results —access rights and rights of use”. Under this scheme, the management of the MOBI -TWIN IP is regulated, whereas access rights and obligations related to the background are set. In addition, the Grant Agreement defines issues concerning the ownership and protection of the project’s generated results, as well as their exploitation and dissemination outcomes. Lastly, the MOBI -TWIN GA defines transferability and access rights to results.

3.1.2 CONSORTIUM AGREEMENT

The Consortium Agreement constitutes a contract among the partners of the MOBI -TWIN consortium which aims to define rights and obligations during the partnership for the purposes of carrying out the project's foreseen actions and activities.²¹ The Consortium Agreement minimises the probability of later disputes as it provides rules and responsibilities during the project and defines the access rights to be granted to the partners concerning the project. In addition, it outlines rights and responsibilities among the consortium members concerning issues of the IP.

The MOBI -TWIN Consortium Agreement main points and sections referring to IPR are included in:

Section 8 “Results”, that sets out provisions on ownership and joint ownership of results, as well as on their transfer and dissemination.

Section 9 “Access Rights”, which clarifies the access rights governing principles along with the access rights for the exploitation and dissemination purposes.

Attachment 1 “Background included” that presents the initial list of usable background.

3.2 IMPLEMENTATION STAGE

During the implementation stage of MOBI - TWIN, IP handling procedures are foreseen to be applied among the MOBI -TWIN partners to organise the results/assets management of the project. As the project continues, the focus will be on foreground identification, assets' ownership, access rights, and protection, as well as on the exploitation and commercialisation of the project's results. The MOBI -TWIN IPR management emphasises on establishing robust handling procedures of the IPR issues that are of strategic importance to the project in order to facilitate the exploitation of its results.

Therefore, **partners should focus on two different points:**

²¹ See IPR helpdesk for the definition of Consortium Agreement.

- Providing access rights to their knowledge for other partners to carry out their work on the project.
- Establishing early asset identification procedures to protect, disseminate and exploit the project's assets.

In this respect, key IP related issues in the MOBI -TWIN implementation phase include:

3.2.1. BACKGROUND IDENTIFICATION

During the first stages of MOBI -TWIN is important to identify the relevant knowledge, know-how and partners' data, that constitute the background of the project. Under this framework, the underlying background could be attached to the generated assets of the project, which, eventually, will help the determination of access rights, ownership issues and IPR.

3.2.2. FOREGROUND IDENTIFICATION

A core process of the MOBI -TWIN IP management is the project assets' identification to create a concrete mapping of the projects' assets and enhance the MOBI -TWIN IP portfolio. Therefore, all IP valuable assets within the project must be identified, listed, named, described and analysed in a systematic way.

3.2.3. RESULTS' OWNERSHIP

Partners have been asked (through the MOBI -TWIN IPR Matrix) to elaborate further on the provisions of the Consortium Agreement regarding the results' ownership. Special attention will be paid on **handling joint ownership issues**.

3.2.4. PROTECTION OF RESULTS

Effective exploitation of the innovative concepts and assets developed under the frame of MOBI -TWIN depends on the protection of the project's results. In particular, the project's results must adequately be protected if:²²

The project's results can reasonably be expected to be commercially exploited and;

²² See: <https://cms.eurice.eu/storage/uploads/news/files/Ip-management-in-collab-horizon-projects.pdf>. Last accessed: 13/1/2023.

Protecting them is possible, reasonable and justified (given the circumstances).

On this note, **when considering IP protection, MOBI -TWIN partners must consider their own interests along with the interests of the consortium.** Project partners should safeguard the identified exploitable MOBI -TWIN results with adequate protection schemes, which will offer protection period within a suitable geographical territory. The geographical territory should be agreed by the parties in advance, based on where the IP will be used. By default, Europe is considered to be the suitable territory in which the identified exploitable MOBI -TWIN results will be safeguarded, but it remains at the discretion of the interested parties to collectively reach an agreement regarding this matter.

Table 2 illustrates an indicative list of different protection instruments. Furthermore, additional protection instruments can be used when deemed suitable as the project activities progress.

Table 2. Indicative list of protection instruments

Subject Matter	Patent	Utility	Copyright	Trademark	Confidential Information
Invention	X	X			X
Software ²³	X	X	X		X
Scientific Article			X		
Technology Design			X	X	
Name of Technology				X	
Know How	X	X			X
Website			X	X	X

²³ Software patentability is still a debated issue given its exclusion as subject matter as by Article 52(2)(c) and (3) of the European Patent Convention (EPC). Source: IPR Helpdesk.

IP protection constitutes a tool to create value through the licensing, sale or commercialization of IP in the form of products and services. IP utilization is vital for a prospective commercial or industrial exploitation as it could contribute to support the branding of products and services both to customers and investors. It should be noted that the IP protection of an asset is not always mandatory.

3.2.5. EXPLOITATION OF RESULTS

The identified exploitable results and assets of MOBI -TWIN will be effectively exploited for commercial or any other relevant use as foreseen during the MOBI -TWIN project. In particular, the MOBI -TWIN consortium will seek exploitation opportunities of the project's results in:

- i) Further research activities;
- ii) Developing, creating or marketing a product or process;
- iii) Creating and providing a service;
- iv) Using them in standardisation activities;
- v) Potential Elaboration of the MOBI – TWIN dataset, Regional Attractiveness Index, Typologies of EU Regions and MOBI-TWIN Agent-Based and Dynamic Microsimulation Models to serve as the road map for the deployment of MOBI -TWIN's most significant Exploitable Results after the end of the project.

3.2.6. DISSEMINATION OF RESULTS

MOBI -TWIN partners are set to select the appropriate means for the dissemination of the project's results (e.g., scientific publications, publication on web sites, conferences, open access, etc.), based on the conditions set forth in the CA²⁴ and in other specific confidentiality agreements. All partners should be aware that they should first ensure the protection of a project's exploitable result and then proceed to dissemination actions of the underlying result.

3.3 POST PROJECT STAGE

At the project's formal conclusion in M36, the final version of D5.4 MOBI -TWIN Exploitation, sustainability and IPR management – updated will be submitted. It will

²⁴ See Section 8.4 of the MOBI - TWIN Consortium Agreement.

include the final outline of the use which the MOBI -TWIN consortium intends to make its exploitable foreground (including its final description and sector of application) and the related plans and time frame for their exploitation.

D5.4 will describe further the activities that will be developed to deploy the dissemination and exploitation of the project's achievements and the activities that aim to ensure the sustainability of the project's results. Additionally, D5.4 will include the final findings regarding IP issues and the final update of the IPR Matrix presenting in detail the applied and registered intellectual property rights.

The aforementioned deliverable will present the final advanced strategy for the exploitation and management of IPR and the sustainability after the project ends, including commercialisation streams, if any.

3.4 ROLE OF THE EXPLOITATION MANAGER

The Exploitation Manager (EM) is responsible for defining the MOBI -TWIN's Exploitation, IPR management and Sustainability Plan. The tasks include preparing the respective reports and ensuring that innovative ideas which come up during the project will be thoroughly examined and assessed for potential exploitation, while at the same time all project's BG and FG IPs are properly managed. To this end, the Exploitation Manager (WR), which is also the Project Coordinator (A0) and the Steering Committee to ensure the optimal management of all IP assets.

The Exploitation Manager, which is also the Project Coordinator will be responsible for the organization and management issues of MOBI -TWIN's IPR strategy implementation. With that said, it is considered as a good practice for a partner to inform and consult the EM and the PC accordingly before deciding whether to protect the results stemming from its underlying activities or not – particularly if the partner is considering a potential joint IP scheme.

Lastly, the Exploitation Manager has also a mediation role in case of IP conflicts (see Section 3.6), monitors project activities and feeds the development of the subsequent versions of this report in the context of MOBI -TWIN.

3.5 KNOWLEDGE MANAGEMENT OF THE PROJECT

The management of the IP constitutes an integral part of the overall MOBI -TWIN project management structure and thus it is important to establish a permanent IP monitoring during the project. In this respect, an efficient IPR management methodology should define, from the early stages of the project, the procedures under which newly generated/identified results will be handled during the MOBI -TWIN's lifecycle.

Efficient management of IP in MOBI -TWIN will be achieved through adopting a process able to identify IP results as well as to determine their adequate handling and protection. In this respect, it is essential to establish mechanisms that will guarantee that IP information is reliable and timely captured. In case WP Leaders identify a new asset that will be generated under their respective WP activities, the Exploitation Manager should be informed accordingly.

The MOBI - TWIN Exploitation Manager, which is also the PC, together with the partners producing the newly identified asset, constitute the parties that will handle the screening and the managing of any newly identified assets and their corresponding IP issues. The Exploitation Manager will direct the consortium partners to establish the most adequate and efficient IPR strategy based on the nature of the newly identified asset and the purposes of the MOBI -TWIN consortium.

To facilitate this process, the MOBI -TWIN Exploitation and Sustainability plan foresees to create and update a living IPR Matrix to be revised and extended with new pieces of assets and project results (FG).

3.6 IP CONFLICTS

In order to proactively avoid IP conflicts, project partners will be well-informed about IP rules and guided through the exploitation process not only via the IPR Matrix but also through the help of the Exploitation Manager. In this respect, project partners will identify their IPR assets, formulate their ownership and exploitation claims and if deemed necessary, transfer any relevant results to MOBI -TWIN's exploitable results according to the principle rights and obligations defined in the CA of the project.²⁵

The Exploitation Manager will provide assistance for the following indicative (and not exclusive) issues:

²⁵ See Section 8 of the MOBI - TWIN Consortium Agreement.

- Is there a possible misunderstanding about the definition of the exploitable result and therefore of the object of claims?
- Are there exploitation claims that should be further specified so that the partners can check the compatibility of their claims?
- Are the foreseen exploitation claims compatible with the ownership claims of the partners (related issue of access rights)?
- Are there any confidentiality issues e.g. on new knowledge of strategic importance for a partner and consequently the need for a confidential agreement?
- Are there any possible IP conflicts between the partners, both related to ownership and the related need for access rights and to exploitation claims?

In case of IP conflict, the Exploitation Manager will encourage conflicting parties to get in contact and pro-actively find solutions and sign written agreements whenever necessary. In case no agreement is achieved, an internal mediation process will be kicked off following the provisions of the MOBI -TWIN's CA. In case the IP issues remain unresolved after this first mediation procedure, a further mediation process in accordance with the WIPO Mediation Rules will be applied.²⁶

4 IPR MATRIX METHODOLOGY

The IPR Matrix will be used in the framework of the project to define the main IPR issues related to the Exploitation and sustainability strategy. This approach will facilitate the consortium partners to identify the background, foreground, and exploitable results. In addition, the IP protection measures, and the necessary agreements will be defined to ensure the successful exploitation of the project outcomes even after the completion of the project.

The IPR methodology follows four (4) interconnected steps:

1. Identification of the Background IP and definition of the access rights of the consortium partners.
2. Preliminary identification of the foreground IP that will be produced in the framework of the project's activities.

²⁶ See Section 11.8 of the MOBI - TWIN Consortium Agreement.

3. Initial identification of the exploitable assets/results that will be produced in the framework of the project and the interest for their exploitation.
4. Definition of the IPR protection of the identified exploitable assets/results that can be potentially exploited by the consortium partners.

At this early stage of the project, the objective of the Exploitation and Sustainability Plan of MOBI -TWIN is to define the main assets on the one hand and identify, to the extent possible, the FG and BG IPs of the project along with their corresponding access rights on the other hand. During the later stages of the project's implementation, the IPR methodology will be devised accordingly, in order to capture and integrate the evolution of the identified results and IPR approach of the project. In particular, the identification of exploitable assets would yield the need to establish an ownership regime among project partners for each one of the exploitable results. In addition, rules and conditions to get access to exploitable results need also to be considered. Finally, validation of the IPR needs to be meticulously employed. Under this framework, the structure of the IPR Matrix that will be used throughout the duration of the project is summarised in the following table.

Background (BG)	Foreground (FG)	Exploitable results (ER)
<ul style="list-style-type: none"> ● BG# ● Partner's Background ● Contributing Partner ● Short Description of BG ● Type of Protection ● How will it be utilised within MOBI -TWIN? ● Conditions to Use within MOBI -TWIN ● Conditions to use outside MOBI -TWIN ● Interest in further exploitation through 	<ul style="list-style-type: none"> ● FG# ● Project Outcome /Achievement/Result ● Related WP ● Contributing Partners ● Short Description of FG ● Related BG# (BG owner) ● Type of Protection ● Conditions to Use within MOBI -TWIN ● Interest in Further Exploitation of Project Results 	<ul style="list-style-type: none"> ● ER# ● Exploitable result ● Main partner ● Further contributing partner(s) ● Related FG# ● Related project task/deliverable (if applicable) ● Related BG# (BG owner) ● Proposition for the ER- owner ● Short description of the ER

MOBI -TWIN results	● Conditions to Use after the end of the Project	● Relevance for IP Protection
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4.1 IDENTIFICATION OF BACKGROUND IP

During the first stage of the IPR Matrix the Background that will be used during the implementation of the project were identified.

Table 3.IPR Matrix Background Template

#	Relevant Background	Contributing Partner (Partner Name)	Background Number (First number refers to the partners number, second number refers to project results order)	Short Description of BG	Type of Protection (patent, coyright, ...)	How will it be utilised within MOBI-TWIN?	Conditions to Use within MOBI-TWIN? (free to use, licence fee, restrictions, NDA..)	Conditions to use outside MOBI-TWIN? E.g. Is it confidential? Can it be shared with externals? Is it currently shared with externals? If yes, on what conditions?	Interest in further exploitation through MOBI-TWIN results (Yes/No)
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Multiple information regarding the Background IP is recorded in the respective template. In the second column of the table a short name of the Background is given. Then, the responsible partner is mentioned, and a number is assigned related to the each partner (following GA's order – so WR is no. 1, AUTh no.2 etc.) and the number of assets. In the 5th column of the table a short more detailed description regarding the BG is offered. Furthermore, the partners define the Type of protection in terms of patents, utility models, copyrights, trade and service marks, trade secrets, creative commons licenses, confidentiality agreements, among others. In column seven (7), the partners define how this BG will be used in the framework of the project, and then in columns

eight (8) and nine (9) describe the conditions under which the consortium partners and the stakeholders outside the consortium respectively can use the BG. Finally, the partners should state their interest for further exploitation of the BG in the framework of the project through the produced results.

The background IP was registered by the project partners by M6, as perceived at that stage of the project. The results are presented in the next chapter.

4.2 IDENTIFICATION OF FOREGROUND IP

In the second stage of the IPR Matrix the partners have identified the Foreground that will be produced during the project’s activities.

Table 4 IPR Matrix Foreground Template

Work Package	PR number	Project Result (PR) /Achievement	Specific Project Result	Main Contributing Partner (Partner Name)	Further Contributing Partner(s)	Related Background Number	Short Description of FG	Foreground Number (First number refers to the partners number, second number refers to project's results order)	Type of Protection (patent, copyright ..)
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The above template is used by the consortium partners to identify the foreground IP. In the first four columns the MOBI -TWIN project achievements are listed along with the respective WP. Then, the main contributing partner is mentioned. Usually, if an FG comes as a direct result of a Task, then the main partner is the Task leader. In addition, the rest of the contributing partners are also mentioned. Similarly, the contributing partners are usually the partners contributing to the Task that the FG emerges from. In the 7th column the number of the related Background IP is mentioned while in column eight (8) is given a short description of the FG. Furthermore, a Foreground number is assigned to the respective FG. Similarly, to the background identification template, the

partners also define the type of protection, the conditions under which the FG can be used by the consortium partners and the interest for the commercialization through the project results. Finally, in the last column, the conditions (e.g., free to use, license fee, etc.) to use after the end of the project shall be indicated by the project partners.

The identified Foreground IP up until M6 can be found in the respective chapter.

4.3 IDENTIFICATION OF EXPLOITABLE RESULTS

In the third stage and based on the identified FG the consortium partners will define the exploitable results and the IPR management procedures:

- i) Protection
- ii) Definition of access rights
- iii) Exploitation pathways

The main aim of this third stage of the IPR Matrix where the exploitable results and the main contributors will be defined will be:

- To identify IP ownership and exploitation claims, as well as pro-actively indicate possible conflicts for each exploitable result; and
- To support decisions on issues pertaining to IP protection, in order to timely make the needed steps in this regard, including any potential IP agreements (e.g. for joint ownership, providing access rights or even an NDA for confidentiality).

The next table will be used throughout the whole duration of the project in order to deploy the third stage of the IPR Matrix and identify the exploitable results.

Table 5. IPR Matrix Exploitable Results Template

ER number	Exploitable Result (ER)	Short Description	Main Partner(s)	Contributing Partners	FG number (related)	BG number (related)	Proposition for ER - Owner (if any)	Relevance for IP protection (if any)	M - Making the m and selling the m	U - Using the m	L - License the m	S - Providing as a Service	O - Others	Most promising path	Further Comments (Please insert any further comments that you might have)
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In the first three columns, the number, a short name and a brief description of the exploitable results will be mentioned. In the next two columns the main responsible partner and the rest contributing partners will be listed. In column 6th and 7th, the number of the related FG and BG will be indicated. In addition, in the next column the proposed owner of the exploitable result will be defined, while in column nine (9) the relevance for IP protection will be indicated by the responsible partner. The next five (5) columns indicate the five (5) different categories of the exploitation claims.

- **M:** Making a product and selling it.
- **U:** Using the project result internally for further development, for instance:
 - To develop something else for sale; or
 - For R&D departments (public or private) to use the results in new research projects.
- **L:** Licensing the project result to third parties.
- **S:** Providing a Service, such as consultancy, etc.
- **O:** Others

The partner responsible for the exploitable results with the support of the contributing partners, the coordinator and the exploitation manager shall choose which exploitation claims best fit the ER. In the final column the most promising exploitation claim shall be indicated.

5 OVERVIEW OF MOBI - TWIN'S ASSETS, BACKGROUND AND FOREGROUND IP

5.1 IDENTIFIED ASSETS OF MOBI- TWIN

The table below presents the identified assets and their short description as were defined by the consortium partners during these early stages of the project.

Table 6. Identified Assets

Asset	Description
Drivers and patterns of spatial mobility and immobility	Drivers and patterns of spatial mobility and immobility considering demographic and historical trends, gender, age, social and labour market characteristics.
MOBI-TWIN open dataset	The MOBI-TWIN open dataset for further investigating the effects of twin transition on spatial mobility, towards increasing the evidence-based policy design targeting regional inequality, sustainability and rural development
Regional Attractiveness Index	Regional Attractiveness Index for EU regions that can be used to re-define potential diversifications that may arise between urban-rural, inter-regional and intra-EU mobility during Twin Transition.
Typologies of EU regions	Typologies of EU regions that can help in developing policies best aligned with the needs and specificities of different areas.
MOBI-TWIN agent-based and dynamic microsimulation models	The MOBI-TWIN agent-based and dynamic microsimulation models that will enable us to assess the impact of spatial mobility on European demographics, society, welfare system and labour market.
Policy recommendations	Policy recommendations offering insights and options that the EU along with its Member States and their Regions can use for harnessing the positive elements of mobility and limiting the negative effects.
Scientific publications	Scientific publications for knowledge diffusion of the main scientific outcomes of the project to an extended academic network, where they could be further exploited to promote knowledge on the links between spatial mobility and twin transition.

Asset	Description
Scenario building and assessment different predictions' effects on spatial mobility	The results will allow to identify the best variables and patterns to take into account on the spatial mobility in the 5 regions considered by MOBI-TWIN, as well as other EU regions.

5.2 BACKGROUND IP

The project partners preliminary identified the background IP to be used to achieve the objectives of MOBI - TWIN. The Background IP is presented in Table 7:

Table 7. MOBI - TWINS's Identified IP BG

No.	Relevant BG	Contributing Partner	BG No.	Short Description of BG	Type of Protection	How will it be utilised within MOBI -TWIN?	Conditions to Use within MOBI-TWIN	Conditions to use outside MOBI -TWIN	Interest in further exploitation through MOBI-TWIN results
1	Existing knowledge and know-how on IPR and sustainability management	WR	BG 1.1	Development of tools to manage and monitor project's IPR	Trade secrets	IPR well, smoothly and proactively managed	Free to use within the project	Subject of licensing agreement	No
2	Existing knowledge and know-how on large surveys	WR	BG 1.2	Development, launch and implementation of the EU large surveys	Trade secrets	WR will lead An EU level survey among 10,000 participants (T1.2)	free to use within the project	Subject of licencing agreement	Subject of licensing agreement
3	Know-how and expertise in statistic and econometric	UB	BG. 4.1	UB holds a wide knowledge on developing statistic and econometric analysis of social and economic phenomena	Other	UB will use the current knowledge in order to implement and develop the	UB will use its current knowledge without any restriction	NO conditions are required for using the current know-how of UB	No

No.	Relevant BG	Contributing Partner	BG No.	Short Description of BG	Type of Protection	How will it be utilised within MOBI-TWIN?	Conditions to Use within MOBI-TWIN	Conditions to use outside MOBI-TWIN	Interest in further exploitation through MOBI-TWIN results
	analysis					assigned tasks within the project			
4	Software and Hardware Components, applications and libraries	UB	BG 4.2	UB is endowed of facilities and computers that will be used to perform the desk analysis	Other	UB will use the actual facilities and computers to implement and develop the assigned tasks within the project	UB will use its current technological and physical facilities without any restriction for the implementation of the tasks.	No conditions are required for using UB's facilities and computers	No
5	Digital Geography Lab (DGL) Data Library	UH	BG 5.1	Database of big data sources with the GDPR compatible secure workflow developed and owned by DGL.	Trade secrets	Will be used to execute the tasks assigned to UH as well as to prepare the deliverables UH is responsible for.	DGL Data Library usage is limited to aggregated datasets prepared by the members of DGL as input data for the MOBI-TWIN database for the use of project partners only. The usage of the DGL Data Library is limited for the duration of the project implementation only. The partners will not be granted access to the DGL Data Library.	The usage of the aggregated datasets from DGL Data Library as input data to the MOBI-TWIN database will only be used during and after the project according to existing licensing terms and conditions.	Yes
6	Experience	POLIMI	BG	As a team, our members	Trade	The literature can	free to use within the project	TBD	yes

First

No.	Relevant BG	Contributing Partner	BG No.	Short Description of BG	Type of Protection	How will it be utilised within MOBI-TWIN?	Conditions to Use within MOBI-TWIN	Conditions to use outside MOBI-TWIN	Interest in further exploitation through MOBI-TWIN results
	in research in remote working and collaborative spaces		7.1	collectively possess a profound academic background in the field of remote working and collaborative spaces research. The team is involved in various projects related to this topic and is well-equipped to assist Mobi-Twin in sourcing and providing pertinent literature on the subject.	secrets	be added to the project considering its relevance for workers spatial mobility			
7	Experience in research on the effects of COVID-19 pandemic on remote working and collaborative spaces	POLIMI	BG 7.2	Drawing from extensive research experience, our team specializes in exploring the impact of the COVID-19 pandemic on remote working and collaborative spaces. The members of the team have a large amount of	Trade secrets	The team can contribute to the analysis concerning the effects of COVID-19 pandemic on spatial mobility	free to use within the project	TBD	yes

No.	Relevant BG	Contributing Partner	BG No.	Short Description of BG	Type of Protection	How will it be utilised within MOBI-TWIN?	Conditions to Use within MOBI-TWIN	Conditions to use outside MOBI-TWIN	Interest in further exploitation through MOBI-TWIN results
				publications about the topic.					
8	Experience in research on the effects of COVID-19 pandemic on remote working and collaborative spaces	POLIMI	BG 7.3	Drawing from extensive research experience, our team specializes in exploring the impact of the COVID-19 pandemic on remote working and collaborative spaces. The members of the team has a large amount of publications about the topic.	Trade secrets	The team can contribute to the analysis concerning the effects of COVID-19 pandemic on spatial mobility	free to use within the project	TBD	yes
9	Expertise in microsimulation	POLIMI	BG 7.4	Construction, update, and application of microsimulation models (such as the European tax-benefit model EUROMOD) for distributional analysis	Trade secrets	Analysis of the effects of the distributional and fiscal effects of spatial mobility in EU regions	free to use within the project	The model itself will be non-proprietary (and hence free to use for all). However, restrictions typically apply to the input data (income surveys, population censuses and so on) provided by national	yes

No.	Relevant BG	Contributing Partner	BG No.	Short Description of BG	Type of Protection	How will it be utilised within MOBI-TWIN?	Conditions to Use within MOBI-TWIN	Conditions to use outside MOBI-TWIN	Interest in further exploitation through MOBI-TWIN results
								statistical agencies.	
10	Experience in Scenario Building	POLIMI	BG 7.5	Our team has competencies in scenario planning, using systematic methods to develop and evaluate various scenarios. This proficiency can be used to provide well-informed strategic decisions amid uncertain and complex circumstances.	Trade secrets	Assessing the effects of changing spatial mobility patterns on EU regions	free to use within the project	TBD	yes
11	Expertise in policy recommendations of spatial mobility during twin transition in the EU"	POLIMI	BG 7.6	Politecnico has high level expertise in providing policy recommendations to different institutions and frameworks.	Trade secrets	"Setting in motion new regional policies that could maximise the impact	free to use within the project	TBD	TBD
12	Expertise in	POLIMI	BG	The team members have	Trade	econometric	free to use within the project	TBD	TBD

No.	Relevant BG	Contributing Partner	BG No.	Short Description of BG	Type of Protection	How will it be utilised within MOBI-TWIN?	Conditions to Use within MOBI-TWIN	Conditions to use outside MOBI-TWIN	Interest in further exploitation through MOBI-TWIN results
	econometric analysis		7.7	competencies in different econometric methods (cluster analysis, factor analysis, machine learning methods, standard econometric and spatial econometric techniques)	secrets	analysis at different stages of the project			
13	Existing knowledge and know-how on development of policy recommendations	RDI	BG 8.1	RDI has a strong expertise in developing policy tools, roadmaps and policy recommendations for tackling socioeconomic issues	Trade secrets	RDI will utilize the existing knowledge in order to develop policy tools for tackling regional imbalances triggered by spatial mobility during twin transition	free to use within the project	Deliverables that will be produced either in the form of policy reports, policy tools or academic publications would be open access to internal and external users, to policy makers, researchers, research organizations and institutes	no
14	Software and Hardware Components, applications and libraries	ACCELI	BG 9.1	Software and Hardware Components, applications and libraries previously developed by ACCELI	Copyright	Will be used to execute the tasks assigned to ACCELI as well as to prepare the deliverables	ACCELIGENCE's background software and hardware usage is limited to the project partners only and for the duration of the project implementation only. The	ACCELIGENCE's background software and hardware applications, components or parts included in the project result will only be used according to existing	no

No.	Relevant BG	Contributing Partner	BG No.	Short Description of BG	Type of Protection	How will it be utilised within MOBI-TWIN?	Conditions to Use within MOBI-TWIN	Conditions to use outside MOBI-TWIN	Interest in further exploitation through MOBI-TWIN results
						ACCELI is responsible for	partners will be granted access, as needed for project implementation, to internal information and documentation regarding ACCELIGENCE background software and hardware. The partner will not be granted access to ACCELIGENCE background software source code and hardware blueprints. The partners will not copy, reproduce or otherwise use the ACCELIGENCE know-how and expertise for any other purposes than the current project implementation.	licensing terms and conditions. In case of conflicts between project results and ACCELIGENCE background software and hardware licensing agreements, the ACCELIGENCE background software and hardware terms and conditions will prevail. The partners and final users if the project results will not copy, reproduce or otherwise use the ACCELIGENCE background software or hardware for any other purposes than the ones granted through project results license agreements.	
15	Know-how and expertise	ACCELI	BG.	Know-how and expertise in software and hardware	Copyright	Will be used to execute the tasks	ACCELIGENCE know-how and expertise in software and	The access to and usage of the ACCELIGENCE know-	no

No.	Relevant BG	Contributing Partner	BG No.	Short Description of BG	Type of Protection	How will it be utilised within MOBI -TWIN?	Conditions to Use within MOBI-TWIN	Conditions to use outside MOBI -TWIN	Interest in further exploitation through MOBI-TWIN results
	in software and hardware implementation services		9.2	implementation services (analysis, design development, testing, implementation training, technical support).		assigned to ACCELI as well as to prepare the deliverables ACCELI is responsible for	hardware implementation services will be available for consulting, usage and adaptations/ modifications for project implementation purposes. The partners will not copy, reproduce or otherwise use the ACCELIGENCE know-how for any other purposes than the current project implementation. The intellectual property right over all the modifications of the documents and information provided by ACCELLIGENCE will be vested in ACCELIGENCE after project implementation.	how and expertise in software and hardware implementation services will be limited only to the project implementation period and will not be available after that period neither for partners nor for the final users of the project results.	

5.3 FOREGROUND IP

A preliminary identification of the Foreground IP took place during the initial stages of the project and can be found in Table 8. Additional updates or modifications are expected in the updated version of the Exploitation, IPR management and sustainability plan, which will correspond to the progress of the project and the produced results and knowhow.

Table 8. MOBITWIN's Identified IP FG

WP	PR No.	Project Result (PR) /Achievement	Specific Project Result	Main Contributing Partner(s)	Further Contributing Partner(s)	Related BG No.	Short Description of FG	FG No.	Type of Protection	Conditions to Use within MOBI - TWIN	Interest in Further Exploitation of MOBI -TWIN Results	Conditions to Use after the end of the Project
WP 1	PR 1.1	Drivers and patterns of spatial mobility and immobility and twin-transition related mobility factors.	Compilation of drivers, forms and effects of spatial mobility	AUTH	WR, UH, UB, POLIMI	BG 7.1, 7.3	This study performed as a literature review produced a report on the theoretical frameworks and latest empirical studies concerning spatial mobility, its drivers and its impact on regional inequality, rural development and sustainability, as well as the definition and geography of demographically declining and left-behind areas as they are currently formed by spatial mobility outcomes.	FG 1.1.	TBD	free to use	TBD	TBD
			List of drivers affecting spatial (im)mobility during the	UB	AUTH, UH, WR	BG 1.2, 5.1	Results of the analysis performed based on the full dataset to explore the effects of various factors on spatial mobility as a whole, focusing on	FG 1.2	TBD	free to use	TBD	TBD

WP	PR No.	Project Result (PR) /Achievement	Specific Project Result	Main Contributing Partner(s)	Further Contributing Partner(s)	Related BG No.	Short Description of FG	FG No.	Type of Protection	Conditions to Use within MOBI-TWIN	Interest in Further Exploitation of MOBI-TWIN Results	Conditions to Use after the end of the Project
			Twin Transition				individual characteristics, regional characteristics, labour market conditions, framework conditions and life stages.					
	PR 1.2	MOBI-TWIN open dataset	Dataset on the drivers, forms and effects of spatial mobility on EU regions	WR	AUTH, UH, UB, RUG, POLIMI	BG 1.2,, 4.1, 4.2, 5.1, 7.3	Dataset collecting results from the large scale survey performed in 5 EU countries (IT, SP, FI, NL, GR) and at the EU level resulting. The dataset contains information on individual factors affecting spatial mobility choices related twin transition.	FG 1.3	TBD	TBD	TBD	TBD
			Complete MOBI-TWIN Database	UH	AUTH, UB, WR	BG 1.2,, 4.1, 4.2, 5.1, 7.3	Large complete dataset for the project created collecting, storing and combining existing survey and registered datasets (e.g. Eurostat; Eurobarometer; EU SILC; EU LFS) with publicly available novel big data sources – processed data products from mobile phone data and Facebook and raw data from Twitter	FG 1.4	TBD	TBD	TBD	TBD

First

WP	PR No.	Project Result (PR)/Achievement	Specific Project Result	Main Contributing Partner(s)	Further Contributing Partner(s)	Related BG No.	Short Description of FG	FG No.	Type of Protection	Conditions to Use within MOBI-TWIN	Interest in Further Exploitation of MOBI-TWIN Results	Conditions to Use after the end of the Project
WP 2	PR 2.1	Regional Attractiveness Index	Mapping of current mobility flows in EU regions	UH	TBD	BG 5.1	via Academic API. Analysis of temporal trends of mobility flows by mobility form since 2010, and address socio-economic and geographical differences (e.g. age, gender, education) in mobility flows.	FG 2.1.	Copyright	Free to use	No	Free to use
			List of definitions of regional attractiveness and regional typologies in EU regions	AUTH	TBD	N/A	Investigation regarding the existing definitions of regional attractiveness, alongside the factors that have been found significant for spatial mobility choices. This is completed with a review of the existing typologies for EU regions and of the ways in which twin transition can help them overcome potential barriers.	FG 2.2.	Copyright	Free to use	No	Free to use
			Methodology to develop the Regional Attractiveness Index	UB	TBD	BG 4.1, 4.2	Methodology and selected variables included to develop a Regional Attractiveness Index for EU regions, considering	FG 2.3.	Copyright	Free to use	No	Free to use

WP	PR No.	Project Result (PR) /Achievement	Specific Project Result	Main Contributing Partner(s)	Further Contributing Partner(s)	Related BG No.	Short Description of FG	FG No.	Type of Protection	Conditions to Use within MOBI - TWIN	Interest in Further Exploitation of MOBI -TWIN Results	Conditions to Use after the end of the Project
							personal aspects; socio economic conditions; ecological factors and connectivity indicators.					
	PR 2.2	Typology of EU regions based on the Regional Attractiveness Index	Typology of EU regions based on the Regional Attractiveness Index	UB	TBD	BG 4.1, 4.2	A cluster analysis to group EU regions based on their attractiveness characteristics, emphasis given to types of individuals and forms of mobility.	FG 2.4.	Copyright	Free to use	No	Free to use
			Classification of the EU regions following the creation of the Attractiveness Index	UB	TBD	BG 4.1, 4.2	The classification of the EU regions provides insight on the heterogeneity related to spatial mobility among them. Insights on the Lombardy region are included.	FG 2.5.	Copyright	Free to use	No	Free to use
WP 3	PR. 3.1	MOBI-TWIN agent-based and dynamic microsimulation model	Methodology to develop the MOBI-TWIN model	RUG	TBD	n/a	Design of the microsimulation and agent-based models. A three-step process including: (i) the development of a dataset with a pan-European coverage at regional level based on EU-SILC and EUROSTAT data;	FG 3.1	TBD	TBD	TBD	TBD

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							(ii) the development of the source code of the MOBI-TWIN model, which will be used to simulate spatial mobility flows for estimating their effects on EU regions; (iii) the validation of the model.					
	PR. 3.2	Scenarios for assessing the effects of spatial mobility on EU regions during twin transition	Four different types of scenarios in terms of their main dimensions (spatial mobility and digital transition) and their probability to happen.	ESF	TBD	n/a	A report presenting in detail the four different types of scenarios developed considering the various forms of spatial mobility and the level of digital transition as they have been formed in the literature. Presented along with their main dimensions (spatial mobility and digital transition) and their probability to happen	FG 3.2	TBD	TBD	TBD	TBD
	PR. 3.3	Effects of spatial mobility due to the Twin Transition	Effects of spatial mobility on selected left-behind and	POLIMI	TBD	BG 7.1, 7.2, 7.3, 7.4-7.7	A report presenting the effects of spatial mobility on selected left-behind and demographically declining areas in terms of	FG 3.3	TBD	TBD	TBD	TBD

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			demographically declining areas				demographics, society, welfare system and labour market.					
			Effects of spatial mobility on regional inequality and sustainability	RUG	TBD	n/a	A report presenting the effects of spatial mobility on regional inequality and sustainability in the identified EU regional typologies.	FG 3.4	TBD	TBD	TBD	TBD
WP 4	PR 4.1	Mapping of project elements aligned with RRI principles with clear KPIs	Methodology to map and align project elements with RRI principles	ESF	TBD	n/a	A report mapping elements of the project, a plan to align them with the RRI principles and a set of KPIs that will be used to monitor the overall RRI dimension of the project.	FG 4.1	Creative Commons License	free to use acknowledging the authors, the project and the EC	no	free to use acknowledging the authors, the project and the EC
	PR 4.2	MOBI-TWIN Policy Recommendations	Review of EU policies and risk mitigation measures	RUG	TBD	n/a	Review of EU policies and risk mitigation measures affecting freedom of movement between regions.	FG 4.2	Copyright	free to use acknowledging the authors, the project and the EC	no	free to use acknowledging the authors, the project and the EC
			Results of the regional and cross-	ESF	TBD	n/a	A report on the results of five regional dialogue forums held	FG 4.3	Copyright	free to use acknowledging the	no	free to use acknowledging the

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			regional multi-stakeholder dialogues				in person during one full day at the 5 participating regions and a cross-regional dialogue forum held online.			authors, the project and the EC		authors, the project and the EC
			Policy Recommendations	RDI	TBD	BG 8.1	Policy recommendations developed by MOBI-TWIN on tackling regional imbalances triggered by spatial mobility during twin transition.	FG 4.4	Copyright	free to use acknowledging the authors, the project and the EC	no	free to use acknowledging the authors, the project and the EC
WP 5	PR. 5.1	MOBI-TWIN Web Portal	MOBI-TWIN web page along with the online content	ACCELIGENCE	ALL	BG 9.1, 9.2,	Project website - main online space for public level communication which will provide general project information, news, outcomes. And dissemination materials.	FG	Copyright	free to use	no	free to use within MOBI_TWIN subject to GA and CA restrictions

6 CONCLUSION

This initial version of the report on Exploitation, IPR Management and Sustainability Plan has presented the main elements of the IPR approach, the methodology employed in this respect as well as provided an overview of the project's assets, background and foreground IP. To facilitate the identification and the management of MOBI - TWIN's assets, a dedicated tool has been elaborated under the supervision of the Exploitation Manager, the IPR Matrix.

The report will regularly be updated based on the development of the project and the discussions with the consortium partners. If necessary, intermediate versions of the report will be made available to the EC throughout the project implementation.

The final version of the MOBI - TWIN Exploitation, IPR Management and Sustainability Plan report will be updated in M36 of the project, depicting the latest status in terms of project results' identification, type of protection, ownership and access rights definition, with the support of all partners. The final version of the report will provide more details on the exploitable assets of the project and the framework of their exploitation, to support the sustainability and continuation of MOBI - TWIN's outcomes.

The Exploitation Manager is responsible for keeping the Exploitation and Sustainability Plan updated. The Exploitation Manager: a) will monitor the project's activities as they evolve; b) will timely capture innovation opportunities that may go unnoticed; c) will identify any potential conflicts of interest and facilitate their resolution before the end of the project. Thus, a proactive smooth post-project exploitation of MOBI - TWIN results will be fostered.



TWIN TRANSITION AND CHANGING PATTERNS OF SPATIAL MOBILITY: A REGIONAL APPROACH

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Universitat de Barcelona	Spain
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Fondation Europeene de la Science	France
Politecnico di Milano	Italy
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