

# Searchable multi-dimensional Data Lakes supporting Cognitive Film Production & Distribution for the Promotion of the of the European Cultural Heritage

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## Document Sheet

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Reproduction is authorised provided the source is acknowledged. SCENE's methodology (GA No. 101095303) for the project's Innovation and IPR management builds on existing expertise, tools and templates developed internally by White Research while also taking into account European Commission guidelines and best practices available in literature. Part of the standard methodology adopted has already been developed in previous research projects where White Research was a beneficiary, such as the INCISIVE (GA No. 952179) project. This approach ensures optimal resource allocation and adherence to project requirements as the effort claimed by the partner(s) was appropriately reflecting the time saved in using pre-existing documents. Ad hoc and tailored modifications were integrated to the methodology used by SCENE to comply with GA conditions, EU recommendations and project specificities. This report presents the adjusted methodology, as it was further developed and applied within SCENE.

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## Abbreviations

Abbreviation	Concept
ADR	Alternative Dispute Resolution
BG	Background IP
CA	Consortium Agreement
CC	Creative Commons
D&E	Dissemination and Exploitation
DoA	Description of Action
DRM	Digital rights management
EC	European Commission
EEN	Enterprise Europe Network
EM	Exploitation Manager
EPO	European Patent Office
ER	Exploitable Result
GA	Grant Agreement
HE	Horizon Europe
HRB	Horizon Results Booster
HRP	Horizon Results Platform
IMU	Inertial Measurement Unit
IP	Intellectual Property
IPR	Intellectual Property Rights
KER	Key Exploitable Result
NDA	Non-Disclosure Agreement
NoI	Network of Interest
OTT	Over-the-top
R&D	Research and Development
R&I	Research and Innovation
ROL	Results Ownership List
SMA	Social Media Account
SMEs	Small and medium-sized enterprises
UWB	Ultra-wideband
VoD	Video on Demand
WP	Work Package



## Publishable summary

Sound Innovation and Intellectual Property Rights (IPR) management is critical in order to enable the successful exploitation and market deployment of the wide range of SCENE's assets. Therefore, the consortium of SCENE places great emphasis on managing innovation and IPR in the framework of the project, with a view to effectively paving the way for the smooth exploitation and sustainability of its results following its completion.

Along these lines, the current report presents the **interim (2<sup>nd</sup>) version of SCENE IPR Management and Ecosystem Development**. In particular, this deliverable defines the IPR work performed within WP6 - Dissemination, Exploitation and Synergies. It sheds light on the key terms about the management and protection of intellectual property and lays down the main components of the relevant methodology to be applied throughout the project. Moreover, this document presents the work towards the development of a vibrant ecosystem of stakeholders who are considered to be direct users of SCENE's results. The rationale and the steps followed for the establishment of SCENE Network of Interest (NoI) are presented along with the preliminary analysis of the network and the performed activities.

A detailed description of the project results, along with the identification of the contributing partners, protection types and access rights are provided within the report. An overview of SCENE **Exploitable assets**, as envisioned at this stage of the project, is also presented, as well as the updated considerations of **Background (BG) IP Knowledge and (Key) Exploitable Results**, 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. In M36, the final version will re-examine the characteristics of the project's assets and will guide post-project exploitation of SCENE results. **As such, several elements presented in this document are considered explanatory, preliminary and subject to revision and change; therefore, their status will be validated during the final version (D6.9) of the IPR management strategy.**





# 1 Introduction

## 1.1 Objective of SCENE's Innovation Management strategy

A main objective of the project's Innovation Management strategy is to monitor R&D activities during the implementation of the project carefully, keeping track of any knowledge or Intellectual Property (IP) brought to it by project partners as well as of results generated from the research activities.

Therefore, the Innovation Strategy sets the ground for monitoring the protection of IP and Intellectual Property Rights (IPR) within the consortium, which eventually will support the creation of value from the exploitation and use of the project results and facilitate further innovation from the technologies developed during the project, in addition to their successful deployment.

Besides the protection of exploitable results (ERs), the objectives of the Innovation Strategy also reflect the intention to ensure and support the exploitation and sustainability of project outcomes and their wider availability to all relevant stakeholders. Importantly, when relevant to each result, exploitation of results will rely on commercial and scientific activities that will take place after the project's completion.

Following a structured strategy that relies on best practices and official EC guidelines will ensure that all the innovative ideas, methodologies, and results stemming from SCENE are exhaustively identified and pertinently protected, thus helping maximise their impact by being made widely available to other stakeholders through commercialisation or, when applicable, scientific or other type of use.

To this end, the specific objectives of the SCENE Innovation Management strategy are the following:

- Define the iterative approach that will yield a comprehensive identification of Background (BG) and the results that emerge from all the activities within the lifecycle of the project.
- Define the methodological framework for the management of all BG and (exploitable) results, including the definition of rights for access and reuse within the project and the potential IPR protection options.
- Develop a common understanding among the consortium partners concerning IP-related concepts, as well as a risk mitigation approach, in order to prevent – or, if not possible, eventually resolve – potential IP conflicts.
- Deliver an exhaustive identification of IPR management strategies for all exploitable results of the project as well as from each partner's perspective.
- Relatedly, define ownership for each exploitable result, thus also serving as guidance for partners when they draft their own joint ownership agreements by not only identifying ownership shares but also other underlying usage conditions and responsibilities.
- Help define the more detailed exploitation strategies for the project's key exploitable results (KERs) in the relevant project tasks by not only identifying the relevant types of exploitation for each KER but also discussing how the KERs cover the needs of and add value to the main relevant stakeholders.
- Define the roles and responsibilities of each project partner to contribute to the project's innovation management.

Successfully fulfilling most of the previous objectives is contingent upon collecting timely input provided and, where relevant, agreed upon by all relevant partners; hence the (pro)active involvement of the consortium in this task is crucial.

## 1.2 General aim and ambition of Innovation Management activities

In the context of international research projects, it is crucial to understand how to manage IPR as their inadequate handling could cause real problems concerning the validity of the rights granted or the risks of legal disputes between partners<sup>1</sup>.

Ensuring that **IP is timely identified and that the ownership and protection of the generated IP are adequately allocated** will help with the **smooth reuse and exploitation of the project results**. In order to record all the relevant activities linked to the conception and development of an invention, it is advisable to keep proper track of the innovation process, providing crucial evidence regarding the date of the invention, its authorship and ownership. A timely disclosure and accurate description of the invention would also help in the choice of whether to pursue further IPR protection and what means or type of protection to use (e.g., patent, utility model, design, trade secrets). Thanks to these records, partner organisations and consortium partners will be able to monitor the creation of results with exploitable potential within the frame of the project, and to have a clear understanding of the ownership of each IP asset and result, their rights to access/use them, and the pertinent ways to protect them.

Ultimately, creating value for partners, relevant stakeholders, and society as a whole is the main objective of publicly funded research and innovation projects. Innovation management efforts are essential to support project partners in boosting the value and impact generated by their efforts beyond the consortium. Defining a tailored and appropriate innovation management strategy is also important in order to support consortium partners with the necessary balance to both comply with Open Science requirements, while at the same time ensuring the protection of IP to support the commercial exploitation of the project results.

In general, IPR promote economic, social, and cultural progress by stimulating creative work and technological innovation. For small and medium-sized enterprises (SMEs), particularly, a proper IP strategy and protection can help enhance market growth and support competitiveness, prevent loss of market share, prevent reputational damages, and give prospective investors the incentive to finance their activities<sup>2</sup>.

## 1.3 Obligations under Horizon Europe

A main objective of the SCENE project's IPR Management strategy is to comply with the explicit obligations that beneficiaries of Horizon Europe (HE) programmes must fulfil. In general, these rules aim to ensure that partners in a collaborative R&I project make good use of all the knowledge, IP and results from the project to maximise its impact and added value.

The obligations discussed below may need to be fulfilled either individually or as a consortium. Building upon a clear understanding of these obligations, the present IPR Management strategy has been formulated in a way that will ensure that following it will provide such compliance. To this end, this section reviews EC guidelines and summarises the most relevant obligations under Horizon Europe related to Innovation Management.

HE rules establish guiding principles for Innovation Management concerning aspects such as ownership, IP protection, access rights, exploitation of project results, etc. Most of these rules are delineated in the Grant Agreement (GA) and the Consortium Agreement (CA). While the GA contains 'default' overarching rules, the CA specifies certain rules further according to what is agreed upon by the project's consortium.

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<sup>1</sup> European IP Helpdesk (2022a).

<sup>2</sup> European IP Helpdesk & Enterprise Europe Network (2024).



**Obligation to protect.** A key obligation for HE beneficiaries is that the project's results must always be adequately protected if (a) they can reasonably be expected to be commercially exploited and (b) such protection is possible, reasonable and justified. Such 'adequate' protection of results implies that protection shall be attained for an appropriate period of time and with an appropriate territorial coverage.

Innovation management activities must, therefore, ensure that exploitable results (ERs) will be captured, assessed and appropriately protected, in order to support their commercial exploitation. This includes the obligation to define concrete measures for Key Exploitable Results (KERs)<sup>3</sup>.

**Mandatory Results Ownership List (ROL).** Under Horizon Europe, beneficiaries must include a list of KERs in their final reporting, where the following information pertaining to each KER must be present<sup>4</sup>: (i) description, (ii) ownership status, (iii) sector of application, and (iv) protection measures - geographical coverage (if applicable). As a minimum, the ownership status information must include whether the ownership is single or joint, the name of the owner(s), the country of establishment of the owner(s) and whether the results will be exploited by the owner(s)<sup>5</sup>. Failure to present this ROL will block both the submission of the final periodic report and the final payment.

**Obligation to exploit.** Another crucial obligation is the responsibility of beneficiaries to make every effort to exploit the project's KERs that they own: consortium partners must, up to four years after the end of the project, take measures to exploit their results either directly or indirectly<sup>6</sup>. In particular, indirect exploitation refers to the exploitation by another legal entity through the transfer or licensing of the IPR related to the KER.

A subsequent obligation is formalised in HE' Model GA as follows: *"If, despite a beneficiary's best efforts, the results are not exploited within one year after the end of the action, the beneficiaries must (unless otherwise agreed in writing with the granting authority) use the Horizon Results Platform (HRP) to find interested parties to exploit the results<sup>7</sup>."* The HRP can also provide a commonly used platform to help make results visible<sup>8</sup>.

In addition, regulations in Horizon Europe state that any exploitation taking place in non-associated third countries must be accompanied by a justification of how this exploitation is still in the EU's interest<sup>9</sup>.

**Obligation to disseminate.** The beneficiaries must disseminate their results as soon as feasible, in a publicly available format, although subject to any restrictions arising from concerns about the adequate protection of intellectual property, security rules or legitimate interests. Nevertheless, a partner that intends to disseminate its results must inform and give appropriate notice to other consortium partners for objection before disseminating project results (30 days in advance, as agreed in the CA).

Beneficiaries are requested to make their scientific publications available as Open Access publications and grant access to their data as open as possible and only as closed as necessary. Project partners must ensure open access to peer-reviewed scientific publications relating to their results, in particular, ensuring that publications are available through scientific journals and repositories that provide immediate open access under

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<sup>3</sup> European IP Helpdesk (2022c).

<sup>4</sup> European Commission, European IP Helpdesk Service (2021).

<sup>5</sup> European IP Helpdesk (2022c).

<sup>6</sup> See p. 87 of European Commission (2024).

<sup>7</sup> See p. 87 of European Commission (2024).

<sup>8</sup> See the relevant section, 'Seeking support beyond the project', for an explanation of the HRP and related support tools.

<sup>9</sup> European IP Helpdesk (2022c).



Creative Commons or equivalent licenses. Partners (or authors) must retain sufficient intellectual property rights to comply with the open access requirements<sup>10</sup>.

**Pathways to impact and reporting.** Horizon Europe guidelines introduced the following new methods to monitor and assess a consortium's plan and efforts to valorise the knowledge and results from the project in the long run<sup>11</sup>:

1. "Pathways to Impact" is a way to monitor impact pathways for KERs and plan concrete steps towards exploitation. It consists of steps towards the achievement of the expected impacts of the project over time after its end. From the definition of the project's KERs, such steps comprise communication, dissemination, and exploitation activities, leading to the expected outcomes and ultimately to wider scientific, economic, and societal impacts.
2. Continuous dissemination and exploitation (D&E) reporting templates. While beneficiaries are no longer mandated to fill in part B for D&E, the adapted templates for HE are designed to capture a clear picture of KERs and their ownership, the number of patents projects apply to, etc.
3. Post-grant surveys. Two years after the end of the grant, beneficiaries will need to report on their progress, needs and obstacles on their path towards exploitation. At the time of writing this report, the guidelines regarding this questionnaire were still in the process of being drafted by the EC.

**(Joint) ownership.** Particular emphasis should be given to the management of ownership of key project results. While the GA states that results are owned by the beneficiary that generates them, in the collaborative environment of a HE research project, two or more partners may jointly contribute to an individual result. In these cases, the IP is jointly owned by different partners, who should, therefore, agree on the ownership terms through a Joint Ownership Agreement. In addition, they must agree on appropriate and shared strategies for the management, protection, and exploitation of the jointly owned results<sup>12</sup>.

**Granting of access rights.** HE rules also mandate the obligation of beneficiaries to grant access to other consortium partners to the knowledge they bring to the project or the generated results whenever such access is necessary to implement project activities or to exploit the project's collaborative results. This is discussed in more detail in the relevant section titled 'Access Rights'.

## 2 Overview of key Innovation Management concepts

### 2.1 IP and IPR

To start, it is important to make a distinction between Intellectual Property (IP) and IP rights (IPR). While Intellectual Property (IP) refers to assets, IP rights (IPR) refer to legal tools to support commercial exploitation. More specifically, IP refers to intangible creations of the human intellect that may be protected by law. In contrast, IP rights provide the legal framework by granting exclusive rights for a specified period, allowing creators to safeguard their ideas and creations from unauthorized use or reproduction. IPRs are territorial rights, meaning that they are valid only in the jurisdictions where they have been registered<sup>13</sup>. There are several types of IPR, a description of which can be found in the respective sections of this document.

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<sup>10</sup> See article 17 of the Horizon Europe's Model GA in European Commission (2024).

<sup>11</sup> European IP Helpdesk (2022c).

<sup>12</sup> European IP Helpdesk (2022c).

<sup>13</sup> European IP Helpdesk & Enterprise Europe Network (2024).



## 2.2 Ownership, Inventorship and Authorship<sup>14</sup>

A second distinction must be made between ownership, inventorship and authorship. The inventor of an innovation does not always correspond to the owner and vice versa. Moreover, the inventor is not necessarily the author.

While inventorship identifies the creator of an invention, ownership recognises the proprietary right to possess an invention. Thus, ownership gives the right to prevent others from using the IP. Authorship is used in the copyright domain, more precisely in a publication environment, in which a person – the author – has produced a piece of writing or any other specific publication.

While inventors and authors are always natural persons, owners can also be legal persons (organisations), for instance, the employer of an inventor/author. It is important to note that assigning ownership to an employer does not affect inventorship or authorship.

The factors that determine whether someone is a (co-)inventor include (i) conception of the idea, (ii) material contribution to the development of the invention, and (iii) implementation of the idea into practice.

The common default regime in most national legal frameworks of EU member states that copyright from inventions and the IP created by employees belong to the organisation/employer. However, in order to avoid later disputes, it is strongly recommended that employment contracts and assignment agreements contain explicit provisions and rules on the allocation of ownership for IP rights to inventions.

## 2.3 Background

Background IP (BG) can be defined as data, know-how or information – including any rights – owned or licensed to a project partner prior to the start of the agreement and needed to implement the action or exploit the project's results.

The implementation of any collaborative research project requires the use of pre-existing IP (i.e., background) resulting from work carried out prior to the project and belonging to one of the partners. Partners shall outline the respective background they will bring to the project. In the CA, project partners need to create a list of background IP, as well as specific IP they wish to exclude access to<sup>15</sup>.

All project partners must identify the background they brought to the project to carry out its activities. The background can be identified and agreed upon (i) within the consortium agreement, after the internal evaluation of pre-existing knowledge, (ii) in a separate agreement (“agreement on the background”), and/or (iii) in the Innovation Management deliverables. In any case, the consortium must identify the background each project partner provides and that is imperative for successful implementation and exploitation of the project. This list of background can also be part of joint ownership agreements, and shall be kept updated during the project's implementation phase in the respective versions of the Innovation Management deliverables.

Besides this identification, it is important to define the access rights associated with the project's background. This is discussed in the next section.

Furthermore, it is important to define what will be considered modifications/improvements to the background. The distinction between derivative and new work is not always obvious. Therefore, ownership of the background modifications needs to be defined contractually.<sup>16</sup>

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<sup>14</sup> European IP Helpdesk (2022a).

<sup>15</sup> European IP Helpdesk (2022c).

<sup>16</sup> European IP Helpdesk (2022b).

Regarding ownership, examples of common IPR ownership arrangements related to background include the following:

- That each contributing party retains the sole ownership of its background.
- Relatedly, that any modifications to such BG or derivative works based on it remain the property of the BG’s original owner (i.e., the partner that brought the BG to the project).

Furthermore, since most of the joint results will contain partner-contributed IP, the background will constitute the object of future contracts and influence the conditions for the use of the results. Therefore, it is advisable to provide contractual clauses about the use of the individually-owned background IP, besides discussing the use of the joint IP<sup>17</sup>.

## 2.4 Access Rights

Access rights refer to a given project partner’s right to request access to another project partner’s IP (be it BG or project results) in order to implement its project activities or exploit its own results. The rules and provisions governing access rights within the project are pre-defined in the Consortium Agreement (CA) and article 16 of the Grant Agreement (GA) of SCENE.

Irrespective of ownership provisions, the background strictly needed for carrying out the project activities or exploiting the results must be accessible to the other project partners on a royalty-free basis. Partners have the right to request access rights to the other project partners’ background and results as long as they need them to carry out the project work or to exploit the project results<sup>18</sup>. More specifically, each party should grant access rights to the respective partners that need a certain background, allowing them to use it in accordance with the project’s scope (usually royalty-free) and within their business activities during and after the project (usually royalties-bearing)<sup>19</sup>.

In line with this, SCENE’s CA specifies that consortium partners have access to the background/results of other partners in case they need this knowledge (IP) to implement their own project tasks or to exploit their own results. In addition, these access rights can be requested throughout the duration of the project and up to one year after its completion when needed to carry out the exploitation of results that incorporate such BG. Once requested, access rights may be exercised as long as they are needed to exploit the results (e.g., until the background patent expires).

The following table provides an overview of the access rights regime under Horizon Europe, differentiating on the type of IP and the purpose for its use<sup>20</sup>:

*Table 1. Access rights regime in Horizon Europe projects*

Purpose of Access	Access to Background	Access to Results
<i>Implementation of the project</i>	<i>Royalty-free, unless otherwise agreed by participants before their accession to the GA</i>	<i>Royalty-free</i>
<i>Exploitation of project results</i>	<i>Subject to agreement, access rights shall be granted under fair and reasonable conditions (which can be royalty-free)</i>	

<sup>17</sup> European IP Helpdesk (2022b).

<sup>18</sup> European Commission, European IP Helpdesk Service (2021).

<sup>19</sup> European IP Helpdesk (2022b).

<sup>20</sup> European IP Helpdesk (2022c).



Examples of **access rights clauses** within the scope of collaborative research projects include the following:

- Each party grants the other parties the non-exclusive right to use its background free of charge, as long as such access is strictly necessary to implement the project actions;
- Each party grants the other parties a non-exclusive, royalty-bearing, non-transferable right to use its background, as long as such access is strictly necessary for the other party to make, sell or otherwise exploit the project result.

## 2.5 Project (exploitable) results and KERs

As part of the project's innovation management, it is important to map any results and assets that are generated through the implementation of project activities. Results can be defined as any tangible or intangible output generated within the project's activities, whatever their form or nature, including materials, data, knowledge or other pieces of information, whether they can be protected, as well as any rights attached to them, including IPR<sup>21</sup>. It must be noted that output generated outside project activities cannot be categorized as "project results".

In general, project results are owned by the partner that generates them. However, 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 joint ownership agreements.

Additionally, it's important to note that project results were previously referred to as 'foreground' (also in the previous version of this deliverable D6.4). However, the latest Horizon 2020 guidelines from the EC now use the terms 'background' and 'results'<sup>22</sup>. Nevertheless, results can be categorized in different ways. For instance, a granular result can be part of a larger (composite) result, which may be a more important outcome of the project or be more relevant for exploitation purposes.

Accordingly, one can differentiate between "results" and "exploitable results". An exploitable result (ER) is a project result that meets the following two criteria: (i) has commercial, social and/or academic relevance, and (ii) can be commercialised/exploited as a standalone result. However, not all results may meet the above conditions. Furthermore, ERs ought not to be ready to be exploited right after the end of the project, even though they must hold that potential; for instance, they may require further R&D, engineering, or validation before becoming a product that can be commercialized. As mentioned before, exploitable results can be a combination of more granular project results.

Furthermore, it is important to consider the concept of 'Key Exploitable Results' or KERs, which are the main project results in terms of exploitation interest and potential<sup>23</sup>. Among the various identified results generated by the project that can potentially be exploited, a prioritisation must be made to distinguish the main results as Key Exploitable Results or KERs. KERs are identified and prioritised due to their high potential to be reused and valorised (in other words, exploited) and the consortium's interest in doing so.

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<sup>21</sup> See the IP Helpdesk's glossary: [https://intellectual-property-helpdesk.ec.europa.eu/regional-helpdesks/european-ip-helpdesk/europe-glossary/europe-ip-glossary-r\\_en](https://intellectual-property-helpdesk.ec.europa.eu/regional-helpdesks/european-ip-helpdesk/europe-glossary/europe-ip-glossary-r_en)

<sup>22</sup> European IP Helpdesk (2019).

<sup>23</sup> European IP Helpdesk (2021).



## 2.6 Exploitation

In the latest available Horizon Europe Model Grant Agreement<sup>24</sup>, *exploitation* is defined as the use of results in further research and innovation activities beyond the project, including among other things, the commercial exploitation through the creation, manufacturing, marketing or provision of products or services, the development of processes, or in standardisation activities<sup>25</sup>.

Therefore, exploitation refers to using a result generated in SCENE in other activities, with the goal to valorise the result at the organizational level and/or to maximise its impact on other stakeholders. Other ways to make use of project results include, albeit apparently out of the scope of this definition of exploitation, conducting further research or providing relevant input for future policy-making. While we argue that further R&D can be interpreted as exploitation through, for instance, the development of new processes, the publication of results in scientific publications or as policy recommendations would rather fall under the scope of 'dissemination' of results (see the relevant section below for a discussion on dissemination).

One option regarding exploitation of results is for a beneficiary to transfer the ownership of IP to one of the joint owners of such (exploitable) results or even third parties<sup>26</sup>.

## 2.7 Dissemination

Dissemination is defined in the latest Horizon Europe model GA as "the public disclosure of the results by appropriate means, other than resulting from protecting or exploiting the results, including by scientific publications in any medium."<sup>27</sup>

The appropriate means for the dissemination of project results (e.g. scientific publications, publications on web sites, conferences, etc.), can be selected by project partners, always taking into consideration the Open Science requirements in Horizon Europe.

In any case, partners have to first ensure the protection of a project's Exploitable Results and then proceed to dissemination actions of the underlying result(s). In this regard, it is important to note that certain IPR protection measures require the relevant IP to be kept confidential before registering it for protection.

Specifically in the context of SCENE, in order to maintain confidentiality during the project and after its conclusion, the provisions set out in the Consortium Agreement establish that, during the project and for a period of one year after its end, the dissemination of own results by one or several project parties, including but not restricted to publications and presentations, shall be governed by the procedure of Article 17.4 of the Grant Agreement and its Annex 5, Section Dissemination, subject to the following provisions: "*Prior notice of any planned publication shall be given to the other Parties at least 30 calendar days before the publication. Any objection to the planned publication shall be made in accordance with the Grant Agreement by written notice to the Coordinator and to the Party or Parties proposing the dissemination within 15 calendar days after receipt of the notice. If no objection is made within the time limit stated above, the publication is deemed permitted.*" The procedures to be followed before the publication of project results are further defined in D1.1 Project Reference Manual & Quality Plan.

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<sup>24</sup> European Commission (2024).

<sup>25</sup> See page 85 in European Commission (2024).

<sup>26</sup> European IP Helpdesk (2022c).

<sup>27</sup> See page 85 in European Commission (2024).



## 2.8 Results, outcomes and impact

Horizon Europe clearly distinguishes between results, outcomes, and impact. Results are achievements made during or shortly after the implementation of the project. Outcomes are the effects of the project in the medium term, achieved through the uptake, diffusion, and use of the results. Impacts are the effects on society, the economy, and science in the long term, enabled by the outcomes of the project. The specific time periods in which results, outcomes, and impacts are expected depend on the specific project, but typically may be three, five and seven years from the project start, respectively<sup>28</sup>.

## 2.9 Joint ownership

Joint ownership, also called co-ownership, refers to a situation in which two or more (legal or natural) persons have proprietary shares of an asset. Joint ownership often occurs in connection with collaborative innovation and is thus of particular relevance to EU-funded programmes and any research project involving co-development of IP.<sup>29</sup>

Joint ownership of IP requires that results (e.g., research results) are jointly generated by the partners, and that the exact share of the work (i.e., of the 'material' contributions) cannot be determined easily, or that the final work or result is indivisible by nature.<sup>30</sup> In addition, joint ownership may arise with regard to all the forms of IP (e.g., patents, copyrights, trademarks, trade secrets, etc.).

Partners should define the terms of the resulting joint ownership in a separate *joint ownership agreement* or, alternatively, in clauses within the more general *collaboration agreement*. However, when drafting a joint ownership agreement or a collaborative agreement, it is crucial to seek legal advice, given the complexity and technicality involved in doing so.

Exploitation rights on jointly owned assets may vary across the various relevant jurisdictions. Hence, it will be determined on the national level who, among the joint owners, can grant licenses and/or sub-licenses. Likewise, the co-owner's right to be compensated for not exploiting those assets might be differently regulated or even absent in some jurisdictions. In this context, the respective co-owners need to carefully consider the choice of applicable law and jurisdiction. Choosing a jurisdiction will allow partners to uniformly interpret their joint ownership agreement and to set common rules in case disputes among them emerge. Any national law can be selected, even though it is preferable to choose a jurisdiction that offers the highest degree of impartiality as well as a high standard of protection and efficiency. It is also advisable to select a law that is applicable to the parties' respective national systems or the core of the agreement.<sup>31</sup>

Partners should define the expectations regarding jointly created results before any research activity is carried out. In addition, if possible, partners should define co-ownership issues of the expected results by considering the following factors<sup>32</sup>:

1. **The allocation of the ownership shares of IP results between joint owners:** One of the most common options is to equally share the results among the partners. An alternative is to divide it according to their involvement in the development of the results.
2. **The conditions of use of the jointly owned results (IP):** Co-ownership arrangements usually grant each party an unrestricted use of the jointly owned IP. However, if restrictions were to be deemed necessary, two options can be envisaged: either (a) joint ownership is maintained with the provision

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<sup>28</sup> European IP Helpdesk (2022c).

<sup>29</sup> European IP Helpdesk (2022b).

<sup>30</sup> European IP Helpdesk (2022b).

<sup>31</sup> European IP Helpdesk (2022b).

<sup>32</sup> European IP Helpdesk (2022b).



- of mutual restrictive conditions (e.g., use strictly necessary for research activities), or (b) the property of the entire asset – hence supporting all the related costs – is assigned to a single party who will grant licenses to the other partners on an “as-needed” basis.
3. **The conditions of exploitation of the joint IP, under which each co-owner can assign, license and exploit the jointly owned results:** For instance, whether the other partners will receive compensation when exploiting the joint results or any rights and obligations regarding licensing costs and income.
  4. **The conditions for dissemination of the joint IP:** To maintain secrecy on the knowledge, parties can establish confidentiality rules. For instance, joint owners can agree on limits to the disclosure of data and results, bearing in mind that dissemination can be an impediment to future IP rights registration (i.e., patents, utility models and industrial designs). Common clauses include the following: (i) that a party intending to publish any research results provides a certain period of time for the other parties to verify whether the contents of such dissemination should be kept confidential; or (ii) that confidential information shall not be disclosed, reproduced, or otherwise made available to any other third party, without the consent of the other parties, at least for a certain term (e.g., until patent applications are filed).
  5. **The management of the jointly owned results (IP):** This refers to the protection, maintenance and defense of the results. Regarding IPR protection, an agreement shall include: (i) the type of protection measure, (iii) when the protection will be registered, (iii) which party will file the application and then follow the procedure, and (iv) which party will bear the costs of the IP protection and maintenance. Regarding IPR infringement and enforcement, joint owners should decide which party will be responsible for monitoring and policing the joint IP as well as assume the expenses for any infringement in connection with it. The latter can arise either because the jointly owned IP infringes a third parties’ IPR or because a third party infringes the co-owned IP. In the case of IPR infringements owners can legally enforce their rights against infringers<sup>33</sup>. However, it is also recommended to first evaluate Alternative Dispute Resolution mechanisms (ADR) such as negotiation, mediation, expert determination, arbitration, etc.<sup>34</sup>
  6. **Governing law and jurisdiction and alternative dispute resolution mechanisms:** Such mechanisms are a rapid and cost-effective way of solving disputes in contractual relationships.

It is common practice for partners to establish, during or after the project, a separate **joint ownership agreement** in order to define the allocation of ownership and the terms discussed above. In this way, the different conditions for exploitation and dissemination of jointly owned project results is ensured, safeguarding that IPR is adequately managed and no IPR conflicts arise.

As mentioned at the beginning of this document, exploitation of the project results may be done by partners directly or indirectly through another party through licensing or transfer of IPR. Hence, each joint owner can grant non-exclusive licenses to third parties to exploit the jointly owned results (without any right to sub-license). In such case, unless otherwise agreed in the joint ownership agreement, the remaining joint owners must be given at least 45 days advance notice and fair compensation<sup>35</sup>.

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<sup>33</sup> It is recommended to utilise monitoring services, online searches, and industry networks to identify potential infringements and, if infringement is detected, to consult an IP attorney (European IP Helpdesk & Enterprise Europe Network, 2024).

<sup>34</sup> ADR are a rather simple, fast and inexpensive procedure that brings parties together with the objective to resolve disputes out-of-court. Types of ADR include negotiation, mediation, expert determination, arbitration, etc. (European IP Helpdesk & Enterprise Europe Network, 2024).

<sup>35</sup> See article 16 of the Model GA in European Commission (2024).



Lastly, it is important to note the difference between joint ownership of collaborative results and a common exploitation of composite results belonging to multiple partners. Exploitation of co-developed results can take various forms. For instance, jointly-owned results may be exploited individually by partners who have formally decided on the allocation of ownership and IPR of the results through a joint ownership agreement. However, jointly-owned results may also be exploited collaboratively, for example, through joint ventures, special-purpose vehicles, or similar types of legal entities owned by multiple parties. Such joint exploitation may also not rely on jointly-owned results; i.e., not all parties that own shares in the legal entity must also be the IPR owners of the underlying results being exploited by that entity. Compared to joint ownership, agreements on the joint exploitation of individually-owned results are a common and often simpler pathway to manage the IPR and exploitation of project results. The aforementioned vehicles can exploit multiple elements owned by different partners through a single entity. Partners would still need to agree on (a) the division of the proprietary shares of such entity, and on (b) how to transfer the IPR to exploit the results to this new company. Although still complex and requiring further negotiations among partners, joint exploitation through establishing a dedicated entity may be a more realistic strategy, depending on the nature of the project results. Regarding the ownership of IPR, the new common entity would either become the owner of the KER through the transfer of IPR, or simply acquire a license to exploit the result. In the latter case, the partners owning the individual elements would license their technology to this entity, according to their agreed terms.

## 2.10 Protection of digital IP

The threat posed by copying, industrial espionage, reverse engineering and manipulation of software solutions has led companies to increasingly invest in software protection. Additionally, IPR can arise in various aspects of a webpage or social media content: Be it - in respect of the logo used, the text/images that appear, the interface design, typography, domain name, databases included or the coding which determines the way the website is laid out and formatted. Some of this may have been created by the company, but some of the content may have been created by others. Particularly, if your client is using an agency, pay careful attention to the property clauses. It's important to be aware of IP considerations when creating and sharing content on webpages or social media platforms to ensure they respect the rights of others and protect their own IP. Laws and regulations regarding IP can vary by jurisdiction. For software protection, depending on the jurisdiction, explore legal options like patents, copyrights, and trade secrets<sup>36</sup>.

## 3 Definitions of IP protection measures

This section will discuss in more detail the most relevant and common types of instruments that may be considered for IP protection in a research project. To provide an understanding of the different measures and their use, we will clarify their characteristics and present examples of IP assets that could be protected by them. The effective exploitation of the innovative results developed in the frame of the project is contingent on the adequate protection of their underlying IP. Project partners shall safeguard the identified exploitable results with adequate protection schemes, which will offer adequate protection period within a suitable geographical territory. When considering IP protection, project partners must not only consider their own interests but also the interests of the whole consortium.

IP protection constitutes a tool to create value through the licensing, sale or commercialisation of IP in the form of products and services. Moreover, its utilisation is vital for prospective commercial or industrial exploitation as it can contribute to supporting the branding of products and services both to customers and investors. It should be noted that an asset can be of high exploitation value even if its characteristics do not

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<sup>36</sup> European IP Helpdesk & Enterprise Europe Network (2024).



mandate IP protection; for instance, this is the case of open-source results with high potential for exploitation and/or wide deployment by relevant stakeholders (e.g., publications of project findings).

The geographical territory of the IP protection will have to be agreed on by the parties in advance, based on where the IP will be used. By default, Europe is considered to be the suitable territory within which the identified ERs will be safeguarded, but it remains at the discretion of the interested parties to collectively reach an agreement with regard to this matter.

There exist different types of IPR to protect R&D results from research projects. Consequently, when considering IP protection, 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 IPR owner.

For instance, copyright and related rights are commonly used for artistic works, databases, etc. The granting of such IPR does not require registration. In contrast, trademarks, patents, utility models, industrial designs, etc., are more suited for 'industrial' results and require registration. In addition, trade secrets can be used to protect 'soft' or 'intangible' IP such as know-how or confidential information.

Overall, such rights grant a monopoly on the use and/or commercialisation of the innovation for a limited amount of time, which depends on the type of protection measure. Such exclusivity can also help attract funding and investment.

However, while ownership of IPR provides exclusivity, this does not equal protection in practice. It is therefore important that results are not only protected but that IPR are managed and enforced.

### 3.1 Patents and utility models

A **patent** is a legal title granting its holder the right to prevent third parties from commercially exploiting an invention without the authorisation of the patent holder. Therefore, the value of a patent arises from giving its owner a monopoly.

Patents are granted for inventions that demonstrate potential for industrial application. A patent protects inventions (i.e., products or processes), offering a new technical solution or facilitating a new way of doing something. Therefore, patents must be novel and demonstrate progress beyond the state-of-the-art. Quoting the European Patent Convention, "European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application."<sup>37</sup>

Patent protection requires registration, which can be filed in the patent office of choice. In return, the patent holder must disclose the invention to the public in the patent application, which requires showing how the invention functions. Some patents are granted only per country, while others give supranational protection (e.g., at the European level).

In addition, patent rights are granted for a certain period of time, generally for 10 or 20 years, depending on each legislation<sup>38</sup>. Once a patent expires and the protection ends, the invention becomes part of the public domain, meaning that the patented invention becomes available for commercial exploitation, free of charge, by others<sup>39</sup>.

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<sup>37</sup> See art. 52 in European Patent Office (2020).

<sup>38</sup> European IP Helpdesk & Enterprise Europe Network (2024).

<sup>39</sup> See p. 17 in WIPO Intellectual Property Handbook (2008).



For patents, the inventor is also the first person with the right to be granted patent protection for their creation. In fact, a patent can only be granted to its inventor or to the person who claims ownership through the inventor.<sup>40</sup>

Patent owners may give permission to other parties to use the patented invention during the protected period. Moreover, they can offer a license or even sell the patent right (i.e., the ownership of the patent) to another person.

According to the European Patent Convention, mathematical methods, programs for computers or aesthetic creations, among others, are not regarded as inventions with regard to patentability<sup>41</sup>. Software is thus excluded from patentability to the extent that a patent application relates to a computer program “as such”. However, computer-implemented inventions, defined by the European Patent Office (EPO) as innovations that “involve computers, computer networks or other programmable apparatus, whereby at least one feature is realised by means of a [software] program”<sup>42</sup>, are accepted at the EPO. It is relevant to note that a computer program and a computer-implemented method are distinct from each other: while the former refers to a sequence of computer-executable instructions specifying a method, the latter refers to a method being performed on a computer.<sup>43</sup> Relatedly, database management systems, defined as technical systems implemented on computers to perform the tasks of storing and retrieving data using various data structures, are considered a method that uses technical means and are therefore not excluded from patentability either.<sup>44</sup>

Like patents, **utility models** are exclusive rights granted for an invention (i.e., a product or a process) that either provides a new way of doing something or offers a new technical solution to a problem. In addition, in order to obtain protection, registration must be granted. However, utility models are not available in every country<sup>45</sup>.

Also referred to as a “petty patent”, a utility model is an exclusive right granted to a right holder, for an invention that does not fulfil patentability requirements (e.g., because it is a minor improvement of an existing product) but may still have an important role in a local innovation system. Utility models are also considered to be particularly suited for products that have a short commercial life. Once granted, this type of protection allows the right holder to prevent others from commercially using the protected invention, without their authorisation, for a limited period.

In the EU, utility models can be granted at the national level in some of the Member States, but there exists no European-wide utility model protection. The eligibility requirements also vary across countries.

Generally, this type of protection is subject to less stringent requirements and procedures than patents, and offers a shorter term of protection. However, given that they are designed to respond to local needs, requirements and protection duration vary between different jurisdictions.

## 3.2 Trademarks and Industrial designs

Trademarks are signs capable of distinguishing the goods or services of one enterprise from those of others (e.g., its competitors). Therefore, they offer an exclusive right over the use of a sign in relation to the goods

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<sup>40</sup> European IP Helpdesk (2022a).

<sup>41</sup> See art. 52 in European Patent Office (2020).

<sup>42</sup> See Part F – Chapter IV-10 in European Patent Office (2024).

<sup>43</sup> See Part G – Chapter II-17 in European Patent Office (2024).

<sup>44</sup> See Part G – Chapter II-21 in European Patent Office (2024).

<sup>45</sup> European IP Helpdesk & Enterprise Europe Network (2024).



and services it represents. Examples of such signs include a combination of words or letters, drawings, symbols, and even sounds or fragrances, among others. This type of IPR confers an exclusive right to the use of the registered trademark. While the trademark lasts for 10 years, it is renewable indefinitely<sup>46</sup>. In contrast, a patent always expires.

The aim of trademark law is to distinguish between products of different manufacturers. There are different types of trademarks, such as word marks, figurative marks, word-picture marks, sound marks, shape marks, colour marks (the list is not exhaustive). Trademark law protects the design only indirectly. Neither novelty nor a creative level of creation are necessary. But there are also disadvantages: Firstly, protection is limited to the goods and services designated in the trademark register, and secondly, for a trademark that has not been used for more than 5 years, anyone can apply for its cancellation for the unused goods and services<sup>47</sup>.

Lastly, protection for trademarks can be obtained through registration at national, EU or international levels. In addition, the trademark right holder may license the trademark to a third party, specifying the conditions in a license agreement.

**Industrial designs** can also be protected by exclusive rights. Design protection protects the two- or three-dimensional external appearance of a whole product or a part thereof. More specifically, a design refers to “the appearance of the whole or a part of a product resulting from the features of, in particular, the lines, contours, colours, shape, texture and/ or materials of the product itself and/or its ornamentation.”<sup>48</sup> Examples include the design of vehicles, furniture or clothing, as well as product packaging, equipment and other graphic symbols.

For this type of IPR to be granted in the EU, the design must be registered in the industrial property office of a Member State, and it must demonstrate novelty and singularity or ‘individual character’. A design is considered new if no identical design has been made available to the public before the filing of the application for registration. Individual character requires that the impression the design produces on the informed user differs from the impression produced by any existing design.

### 3.3 Trade secrets and Confidentiality (or non-disclosure) agreements

A **trade secret** is a type of IP that encompasses confidential, proprietary information (such as manufacturing processes, formulas, techniques, customer lists, marketing strategies, software algorithms, data and more). Unlike patents, copyrights, or trademarks, trade secrets rely on maintaining their secrecy. To qualify as a trade secret, the information must be confidential (i.e., unknown or not readily accessible to the public or competitors) and have economic value. In addition, the owner of the trade secret must make reasonable efforts to keep the information confidential, for instance, through non-disclosure agreements or access controls<sup>49</sup>.

Any confidential business information providing a competitive advantage to an enterprise can be considered a trade secret. Therefore, it can 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.

Contrary to other protection modalities, trade secrets are protected without any procedural formalities and can be protected for an unlimited period of time. Trade secrets offer a lesser degree of protection compared

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<sup>46</sup> European IP Helpdesk & Enterprise Europe Network (2024).

<sup>47</sup> European IP Helpdesk & Enterprise Europe Network (2024).

<sup>48</sup> European Parliament, Council of the European Union (1998).

<sup>49</sup> European IP Helpdesk & Enterprise Europe Network (2024).



to patents, yet they serve as a valuable method for preserving proprietary business information that may not qualify to be protected by patents. Right holders may sell or license the protected information and its protection. However, protection for trade secrets hinges on the secrecy of the information; if disclosed publicly, trade secret protection can be instantaneously lost. Lastly, trade secrets are enforced through actions for breach of confidence or, if a non-disclosure agreement or clause exists, breach of contract.

**Confidentiality agreements**, also known as non-disclosure agreements (NDAs), are contracts that provide protection to organisations wishing to disclose valuable information and ideas to other parties in confidence. These written agreements establish the obligation of the recipient (i.e., the legal person to whom the information is disclosed) to not disclose the information to third parties. Therefore, they provide an assurance that confidential information will be used only for the agreed purposes and will not be used or revealed to third parties without consent.

Therefore, confidentiality agreements are crucial for inventors or other parties willing to protect confidential information. This is also the case for participants in collaborative R&I projects, where the exchange of valuable, confidential information is necessary to set up and implement the project, in addition to exploit its results.

Confidentiality agreements can protect project results, which represent confidential information that, if kept secret, can offer an organization a competitive advantage and thus be part of wider exploitation efforts, e.g. in the development of technology, products or processes. Examples of information commonly covered by NDAs include a product design or a business idea.

In order for a confidentiality agreement to be legally enforceable, the information must be secret, hold commercial value, and the owner must have taken reasonable steps to protect its confidentiality.

While NDAs are not categorized as IPR, they are valuable instruments to protect sensitive information or trade secrets. NDAs generally incorporate contractual terms that establish compensation if a breach of confidentiality occurs.

### 3.4 Copyright and Creative Commons Licenses

**Copyright** law protects authorship understood as the expression of an original work created by an author. The general rule is that the author is the first owner of the copyrighted material and has the right to decide the type of use other persons can make of his or her works.<sup>50</sup> Thus, copyright represents the IPR that authors have over their work.

Copyright generally applies to literary, musical, and artistic works, but also to other intellectual works such as computer programs, databases, advertisements, maps, and technical drawings. Copyright can also protect software or information stored on hardware and used by computer systems to execute operations, including algorithms, program codes and graphical interfaces.<sup>51</sup>

In the EU, copyright protection grants the following exclusive rights: (i) economic rights, guaranteeing control over the work and remuneration for its use through selling or licensing; and moral rights, usually protecting an author's rights to claim authorship and the right of being cited as the author (i.e., right of attribution) and

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<sup>50</sup> European IP Helpdesk (2022a).

<sup>51</sup> European IP Helpdesk & Enterprise Europe Network (2024).



the right to refuse a modification of the work (i.e., right to the integrity of the work)<sup>52</sup>, as well as the right to withdraw the work from publication.<sup>53</sup>

Unlike other IPR measures, copyright protection arises automatically upon the creation of the work without the need for registration. Nevertheless, it is a common practice for organisations to register copyrighted works with ad hoc services offered by some national IP offices or private organisations.<sup>54</sup>

The decisive criterion for a work to qualify for copyright is based on originality; quality or functional novelty is irrelevant. Consequently, copyright can also apply to original software outputs (e.g., source code or a user interface) and databases. Nevertheless, copyright does not protect ideas or the functional aspects of a computer program.

Copyright gives the owner the exclusive right to use a work - with some exceptions. When a person creates an original work that is recorded on a physical medium (e.g., audio-visual works: TV programmes, series, films and online videos; written works: lectures, articles, books and musical compositions; video games and computer software, and many more), that person automatically holds the copyright in that work<sup>55</sup>.

Copyright law is largely harmonized in the EU through 13 directives and 2 regulations. In the EU, copyright protects IP until 70 years after the (last surviving) author's death. Outside of the EU, the duration of copyright protection varies, but it lasts until at least 50 years after the author's death.<sup>56</sup>

**Creative Commons (CC) Licenses.** CC licenses are a free, universally accessible and standardised manner to grant copyright permissions for creative and academic works. CC licenses are free of charge and do not require creators or other rights holders to register with a Creative Commons organisation to assign a CC license to their work<sup>57</sup>.

CC licenses are copyright licenses and depend on the existence of a copyright to work; as such, they work worldwide and last as long as the applicable copyright lasts. CC licenses are appropriate for creators willing to make their work available to the public for limited kinds of uses. However, they are not recommended for IP owners willing to keep all of their rights under copyright law<sup>58</sup>.

Different types of CC licenses exist, with distinct levels of restrictiveness regarding the reuse of the protected results. For instance, 'Attribution-NonCommercial-NoDerivs' are the most restrictive type of CC license, only allowing third parties to share the licensed work as long as the owner is credited, without allowing them to change the work in any way nor use it commercially. On the other hand, 'Attribution' licenses are the most permissive type of CC license, letting third parties distribute, remix, adapt, and build upon the licensed work, even for commercial purposes, as long as the owner is credited for the original creation. Thus, they are recommended for owners who want to achieve the largest dissemination and reuse of their licensed work.

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<sup>52</sup> European Union – Your Europe (2023).

<sup>53</sup> European IP Helpdesk (2022a).

<sup>54</sup> European IP Helpdesk (2022a).

<sup>55</sup> European IP Helpdesk & Enterprise Europe Network (2024).

<sup>56</sup> European Union – Your Europe (2023).

<sup>57</sup> Creative Commons (2023).

<sup>58</sup> Creative Commons (2023).



### 3.5 Domain names

Domain Names are the typographical characters corresponding to registered IP addresses, which are used to identify a particular website on the internet. Although a domain name is unique and may be a valuable commercial asset, a domain name registration is not considered as a type of IPR.<sup>59</sup>

However, when the domain name contains a trademark, it can then be considered as protected intellectual property. If one has a registered trademark, other parties are not allowed to register that trademark as a domain name.<sup>60</sup>

### 3.6 Sui Generis Protection (database rights)

European sui generis protection is applied with the aim to protect the content of a database, preventing the extraction and/or reuse of the whole or substantial part of its content. This type of protection is relevant when the structure of the database is not an original creation – the structure of a database may be protected by copyright. To benefit from this right, the maker of the database must prove to have made a substantial investment – in terms of financial, material and/or human resources – in either obtaining, verifying or presenting the database content.

Database protection can apply to both electronic and non-electronic (i.e., paper) databases as well as both static and dynamic databases. The sui generis right protects, as an intangible asset, the results of the substantial investment carried out towards the methodical and systematic classification of independent data.

The sui generis database right protects the content of your database. As such, it can prevent the extraction and/or reuse of the whole or a substantial part of the database's content. However, this right does not affect existing copyright protection, which may apply to the contents of the database.

In the EU, the terms of sui generis protection are defined in Directive 96/9/EC. Protection extends to systematically or methodically arranged collections of independent works, data, or materials that exhibit originality through the selection or arrangement of their content. Protection is granted for 15 years, starting either from the creation date of the database or from the moment it was made publicly available. Lastly, the right can be transferred or licensed to third parties and applies regardless of the database's eligibility for copyright protection or other rights.

## 4 Strategy throughout the project's lifecycle

Relevant IP aspects arise throughout the lifecycle of a project: from the conceptualisation stage, during its activities, and even beyond its implementation through the potential exploitation and commercialisation of its results.

Before the start of the project, it is essential to define the existing IP brought to the project by the partners (i.e., the background). It is also important to monitor the patent landscape. During the project implementation, partners must identify relevant IP elements and discuss possible IP protection methods. After the end of the project, it is crucial to discuss and agree on (joint) exploitation strategies and pathways, as well as study possible IP ownership arrangements and define the related responsibilities for managing IPR protection. It is also crucial to explore potential agreements related to licensing or transfer of IPR.

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<sup>59</sup> See the Glossary of the IP Helpdesk: [https://intellectual-property-helpdesk.ec.europa.eu/regional-helpdesks/european-ip-helpdesk/europe-glossary\\_en](https://intellectual-property-helpdesk.ec.europa.eu/regional-helpdesks/european-ip-helpdesk/europe-glossary_en)

<sup>60</sup> DNS Belgium (n.d.).

At the strategic level, the IPR Management approach in SCENE is aligned with the five pillars of IP management in Horizon Europe<sup>61</sup>, with the aim of addressing the diverse IP issues that typically arise at different stages of a collaborative Horizon Europe project.



*Figure 1. Strategic pillars of IP Management in Horizon Europe research projects*

**IP awareness.** At the start of the project, or ideally even before its start, it is crucial for the consortium to be – or become – aware of the relevant IP policies, rules and agreements that apply to the project and its prospective results, given the nature of the project’s R&I activities and the technologies it deals with. To this end, the present report provides a thorough understanding of the relevant IP and Innovation Management concepts, rules and processes for HE, based on an up-to-date review of existing EC guidelines and trainings. It also identifies the relevant literature and material that consortium partners wishing to explore these aspects further can use.

**IP created.** Also, before and at the start of the project, consortium partners must identify and agree on which pre-existing IP (i.e., background) is to be shared among consortium partners and under what terms and conditions it becomes available for use both during the project as well as after its end if needed for project implementation or results exploitation purposes. As the project progresses, the IP created needs to be defined; an Innovation Management approach such as the one presented in this report needs to be put in place to ensure the capture of these results and facilitate agreements on ownership and relative contributions, as well as on who will manage the results and how.

**IP assessment.** IP assessment refers to the process of identifying, evaluating and analysing IP assets, as well as identifying the relevant IPR related to the identified IP. Hence, during the project’s implementation phase, the commercial and scientific exploitation potential of the results must be assessed. Results are also assessed with regard to their readiness (e.g., their expected technological readiness level). In addition, protection strategies for KERs should be defined. If relevant, a preliminary assessment of the IP landscape should be performed, which may include a freedom-to-operate analysis and patentability checks. Altogether, this IP assessment will help in making informed decisions regarding the management, exploitation and/or protection of project results.

**IP protection.** In addition, appropriate measures for the protection of results should be put in place when relevant to support a financially sensible commercial exploitation. It is relevant to consider that the costs of

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<sup>61</sup> See European IP Helpdesk (2022c).



protection are eligible costs in HE projects. Protection measures include applicable IPR, trade secrets, trademarks, etc. Towards a smooth valorisation of IP, it must also be ensured that specific provisions are put in place regarding access rights to results in order to safeguard the interests of the IP owners while at the same time allowing other project partners to exploit project results.

**IP valorisation.** Towards the end of the project, as the key exploitable results of the project are developed, the focus must shift to the planning of tailored exploitation and dissemination pathways for these KERs, with the aim to ensure their long-term sustainability and impact. IP valorisation includes project activities as well as post-project ones. Specific IP valorisation activities during the project may include (i) an assessment of the market potential of KERs (e.g., market analysis, SWOT analysis), (ii) an assessment of how the KERs relate with similar IP of competitors (e.g., competitor mapping, competitive advantage assessment), (iii) a delineation of suitable, detailed strategies for the commercialisation of KERs (e.g., business models). As outlined at the beginning of this document, HE beneficiaries are expected to exploit the KERs they own after the project. When relevant, IP valorisation also includes IPR management activities, including potential IP transfers (under agreed terms and conditions) and agreements for post-project efforts to maintain and potentially enforce the IP protection (including, for example, cost and revenue sharing agreements).

This strategic approach is also aligned with the slightly different 6-pillar IP strategy identified in previous material from the IP helpdesk<sup>62</sup>. The main difference rests on the split of the IP valorisation phase into two: on the one hand, dissemination and exploitation actions and, on the other hand, post-project management activities.

Overall, the present innovation management strategy relies on an iterative approach that consists of continuous monitoring of project developments in order to identify any IP elements and the respective IPR owners and adequate protection measures. At the more practical level, the followed approach will be tailored to the needs of the project and the needs of the IPR management strategy at each stage of it. This tailored methodology, comprising a series of guidelines and templates, will support all consortium partners in identifying and managing in a structured way the BG and the (exploitable) results of the project, assessing relevant protection measures and agreements to enable the successful exploitation of the project's results. SCENE's methodology is thoroughly explained in the relevant chapter of this report (see 'Methodology').

Below we explain in more detail the entire innovation management strategy throughout the different relevant stages within an R&D project. The relevant timeline covers a period spanning pre-project and post-project stages, besides, naturally, a project's implementation period.

## 4.1 GA preparation stage

Both the Grant Agreement (GA) and the Consortium Agreement (CA) discuss several issues related to IPR. Their unique provisions represent a reference point for IPR issues that might present themselves during and after the project. These provisions can also facilitate any further advancements regarding IPR actions that project partners wish to put in place.

**Grant Agreement.** The GA constitutes a contract which sets out the key rules and conditions of the project and is agreed upon between the European Commission (EC) and the project partners. It represents the main contractual basis for the project, including several fundamental provisions referring to IPR, under which the management of the project's IP is regulated. For instance, it defines access rights and obligations related to

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<sup>62</sup> European Commission, European IP Helpdesk Service (2021).

the background brought to the project. 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. Finally, transferability and access rights to results are also defined in the project's GA.

**Consortium Agreement.** The CA constitutes a contract among the consortium partners that aims to define rights and obligations for the purposes of carrying out the project's foreseen actions and activities. To complement the provisions outlined in the GA, the CA addresses specific IP provisions as well as provisions for the settlement of internal disputes. Regarding IP provisions, the CA discusses, among others, aspects of confidentiality, background selection, use of IP generated parallel to the project (sideground), ownership/joint ownership of results, legal protection of results (IPR), access rights, and procedures for dissemination of results<sup>63</sup>.

The Consortium Agreement minimises the probability of later disputes as it provides rules and responsibilities to be followed during the project and the delineation of access rights to be granted to the partners in the context of the project. In addition, it outlines the rights and responsibilities among the consortium members concerning IPR issues. For instance, the CA covers the following IPR-related aspects:

- *Results*, sets out provisions on ownership and joint ownership of results, as well as on their transfer and dissemination.
- *Access Rights* clarifies the access rights governing principles along with the access rights for the exploitation and dissemination purposes. It also states specific provisions for access rights to the software.
- *Background included* presents a preliminary list of usable background identified at the pre-project stage.

## 4.2 Implementation stage

During the implementation stage of SCENE, IP handling procedures are applied among the consortium partners in order to properly identify and manage all project results and assets. With this goal in mind, it is important to establish a dedicated IP monitoring methodology that shall be followed from the early stages of the project and throughout its lifespan. As presented in more detail in the Methodology section (see Section 5), we established mechanisms to guarantee that IP information is reliably and timely captured.

Overall, the IPR management strategy of SCENE consists of the following interconnected and iterative steps: (i) **identification of any further background IP** and definition of access rights among partners within the project; (ii) **identification of the results** generated under each project task; (iii) prioritisation of results to **identify the project's Key Exploitable Results**; (iv) plotting of the corresponding **(co-)owners and their type of exploitation interest**, along with the contributing partners to each result; (v) **definition of IPR protection measures, rights of use and exploitation pathways per partner** for the defined KERs; (vi) discussion of the KERs' **value proposition to the main target stakeholders**; and, lastly, (vii) the descriptions of each **partner's individual post-project valorisation plans** to make use of the overall knowledge gained during the project and the assets developed in it.

The initial and interim versions of the Innovation Strategy focus on the identification of the knowledge brought to the project by the different partners and the preliminary mapping of project results and their IPR. More specifically, at the initial implementation stages of the project, the Innovation Strategy of SCENE identifies the background IP of the project and, to the extent possible, the main expected ERs. Access rights to the BG are also defined. As the project evolves, the initial focus on BG knowledge evolves to put more relative

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<sup>63</sup> European IP Helpdesk (2022c).

emphasis on the identification of ERs, with the respective discussions on asset ownership, access rights and IP protection, together with preliminary expected exploitation interests and pathways.

As the project advances, the SCENE IPR Management approach emphasises the handling of IP protection issues related to the specific results that are of strategic importance to the project in order to facilitate the exploitation of its key exploitable results, including their further development, wider deployment and, where applicable, their commercialisation. Accordingly, during the later stages of the project's implementation, the focus shall shift to the consideration of KERs and the pathways to guarantee their sustainability and wider impact in post-project stages. In particular, technical developments must be monitored following an iterative plan that ensures that project results are timely identified and regularly up to date.

By the end of the project, the consortium must ensure that the identification of IP elements, together with their ownership, protection conditions and exploitation plans, is exhaustive, validated and aligned. Lastly, at this stage, it must also be clear how the KERs add value to their main target stakeholders, as well as how they compare with existing competing products or state-of-the-art scientific outputs.

### 4.2.1 Main roles

Within SCENE, clear roles and responsibilities have been established with the aim to efficiently and effectively carry out the IPR Management strategy defined throughout this deliverable.

The **Innovation and IPR Manager** (hereinafter referred as *Innovation Manager*), White Research (WR), is responsible for defining the IPR Management strategy of SCENE. This includes writing the respective reports and ensuring that all the discussed IP elements and strategies are captured and defined, respectively. In addition, WR guides consortium partners in order to commonly establish the most adequate and efficient IPR strategies based on the nature of the newly identified assets and the purposes of the consortium concerning the exploitation of these assets. Finally, WR also assumes a mediation role in case of IP conflicts, helping the involved partners find a mutually agreeable solution (including written agreements whenever necessary) and always in line with the provisions of SCENE's CA.

The Innovation Manager also plays a role in identifying potential risks and matching expectations among consortium partners, which is a pre-requisite for developing the necessary trust environment for the exploitation of collaborative results. The nature of collaborative international projects gives rise to interdependencies among consortium partners and their work. In turn, these interdependencies entail potential challenges from the alignment of different partners' cultures and objectives. This is particularly the case when both research organisations and SMEs/industry actors are present; while the former are driven and rewarded by publishing their findings, the latter are driven by increasing their competitiveness and growth, which can be hampered when publishing results before adequate protection has been secured<sup>64</sup>. The **increased focus on Open Science practices in HE increases the need to appropriately address potentially conflicting expectations by taking into account the different interests and objectives** of all partners. To this end, partners shall strive to find a clear collective purpose and vision regarding the project's expected outcomes.

Throughout the project duration, the Innovation Manager collaborates with the following roles to ensure optimal management and consolidation of all IP assets:

- The Project Coordinator (CERTH) overseeing continuous project monitoring, ensuring quality, cost, and schedule compliance, and serves as the main contact with the European Commission (EC).
- The Technical Manager (CERTH) supporting the coordinator in technical and operational matters, including strategic decisions on technical choices and deployment activities.

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<sup>64</sup> European IP Helpdesk (2022c).



- The Exploitation Manager (HYP) managing market uptake activities, focusing on the consolidation of project results through exploitation, business modeling, and intellectual property rights (IPR) issues.

In addition, the Ethics Board contributes to IPR management, consisting of experts in AI ethics, data protection, privacy law, and relevant technical fields. This board guides the consortium to ensure ethical compliance in research and the large-scale implementation of the IP assets.

**All partners.** The efficient management of IP in a collaborative project can only be achieved through an active, participatory process, in which all consortium partners contribute to the timely identification and assessment of the IP (strategies) arising from their project activities and their respective organisational interests. Therefore, each partner is responsible for: (i) identifying the IP they are bringing as background for the implementation of the project and/or the exploitation of its results; (ii) capturing the results stemming from their work in the project; (iii) assessing the exploitability of such results and the most suitable protection avenues; and ultimately (iv) safeguarding their exploitation by identifying and taking any necessary actions during or after the project (e.g. deciding on ownership issues, drafting IP sharing or transfer agreements, maintaining protection measures, etc.). Project partners can rely on the support of the Innovation Manager and the structured tools prepared as part of the project's IPR Management methodology in order to carry out these responsibilities in a time-efficient and structured manner.

Naturally, Work Package and task leaders play a crucial role in monitoring the results generated under their respective WPs and tasks. Consequently, they are responsible for informing the Innovation Manager of the IPR-relevant aspects within their WPs and tasks, especially when joint ownership aspects may be present.

Finally, it is good practice for partners to inform and consult with the Innovation Manager and the Coordinator before deciding whether to protect a KER stemming from their activities – particularly when joint ownership is present.

### 4.3 Post-project stage

At the formal conclusion of the project, the final version of the IPR Management strategy (D6.9) will report the final and validated findings concerning IP issues, detailing the intellectual property rights applied and, potentially, registered. This work will guide partners willing to sign an IPR Agreement by providing an understanding of the specifying partners' contribution to each asset, presenting a clear split of IPR among the consortium, and facilitating a clear-cut exploitation route agreed upon by the consortium. The final IPR Strategy will be complemented by the final version of the SCENE business models (D6.8), envisaging the final advanced strategy for exploitation, management of IPR, wider deployment and commercialisation streams after the end of the project. The combination of these deliverables will provide the final outline of the use that the SCENE consortium intends to make of its Exploitable and the related plans and time frame for their exploitation, having a combined understanding of the services and technologies demonstrated by SCENE, the characteristics of their relevant market, their value chain(s), and the potential target stakeholders and end users.

#### 4.3.1 Seeking support beyond the project: Available support services from the EC

A plethora of publicly financed services are available to Horizon Europe beneficiaries for support with the IPR management or the exploitation of project results beyond the grant's lifetime.

The **Horizon Results Platform (HRP)** is the European Commission's corporate platform promoting Key Exploitable Results (KERs) of Horizon Europe projects. It is free-of-charge and hosted on the Funding & Tenders portal. To support the exploitation of KERs, the HRP provides matchmaking opportunities through an ecosystem of partners, access to investors, as well as training from mentors and coaches.



The **European IP Helpdesk** is a free-of-charge IP support service from the EC. Its goal is to support European SMEs and beneficiaries of EU-funded research projects to manage their IP through the following services, among others<sup>65</sup>:

- IP Training in various formats and awareness raising
- Resources library (e.g. factsheets, IP guides, case studies)
- An Ambassadors Scheme: A group of EEN (Enterprise European Network) experts on IP, tech transfer and innovation that provide basic IP training

The **Horizon Results Booster (HRB)** is an initiative of the EC which supports projects eager to go beyond their Dissemination and Exploitation (D&E) obligations - steering research towards strong societal impact and concretizing the value of R&I activity for societal challenges. The Horizon Results Booster offers 3 types of services<sup>66</sup>:

- Portfolio Dissemination & Exploitation Strategy
- Tailor made support services to develop a business plan
- Assistance, coaching and mentoring for go-to-market activities

The **Enterprise Europe Network (EEN)**. The EEN is a large network that supports SMEs with their innovation and international growth ambitions. The European Commission launched the Enterprise Europe Network in 2008. It is funded through the Single Market Programme and implemented by the EC's European Innovation Council and SMEs Executive Agency (EISMEA). The main activities of the EEN for business, technology and R&D partnering are the following<sup>67</sup>:

- Internationalisation advisory services. Identifying intellectual property assets of the company, IP due diligence, market analysis, IP cost/benefit analysis, IP valuation, IP audit, etc.
- Partnering Opportunities Database (POD)
- Brokerage (match-making) events, company missions, trade fairs. It helps find new business partners, build up business relationships and start cooperation
- Collaborative R&D&I projects

### 4.3.2 SCENE and Horizon Results Booster

In the context of SCENE, the Innovation Manager submitted an application for the Horizon Results Booster (HRB) – *Portfolio Dissemination and Exploitation Strategy – Module C*. This service aimed to improve the exploitation strategy through targeted support and an online consultation workshop with an HRB expert. A preliminary conference call took place on February 27, 2024, also documents were shared with project partners, including exploitation intentions, characterization tables, risk assessments, use options, and exploitation roadmaps.

A preliminary report was distributed on March 22, 2024, while the Exploitation Strategy Seminar was attended by all partners, focusing on sustainable exploitation post-project. The seminar included plenary sessions where partners actively contributed according to their roles. After the seminar, materials and slides were shared, and

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<sup>65</sup> European IP Helpdesk & Enterprise Europe Network (2024). Intellectual Property (IP) Handbook: Providing IP Guidance through the EEN Client Journey. Luxembourg: Publications Office of the European Union

<sup>66</sup> European IP Helpdesk & Enterprise Europe Network (2024). Intellectual Property (IP) Handbook: Providing IP Guidance through the EEN Client Journey. Luxembourg: Publications Office of the European Union

<sup>67</sup> European IP Helpdesk & Enterprise Europe Network (2024). Intellectual Property (IP) Handbook: Providing IP Guidance through the EEN Client Journey. Luxembourg: Publications Office of the European Union

the expert requested the completion of risk assessments and templates for specific KERs, selected by the consortium. Preliminary expert recommendations include:

- Simplification of the integrated platform for better promotion and impact.
- Exploitation of the Blockchain-based IPR preservation tool individually due to its innovative potential.
- Integration of fragmented services for added value.
- Awareness of traditional market solutions and exercise due diligence.
- Expansion of the use of data lakes in AI and application for new related research projects.
- Usage of Blockchain technology for IPR protection and employ new communication methods to appeal to younger producers.

These efforts ensured a comprehensive IPR management strategy, focusing on sustainable exploitation and effective utilisation of project results. The results of this service led to a consolidated report about 3 Key Exploitable Results (KERs) of the project, which has been submitted to the EC.

## 5 Methodology

To facilitate the process described in section 4, White Research developed a series of guidelines and templates to monitor and regularly update the definition of IP elements and protection and exploitation strategies.

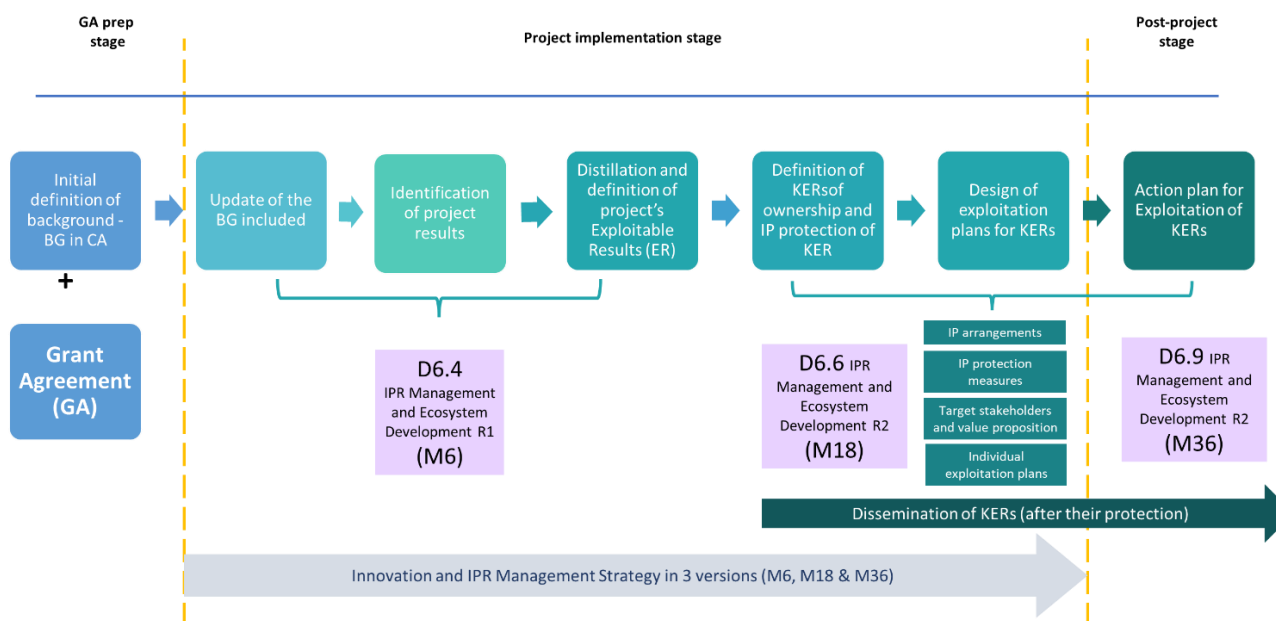


Figure 2 Process of IPR Management across the project lifetime

### 5.1 Identification of Background IP

The first step towards the definition of all the relevant IP elements of the project is to identify the background knowledge or IP (BG) that SCENE partners brought to the project from external or previous activities. Our methodology to comprehensively identify all the BG contributed to the project relies on an iterative process. First, an initial mapping of BG is done when drafting the project's Consortium Agreement. Subsequently, through the use of the template illustrated below; partners are asked to fill in the relevant information at different stages of the implementation phase. This iterative approach allows to update the list of BGs by adding any new IP brought into the project by a given project partner.



The template below allows us to compile data for all the main relevant elements related to the project’s BG in a standardized manner. Once the table is filled in, the compiled information will enable the understanding of the nature of the BG, its use within SCENE, and the different IPR considerations, including protection and access rights, more specifically the conditions to use within and beyond the project by partners and/or third parties.

*Table 2 Template for Background IP*

BG #	Description	Contributing partner(s)	Intended use in project	Type of IP protection	Access rights: Conditions to use within the project	Access rights: Conditions to use beyond the project
BG1						
BG2						
BG3						
...						
BGX						

The first column of the template assigns a number to each identified BG element, facilitating the mapping of relations between this BG, the WP, and the project results that will be identified in the following steps. In the second column of the template, a short description of the BG can be provided. In the third column, the name of the partner(s) who contribute to this BG can be indicated, potentially distinguishing between primary and auxiliary contributors. The fourth column is intended to determine how the BG will be used within the project, for instance, its role within the activities or a specific task or WP to enable partners to perform certain activities or to help them achieve the task’s goals. The fifth column allows partners to specify the relevant IP protection measures for the BG in terms of the instruments defined later in section 5.3. Definitions of IP protection measures’]. The last two columns allow project partners to indicate the conditions for the use of the BG within the project or beyond it, specifying whether there are any restrictions to use the BG and, if so, the conditions that apply to other project partners and/or third parties. Examples of access rights and conditions include ‘free to use’, ‘free to use under certain conditions’, ‘subject to charges/fees’, etc.

## 5.2 Identification of (Key) Exploitable Results and IPR protection measures and actions

### 5.2.1 Identification of (Key) Exploitable Results

A crucial aspect of the project’s innovation management methodology is the identification of the project’s exploitable results, an exercise which is conducted, once again, collaboratively by project partners with the guidance of structured templates and guidelines prepared by the Innovation Manager. The following templates were circulated offline, using several iterations in order to timely identify early results arising from project activities as well as to update, validate and extend the list of results in parallel with the project’s developments throughout its implementation phase.

The first step consists in the identification, classification and description of project results with exploitable potential. In practice, project partners are asked to provide the following information using Table 3:

- The type of result, namely whether the result is a main project result or a secondary result. This step allows for a prioritization between exploitable results (ERs) and key exploitable results (KERs), an important decision that will need to be validated, as it will affect the follow-up steps regarding exploitation and IPR management.
- The specific project activities that gave rise to the result, e.g., the specific tasks or WPs.
- Other ERs included within the result, in case the given result is a composite one that incorporates multiple project results.



- The sector of application of the result (e.g., the health or the transport sectors).
- A short but clear description of the result that has been achieved.

*Table 3 Template for Exploitable Results*

ER # and Name	Type of result	Related project activities	ERs included (if any)	Sector of application	Description
<b>ER1: Name</b>					
<b>ER2: Name</b>					
<b>ER3</b>					
...					
<b>ERX</b>					

### 5.2.2 Identification of IPR ownership and relevant protection measures

Once the different project ERs have been identified and classified, we can proceed to conduct a deeper analysis of ownership and IPR aspects for those **ERs prioritized as main project results or KERs**. To this end, the following table is used to identify the main elements required to engage in ownership and IPR management discussions and decisions. More specifically, the following new data can be compiled in a standardized and structured manner by using the additional Table 4:

- **The names of contributing partners** to the development of the KER, distinguishing between main contributor(s) and supporting ones. This identification will be useful to determine the owner(s) of the result.
- **The (proposed) owner(s) of the KER**. This decision will need to be taken in consensus among the different developing partners, with the guidance of the Innovation and the Exploitation Managers. Ownership decisions may be made at a later stage of the project, once the result is fully developed and the relevant discussions among concerned partners have taken place.
- **Feasible types of IPR protection mechanisms** (e.g., patents, copyright, etc.). Different types of protection mechanisms may apply to a specific result; once again, the final decision on the chosen mechanism will need to be done in agreement among the owners and with the guidance of the Innovation and the Exploitation Managers.
- **Any related background (BG) IP** that was used to develop the specific innovation or result. Here, a reference to a BG element identified in the list of BG IP can be introduced.
- **The access rights to the result** by other partners or third parties, differentiating between (i) conditions to use within the project (i.e., for the implementation of project activities) and conditions to exploit and disseminate the result, whether there are any usage restrictions or not (e.g., free to use, subject to charges like license fees, etc.).

*Table 4 Template for Key Exploitable Results*

KER number	Key Exploitable Result (KER)	ERs included	Developing Partner(s)	Proposed Owner(s)	Relevant IPR protection mechanism	Related BG#	Conditions for use	Conditions for dissemination and exploitation
<b>KER1</b>	<i>KER Name</i>							
<b>KER2</b>								
<b>KER3</b>								
...								
<b>KERX</b>								

Special consideration must be given to **jointly-owned results**, given the additional complexity in the management of the IPR for these results. Therefore, the last step in the definition of IPR protection measures for



KERs concerns solely those KERs for which, using the table below, it was decided that multiple partners would claim ownership of the IPR.

*Table 5 Template for jointly owned Key Exploitable Results*

Jointly-owned IP (e.g., KER #)	Allocation of shares among joint owners	Terms for post-project ownership, IPR transfer, etc.	IP protection and maintenance responsibilities	IP monitoring and enforcement responsibilities	Governing jurisdiction and dispute resolution
<b>KER1</b>	<b>33% Z; 33% X; 33% Y</b>				
<b>KER2</b>					
...					
<b>KERX</b>					

When co-ownership of results applies, it is important to allocate the ownership shares among the involved partners. In addition, it is important to discuss any terms for post-project ownership or any potential IPR transfers among co-owners, as such agreements may facilitate the exploitation of the results. Examples of such agreements include the definition of which parties shall bear the related costs from IPR management and the transfer of ownership rights to another co-owner. Next, it is also important to define each co-owner’s responsibilities regarding IP protection actions (e.g., filing an application for a patent) as well as the maintenance, monitoring and enforcement of such protection, all of which may entail non-negligible costs. Lastly, co-owners can also choose the applicable law and jurisdiction in case of disputes.

It is the role of the Innovation Manager to consolidate this input and present the findings in a structured, clear and consistent way. When the input collection is done offline, and data is provided individually by each partner, inconsistencies between their inputs are possible. Specifically for jointly developed results, uncertainties subject to further discussion are prone to arise. Therefore, such inconsistencies or uncertainties need to be identified and addressed in validation rounds with the relevant partners.

### 5.3 Identification of exploitation interests and actions

This section comprises a series of templates designed to identify the types of relevant exploitation interests for each key exploitable result and from each partner’s perspective. It also presents a template to assess the value proposition offered by the project’s KERs to its main stakeholders as well as a template to identify and monitor publications with exploitation potential.

#### 5.3.1 Individual exploitation interests per partner and KER

Partners may have varying interests with regard to the exploitation of the same result. For example, research institutes are more prone to have an interest in using a project result to conduct further research, while private entities are more likely to be interested in exploiting the same results for commercial purposes.

With the above in mind, the following template provides an illustrative overview of the individual exploitation pathways envisioned by each partner for each KER. Through this template, the Innovation Manager and consortium partners, collectively, can also obtain insights and spark discussions on where and how the consortium should focus towards the exploitation of each of the main project results.

*Table 6 Template for KERs’ Exploitation Interests*

	KER 1: Name Exploitation interest/strategy	KER 2: Name Exploitation interest/strategy	KER 3: Name Exploitation interest/strategy	KER 4: Name Exploitation interest/strategy	KER N: Name Exploitation interest/strategy
<b>Partner 1</b>					
<b>Partner 2</b>					
<b>Partner X</b>					



In each column, the relevant partner provides the exploitation interest for each KER, in consultation with the result owners to ensure that the planned exploitation is aligned with the access rights to the result. To represent the information in a readable yet clear manner, partners were asked to indicate their envisioned exploitation interests by choosing from a pre-determined list of relevant types of exploitation and entering the respective acronyms in each cell. Guidelines were provided to specify how each type of exploitation interest is represented by each acronym.

**Commercial exploitation.** Although varying, all the exploitation pathways listed below can be considered to fall under the ‘commercial exploitation’ category. They include potential exploitation interests of a project’s results (during or after the end of a project) that have a commercial objective: they ultimately aim to gain or increase profits and/or economic (i.e., market-related) competitiveness of the partner(s) that are to exploit them. We can classify the types of commercial exploitation pathways into three categories:

1. **C(M):** Commercial interest in Making or improving a product with the ultimate goal of selling it.
2. **C(L):** Commercial interest in Licensing the exploitable result (IP thereof) to third parties.
3. **C(S):** Commercial interest in providing a Service, such as a consultancy based on the ER or the knowledge built through it.

**Internal product, service, or process development (I).** The “Internal” exploitation type concerns exploitation approaches that will be used to improve an organisation’s internal processes and/or products of any kind. We envisage the following internal exploitation types:

1. The improvement of certain internal processes/products/services in an organisation; for instance, related to the development of AI algorithms.
2. The use of project results to increase their existing portfolio and improve existing products or services; for instance, tailoring advisory services related to the AI/filmmaking industry, improving production pipeline etc.
3. The use of project results to enhance their knowledge and perform further research activities and/or leverage them for pursuing further opportunities.

**Further Research (R).** The ‘research’ exploitation type concerns the exploitation approaches relevant for research activities that may not have a commercialisation potential but offer scientific exploitation of the ER. Through these types of exploitation, project partners aim to increase their chances to access new research projects, to use them for future publications, or to be able to identify novel research concepts. We envisage the following research exploitation path:

- Use of exploitable results (especially publications, research deliverables and general technical know-how) for ongoing and future projects and research schemes undertaken by university researchers and research centres.
- Use of exploitable results to advance research endeavours under industry-academia collaboration in the fields of AI and film-making.

**Standardisation (S).** The outputs of R&I intensive projects may also be used in standardisation activities, potentially being useful to develop new standards and ultimately helping bridge the gap between research and development of new technologies and their large-scale market uptake and deployment.

**Other.** The “Other” exploitation category includes types that do not belong to the commercial, research and internal processes nor to standardisation activities. They may entail exploitation types related to civil or humanitarian purposes, such as gaining the trust of the users of Generative AI for film-making. Other purposes can be related to policy-making or advocacy, for instance with the goal to enable a film-making regulatory environment that supports innovation. A further example are dissemination purposes, for example to increase a partner’s visibility within the AI and the film-making sector. For the sake of this exercise, partners

were asked to specify the concrete nature of the envisaged exploitation pathway when completing the template and selecting the “Other” category.

The list of categories was tailored to the most relevant uses identified for SCENE’s results, resulting in the following:

- **C(M)** – Commercial: Making or improving a product to sell it.
- **C(L)** – Commercial: Licensing it to third parties.
- **C(S)** – Commercial: Providing a service, such as consultancy.
- **I** – Internal use (e.g., using the ER to improve products or organizational processes).
- **R** – Research (e.g., in new research projects or internal R&D activities).
- **S** – Standardization activities
- **O** – Other types of exploitation (here, partners were requested to specify which specific use they were planning to give to the ER; for instance, pathways to derive value from the ER include dissemination or marketing activities).
  - **O(D)**. This acronym refers to Other (Dissemination purposes). This category is the most relevant ‘other’ type of exploitation path for the SCENE (K)ERs. Therefore, to efficiently manage the space in the tables and enhance clarity, we also abbreviate it.

More information on the individual post-project valorisation plans of each project partner at the KER level will be presented in the final version of this deliverable (D6.9) at the end of the project (M36).

### 5.3.2 Value proposition of the SCENE KERs to the main stakeholders

Understanding how the project results cover the needs of the project’s target stakeholders can be very useful in supporting the definition of exploitation strategies as well as business models and business plans, which aim to maximise the value proposition of the project’s results. Therefore, the following table captures, in a structured way, the main needs of each target stakeholder group and, more importantly, how the different KERs contribute to deliver value to each of these stakeholders.

*Table 7 Template for KERs value proposition*

KER number	Key Exploitable Result (KER)	Target stakeholder(s)	Main stakeholder needs	Value proposition offered by the KER: how does it cover and deliver the identified needs
KER1				
KER2				
KERX				

It is important to mention that, in the case of the SCENE project, this information is aligned with the relevant deliverable on the business models of the KERs, namely D6.2 SCENE Business models & exploitation plan.R1, delivered in January 2024 (M12).

## 6 SCENE’s Background and Exploitable Results

### 6.1 Overview of Background IP

The project partners identified the Background IP that is used in SCENE, in order to carry out the project’s activities and achieve its objectives. This identification, presented in the following table (see Table 8), was presented in the first version of this deliverable (D6.4) and has been updated whenever necessary.

## 6.2 Identified (Key) Exploitable Results

This section presents all the Exploitable Results (ERs) developed in the context of SCENE, as identified by the consortium, complementing the ones identified at the DoA. After internal prioritisation discussions, we classified these results between Key Exploitation Results (KERs) and partial or secondary ERs. They are identified and defined in order to provide a basis for subsequent discussions in this report, which will build on these results to discuss the exploitation and valorisation strategies of the project and its consortium partners. These project ERs are built upon the data, knowledge and assets both (i) brought to the project by the partners and (ii) developed throughout the course of SCENE's activities.

Since R&I projects are prone to produce a large number of ERs, it is most sensible to conduct a prioritisation among the identified results. In order to pave the way for post-project exploitation and maximise the project's impact, while also making an efficient use of the resources of SCENE's [innovation/exploitation management] task, we focus the project's exploitation plan on the results that hold the greatest exploitation potential, impact and added value for the consortium partners as well as the project's stakeholders. Besides commercial, scientific and societal impact, the technical maturity of the different project innovations was also considered for prioritisation. Moreover, the consortium's strategic priorities, comparative advantages and tolerable degrees of risk were also considered when selecting the results that shall be prioritised for effective post-project exploitation.

*In this context, it was concluded that the ERs of the project are the ones identified in Table 9 Table 1, while the KERs of the project are the ones identified in*

Table 10. Therefore, they will be the focus when designing the post-project exploitation strategies that are required for: (i) maximising SCENE's value propositions to the main target stakeholders groups; (ii) ensuring the sustainability of SCENE's work beyond the project; and (iii) helping consortium partners envision individual or joint realistic strategies to valorise their innovations in their preferred way (e.g., in the market, in future research activities, through reputation building, via internal product development, etc.).

### 6.2.1 Key Exploitable Results (KERs) of SCENE

*The KERs of SCENE were identified and validated by the consortium partners. In*

*Table 10, we provide a description of each KER, together with the corresponding project WP under which they were created, and the partial or secondary ERs of which they are comprised or on which they rely (see*

Table 10 for the descriptions of the rest of the project's identified ERs).

*With the support of all partners, and in close cooperation with T6.2, the following list of KERs has been identified (see*

Table 10). This information is subject to change and the updated information is going to be reported in the final version of this report (D6.9).

Table 8 SCENE Background IP

BG #	Description	Contributing partner(s)	Intended use in project	Type of IP protection	Access rights: Conditions to use within the project	Access rights: Conditions to use beyond the project
BG3.1	The Scan4Reco & the Palimpsisto Platforms, including 3D reconstruction, material ageing & visualization technologies	CERTH	The 3D modelling techniques that were developed within Scan4Reco and the Palimpsisto projects could be utilized within SCENE project for the creation of 3D models of the sites (WP3).	Proprietary	NDA	Currently not shared. If yes, then it will be provided with a license fee as web services
BG 3.2	The Scan4Reco VR Museum Platform	CERTH	The VR Museum that was developed within the Snac4Reco project could possibly be used in order to exhibit the 3D models of the cultural heritage items that will be developed within the SCENE project (WP3).	Proprietary	NDA	Currently not shared. If yes, then it will be provided with a license fee as web services
BG 3.3	CERTH's proprietary NLP Platform, including sentiment analytics, as well as classification & visualization mechanisms	CERTH	The sentiment analysis and the topic modelling services could be used by the audience building & the AI-based preferences scouting tools in order to sense the sentiment of the audience towards a specific topic (e.g., upcoming/past films, lead actors, etc.) through their comments. Also, the topics that are most interesting to the users could be identified using the topic modelling services (WP4).	Proprietary	NDA	Currently not shared. If yes, then it will be provided with a license fee as web services
BG 3.4	The AI4Media proprietary AI technologies for trustworthy multimedia processing	CERTH	The audio detection model implemented in the AI4Media project, could be used in the SCENE project in order to analyse before delivering the end-used the results of the audio effect modules, so as to ensure that the result is as realistic as possible (WP4).	Proprietary	NDA	Currently not shared. If yes, then it will be provided with a license fee as web services
BG 3.5	EIFFEL ontology	UPV	Though the topic (Earth Observation) is distant from SCENE, the methodology, set of tools and documentation released there can be potentially translated into SCENE (WP3).	Open Source (Apache2 and CC BY 4.0)	Royalty-free	Royalty-free
BG 3.6	3D Reconstruction Techniques	DTT	The 3D reconstruction techniques provided by DTT will be utilized to create accurate digital representations of cultural heritage sites within the SCENE project. These 3D models will be integrated into the overall platform and used for virtual exploration, analysis, and evaluation purposes (WP3).	Copyright	Royalty-free	Subject of partners agreement
BG 3.7	Scouting Principles	GOF	Scouting of several locations to find the right one to be reconstructed as a 3D model. The use of that will be later used as the basis of creating one of the pilots of the project (WP5)	Free to use within the project	Confidential	Currently not shared.
BG4.1	The Location3 platform for indexing location-specific infrastructure and metadata	CERTH	The deep learning models and the web platform that were developed in the Location3 project could be used as a baseline for implementing the Location Scouting tool of the SCENE project (WP4).	Proprietary	NDA	Currently not shared. If yes, then it will be provided with a license fee as web services



BG 4.2	CERTH's proprietary recommendation engine for mobile phones	CERTH	CERTH's recommendation engine could be used as a baseline for the Movies Recommendation engine of the SCENE project (WP4).	Proprietary	NDA	Currently not shared. If yes, then it will be provided with a license fee as web services
BG 4.3	Tracking Algorithms	LINKS	Customised tracking algorithms will be used and integrated in the SCENE platform to track actors and/or objects during the filmmaking phases (WP4).	Proprietary	Access right granted only to the relevant documentations and executable code within the SCENE consortium and limited to the project duration.	Subject of licencing agreement
BG 4.4	Large scale UWB-based Tracking solution	LINKS	The UWB-based Tracking solution will be used and integrated in the SCENE platform to track actors' positions and/or objects during the filmmaking phases (WP4).	Proprietary	Access right granted only to the relevant documentations and executable code within the SCENE consortium and limited to the project duration.	Subject of licencing agreement
BG 4.5	Libraries, modules, source code, binary code and remaining technology associated to the products: Vizzi, MAM4PRO, mDECK, mxfSPEEDRAIL, Xpress, storEDIT,mediaLIBS, MOGPLAY	MOG	The background will be used as a starting point to develop the media asset manager and distribution engine (WP4).	Secret Know-How	Free usage of the binary images	The usage outside the project scope is prohibited
BG 4.6	Deep learning server for audio processing/analysis	AUTH	The deep learning server, along with the services that run on its top, are going to be used for model training for audio simulations (WP4).	Open source	Free to use within the project	Open source
BG 4.7	FAMIUM Deep Encode	FOKUS	The tools will be used as part of the Quality Metrics measurement in T4.5 (WP4).	Copyright	Free to use within the project	Subject of licencing agreement
BG4.8	Learning Analytics	FOKUS	The tool will be used as part of the AI-based Audience Preferences Scouting (AAPS) Tool in T4.2 (WP4).	Copyright	Free to use within the project	Subject of licencing agreement
BG 5.1	Validation and Integration of Data Sources	DTT	The data integration will be utilized to collect, process, and integrate data from multiple sources within the SCENE project. This integrated data will be used to enrich the digital models, provide contextual information, and support various functionalities of the platform (WP5).	Not applicable	Free to use within the SCENE project	Not applicable

Table 9 SCENE Exploitable Results

ER # and Name	Type of result	Related WP	Sector of application	Description
ER1: SCENE-O Ontology	Secondary or partial result	WP3	Film-making - development	The ontology is based on various ontologies and metadata standards, such as OMC (Ontology for Media Creation, from MovieLabs) and VideoMetadataHub metadata (from IPTC), both using CC BY 4.0"
ER2: Semantic data lake	Main Project Result (KER)	WP3	Film-making - development	Data lake with semantic functionalities based on the SCENE ontology and (potentially) other ontologies. The semantic add-on intends to be both basic and practical that might be extended as the project evolves and beyond
ER3: Precise 3D Reconstruction Models of Cultural Sites	Secondary or partial result	WP3	Film-making - development	Accurate and immersive 3D models of cultural heritage sites using advanced techniques like laser scanning and photogrammetry.
ER4: Media Asset Manager	Main Project Result (KER)	WP3	Film-making - development	MAM will incorporate format agnostic content ingest, content classification and categorization, possibility to create collections and bundles, creation of actionable (actions that will be triggered by specific audiences' activities), support for different types of content licensing and monetization
ER5: Point clouds and 3D Scanned models	Secondary or partial result	WP3	Film-making - development	Generation of significant cultural sites 3D models. The procedure utilizes terrestrial laser scanning and 3D photogrammetry, supplemented with high-resolution imaging for detailed textures. These elements contribute to a comprehensive point cloud, which serves as the foundation for creating accurate 3D models.
ER6: Knowledge graph manager and ontology-based information retrieval	Secondary or partial result	WP3	Film-making – all stages	This exploitable result includes the search and retrieval tool implemented within the SCENE project, that aims to efficiently search and retrieve information from the DataLake according to a query posted from the user, using the SCENE-O ontology and knowledge graphs. The knowledge graphs are created based on the information retrieved from the DataLake, while the ontology will allow the increased accuracy of the most relevant information to the user's query.
ER7: Blockchain-based tracking of activities on the files via existing Marketplaces for IPR preservation	Secondary or partial result	WP3	Film-making - pre-production	Appropriate methods and technologies that permit tracking activities on the files via existing Marketplaces resulting in the creation of a mechanism for tracking the transactions in an auditable and accountable way. The property tracking will adopt the most appropriate frameworks for different types of tokens like Non-Fungible Tokens (NFT).
ER8: Blockchain-based economic mode via NFTs for IPR preservation	Secondary or partial result	WP3	Film-making - pre-production	A blockchain service based on NFTs that will allow the producer to issue NFTs related to production artefacts and will connect the content producers with existing Marketplaces and systems to facilitate their rewards from the NFTs.
ER9: Audience Building tool - Audience Engagement Interface	Secondary or partial result	WP4	Film-making - pre-production	This component allows the easy setup of campaigns across multiple social media platforms. It may involve the development of user interfaces, backend systems, and integration with various social media APIs. This specific result may include software code, user interface designs, and algorithms for campaign setup and management.
ER10: Audience Building tool - Gamification Engine	Secondary or partial result	WP4	Film-making - pre-production	This component incorporates a self-learning algorithm that recommends optimal gamification strategies based on the target audience and production characteristics. It may involve the development of machine learning algorithms, recommendation systems, and integration with the audience engagement interfaces. This specific result may include algorithmic models, machine learning code, and recommendation engine designs.



<b>ER11: Enhanced tracking algorithms combining both UWB ranging and IMU measurements.</b>	Secondary or partial result	WP4	Film-making - production	Enhanced tracking algorithms combining both UWB ranging and IMU measurements overall providing a robust and more accurate location estimation in presence of intermittent UWB connectivity (e.g., in hostile indoor environments).
<b>ER12: Large scale UWB-based tracking solution providing ranging measurements in the tag module.</b>	Secondary or partial result	WP4	Film-making - production	It consists of the BG 4.4 further developed in such a way ranging measurements are available not only in the anchor modules but also in the tag modules. This allows to implement distributed and hybrid localisation algorithms (in the tag module) integrating also IMU measurements data. Specific UWB messages will be implemented in downlink (i.e., messages from anchors to tags) in such a way ranging measurements are available also in the tag modules.
<b>ER13: Location Scouting tool - Deep learning-based algorithm for automatic metadata extraction</b>	Secondary or partial result	WP4	Film-making - pre-production	A deep learning-based algorithm which can automatically extract metadata from multimedia content (like regular photos, 360 photos, videos, etc.)
<b>ER14: Location Scouting tool</b>	Secondary or partial result	WP4	Film-making - pre-production	Interfaces that allow the filmmakers and location managers to search locations based on metadata and geographical locations. Furthermore, it will allow location providers, like real estate agencies and city film offices to register their locations and provide manually additional keywords and other characteristics which cannot be retrieved from the images.
<b>ER15: Distribution Engine &amp; Recommendation System -Content Distribution Recommender</b>	Secondary or partial result	WP4	Film-making - distribution	The Content Distribution Recommender is a tool designed for film and broadcast distributors, enabling them to create various video formats and encodings depending on their audience's needs. It allows filmmakers to quickly set up an OTTV channel and includes adaptive DRM protection for instant streaming and VoD film collection. The module integrates with a recommender and predictive analysis system to tailor content based on user preferences.
<b>ER16: Distribution Engine &amp; Recommendation System - Film Recommendation System</b>	Secondary or partial result	WP4	Film-making - distribution	The upcoming Film Recommendation System will aid filmmakers by identifying suitable audiences and recommending optimal distribution platforms for their productions. It will use film details, data from the AB tool, campaign information, and audience interest history. Furthermore, it will propose films or clips to SCENE platform users, using information about the films, data from the Location Scouting tool, and users' preferences.
<b>ER17: Distribution Engine &amp; Recommendation System - Clustering methods for audience grouping</b>	Secondary or partial result	WP4	Film-making - distribution	Clustering methods will be utilized to define audience groups for the Film Recommendation System, considering factors like audience interests, viewing history, demographic characteristics, and social network interactions such as likes, favourite movies and books, visited places, and hashtags.
<b>ER18: Audio simulation tools</b>	Secondary or partial result	WP4	Film-making - pre-production	A model that is used to simulate audio in a 3D space
<b>ER19: Improved Deep Learning AI</b>	Secondary or partial result	WP4	Film-making - pre-production	Improved Deep Learning AI targeted on audience viewing behaviour to recognize and predict trends
<b>ER20: Quality Metrics Toolset</b>	Secondary or partial result	WP4	Film-making - post-production	Improved Toolset to measure video quality on a wide range of materials
<b>ER21: Data Integration for Digital Models</b>	Secondary or partial result	WP4	Film-making - pre-production	Integration of data from various sources, enriching the digital models and providing contextual information.
<b>ER22: Pilot Video</b>	Secondary or partial result	WP5	Film-making - production	A proper production will take place utilising different SCENE modules, resulting in a completed video outcome.

<b>ER23: Lighting simulation tool</b>	Secondary or partial result	WP4	Film-making - pre-production	A framework that is used to simulate and modify different lighting conditions in multimedia.
<b>ER24: SCENE platform</b>	Secondary or partial result	WP5	Film-making - pre-production	A web-based platform supporting single-sign-on, allowing the users to access all SCENE's tools based on their role.

Table 10 SCENE Key Exploitable Results (KERs)

KER number	Key Exploitable Result (KER)	ERs included	Developing Partner(s)	Proposed Owner(s)	Type of result*	Relevant IPR protection mechanism	Related BG#	Conditions for use	Conditions for dissemination and exploitation
KER1	Semantic data lake	ER2	UPV, CERTH	UPV, CERTH	S	Open-Source License	BG 3.5	Free to use, unrestricted use	Ontology is expected to be released under CC BY 4.0. - Data lake encompasses a set of different tools. Supporting tools will follow Apache 2.0, Minio follows GNU GPL.
KER2	Media Asset Manager	ER4	MOG, HYP, LINKS, DTT, FOKUS	MOG	SaaS	Trade secrets	BG 4.5	Free to use	Currently under discussion. To be updated in the final version of this deliverable (D6.9).
KER3	EU Cultural heritage 3D modelling	ER3	DTT, CERTH, AUTH, GOF, CETMA	DTT	SaaS, P, S	Copyright	BG 3.6	Free to use	Software will be provided to view for everyone over browser. Downloading the asset will be a paid service.
KER4	Blockchain-based IPR preservation platform	ER7	CERTH, HYP, LINKS, MOG, FOKUS, GOF	CERTH	S, SaaS	Proprietary	-	NDA	Currently under discussion. To be updated in the final version of this deliverable (D6.9).
KER5	Location Scouting Tool	ER14, ER15	CERTH, DTT, FOKUS, AUTH, ADDMA	CERTH	S	Proprietary	BG 3.7, BG 4.1	NDA	The tool will be made available to the end-users who will participate in the pilot phase, while will be demonstrated in conferences, workshops, and affairs. In addition, emails will be send to companies that would be interested to use the tool, in order to present it to them. Consortium partners will have access rights free of charge. Exploitation pathway not clear yet. Most promising path is the licence to third-parties and/or the further participation in R&D projects.
KER6	Audience Building Tool	ER9, ER10, ER11	HYP, CERTH, DTT, FOKUS, ADDMA	HYP	S	Copyright	-	Free to use	The tool will be made available to the end-users who will participate in the pilot phase, while will be demonstrated in conferences, workshops, and affairs. Consortium partners will have access rights free of charge. Exploitation pathway not clear yet. Most promising path is the licence to third-parties and/or the further participation in R&D projects.



KER7	AI-based Audience Preferences Scouting Tool	ER20, ER21	FOKUS, CERTH, HYPERTECH, EPICA, ADDMA	FOKUS	S, M	Copyright	BG4.8	Free to use	Currently under discussion. To be updated in the final version of this deliverable (D6.9).
KER8	Distribution Engine and Recommender system	ER16, ER17, ER18	MOG, CERTH, FOKUS	MOG (Distribution), CERTH (Recommender)	S, P	Proprietary	BG 4.5	NDA	Consortium partners will have access rights free of charge. Exploitation pathway not clear yet. Most promising path is the licence to third-parties and/or the further participation in R&D projects.
KER9	SCENE integrated platform	ER2-ER22	All partners	CERTH	IS, P				Subject to agreement

\*S – Software; IS – Integrated Software; M – Method; T – Technology, SaaS – Software as a Service; P – Platform.

At the time of writing this report, the identification of 3 additional KERs is under discussion. The IPR management of these additional KERs is expected to be reported in the next release of this deliverable (M36), when the development yields more solid outcomes and the exploitation path of each leading partner becomes more evident.

### 6.2.2 Jointly-owned results of SCENE

Regarding the jointly owned results, an additional table has been created (see Table 11) to define the allocation of shares between the owners and the terms of ownership and, along with the accompanying guidelines and examples provided by White Research. This is used to guide partners in this exercise, making sure that partners engage in the necessary discussions in the presence of jointly-owned results and that all relevant aspects discussed in this paragraph are addressed. Ultimately, the purpose of this table is to gather information that will be useful for partners when preparing their joint ownership agreements.

Table 11 SCENE Jointly owned KERs

Jointly-owned IP (e.g., KER #)	Allocation of shares among joint owners	Terms for post-project ownership, IPR transfer, etc.	IP protection and maintenance responsibilities	IP monitoring and enforcement responsibilities	Governing jurisdiction and dispute resolution
<b>KER1: Semantic data lake</b>	50% UPV; 50% CERTH	<ul style="list-style-type: none"> <li>- The results will be jointly owned by UPV and CERTH.</li> <li>- Each party can use the results for further research, development, and distribution under the open-source licenses (CC BY 4.0 and Apache 2.0).</li> <li>- Commercial use or sublicensing requires mutual agreement.</li> </ul>	<ul style="list-style-type: none"> <li>- Both UPV and CERTH will share all costs related to IP protection and maintenance.</li> <li>- Responsibilities for filing, maintaining, and renewing IP are shared equally.</li> <li>- Legal services costs for maintaining open-source licenses will be shared equally.</li> </ul>	<ul style="list-style-type: none"> <li>- Both parties will monitor IP use to ensure compliance with open-source licenses.</li> <li>- Costs for defending IP against misuse or infringement are shared equally.</li> <li>- Legal action against third-party infringements requires mutual agreement.</li> </ul>	<ul style="list-style-type: none"> <li>- <b>Governing Law:</b> This agreement shall be governed by the principles of UNIDROIT (International Institute for the Unification of Private Law) or other neutral international principles.</li> <li>- <b>Dispute Resolution:</b> In the event of any dispute, the parties shall attempt to resolve the dispute amicably.</li> <li>- <b>Arbitration:</b> If amicable resolution is not possible, disputes shall be referred to arbitration under the rules of the International Chamber of Commerce (ICC).</li> <li>- <b>Seat of Arbitration:</b> A neutral location such as Geneva, Switzerland, or an agreed-upon virtual arbitration.</li> </ul>
<b>KER8: Distribution Engine and Recommender system</b>	50% MOG; 50% CERTH	<ul style="list-style-type: none"> <li>- The ownership of the results will be split equally between CERTH and MOG. MOG will have an exclusive commercial right to the back office of the distribution engine, its player and streaming ingest technology</li> <li>- CERTH will have ownership over the recommendation service</li> <li>- CERTH can use the results for further research, development, and distribution under the open-source licenses (CC</li> </ul>	<ul style="list-style-type: none"> <li>- Both MOG and CERTH will share all costs related to IP protection and maintenance.</li> <li>- Responsibilities for filing, maintaining, and renewing IP are shared equally according to the division of work</li> <li>- Legal services costs for maintaining open-source licenses will be shared equally according to the division of work</li> </ul>	<ul style="list-style-type: none"> <li>- Both parties will monitor IP use to ensure compliance with open-source licenses.</li> <li>- Costs for defending IP against misuse or infringement are shared equally.</li> <li>- Legal action against third-party infringements requires mutual agreement.</li> </ul>	<ul style="list-style-type: none"> <li>- <b>Governing Law:</b> This agreement shall be governed by the principles of UNIDROIT (International Institute for the Unification of Private Law) or other neutral international principles.</li> <li>- <b>Dispute Resolution:</b> In the event of any dispute, the parties shall attempt to resolve the dispute amicably.</li> <li>- <b>Arbitration:</b> If amicable resolution is not possible, disputes shall be referred to arbitration under the rules of the International Chamber of Commerce (ICC).</li> <li>- <b>Seat of Arbitration:</b> A neutral location such as Geneva, Switzerland, or an agreed-upon virtual arbitration.</li> </ul>



		<p>BY 4.0 and Apache 2.0).</p> <ul style="list-style-type: none"> <li>- Commercial use of joint systems for commercial licensing or sublicensing requires mutual agreement.</li> </ul>			
<p><b>KER9: Integrated platform</b></p>	<p>Under discussion</p>	<ul style="list-style-type: none"> <li>- The ownership of the results will be split between CERTH and the partners who will participate in the SCENE platform.</li> <li>- CERTH can use the results for further research, development, and distribution under the open-source licenses (CC BY 4.0 and Apache 2.0).</li> <li>- Commercial use of joint systems for commercial licensing or sublicensing requires mutual agreement.</li> </ul>	<ul style="list-style-type: none"> <li>- All participants in this KER will share all costs related to IP protection and maintenance.</li> <li>- Responsibilities for filing, maintaining, and renewing IP are shared equally according to the division of work</li> <li>- Legal services costs will be shared equally according to the division of work</li> </ul>	<ul style="list-style-type: none"> <li>- Costs for defending IP against misuse or infringement are shared equally.</li> <li>- Legal action against third-party infringements requires agreement from all partners.</li> </ul>	<ul style="list-style-type: none"> <li>- <b>Governing Law:</b> This agreement shall be governed by the principles of UNIDROIT (International Institute for the Unification of Private Law) or other neutral international principles.</li> <li>- <b>Dispute Resolution:</b> In the event of any dispute, the parties shall attempt to resolve the dispute amicably.</li> <li>- <b>Arbitration:</b> If amicable resolution is not possible, disputes shall be referred to arbitration under the rules of the International Chamber of Commerce (ICC).</li> <li>- <b>Seat of Arbitration:</b> A neutral location such as Geneva, Switzerland, or an agreed-upon virtual arbitration.</li> </ul>



## 7 IPR Management and Exploitation Strategy for SCENE's Results

Once the identification of the project ERs and the prioritisation of KERs has been completed, we dive deeper into the IPR Management and Exploitation strategy of the results. This includes IPR ownership and management procedures, such as protection, the definition of access rights and exploitation interests and pathways, as well as the value proposition of the SCENE KERs. The information presented in this section arose from our consultation workshop with the HRB-PDES C expert on improving the exploitation strategy for the project results and, in particular, the project KERs. It has been gathered through an iterative process that comprised multiple rounds of review and validation from partners and the HRB expert.

### 7.1 Identification of exploitation interests and actions

This section comprises a series of templates designed to identify the types of relevant exploitation interests for each key exploitable result and from each partner's perspective. It also presents a template to assess the value proposition offered by the project's KERs to its main stakeholders as well as a template to identify and monitor publications with exploitation potential.

#### 7.1.1 Individual exploitation interests per partner and KER

Partners may have varying interests with regard to the exploitation of the same result. For example, research institutes are more prone to have an interest in using a project result to conduct further research, while private entities are more likely to be interested in exploiting the same results for commercial purposes.

With the above in mind, the following table (Table 12) provides an illustrative overview of the individual exploitation pathways envisioned by each partner for each of the KERs. Through this template, the Innovation Manager and consortium partners, collectively, can also obtain insights and spark discussions on where and how the consortium should focus towards the exploitation of each of the main project results.

#### 7.1.2 Value proposition of the SCENE KERs to the main stakeholders

This section provides a stakeholder mapping for the main target groups that stand to benefit from SCENE results. An identification of their current needs was conducted during the first stages of the project and updated in this interim version of the IPR Strategy. The assessment of the value proposition builds upon the user needs identified in 'D2.2 – End-user needs & requirements. R1' & 'D2.3 – End-user needs & requirements.R2' delivered in M10 and M18 respectively, as well as in 'D6.2 – SCENE Business models & exploitation plan.R1', delivered in M12.

Each of the stakeholder needs identified below is addressed by the different tools developed by SCENE or the integrated SCENE platform. Hence, we also link each need to the specific, relevant KER. Lastly, we discuss the value proposition that SCENE promises to bring through these results to each of the identified stakeholder groups. The findings of this analysis are presented in Table 13.

Table 12 Individual KERs' exploitation plans

Partner	KER1: Semantic data lake	KER2: Media Asset Manager	KER3: EU Cultural heritage 3D modelling	KER4: Blockchain-based IPR preservation platform	KER5: Location Scouting Tool	KER6: Audience Building Tool	KER7: AI-based Audience Preferences Scouting Tool	KER8: Distribution Engine and Recommender system	KER9: SCENE integrated platform
	Exploitation interest/strategy	Exploitation interest/strategy	Exploitation interest/strategy	Exploitation interest/strategy	Exploitation interest/strategy	Exploitation interest/strategy	Exploitation interest/strategy	Exploitation interest/strategy	Exploitation interest/strategy
CERTH	C(S), R			C(M), R, O (Dissemination)	C(L), C(S), I, O (Dissemination)	C(L), C(S), I, O (Dissemination)		I, R, O (Dissemination)	C(L), C(S), I, O (Dissemination)
HYPERTECH						C(L), C(S), I, O (Dissemination)			C(S), I, O (Dissemination)
LINKS				R					R
DTT			C(L)						
MOG		C(L)						C(L)	R
FRAUNHOFER							R		
UPV	R								
AUTH	R	R	R						
WR	R					R			R, O (Dissemination)
EPICA									R, O (Dissemination)
ADDMA SA					C(S) & I	C(S) & I	C(S) & I	C(S) & I	C(S) & I
GOF	I	I	I	I	I			I	I
CETMA			C(L)						

Legend: C(M) - Commercial: Making or improving a product to sell it, C(L) - Commercial: Licensing it to third parties, C(S) - Commercial: Providing a service, such as consultancy, I - Internal (e.g. using the ER to improve products or organizational processes), R - Research (e.g. in new research projects or internal R&D activities), O - Others (please specify).

Table 13 Value proposition of SCENE KERs to target stakeholders

KER number	Key Exploitable Result (KER)	Target stakeholder(s)	Main stakeholder needs	Value proposition offered by the KER: how does it cover and deliver the identified needs
KER1	<b>Semantic data lake</b>	Film production studios Film industry professionals Independent filmmakers Content creators Cultural heritage organizations	<ol style="list-style-type: none"> <li>1. Access unified, self-expandable knowledge graphs;</li> <li>2. Integrate with open/existing data lakes</li> <li>3. Automatically extract knowledge for metadata and keywords</li> <li>4. Compliance with linked data standards</li> </ol>	<ol style="list-style-type: none"> <li>1. Unified film-related data management</li> <li>2. Efficient content search</li> <li>3. Contextual dimensions (location &amp; regional information)</li> <li>4. Context-enhanced content exploration</li> <li>5. Enhanced content management, classification and monetization</li> <li>6. Legal compliance assurance</li> </ol>
KER2	<b>Media Asset Manager</b>	Film production studios Independent filmmakers Film industry professionals Content creators Media agencies Cultural heritage organizations Educational Institutions for academic use	<ol style="list-style-type: none"> <li>1. Manage, classify and monetize content</li> <li>2. Ingest content in various formats</li> <li>3. Classify and categorize raw multimedia data</li> <li>4. Create collections &amp; bundles for organized content management</li> <li>5. Support different types of content licensing</li> </ol>	<ol style="list-style-type: none"> <li>1. Format agnostic content ingest</li> <li>2. Content classification &amp; categorization</li> <li>3. Creation of collections &amp; bundles</li> <li>4. Actionable content</li> <li>5. Support for different types of content licensing and monetization</li> <li>6. Definition and configuration of different types of audiences</li> <li>7. Inclusion of parental control features</li> <li>8. New content exploration mechanisms</li> </ol>
KER3	<b>EU Cultural heritage 3D modelling</b>	Cultural Heritage Organizations Film Production Studios Educational institutions Game developers VR/AR studios	<ol style="list-style-type: none"> <li>1. Achieve precise 3D reconstruction of cultural heritage</li> <li>2. Parametrize audio and light settings</li> <li>3. Understand real environments better</li> <li>4. Enrich film-related data with detailed 3D models</li> <li>5. Utilize 3D models in post-production</li> </ol>	<ol style="list-style-type: none"> <li>1. Precise 3D reconstruction of cultural sites</li> <li>2. Parametrization of audio and light settings</li> <li>3. Technical setup prioritization for the production stage</li> <li>4. Enrichment of data lake and ontology dimensions</li> <li>5. Use in post-production for multimedia product enhancement</li> <li>6. Licensing opportunities</li> </ol>
KER4	<b>Blockchain-based IPR preservation platform</b>	Film Production Studios Independent Filmmakers and Content Producers Consumers and End-Users Blockchain Enthusiasts and Experts OTT platforms (Hulu, Netflix etc.)	<ol style="list-style-type: none"> <li>1. Efficient and secure licensing processes</li> <li>2. Smart contract utilization</li> <li>3. Explore blockchain-based economic models</li> <li>4. Utilize NFTs for property tracking</li> <li>5. Integrate with existing marketplaces</li> </ol>	<ol style="list-style-type: none"> <li>1. Decentralized, Automatic, Secure, and Legally Binding Licensing Agreements</li> <li>2. Utilization of Smart Contracts for Licensing Control</li> <li>3. Streamlined contract processes</li> <li>4. Integration with existing marketplaces for content transactions</li> </ol>
KER5	<b>Location Scouting Tool</b>	Film Production Studios Location providers (real estate agencies, city film offices, public bodies) Tourism and cultural authorities Service providers (Accommodation, equipment, catering etc.)	<ol style="list-style-type: none"> <li>1. Efficient identification of suitable shooting locations</li> <li>2. Enriched decision-making with multimedia content</li> <li>3. Automated metadata extraction</li> <li>4. Streamlined assessment of location metrics</li> </ol>	<ol style="list-style-type: none"> <li>1. Access to the registered locations</li> <li>2. Efficient location scouting</li> <li>3. Context-enriched location data</li> <li>4. Multimedia Content (Photos, Videos, 360 Photos, Regional Information)</li> <li>5. Complex content labels</li> <li>6. Streamlined shooting arrangements</li> <li>7. Geographical and infrastructural suitability metrics</li> </ol>



KER6	<b>Audience Building Tool</b>	Film production studios Film distributors Marketing agencies Audiences and fans Funding agencies and investors NFT collectors and enthusiasts	1. Efficient social media connection 2. Audience engagement tracking 3. Campaign creation 4. Audience feedback gathering	1. Engaged audience building through gamification 2. Social media campaign management 3. Real-time campaign insights 4. Crowdfunding through NFTs. 5. Access to a dedicated dashboard
KER7	<b>AI-based Audience Preferences Scouting Tool</b>	Film production studios Content production Professionals Streaming platforms	1. Enhanced trend prediction 2. Visualisation of recognized trends 3. Privacy-preserving persona creation	1. Prediction of trends based on audience viewing behavior 2. Identification of current trends in audience preferences 3. Visualization of trends 4. Enhanced content alignment
KER8	<b>Distribution Engine and Recommender system</b>	Film production studios Film & broadcast distributors Streaming platforms SCENE Platform Users (Audience) Social media platforms (for integration)	1. Efficient target audience proposals 2. OTTV channel creation 3. Suitable distribution platform recommendations 4. Enhanced film proposals	1. Personalized content recommendations 2. Increased viewer engagement 3. Format-agnostic content distribution 4. Efficient targeting for film & broadcast distributors 5. Content optimization 6. Quick setup of OTT channels for filmmakers 7. Adaptive DRM protection for streaming & VoD films
KER9	<b>SCENE Integrated platform</b>	Independent filmmakers, studios, media providers, Content creators, producers, broadcasters, and distributors Students and educators in film schools Film festival organizers and participants Film critics and audience for consumption-related tools Location scouts Cultural Heritage managers, ministries and local authorities	1. Efficient content creation 2. Streamlined licensing and monetization through NFTs 3. Enriched storytelling with 3D models 4. Effective audience engagement 5. Staying ahead of industry trends 6. Identifying suitable shooting locations	1. Catering the needs of all actors in the filmmaking value chain 2. Unified film-related data management 3. Efficient location scouting 4. Secure and transparent IPR management 5. Efficient collaboration tools for remote work 6. Streamlined workflows for filmmakers 7. Predictive analytics and audience insights 8. High-fidelity 3D models of cultural sites 9. Crowdfunding through NFTs.

## 8 Ecosystem development and Network of Interest (NoI)

The aim of the NoI is to bring together a wide range of stakeholders that will act as both multipliers of dissemination activities and the attraction of potential users and future customers of our results. At its core, SCENE’s NoI will act as an active ecosystem with people from all over Europe and keep them informed of the project’s activities and progress that hold great potential to revolutionise the EU film-making industry.

The members of the NoI will have the chance to:

- Receive a bi-annual newsletter (via Mailchimp) with many interesting news on SCENE and more;
- Receive ad-hoc newsletter (via Mailchimp) to participate in the development of the project’s results
- Connect with like-minded individuals and organisations from the EU film-making industry;



- Participate in discussions on the various issues related to the filmmaking and the challenges that the industry and individuals are facing (e.g., the widespread use of Generative AI) and how to best overcome them;
- Participate in the SCENE activities.

With the support of all project partners, the NoI was formed in M12. Continuous efforts are being employed for the expansion of this network, as the formation, management, and operation of the NoI is a dynamic and ongoing activity that spans till the end of the project. The NoI can potentially compliment the dissemination and visibility activities of the project, assist the engagement of key stakeholder groups and provide insights to the project partners, in order to disseminate the project results across different target stakeholders.

## 8.1 Engagement methodology and structure

The active engagement phase succeeds the stakeholder identification and is deployed on two axes. The first axis is **targeting the members of the pre-existing networks of the SCENE consortium partners**. All of the project partners are strongly encouraged to use their dissemination channels (e.g., personal and/or professional SMAs) in order to bring the NoI to the attention of stakeholders of interest from their extensive networks and get them on board. As part of the scope of some project actions, the partners are expected to participate in various interactive events, such as workshops, training sessions, conferences etc. Such activities offer great networking opportunities; hence it is likely that the project partners will grow their network of contacts during the evolution of the project. The most relevant of these new contacts are considered for the NoI in an attempt to further expand the network.

The second axis of engagement activities concerns the **attraction of stakeholders beyond the partners' network**. To facilitate that, WR performed an EU-wide mapping exercise aiming to identify stakeholders that belong to the stakeholder groups described below in section 8.2 and invite them to join the NoI. It should be noted that this mapping exercise is an ongoing process that is repeated numerous times throughout the project in order to identify new members and facilitate the continuous growth of the NoI. To this end, supporting material has been created, including invitation templates, visuals, social media posts, etc. This material has been shared with all partners and is being distributed via email and the project's channels, including the social media accounts (SMAs). An overview of this material is presented in the figures below.

To facilitate and promote the engagement process, a page dedicated to the NoI was also created on the project's website, describing the scope of SCENE in general, whilst also providing the (potential) benefits for the members that decide to join the NoI (see Figure 3).



## WHAT DOES OUR NETWORK OF INTEREST OFFER?

- 1. Community building**  
 The network spans across Europe, creating an engaged community of filmmaking professionals. It provides a space for individuals to connect, share ideas, and collaborate on projects.
- 2. Information Hub**  
 The network informs members about innovations shaping the European filmmaking industry. This includes updates on project news, the latest trends, technological advancements, and industry news.
- 3. Empowerment through Technology**  
 SCENE Network empowers filmmakers by providing access to cutting-edge technological features. This enables them to turn their creative ideas into reality more effectively and efficiently, especially but utilising the SCENE Platform.
- 4. Engagement and Discussion**  
 The network serves as a hub for enthusiastic individuals who wish to track project progress and stay updated on related topics. Members can actively contribute to project's activities.
- 5. Balancing Automation and Creativity**  
 The Network of Interest supports us in examining both the challenges and opportunities that come with integrating AI into the filmmaking process, aiming to shape the future transformation of the industry in a way that harmonizes technological advancements with creative expression.

Figure 3 Supporting material for the Network of Interest

Figure 4 SCENE website – Network of Interest section



Finally, it is important to mention that all the engagement activities performed under this task, are in compliance with the GDPR requirements, following the Data Management Plan of the project.

## 8.2 Identification of stakeholders, networks and channels

A multi-actor engagement approach has been followed for the formation of the NoI, aiming to reach both specific and broader audiences covering scientific, policy, commercial and socio-economic aspects. The first and most important step in the establishment of the NoI is to identify the stakeholders with whom the project would need to establish channels of communication and interaction. In this context, stakeholders are either individuals or groups who are going to be impacted (or impact), to a greater or lesser extent, by the project's outcomes, and who therefore may have an interest in the project's progress and results.

The categories of stakeholders that were selected to build the pool of stakeholders are indicatively:

1. Content creators, producers, filmmaking industries, and content creator integrators;
2. Media providers, broadcasters, and distributors;
3. Artists, actors, and creative teams (e.g. editors, directors, audio engineers etc.);
4. Scientific community and research organisations;
5. Technology and service providers and pilot domain companies;
6. Policy-making bodies, and governance;
7. European Cultural Heritage managers, ministries and local authorities;
8. Public audience, and consumers. x

With the support of all partners, as well as the stakeholder mapping performed by WR, more than 70 individuals have been invited to join the SCENE NoI through targeted email communication. Additionally, SMAs are being used as a tool for expanding our network of interest leveraging the most appropriate channel to target different groups.

- **Instagram** is more popular among content creators, artists and creative teams;
- **LinkedIn** is more suitable for targeting technology and service providers, cultural heritage institutions and relevant policy authorities.
- **X and Facebook** are used to attract possible stakeholders from a more general pool of users.

Combining the wide reach of these SMAs with the existing professional networks of SCENE partners, we aim to create a diverse pool of stakeholders, who not only follow the progress of our work, but are also actively involved in specific key activities of the project. At the same time, all partners are encouraged to support the expansion of the network, leveraging the opportunities arising from their activities. For example, in the context of the survey developed under T2.2 targeting end-users of the film-making industry, the interrelation has been two-fold: on the one hand, the questionnaire was sent to all NoI members through a dedicated email invitation, while, on the other hand, we had the chance to expand the network, adding a question on whether the respondent wants to join our NoI, leading to the registration of 15 new members.

## 8.3 Data entry and metrics

A standard spreadsheet has been created and is being used to assist an effective data collection of information about the members':

- Full Name
- Type of stakeholder;
- Organisation's name;



- Email address.

To facilitate the involvement of members in our network, we keep the type of information we request for the registration as simpler as possible. There is also an anonymized version of the NoI members' list that can be used by all partners in the context of project activities.

## 8.4 Preliminary analysis

This section provides some preliminary information about the members of the SCENE Network of Interest. As of the date of the production of this deliverable (M18), the NoI contains 27 members, coming from (at least) 9 countries<sup>68</sup>, including Spain, United Kingdom, France, Germany, Italy, Cyprus, Greece, Finland, Portugal. Regarding the stakeholder type, the following categories have been identified:

- **Producers and Production Managers (13);**
- **Film Directors, Art directors and Directors of photography (5);**
- **Location Managers and Scouters (3);**
- **Researchers from film business, cinema and entrepreneurship (3);**
- **Virtual production experts (2);**
- **Computer graphics, animation, motion capture and 3D reconstruction experts (2);**
- **Digital asset manager (1);**
- **Audio engineer (1).**

The SCENE Network of Interest benefits greatly from its diverse representation, enhancing networking and project capabilities. So far, diverse stakeholders in terms of organization size and impact are involved, contributing in different ways to the project scope. Media giants like RAI may expand the project's reach and visibility, while research organizations such as the European Audiovisual Observatory and CYENS provide a fruitful ground for valuable data collection and innovation exchange. Production companies like La Tempesta can offer industry expertise, leading also to the potential establishment of effective partnerships.

Creative entrepreneurship organizations, like the Institute for Creative and Cultural Entrepreneurship, provide opportunities to attract talented individuals, building a strong network of professionals. Media organizations like IPTC and PERIODISTES set standards and broaden coverage, improving information dissemination.

Overall, this diverse participation boosts SCENE's ability to form meaningful connections, drive collaborations, and achieve impactful results, promoting knowledge-exchange and industry insights sharing. Taking into account the function of the network as a validation and an impact maximisation mechanism for SCENE, it is encouraging to see that several stakeholder categories are represented so far. There has been indeed a coordinated effort to engage diverse stakeholders through the partners' professional networks. This effort is expected to continue in the upcoming months and till the end of the project, so that not only the geographical coverage is expanded, but also the stakeholder categories

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<sup>68</sup> The country of each member is not explicitly provided, but it is derived primarily from the company location, or from the country code top level domain (if relevant).

## 8.5 Activities and future plans

### 8.5.1 Activities performed

To date, the following communication activities have been directed towards the NoI members via the Mailchimp platform:

- **1<sup>st</sup> Newsletter:** The 1<sup>st</sup> communication item sent to the members of the NoI welcomed them to the network and provided information about the scope and objectives of SCENE.
- **2<sup>nd</sup> Newsletter:** The 2<sup>nd</sup> issue was sent at the completion of one year of project implementation, presenting the project progress and relevant news and events.
- **Invitation to 1<sup>st</sup> Open workshop:** a targeted invitation has been sent to people who we had already identified on the preliminary stage of the NoI, as the workshop took place before the official formation of the network. The workshop aimed to discuss and understand the different needs and requirements of the diverse end users for the use of platforms in the film-making industry.
- **Invitation to participate in the survey on end-user needs and requirements:** In the context of T2.2, two questionnaires have been created to collect views and experiences from different film-making stakeholders, with the aim to better align and match the value propositions of the SCENE platform and tools with the industry needs. Both questionnaires have been distributed to the NoI members, contributing to the collection of responses and the expansion of the network.

### 8.5.2 Future plans

There are several upcoming activities that the SCENE consortium aims to involve the NoI members through targeted communication and invitations. An overview of these activities is provided below:

- **Continuation of the bi-annual newsletter distribution;**
- **Project events:** Invitation to upcoming project activities, aiming to familiarize the audience with the SCENE tools and encourage discussion on current developments of the film-making industry;
- **Business model validation:** Under 'T6.2 – Market Analysis, Business Model Definition and Exploitation Strategy', business models for each KER have been developed and will be validated and improved through direct engagement with the NoI members, and other external experts and market actors.
- **Delphi exercise:** In the context of 'T6.3 – Policy Scenarios and Recommendations', the NoI members will be invited to participate in a Delphi exercise, which is a foresight study that will explore different scenarios about the implications of the digital tools' integration and the impacts they may produce in the European filmmaking industry;
- **Policy workshop:** Under the same task T6.3, an additional workshop will take place to discuss the abovementioned scenarios, as well as the factors that could potentially boost its future development.
- **Trainings:** Hands-on training sessions on how to use the SCENE platform and tools are going to be organized during the project lifetime, in order to facilitate its use and uptake from the relevant actors, as well as identify potential bugs and other issues.
- **Clustering activities:** Joint activities with our synergizing projects will be organized to explore the common ground between the project advancements and discuss future advancements for the EU filmmaking industry.

Since participation in the NoI relies on a voluntary basis, the invitations will be carefully targeted to match the background and expertise of specific NoI members with the project activities. In this way, we will make sure that their involvement is meaningful both for SCENE and for themselves.



## 9 Conclusions and way forward

This interim version of the report on SCENE IPR Management and ecosystem development. R2 has presented the main elements of the IPR approach, the methodology employed in this respect, as well as an updated overview of the project's background, exploitable results and their respective IP protection measures. To facilitate the identification and management of SCENE's results and relevant IP, dedicated templates have been elaborated in collaboration with the IPR and EM, aligned with the overall guidelines of the European Commission. Moreover, the scope of the NoI and the steps that followed for its formation (M12) together with some preliminary analysis of the network and engagement actions are provided.

The final version of the SCENE Exploitation, Innovation and IPR Management Strategy 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 post-project exploitation, to support the sustainability and continuation of SCENE's outcomes.

The Innovation Manager (WR) is responsible for keeping the Innovation and IPR Management Strategy updated, in collaboration with the Exploitation Manager (HYPERTECH). The Innovation Manager is: a) monitoring the project's activities as they evolve; b) timely capturing innovation opportunities that may go unnoticed; c) identifying any potential conflicts of interest and facilitate their resolution before the end of the project. In this way, a proactive smooth post-project exploitation of SCENE results will be fostered.



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 <b>Hypertech</b>	HYP HYPERTECH	HYP
 <b>Links</b> FONDAZIONE PASSION FOR INNOVATION	FONDAZIONE LINKS - LEADING INNOVATION & KNOWLEDGE FOR SOCIETY	LINKS
 <b>DIGITAL TWIN</b> TECHNOLOGY	DIGITALTWIN TECHNOLOGY GMBH	DTT
 <b>MOG</b>	MOG TECHNOLOGIES SA	MOG
 <b>Fraunhofer</b>	FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV	FRAUNHOFER
 <b>UNIVERSITAT POLITÈCNICA DE VALÈNCIA</b>	UNIVERSITAT POLITECNICA DE VALENCIA	UPV
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 <b>GREEN OLIVE FILMS</b> GREECE - CYPRUS	GREEN OLIVE FILMS (CYPRUS)	GOF
 <b>CETMA</b>	CENTRO DI RICERCHE EUROPEO DI TECNOLOGIE DESIGN E MATERIALI	CETMA