Hungry EcoCities
S+T+ARTS Residencies

Deliverable 6.3 – IPR Report

Version 1.0

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History of changes

Date	Version	Author	Comment
2022-12-06	0.1	Radka Kavalova	Initial version, basic structure of the document
2022-12-15	0.2	Helena Svatosova	Lawyer's view on the content
2023-01-05	0.3	Pavel Smrz	Update on the IPR related to the provided technologies
2023-02-02	0.4	Pavel Smrz	Added information on the open-source character of software artefacts
2023-02-21	0.5	Helena Svatosova	Clarification of IPR issues
2023-02-22	0.6	Pavel Smrz	Reflection on reported issues
2023-02-24	0.7	Rodolfo Groenewoud	Internal review comments
2023-02-24	1.0	Pavel Smrz	Final version for submission

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1. Abstract

According to the project proposal and grant agreement, this deliverable should report the generated IPR and innovation management. Logically, the first version of the document, corresponding to project month 6 activities, contains primarily the plans for the IPR and innovation management and a conceptual view on the field, while the actual report on the generated IPR will be provided in the intermediate update of the deliverable in month 24 and its final version in month 36.

As the Hungry EcoCities project deals with the cascade financing and, in particular, will give money to 10 external creative technologists in the first call for residency participants and additional 10 mini-consortia, consisting of an artist and an SME, in the second call, the consortium members decided to keep the IPR situation as simple as possible, especially from the legal point of view. Most of the software tools, offered by the technology providers (the university partners of the project consortium) is available as open source, with non-viral licenses, available through standard code repositories such as GitHub. The technologies provided for the agri-tech research (primarily by the Mendel University in Brno) will also have appropriate approaches to the IPR and will be provided freely and openly to the residency winners (see Appendix A for the preliminary list of the technologies offered to the creative technologists interested in project residencies).

Although the initial list of available technologies that applying creative technologists could use have been prepared, the subset of the knowledge artefacts that will be actually employed in the created assets during the residencies and when the results will be presented will be known only after the two mentioned calls are evaluated and the experiments described. That is also why this version of the deliverable does not detail IPR plans for each individual technology and software but rather defines general principles that will be applied.

In general, the IPR and innovation management plan follows the Guidelines for this area valid in Horizon Europe and identifies the opportunities consortium members, as well as the supported parties, could benefit from the created knowledge artefacts.

This document should be considered in conjunction with the Consortium Agreement (CA) and the Grant Agreement (GA) signed by the project consortium. As stated in the Consortium Agreement, and to the extent that any provision of this deliverable that conflicts with the provisions of the Grant Agreement, the terms and conditions of the Grant Agreement shall prevail. Moreover, if any provision of this deliverable conflicts with the provisions of the Consortium Agreement, the terms and conditions of the Consortium Agreement shall prevail.

2. Routes for IPR protection

Knowledge assets that will be created within the project will take various forms of intellectual properties (IPs), including software, data, technological expertise, artistic work results and their presentations, organization know-how, and other intellectual resources. The standard methods of protecting these IPs, relevant to the results expected in the HEC project, are:

- **Copyright** which provides protection of *the form of expression* of ideas (rather than mere data, ideas or principles) for authors of software, and artistic works.
- **Database** protection which provides special copyright-like protection to organized datasets generated during the project.
- **Trademark** corresponding to recognition of a sign (e.g., logo, name, etc.) belonging to the trademark owner, giving exclusive right to the owner to use this sign.
- **Confidentiality** which is primarily used by the consortium to safely exchange information, facilitating the project development and ensuring the non-disclosure of sensitive technology, business or commercial confidential information.
- **Utility model** – a "petty patent", providing a cheaper but simpler alternative to patent protection.
- **Industrial design** – for protection of the tangible parts of the artistic or scientific inputs to the project.
- **Patent** – a standard legal method for technological products that allows the patent holder to prevent any third party from exploitation of its invention, even if it is developed independently.

The project will take care of detailing the IPR and innovation-related situation for each individual selected and supported experiment. The IPR issues related to the technologies to be used will be specified in the presented (mentoring) plan and a detailed map of the IPR created and innovation potential will be provided in the final report by creative technologists (in cooperation with the SMEs in the experiments resulting from the second call).

As suggested by the IPR guides, the experiment documentation will clearly identify:

- **Background** – information and knowledge held by the participants prior to their involvement with the experiment
- **Foreground** – the results including information, materials, and knowledge in the project
- **Ownership and protection** – answers to the questions who is the owner and what is the protection used or planned to be used for each particular IP, set up of the exercise of the co-owners´ rights, their mutual relation.

- **Access rights and conditions** – what are access rights for involved participants and formal conditions (for example, under written request/prior notification/without consent, conditions of the royalty-free use)

3. Joint ownership

It is expected that most of the supported residency experiment results will use one or more existing software tools, datasets, or technologies and that the creative technologists will generate artefacts with the help of their mentors from project art studios. Moreover, the second set of "path-to-progress" experiments will involve selected SMEs that will also contribute to and will co-own some of the outcomes.

As a general rule, joint owners must agree among themselves on the allocation and the terms of exercising the ownership of the foreground. In the absence of such an agreement (or pending its conclusion), a default joint ownership regime will apply.

Considering the above, if during the experiment work foreground is generated by two or more parties contributing a specific work, and if the contributions form an indivisible part thereof, such that under applicable law it is not possible to separate them for the purpose of applying for, obtaining and/or maintaining and/or owning the relevant patent protection or any other IPR protecting or available to protect such foreground, the involved parties will have to agree that all registered IPRs issued thereon, and any other IPRs protecting such foreground, shall be jointly owned by the parties *(the "Joint Foreground")*.

Within a reasonable period following creation of any joint foreground (the soonest being the best), and not later than a month before the deadline for the approved experiment period, the parties shall enter into good faith discussions in order to agree on an appropriate course of action for appropriate IPR protection, including the decision as to which party is to be entrusted with the preparation and prosecution of the appropriate IPR protection means. Any application of IPR protection on joint Foreground shall require mutual agreement between the involved parties. All external costs for the protection and the fees for maintaining such protection shall be shared among the involved parties.

As mentioned above, the project consortium will try to minimize potential IPR issues related to the created IPR. Creative technologists will be encouraged to produce open-source software tools with non-viral licenses and to guarantee open access to the experiment demonstration results. If relevant, also Open Data and Open Access principles will be adopted to the outputs which are suitable for.

4. Innovation management principles

The project will follow the [Innovation radar methodology](#) to manage and assess innovation resulting from the activities of the consortium members, as well as to the results of supported artistic residency projects. We will assess various indicators of innovation and market potential of the created artistic solutions, especially their readiness, management, and disruption potential. Innovation capacity will be also considered but more on a qualitative way, mostly by evaluating the feedback to the artistic result presentation.

5. Conclusions

This document provides an initial version of the IPR report. It defines the project-wide context of the IPR protection and the form it will be specified in the M24 and M36 updates of the deliverable. The key description of the generated IPR and innovation will come from the project-supported artistic solutions and their presentations where the IPR situation description of the complete results will become a part of the final experiment documentation.

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Annex A – Key technologies in the project toolbox

The initial list of technologies that will be offered to creative technologists applying for project-supported residencies will be built around the subfields/subtopics listed in the following table

Subtopic to support creative technologists	Responsible technology partner
Explainability of AI through interfacing and personalisation	KUL
Mixed-Reality interaction technologies and haptic experiences	KUL
Worker's implications of digital technologies	KUL
Supply Chain optimizations through reinforcement learning	KUL
IoT enabled systems and agents	BUoT
Advanced sensing and data analytics (incl. satellite data processing)	BUoT
Autonomous robotic systems	BUoT
Biorobotics – smart microorganisms able to detect pollutants (in the scope allowed by legal regulation)	MendelU
CRISPR editing (in the scope allowed by legal regulation)	MendelU
MicroAlgae cultivation systems	MendelU
Acoustic emission and spectral analysis of plants	MendelU
Smart plant cultivation systems for households	MendelU