



## Plan for IPR management and exploitation

**D6.8**

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Short Description
This document describes the approach and activities for FoodLAND exploitation planning activities as part of Work Package 6 "Networking, communication, dissemination and exploitation".

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## 1. Introduction

This document illustrates the plan for Intellectual Property (IP) management and exploitation. It also outlines the stages for the FoodLAND exploitation activities.

The FoodLAND Consortium agrees that centralised, early planning of exploitation activities greatly enhances the impact achieved. It will ensure a clear follow up of each and every planned action and provides transparency towards all members of the Consortium. Raising awareness of IP rules, regulations and protection measures is key to such an initiative. An early assessment of exploitation interests by all partners at the beginning of the project safeguards the pursuit of market opportunities arising from the project's results both on individual partner level and collectively as FoodLAND consortium. Therefore, a convincing outline of IP management and exploitation strategies at individual and consortium level is of great importance. In addition, properly managing IP in the projects helps participants avoid future conflicts among the Consortium.

For confidentiality reasons, the present deliverable – due to its public status – is not seen as the appropriate document to provide detailed descriptions of exploitation roadmaps of FoodLAND (key) exploitable results.

## 2. FoodLAND Exploitation Strategy

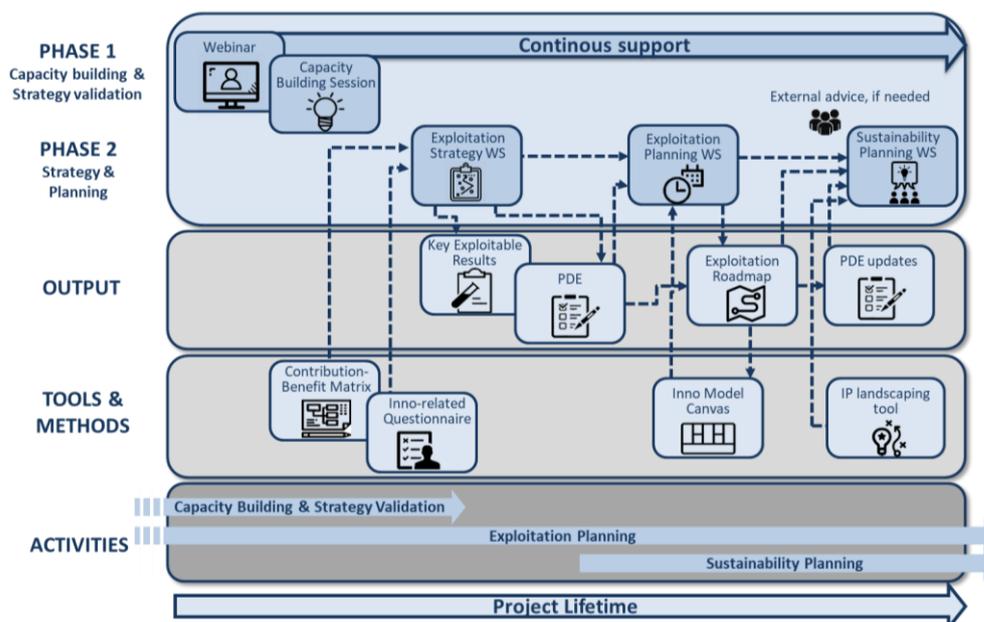
A step-by-step approach of IP management activities is organised to identify key project results with high potential for further exploitation. The FoodLAND approach comprises two phases, namely, the “Capacity Building & Strategy Validation” phase followed by the “Strategy and Planning” phase. The scope and timing of each phase is shaped to match the progress of work and level of maturity of the results, starting from a broader scope and increasing the specificity continuously over time. As far as knowledge and IPR management is concerned, IPR potential of technological innovations in the FoodLAND project will be systematically evaluated and prioritised.

A clear regulatory framework for knowledge and IPR management has been set up at the beginning of the project. Rules are laid down in the FoodLAND Grant Agreement and Consortium Agreement. It was agreed that the results of the project belong to the partner(s) generating them. Where several partners have jointly carried out work generating results and where their respective share of the work cannot be ascertained, they shall have joint ownership of such result. In addition, project partners need to give access to their background and results being created in the frame of FoodLAND in order to allow other partners to carry out their work on the project and/or exploit their results.

Although IP protection is vital for a prospective commercial or industrial exploitation, it is not always mandatory. The overall strategy of the FoodLAND Consortium is to seek IP protection in cases where:

1. The project results are clearly capable of commercial application.
2. The rationale for protection is sound.
3. The potential economic benefits clearly outweigh the financial cost of seeking such a protection.





**Figure 1.** Overview of FoodLAND Exploitation Support Activities.

## 2.1 FoodLAND Exploitation measures implemented M1-M18

Implemented activities related to phase 1 “*Capacity building and strategy validation*” are included in the first periodic report. Activities focussed on establishing a common basis of understanding regarding the general conditions of IP management and on validating and refining initial exploitation plans.

The process started with an IP capacity-development presentation to the Consortium during the FoodLAND kick-off meeting in October 2020. During the session, the services of the European IP helpdesk were presented. The partners were familiarised with the relevant rules laid down in the Grant Agreement and Consortium Agreement. In that respect key terms relevant in the context of Horizon 2020 projects (such as Background, Results, Exploitation, Dissemination and Access Rights) were introduced. Last but not least, attention was given to Intellectual Property (IP) aspects in the project lifecycle to ensure that the general obligation to exploit the results in H2020 will be complied with during the course of the project and that the partners are aware of the exploitation management approach and possible routes for exploitation. Subsequently, the FoodLAND plan for capturing, assessing and evaluating the project results and their specific exploitation strategies was presented and discussed.

As a next step, contribution-benefit-matrix (CBM) and innovation questionnaire (IQ) templates were compiled to collate required information on exploitation plans and activities from project partners.

The filled CBM was used to assess overlaps and dependencies of background brought into the project as well as foreground developed during FoodLAND. The combined information will be used to assess ownership of the results of the project and ensure that all contributions of partners to the development in FoodLAND are taken into account.

This is relevant not only for the future exploitation activities after the end of the project but also for dissemination activities (for example joint publications with contributions from several partners) and discussions on authorship for publications.

FoodLAND is developing a series of technological innovations (new tools, processes, and products) that target the local farming and processing systems. Deliverable D3.7 provides an overview of selected technological innovations that will be developed, tested and validated within FoodLAND.

In the frame of Task 6.5, partners provided information on preliminary exploitation plans and activities through innovation questionnaires (IQ). The filled IQs provided an initial overview on the planned results for each partner and the relevant contributions to these results. Additionally, first information about the planned exploitation pathways (commercial and non-commercial) as well as potential IP protection initiatives were collected. The results from the IQs were compiled in an extensive list of 86 exploitable results of FoodLAND. In a next step they were analysed and reduced to a reasonable number of key results (linked to WP4) to be further investigated according to their exploitation potential. The results are ranging from prototypes of innovative farming and food processing tools & systems, bio-based packaging, improved crop lines to novel raw materials, ingredients, and food products with enriched nutritional and functional properties.

The partners consider the following (commercial and non-commercial) exploitation pathways most applicable for FoodLAND expected results (listed in no particular order):

- Use for further research
- Policy use
- Training / workshop with local food operators
- Awareness raising campaign (consumers, citizens, communities etc.)
- Sell own products
- Registration of new hybrids / lines
- New varieties / species on the market
- Grant licences
- Influencing standards and guidelines
- Use for teaching activities (schools, universities etc.)

The identification of target users is crucial to the successful exploitation of FoodLAND research work. Following the identification of target users, the Consortium will need to keep them successfully engaged in order to keep them informed and interested in the project developments.

The main target users that have so far been identified are the following:

- Smallholder farmers (crops and fish)
- Farmers' organisations / associations
- Processors
- Consumers in rural and urban areas
- Food retailers
- Consumers' associations
- Local and international institutions and NGOs
- Industry (breeding and seed companies, fish processing, food industry, mulching industry)
- Local governments and policy makers



- Research community
- Extension services

## 2.2 FoodLAND Exploitation measures planned (M19-M36)

In the following we describe the planned activities related to phase 2 “*Strategy and planning*”.

During the second half of 2022 a (virtual) Exploitation Strategy Workshop (ESW) will be organised by EURICE to validate Key Exploitable Result (KER) candidates related to WP4 and associated exploitation strategies. KERs will be assessed in terms of R&I maturity (“from farm to fork”), technology readiness level (TRL) status and their contribution towards the outcomes and wider impacts. Furthermore, the workshop will be used to revise and refine the strategy for the expected uptake of KERs, related risks, and potential further needs to enable exploitation. In addition, a webinar on Intellectual Property in the Agri-food sector (incl. plant varieties) will be held by EURICE. It will be targeted at our African partners with a special focus on local farmers and SMEs. All interested consortium partners are also invited to join the session.

In autumn 2022 special attention will be given to WP2 and WP3. Partners contributing to these WPs will present an updated view on their individual exploitation interests in an Exploitation Strategy Workshop. The group will identify the WPs’ most promising expected exploitable results, compile a basic description of their innovation potential and agree on a joint exploitation strategy.

Since the partnership of FoodLAND also includes six SMEs of the food sector, one industrial partner active in the area of bioproducts and four Research and Technology Organisations, individual interviews with them are planned for quarter four of 2022. The concerned partners will present their expectations related to the general added value for their company as well as novel market opportunities arising from the project and relevant to their company. Their perspectives and plans will be an integral part of the overall FoodLAND exploitation strategy.

During the first quarter of 2023 an overview of already obtained and expected main results will be compiled, with a specific focus on the KERs. An Exploitation Planning Workshop (EPW) will be held with the partners concerned to start discussing specific plans for their identified KERs. The aim of the EPW will be to draft an exploitation roadmap and schedule for each KER, as well as to clarify IP status, target customers, competitors, risks, legal and other issues to be solved and further steps to be taken. For each KER, a lead and, if appropriate, a team will be identified to visualise and document key parameters of the KERs.

During the third project year interactive sessions with the local coordinators and their teams are planned in order to discuss options for sustainability of the Food Hubs and their activities beyond the FoodLAND project timeline. It will be important to identify potential barriers but also to implement mitigation measures early on. Needs have to be clarified to ensure engagement from local stakeholders after the end of the project (personnel resources, finances, access to new funding schemes, facilities, networking etc.). Individual sustainability plans for each Food Hub will be developed in order to address the specific local needs and circumstances.



## 2.3 Outlook

During the last project year (2024) the exploitation roadmaps will be further developed. Since exploitation may involve external partners (e.g., scientific and stakeholder advisors) they will be invited to follow short presentations by the KER lead team in order to provide targeted input and recommendations. If need be, external experts will be invited to advise on specific aspects, such as IP protection issues.

Advanced descriptions and plans for Key Exploitable Results will be prepared by the KER lead partner and shared with partners concerned to enable further input. These KER descriptions will serve as a basis for publishing the FoodLAND KERs on the Horizon Results Platform.

A Sustainability Planning Workshop (SPW) will be held at the final project meeting. The following topics could be addressed in this workshop:

- maintenance of local Food Hubs (increase cohesion and ownership within the local community, financial viability) and their network
- maintenance of project website (responsibilities)
- maintenance of Open Platform (D4.14) to allow sustainable sharing of research methods and results
- funding sources beyond the lifetime of FoodLAND (foundations, national and international funding, rural development)
- investments
- FoodLAND network: continuation of relationship with partners and external stakeholders
- lessons learned (SOPs, protocols, etc.)
- recommendations from external stakeholders
- planned publications
- nutritional recommendations, practice abstracts, focus groups (EIP-AGRI, EFSA)
- legal aspects: agreements required for access, joint ownership, transfer of ownership, licensing (involving institutions' tech transfer offices and legal departments)
- recap on obligations related to dissemination/exploitation after project end
- action with policy makers
- action plan related to project completion

## 3. IP Management Strategy

### 3.1 Overall IP strategies in collaborative Horizon 2020 R&I projects

Collaborative projects bring together partners who have different company cultures, business mindsets, interests, and strategic objectives. Different partners also contribute different background knowledge and IP for use during the project and, if needed for commercial exploitation, after the project ends under agreed terms and conditions. Results from collaborative projects are often built on the combined knowledge of several partners, so are jointly created and jointly owned. Therefore, it is important for all partners involved to agree on appropriate and shared strategies for their management, protection, and exploitation. Beneficiaries in a collaborative Horizon R&I project must make best use



of all relevant knowledge and IP to maximise the benefits from the collaboration and to develop and successfully commercialise innovations which enhance competitiveness and growth. This certainly includes the outputs from the collaborative project itself, their own existing knowledge and IP, and potentially also that of the other partners, and other third parties.

Effective management of all these intellectual assets is crucial, particularly those results which are developed collaboratively and jointly owned. Equally important is the need to consider the strategic value of protecting these results in order to support commercial exploitation. Participating in collaborative work requires acceptance of the need to share and may require a cultural shift in the collaborating organisations to achieve this. However, collaborating is so much more than just sharing. The nature of collaboration means that there are also interdependencies between partners and longstanding ties can be built between the partners and other stakeholders. These interdependencies and new relationships may lead to other benefits, such as future commercial collaborations to access new markets or fields of use.

A key challenge in Horizon 2020 collaboration projects comes from the misalignment of organisational cultures, agendas and approaches of the different partners. In collaboration projects, all partners have different interests, spanning from research to commercial exploitation. This is particularly the case for universities and research organisations that are driven and rewarded by publishing their findings, compared to SMEs and the industry that are driven by increasing their competitiveness and growth. Publishing results too soon, before adequate protection has been secured, could have adverse consequences for them. Open approaches for sharing knowledge, and obtaining knowledge from others, can stimulate the development of innovations. It is the basis of collaboration and should be embraced. Whilst consortium partners are a good source of knowledge and ideas, with the increased focus on Open Innovation and Open Science practices in EC funded collaborative projects, involving multiple actors with different objectives and perspectives, becomes a major challenge in addressing the appropriate and systematic knowledge management flow between partners.

However, defining an appropriate framework to organise and manage these collaborative innovation activities, whilst at the same time maintaining control over the dissemination and commercial use of the knowledge, can be very challenging for SMEs. SMEs must, therefore, fully understand the potential contributions from the consortium partners, and vice-versa, to be clear about everyone's contributions to the project. Collaboration has the potential for conflicts among consortium partners that might hinder a project's smooth implementation and the successful exploitation of its results. However, these challenges can be overcome when they are understood and managed, ensuring the scope of the collaboration is clear and agreed upon by all partners, and the partners' strategic objectives are respected and aligned to avoid conflict.

Knowing and matching expectations among consortium partners is a pre-requisite for developing the trust and credibility necessary for the exploitation of collaborative project results. Expectations, needs, contributions, benefits, risks etc. need to be discussed and understood alongside a clear collective purpose, vision and outcomes. Systems for managing the IP and knowledge, its flow between partners and shared strategies for its protection and exploitation are key to successfully maximise the impact of a collaborative R&I project. Joint ownership is a particular challenge when addressing management,



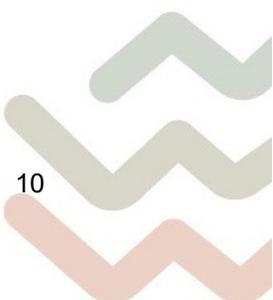
dissemination, protection, transfer/licensing, and exploitation research results. It is important that these issues are appropriately addressed, taking into account the different interests and objectives of all partners, whilst ensuring the commercial objectives of the SMEs are also met. Even in case of exclusive ownership, with one partner acquiring the full ownership of the project results to be exploited through exclusive licenses or transfer of results, specific provisions need to be put in place in order to ensure access rights to results for other parties, remuneration for the exploitation of the acquired project results in order to safeguard all interests of the parties involved in the project.

### 3.2 The IP framework: IP-related rules, requirements and options for IP management in FoodLAND

The European Commission (EC) has established rules concerning ownership, protection, access rights, dissemination and exploitation of project results, which constitute the guiding principles for IP management in FoodLAND. IP rules are mainly defined in the Grant Agreement (GA) and the Consortium Agreement (CA). The Grant Agreement contains "default rules" applicable to IP management which have been revised by the FoodLAND Consortium in the Consortium Agreement.

Whereas the GA defines the rights and obligations related to the project between FoodLAND beneficiaries and the EC, the CA deals with the rights and obligations between the beneficiaries themselves, with regard to the execution of the project, specifically those related to the internal management of IP/IPR. The CA is thus complementary to the GA. IP provisions that are not included therein will fall back to the common regime provided in the GA. This is the reason why the FoodLAND Consortium gave the highest possible priority to a successful completion of the CA before starting the collaborative project. During the FoodLAND grant preparation phase, the CA was jointly discussed and individually designed. This includes the revision of default IP clauses in the GA that do not fully match with the interests of consortium partners. Although not exhaustive, the following essential IP-relevant issues were discussed when drafting the CA of FoodLAND: confidentiality, background selection, use of IP generated parallel to the project, ownership / joint ownership of results, legal protection of results (IPR), access rights, procedures for the dissemination of results. The CA provides the legal framework for IP-Management, including a detailed section with specific innovation-related clauses on ownership, access rights, decision making procedures, publications and IP-management within the project. If necessary, this document will be amended and updated throughout the project.

During the first phase of the project, the consortium partners were informed about the specific IP-related rules and obligations laid down in the GA and CA. In particular, our balanced approach between Open Science/Research practices on the one hand and IP-protection for commercial interests on the other hand were thoroughly discussed. The consortium is fully aware of the relevant rules and agreed procedures for publications, dissemination measures and data sharing with third parties.



### 3.3 Capacity-development in collaborative IP management

Among others, the capacity-development measures address in particular the following obligations of FoodLAND beneficiaries:

#### Obligation to Protect

Each FoodLAND beneficiary must examine the possibility of protecting its results and must adequately protect them for an appropriate period and with appropriate territorial coverage, if

- a. the results can reasonably be expected to be commercially or industrially exploited, and
- b. protecting them is possible, reasonable, and justified (given the circumstances).

When deciding on protection, the FoodLAND beneficiary must consider its own legitimate interests and the legitimate interests (especially commercial) of the other beneficiaries.

#### Obligation to Disseminate

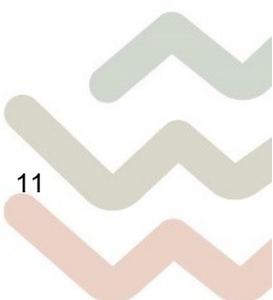
Horizon follows the “Open Science” approach that focuses on spreading knowledge as soon as it is available using digital and collaborative technology. That is why FoodLAND beneficiaries are requested to make their scientific publications available as Open Access publications, and make their data as open as possible and as closed as necessary. It should be noted that Open Access in FoodLAND does not interfere with the protection of research results, specifically for patent protection on technical inventions where novelty is a patentability requirement, provided that the decision on whether to publish Open Access documents comes after the decision on whether to first seek protection for intellectual property rights.

The Consortium Agreement between FoodLAND beneficiaries includes provisions for conditions for dissemination, whereby other consortium partners will be aware of the procedures to follow before disclosing any information about the project. Regarding publications, the CA includes and specifies pragmatic rules regarding the announcement of planned publications/presentations. As an example, the CA specifies notification rules for any planned publication as well as rules and procedures with regard to the right to object. Further measures for capacity-development addresses other rules and procedure to follow where it comes to disseminating project results, i.e. how to recognise a detrimental publication, how disagreements are dealt with, votes, the management of the notification/objection process, etc.

#### Obligation to Exploit

All beneficiaries in FoodLAND are fully aware that they must, up to four years after project completion, take measures aiming to ensure exploitation of its results (either directly or indirectly, in particular through transfer or licensing), by:

- using them in further research activities (outside the action);
- developing, creating or marketing a product or process;
- creating and providing a service;



- using them in standardisation activities.

#### Rules related to Ownership / Joint Ownership

Particular emphasis has been given to establish rules and procedures for ownership (and the management of ownership) of FoodLAND key project results.

The GA states that results are owned by the beneficiary that generates them. However, due to the strong collaborative work in FoodLAND, two or more partners may jointly contribute to an individual result of IP. In these cases, the IP is jointly owned. The joint owners will therefore agree on the terms of the joint ownership (“Joint Ownership Agreement”), which includes agreement on relative contributions to the IP, who will be responsible for the management, protection and exploitation of the IP, and how costs and revenues will be shared.

It should be borne in mind that if no agreement is reached the general GA provisions will apply. The CA is a one-size-fits-all instrument that partners might choose to use to deal with joint ownership, although separate joint ownership agreements are considered more appropriate to respond to each specific co-ownership situation. Therefore, in FoodLAND, in case of co-ownership, partners envisage to sign up joint-ownership agreements to agree upon (not exhaustive):

- patenting process including territorial division for registering the invention,
- division of market for the commercial exploitation,
- the setting up of a regime for the IP protection and enforcement,
- the setting up of a regime for exploitation (i.e., limits and profit sharing).

### 3.4 IP management approach in FoodLAND

In order to comply with the obligation to disseminate results as well as open access rules and obligations, whilst safeguarding the rights of the consortium partners to protect their IP to enhance chances of an effective commercial exploitation of the project’s results, a proper IP strategy has been defined. Whenever certain results are identified to be attractive for the future business opportunities of one or more project partners, and protecting them is possible, reasonable and justified, the necessary steps to implement appropriate IP protection measures (such as, but not limited to, patents, copyrights, trademarks, registered designs, design rights, databases, trade-secrets, confidentiality, and other forms of protection) may follow the procedures already in use by the concerned partner(s). Moreover, the Consortium established rules that the coordinator has to be informed at the earliest possible instance about the intention by the concerned partner(s) to protect that IP. Hence, the coordinator brings the IP protection intention at the attention of the Executive Board. In order to secure the research as well as business interests of all partners involved, any issue that might arise from the IP protection initiative during the project will be dealt with by the General Assembly.

In case of jointly owned new IP, the procedures for IP protection, use and licensing will comply with the rules set out in the GA and also described in the CA. In addition to the above, issues of IP protection will be handled within the Executive Board on a regular



basis, as well as within the Governing Council / General Assembly upon necessity. Each time certain results are identified to be worth of IP protection, legal aspects are handled alongside activities aimed at analysing and providing support for filing the IP protection application. If necessary, commercial agreements are also drafted and agreed upon among the relevant actors.

## 4. Conclusion

FoodLAND, as an ambitious consumer-oriented H2020 action, considers the stream of activities related to exploitation as linchpin for making project results sustainable over time and as impact generator for project partners and well beyond the boundaries of the FoodLAND Consortium. Exploitation thinking inevitably passes through knowledge and IPR management, which is seen as a core activity. The present deliverable, released in the initial phase of the FoodLAND project, illustrates measures that were planned by the consortium for handling knowledge and IPR management in a systematic manner. This is done by presenting internal procedures for knowledge and IPR management adopted in tune with the FoodLAND Grant Agreement and Consortium Agreement as well as by providing an initial overview of asset types that are the backbone for forthcoming exploitation actions.

