Root2Res

Root phenotyping and genetic improvement for rotational crops resilient to environmental change

Dissemination and Exploitation Plans (including the communication handbook)

Sophie Thanner (FiBL)

Óscar Bernardez (FEUGA)

Theresa Sixto (FEUGA)

Laura Kemper (FiBL)

Deliverable Number	Work Package / Task
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Lead Beneficiary	Deliverable Author (S)
FiBL	Sophie Thanner, FiBL Óscar Bernárdez, FEUGA Theresa Sixto, FEUGA Kemper Laura, FiBL

Beneficiaries	Deliverable Co-Author (S)
FEUGA	Helga Willer (FiBL) Thomas Alföldi (FiBL)

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Type of deliverable			
	R	Document, report (excluding periodic and final reports)	x
	DEM	Demonstrator, pilot, prototype, plan designs	
	DEC	Websites, patents filing, press & media actions, videos, etc.	
	DATA	Data sets, microdata, etc.	
	OTHER	Software, technical diagram, algorithms, models, etc.	

Dissemination level			
	PU	Public, fully open, e.g. web (Deliverables flagged as public will be automatically published in CORDIS project's page))	x
	SEN	Sensitive, limited under the conditions of the Grant Agreement	

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1. Introduction

Root2Res (*Root phenotyping and genetic improvement for rotational crops resilient to environmental change*) will deliver novel tools to help design climate resilient crop rotation systems that are adapted to a range of environments across Europe. Beyond the project, these future-proofed systems will provide plentiful, healthy, and nutritious food from crops that are resilient to stress, resource efficient and go some way to mitigating the impact of climate change by sequestering carbon in soils. Root2Res will therefore contribute to more sustainable and environmentally friendly cropping systems for Europe, contributing to Horizon Europe's cluster 6 and the EU goal of healthy and resilient ecosystems by 2030.

This deliverable is embedded in Work Package 7, 'Translation of outputs', which is expected to deliver on three objectives: 1) to make the project relevant to the public and collaborate with complementary initiatives; 2) to foster results transfer while protecting innovation; and 3) to facilitate the participation of relevant stakeholders. Although closely linked, the latter is developed separately through Deliverable 7.1.

Consequently, Deliverable 7.2 is focused on Communication, Dissemination and Exploitation. Together, these three branches make the project visible, accountable, and beneficial for the public. In other words, they allow for the results to be made available, even to unexpected end-users. It is worth mentioning that the inclusion of Communication, Dissemination and Exploitation tasks is mandatory by the European Commission, and thus, involves all consortium members.

In terms of the audience targeted, communication is oriented towards citizens, promoting the project and the consortium to the general public. In contrast, dissemination focuses on collaborating with the scientific community and anyone that can make use of the knowledge generated. In the case of Root2Res, this includes sister projects and European networks, but also a value chain comprised of farmers, breeders, agronomists, advisors in extension services, scientists, seed vendors, retailors, regulatory bodies and policy makers. Finally, Exploitation looks for existing demands and problems from particular groups, whether they have a political, societal, commercial, or internal purpose. Exploitation also frames the use and exploitation of results beyond the lifetime of the project.

Nevertheless, all three aspects are closely interrelated. Communicating results needs validation from the Dissemination management, which in turn depends on the boundaries set in the Exploitation plan. This is done in accordance with the Open Science principle, which encourages researchers to share outputs as early and widely as possible, provided that the intellectual property rights are preserved. This and other cross-cutting priorities are further explained in the Dissemination strategy (section 2).

This document outlines Root2Res' dissemination and exploitation plans, plus the accompanying communication handbook. It is therefore a resource for all project partners as it:

- describes the dissemination objectives and how the target audience will be reached (section 2);

- outlines the communication plan subject to the dissemination strategy (section 3);
- explains the boundaries set in terms of exploitation and includes guidelines for exploitation (section 4);
- encompasses the communication procedures and templates within the annex handbook (annex 1);
- describes the different dissemination tools, formats, and channels (annex 2), and;
- provides guidelines and templates for all dissemination materials (annex 2).

Root2Res partners can contact Work Package 7 with any questions or comments related to communication, dissemination, or exploitation (any changes to these contacts will be communicated to partners through the Executive committee):

- Communication manager: Óscar Bernardez, FEUGA
- Dissemination manager: Laura Kemper, FiBL (supplemented by Sophie Thanner, FiBL)
- Exploitation manager: Teresa Sixto, FEUGA

2. Dissemination strategy

Dissemination focuses on providing a reliable, smooth, and efficient knowledge transfer of Root2Res innovations to targeted actors, users, and beneficiaries. Therefore, during the first six months of the project the consortium agreed upon a clear timetable and dissemination methodology. The timetable, together with the dissemination guidelines will ensure an efficient and transparent creation process.

2.1. Framework and objectives

To ensure maximal impact of the project results, Root2Res will share research results with the scientific community, commercial players, civil society, and policymakers in accordance with Objective 7.2 from the Grant Agreement (Description of Action – Annex 1).

> *O7.2: Communicate and disseminate the project results and its relevance making Root2Res well known to relevant stakeholders and establish effective linkages with other projects and initiatives.*

It will do so using the following approach:

- A **dissemination methodology**, established together with partners to ensure active contribution of all work packages to guarantee optimum dissemination: select dissemination tools and topics were selected and allocated to each Work Package using a **tracking system** (see annex 2, section 7.2.1), which will be updated regularly. Biannual WP7 meetings, annual meeting and periodic meetings with relevant partners will ensure progress and provide an opportunity to re-evaluate should any problems occur. The specific strategy for each tool is defined in annex 2, section 7.2.

- Multi-directional and multi-level knowledge transfer coordinated with **the stakeholder engagement methodology** to maximize impact (see Deliverable D7.1 Guidelines for the Stakeholders engagement and interaction).
- Easy, fast, and open access to a wide range of **practical tools and materials**.
- Training for partners related to video-making, practice abstracts and other dissemination tools.
- Use an **open access repository** to ensure long-term availability of open-access results and communication/dissemination materials.
- Use existing **communication and dissemination channels** at a national and European level (e.g., EIP-Agri, EU FarmBook, Organic Farm Knowledge, FAO communities of practice) to ensure widespread dissemination.
- Exchange with other relevant **initiatives**, potentially establishing joint initiatives going beyond the framework of the projects.
- **Policy feedback** to facilitate quick and broad implementation of new cultivars.
- The **Exploitation manager** (Teresa Sixto, FEUGA) is included in the monitoring loop and decision-making process through dedicated meetings with WP7 and the coordinators as well as the Executive committee.

To reach the target groups, dissemination tools, formats and channels will be produced that are tailored to the audiences' needs (see following section and annex).

2.2. Dissemination tools, formats, and channels

Dissemination activities will be focused on stakeholder mobilization and on providing a reliable, smooth, and efficient knowledge transfer of the project results towards the end-users and other target groups.

A number of formats will be used to disseminate the Root2Res results to the target audiences. **Training and dissemination materials** for farmers, advisors, breeders, and other stakeholders will include:

- EIP-AGRI practice abstracts, factsheets articles in the sector-specific magazines;
- infographics (e.g., visual summary incorporated in factsheets or articles);
- short videos (e.g., of phenotyping platforms); and,
- podcast episodes (e.g., describing the potential and pre-conditions of selected ideotypes and their plasticity).

These will be translated where relevant and disseminated by partners as well as through social media, the project website, sister projects, relevant existing channels (e.g., EIP Agri, EU FarmBook, FAO communities of practice, Organic Farm Knowledge) and the stakeholder advisory board.

To ensure knowledge transmission with the scientific and technical community, **scientific publications** will be submitted to peer-reviewed journals and stored in the open-access repository Zenodo. Likewise, **conference presentations** (conference abstracts and posters) and presentation at **other relevant events** (field visits, industry meetings, etc.) will widely showcase the project's results.

Results and main conclusions of the project will be compiled and presented at the **mid-term and final Root2Res symposiums** (March 2025 and August 2028 respectively). They will also be summarized in **recommendations for policy makers** to influence future policy and regulatory actions. These will be presented at one **EU Parliamentary session** in 2027 to be organized by Root2Res.

A detailed introduction to the different dissemination materials as well as guidelines for partners and templates can be found in annex 2.

2.3. Open access

Every Horizon Europe project must ensure open access to peer-reviewed scientific publications relating to results (Smits, 2017). The Root2Res project is committed to making all its output and publications (not only scientific publications) available open access (European Commission 2022).

For scientific publications, either green or gold access will be chosen. Roots2Res partners will deposit the final peer-reviewed manuscript on the Roots2Res community on Zenodo (Figure 1). They will ensure open access to the publications within the embargo period of usually six months of publication. By storing and publishing (after the embargo period) the scientific publications and other output on Zenodo, Roots2Res ensures that bibliographic metadata is included, such as the funding body, the name of the action, the acronym, and the grant number (already predefined in Zenodo), the publication date, and a persistent identifier.

Zenodo will also be used to ensure open access to other tools and materials, including factsheets, infographics, non-scientific articles, videos, conference contributions and presentations.

For more information about using Zenodo, see annex 2 (section 7.3). Zenodo.org > Upload in Root2Res Community > Root2Res_Zenodo community (login to upload to the community)
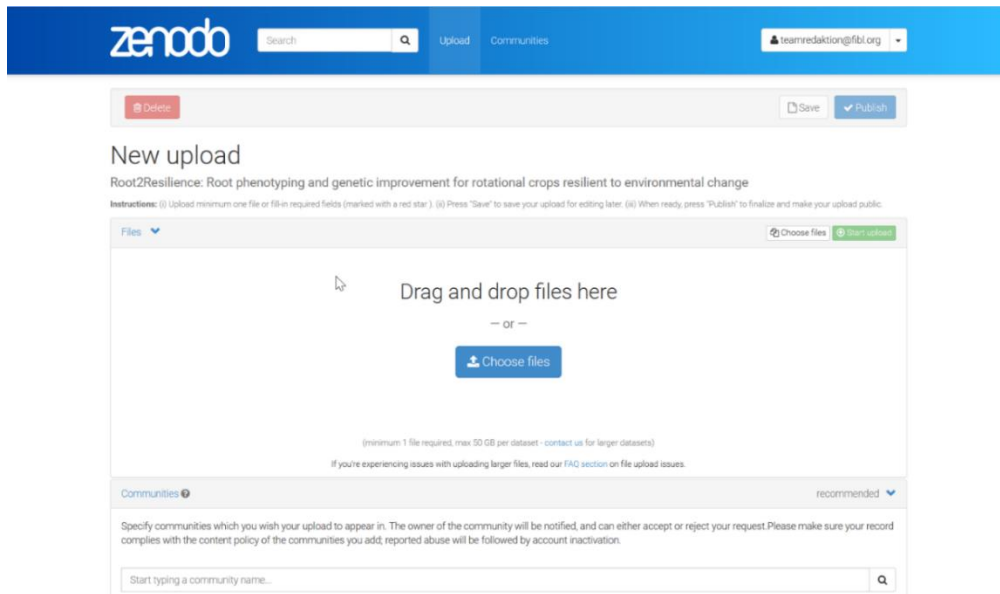
Figure 1: The Root2Res Community on Zenodo.

2.4. Evaluation

Key performance indicators (KPIs) have been agreed upon for the various dissemination activities (Table 1). The KPIs will be monitored at the end of each reporting period to ensure that there are no deviations. We will use the project review to propose mitigating actions with the feedback from project participants to make any necessary modifications to the strategy and plan.

Table 1. Evaluation of dissemination activities and implementation of the dissemination plan.

Activities and tools	KPIs
Participation in external events	> 10 international events > 40 national/regional events > 40000 people (audience)
Root2Res mid-term and final symposium	2 international symposiums organized 1 EU Parliamentary Session >250 attendees
Publications (scientific and non-scientific)	>10 Published articles (peer-reviewed) >25 Conference presentations >30 Publications in sector-specific magazines
Training and dissemination material	>20 Practice Abstracts (EIP-AGRI) and associated factsheets >20 Tutorials (short videos) >10 Podcast episodes >10 Infographics
Clustering with other projects / Initiatives and discussion forums	>5 Joint actions within identified networks and other H2020 / HE projects
Policy briefs	>3 Policy briefs

3. Communication strategy

The communication actions carried out in Root2Res will ensure project outcomes are widely distributed and can contribute to the sustainable uptake of results. The strategy defined below is aligned with the particular objectives of Root2Res plus the general goals of the Horizon Programme, which are:

- collaborate and strengthen the impact of research and innovation;
- share excellent knowledge and technologies;
- support EU policies and global challenges;
- promote industrial competitiveness;
- optimise investment; and,
- engage the EU talent pool.

For greater readability and usability, the structure of the present document includes the Communication Handbook as an annex (annex 1). There, partners can find tailored communication guidelines that feature the Book of Style, Website and Social Media Guidelines, Communication Officers, and Translation Points, plus materials ready to be used.

3.1. Communication objectives and target audience

The communication strategy is aligned with the dissemination objectives and target audiences linked to the European Research Area, while making the project well known to the general public as stated in Objective 7.2 from the Grant Agreement.

O7.2: Communicate and disseminate the project results and its relevance making Root2Res well known to relevant stakeholders and establish effective linkages with other projects and initiatives.

Hence, the actions envisioned within the communication strategy need to address the innovations and knowledge developed by Root2Res, allowing stakeholders to use them for new commercial and scientific opportunities. Strategic lines can be defined as follows:

1. introducing Root2Res, its areas of research, the consortium, main activities and results;
2. establishing and promote the Root2Res brand to facilitate identification;
3. maximising the reach of the project in collaboration with projects from the same call and umbrella organisations, such as Mission Soil[1]; and,

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[1] Mission Soil is one of the five missions that articulate the Horizon Europe programme. Mission Soil is putting in place 100 multi-actor innovation ecosystems to involve local stakeholders and consolidate dissemination practices. More information on Deliverable 7.1, chapter 4.

4. addressing external factors conditioning the impact of the project.

3.2. Distribution of efforts

Project Milestones guide the implementation of the proposed communication strategy, and what platforms and contents are available from the very start. In the short-term, three of them directly involve this task:

- Milestone 1: Kick-Off Meeting outputs posted on the website (month 1);
- Milestone 2: Website and social networks ready (month 6);
- Milestone 4: Ideotype findings posted in the website (month 9).

It is the responsibility of the Communication Manager (CM), FEUGA, to implement the strategy in close collaboration with the rest of the partners. Moreover, the process involves a detailed procedure to monitor their efforts, anticipating potential deviations and addressing them through reports delivered to the EC and distributed to all partners (D7.3).

In consequence, all communication actions depend on two factors: the Risk Register developed in WP8 (see D8.2 Quality Management Plan), and previous clearance from the respective Exploitation and Dissemination plans and responsible people.

3.3. Communication monitoring

To facilitate monitoring and assessment of the impact of the communication actions, quantitative objectives to be reached at the end of the project were established (Table 2). These figures will be the reference material for partners to periodically report their accomplishments.

Channels, tools, and activities coordinated by the Communication Manager include a book of style, a website as the main platform for the project, social networks, brochures, videos, and communication campaigns.

Table 2. Communication Key Performance Indicators

Type	Performance Indicator
Website	6.000 visitors
Social Media	600 followers / 2.500 views / 5 influencers engaged
Brochures	2
General Infographics	3
Promotional Videos	2
Short Videos	3
Communication Campaigns	3 (5% increase in followers and 5 impacts in general press)

Partners' Channels Reach	10.000 total audience reached

The KPIs will be monitored at the end of each reporting period to ensure that there are no deviations. We will use the project review to propose mitigating actions with the feedback from project participants to make any necessary modifications to the strategy and plan.

4. Exploitation strategy

4.1. Summary

During the development of the project, several results are expected to be obtained and the main objective of the first version of this Exploitation Plan included in this deliverable is to establish, from the beginning of the project, the goals, guidelines, strategies, and workflows for partners to follow when developing the activities related to the transfer of knowledge and exploitation towards end-users. As the project progress and key exploitation results (KER) are being defined, the plan will be updated and published in the Final Report on the Exploitation of Results (D7.7).

The following sections will describe the different actions involved within this task that can be used by partners as a guideline to follow activities related to exploitation of results. This includes the following:

- **RESULTS COLLECTION (Section 4.5).** In this section, a general description of the KER of the project will be included. This list will be continuously updated throughout the lifespan of the project.

- **LIST OF EXPLOITABLE RESULTS (Section 4.6) AND EXPLOITATION ANALYSIS (Section 4.7).** Once the key results of the project have been compiled, they will be analysed to identify those that are considered innovative to be possibly transferred to the market. It will be necessary to analyse their markets, competitors, applicability, value proposition, innovation degree and technological readiness level (TRL), to determine exploitability potential and potential impact of each result.

- **EXPLOITATION STRATEGY (Section 4.8).** This section will describe partners specific exploitation plans, including the most adequate path for protecting the results through intellectual property right (IPR), the proposed exploitation route and action plan. For this Exploitation Plan first version, this section contains a roadmap of an exploitation strategy. Then, for each of the exploitable results identified, the most appropriate exploitation strategy will be drawn up, considering partners' interests as well as taking into account the state of the art and market information obtained in the previous section.

4.2. Grant Agreement and Consortium Agreement articles related to exploitation

The **Grant Agreement "101060124 — Root2Res — HORIZON-CL6-2021-BIODIV-01"** stipulates several articles related to exploitation and protection of results. Articles covering the management of IP, agreement on background and the access rights to background:

ARTICLE 16. INTELLECTUAL PROPERTY RIGHTS (IPR) — BACKGROUND AND RESULTS —ACCESS RIGHTS AND RIGHTS OF USE

The articles, detailed below, provide a foundation for this deliverable:

- **16.2 Ownership of results**
- **16.4 Specific rules on IPR, results and background**

Specific rules regarding intellectual property rights, results, and background (if any) are set out in Annex 5 of the Grant Agreement:

- **<u>Protection of results</u>**
- **<u>Exploitation of results</u>**

All the rules related to exploitation of results are stipulated in the Root2Res Consortium Agreement, in accordance with the articles of the Grant Agreement:

- **Section 8: Results**

  8.1 Ownership of Results
  8.2 Joint Ownership
  8.3 Transfer of Results
  8.4 Dissemination

- **Section 9: Access Rights**

  9.1 Background included
  9.2 General Principles
  9.3 Access Rights for implementation
  9.4 Access Rights for exploitation

4.3. Objectives of the Exploitation plan

The Exploitation Plan will set a strategic plan to exploit the results generated throughout the project, allowing the implementation of the strategic plan beyond the lifetime of Root2Res.

The process for knowledge projection will be outlined in the Exploitation Plan to define for each of the results developed the rights of each partner related to each one, and the options available for exploitation plan including IP protection.

The final version of the Exploitation Plan will contain the routes for exploitation and dissemination of the project results, including the joint exploitation objectives, the partner-specific exploitation plans for each significant result, a description of actions leading to exploitation and the specific model and strategy for each exploitable result.

To maximise the impact of the exploitation activities, the involvement of all partners in the exploitation plan activities and in the achievement of the described objectives is highly critical.

An Exploitation Manager (EM) was appointed, who is responsible for guaranteeing the full exploitation of the innovation potential as well as the implication of all project partners exploring individual and common exploitation interests (T7.4). The EM will also ensure the alignment of the IPR strategy drafted in the Consortium Agreement with the communication and dissemination strategy of the project.

4.4. Exploitation strategy definition and related exploitation activities

This activity, part of T7.4, relates to the identification, management, and IP protection evaluation of the innovations generated during the project together with the definition of the most suitable exploitation measures and channels to ease the use of the project outputs beyond the life of the project, up-scaling and/or commercialization of results. In order to achieve this goal, the exploitation strategy has been designed around four main pillar activities as illustrated in Figure 2.
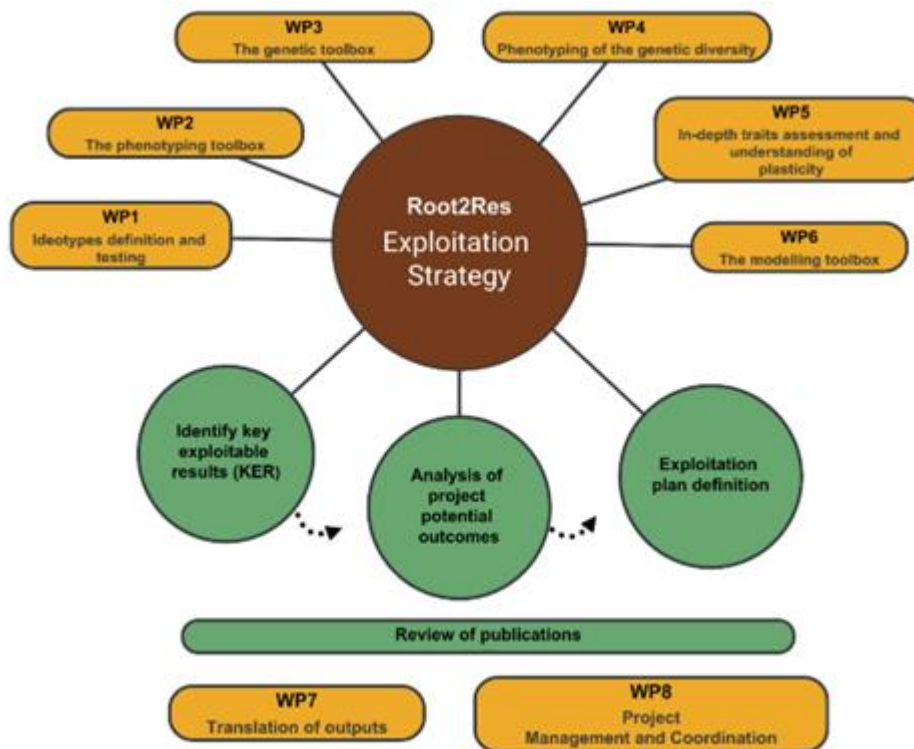

Figure 2. Exploitation methodology flow-chart design, WP distribution in Root2Res Project indicated in yellow and four pillars of Exploitation Strategy indicated in green.

The four pillars of the Root2Res exploitation methodology:

1. Information and results obtained within the development of WP1 to WP6 will feed the first stage to **obtain a preliminary description of the expected results and the interests of each partner regarding the exploitation corresponding to each Work Package**. This will be followed by the identification of the key exploitable results (KERs).

2. Analysis of project potential outcomes by carrying out the **evaluation of the protection possibilities after an in-depth analysis of the 'State of the Art'** in patent databases of each potential result.

3. Exploitation plan definition for each KER. Information regarding the **IP rights** (Ownership, participating members; associated company), **exploitation rights, role of each participant** in protection and **geographical scope** of protection, together with the analysis of the potential **geographical coverage** and target markets where project results will be exploited, including potential users, main competitors and competitive advantages will be used for the exploitation strategy development of each outcome.

4. As detailed in the Consortium Agreement article 8.4.2.1, when reviewing of partner publications, articles, conferences proceedings, etc. the Exploitation Manager will accomplish this activity by supervising that the aptness of project result exploitation is preserved. **Sensitive data will be searched for in the publications and, if identified, advise will be offered as to how to disclose the information (or not), aiming on avoiding key information disclosure that can lead to a loss of intellectual property rights**

During the first 6 months of the project, different exploitation activities were conducted related to pillar 1 "Identification of the key exploitable results (KER)" (for more detailed explanation, see Section 4.6):

- The **first IP workshop** aimed at raising **awareness of IP protection**, identifying threats, and gaging partners' interests and **clarifying doubts** regarding exploitation was held online with all partners. A document was elaborated and made available to all the consortium through the project SharePoint. This document includes:
  - explanation of the overall objective of the "Task 7.4: Exploitation strategy";
  - information about IP related concepts: Intellectual Property Rights and characteristics;
  - strategic planning and methodology proposed to be followed during next actions.

- **Identification of the most promising exploitable results** for the purpose of adapting different protection and exploitation strategies according to the nature of the results.

- An **Outcomes Form** (attached in annex 3, section 0) (included in the exploitation section on SharePoint) has been designed to **easily collect the whole range of information necessary for the evaluation of possible**

exploitation of each result at different levels of project development. The form includes information such as technical description, application, value proposition, partners involved, among others, and was designed to help Work Package Leaders (WPLs) (or other members they consider relevant) complete it individually when convenient. This process should also facilitate bilateral communication between the WPLs and Exploitation Manager (EM). This file also includes a section detailing the **methodology to be followed for the validation of results.**

- A contribution has been made to the **Data Management Plan (D8.2)** including the necessary basic information for its implementation.

4.5. Result collection

The Final Report on the Exploitation of Results (D7.7, to be delivered in month 56) will include a section with the technical description of the project's results and partner(s) contribution to the generation of each result. This section will also include a set of pre-defined tables to be completed and updated periodically during the project to ensure all generated project results are considered. These tables will be generated from the Data Repository (D8.4) as outlined in the Data Management Plan (D8.2).

The broad outcomes expected from Root2Res were already identified in the Grant Agreement as shown in Table 3.

Table 3. Key Exploitable Results (KER) at proposal development stage. From Grant Agreement 101060124 — Root2Res — HORIZON-CL6-2021-BIODIV-01

Expected Root2Res Outcomes
Demonstration of improved resilience in three core crops through selection of root ideotypes
Demonstration that phenotyping tools capture the variation in root traits in field and CE trials
Identification of candidate genes and markers associated root and rhizosphere traits.
Identify the plasticity in traits that delivers yield stability and climate change mitigation under environmental variability

To collect the project results, a specific exploitation methodology will be followed. A specific exploitation "Outcomes form" template was designed and upload to the dedicated space on the project SharePoint to easily collect and monitor potential exploitation during the project. Definitions and guidelines related to the "Outcomes Form" were also provided to guide users through the whole procedure. This process will simplify the information flow from the WP partners and WP leaders to the EM.

Using the systems designed, the Root2Res partners were requested to identify their Key Exploitable Results (KERs) as well as their strategy for exploitation. This information will be held as well in the shared workspace.

Following collection of the information, a review will be carried out to evaluate the results from an exploitation point of view.

4.6. List of exploitable results

Not all project results will be exploitable. Furthermore, partners may have developed different kinds of exploitable results, e.g., processes, technologies, methods, protocols, recommendations for standards. This section will include an analysis of those results with potential to be exploited. *(This section will be left empty for the current version. It will be continuously updated through the coming years and enhanced by the actions taken by the partners and the consortium as a whole for the Exploitation Plan of the results that will be available at the end of the project).*

The process will be initiated by evaluating the Root2Res Outcomes Form filled by partners, which should identify the KERs. For each KER, partners will be requested also to declare:

- **their specific level of interest in the exploitation**: distinguishing between high interest (when they are strongly inclined to exploit the result), medium interest (when they plan to exploit the result but are not sure they will actually do it) and low interest (if the interest is limited but they may decide to exploit the result in the future) and no interest at all;
- **their specific role in the exploitation**: distinguishing if they are in a position to exploit the result as owner (because they contributed to the development of the specific result) or as a beneficiary (if they are interested in exploiting a result produced by the project without their direct contribution); this choice is important to validate the results that are intended to be exploited by more than one partner, discuss the possibility of joint exploitation initiative and decide the IPR measures to be applied;
- **their preliminary exploitation strategy**: explaining how they intend to exploit the specific result;
- the **target sector** and the **target audience** they intend to focus on with this exploitation strategy.

The identification of key results has been initiated and the development of strategic documentation is also ongoing. At this early stage of the Root2Res project, the preliminary KERs are shown in Table 3. These results and associated data, relevant for exploitation strategy, have been validated with partners. As explained above, an "Outcomes Form" has been made available to partners as a tool to identify and validate results and collect key data. This information will be used to further update the exploitation strategy, which will be included in the Final Report on the Exploitation of Results (D7.7).

4.7. Exploitation analysis (for a given result)

This section will detail the evaluation of the project results protectability. This is currently empty but will be completed during the analysis of the results and enhanced by the actions taken by the partners and the consortium as a whole for the Final Version of the Report on the Exploitation of Results (D.7.7).

The expected results will be analysed with respect to their potential to be exploited considering, on the one hand, the global result obtained at the end of the project as a respond to the general project objective and, on the other hand, the individual developments as independent results that configures this global result having each individually potential exploitation route.

4.7.1. Description and analysis (for result X)

State of the art: Analysis of the patents and new developments available globally related to the project results.

Market Analysis: Analysis of industries, customers, competitors, and other market variables related to the project results.

Applicability: Suitability of the projects results to be used in specific sectors and final functions.

Target customers and competitiveness: End-users expected to be targeted and other institutions generating solutions with the same target as the project results.

4.8. Exploitation strategy

After collecting and analysing all the potential outcomes, the analysis of the possible exploitation strategies will take place. Usually, these will be different for each project. In general, their strategies can be classified into four categories:

- **New research**, when the results are intended to be used for publications and to be involved in new research projects and activities.
- **Standard setting**, when the partner intends to propose the adoption of the result as a standard.
- **Internal adoption**, when the partner plans to use the results internally to improve either the knowledge within the organization or the internal procedures.
- **Commercial exploitation**, when the partner intends to use the result according to a market-oriented strategy, based on introducing a new service or a new product onto the market.

4.8.1. Exploitation strategy (for a given result)

Intellectual Property Rights, IPR (for a given result)

This section is left empty in the first version of the plan. It will be updated during the analysis of each KER previously selected and enhanced by the actions taken by the partners and the consortium as a whole for the exploitation of the results that will be available at the end of the project.

Depending on the business and exploitation strategy, it could be recommendable to protect the Root2Res outcomes by Intellectual Property Rights at the partner's expenses. The selection of appropriate IPR will depend, on the one hand, on the

strategy of the consortium and, on the other hand, on the market potential. Using this as a basis, specific recommendations, and strategies for each Root2Res KER will be developed. The following IPR are available for protection:

- <u>**Copyright**</u>: copyrights protect **original works of authorship, such as literary works, music, graphic works, artistic works, and computer software**. Copyright protection extends only to physical expressions, not to ideas, procedures, methods of operation or mathematical concepts as such. To qualify for copyright protection, a work must be original, in the sense that it is the author's own intellectual creation. Copyright is an intellectual property right, that entitles the owners of literary and artistic works to a set of exclusive rights over their works. These rights, generally, include copying, translating, adapting, and altering, communicating, and performing to the public, distributing, and renting and lending copies.

- <u>**Patents**</u>: **inventions, product or processes that provide new solutions to a technological problem can be protected through patents**. A patent is a title providing the 'inventor' and/or the 'applicant' with the exclusive right to prevent others from possessing, using, selling, manufacturing, and importing the patented invention or offering to do any of these things within a territory. To qualify for a patent protection, the invention must display the 'conditions of patentability':
  - **Novelty**: an invention could be considered new if it does not form part of the state of the art.
  - **Inventive step**: if regarding the state of the art, it is not obvious to a person skilled in the art.
  - **Industrial applicability (utility)**: if it can be made or used in any kind of industry, including agriculture.

- **Industrial design**: an industrial design covers any **new, original, and ornamental design for an article of manufacture**. External appearance of an object can be protected and can include for example colour, shape, or use of material. The right concerns merely the appearance of a product (not the product). To qualify for protection, the design must have: novelty and individual character (different from what is already protected).

- **Utility model**: Utility models can be **registered in some countries to protect technical innovations which might not qualify for a patent**. Utility model protects 'minor inventions or minor improvements of existing products (changes in configuration, structure, constitution, etc.). Protection is granted through a similar system to patent, but cheaper, simpler, and faster. The requirements for protection vary from country to country. However, most countries will only grant utility models for products, not for methods or processes.

Exploitation Route (for result X)

Exploitation pathway for result X will be chosen taking into account the analysis and data from the state of the art, market, applicability, target customers and competitiveness, also considering the interests of the partners.

4.9. Future tasks and exploitation recommendations

Future task and exploitation recommendations can be divided into 2 categories, depending on the potential exploitation strategy discussed with consortium partners grounded on their interests. These are:

- **Non-commercial exploitation:** further research activities, developing product or process, service or in standardisation activities.
- **Commercial exploitation**: as developing a new product, process, or services.

As stated in section "2.2.4 Strategy for Knowledge management" of Grant Agreement number **101060124 — Root2Res — HORIZON-CL6-2021-BIODIV-01**, for non-industrially exploitable/protectable results (i.e., results suitable for dissemination), Root2Res will follow the Horizon Europe guidelines on **open access to scientific publication and research data.** Partners will ensure the maximum dissemination of project outputs. The preferred options will be Open access publishing and self-archiving within the project or within a reasonable period after the end of the project (up to 1 year after M60).

All the decisions and conclusions detailed throughout this document should be taken as recommendations resulting from the work carried out in Task 7.4 Exploitation strategy (WP7) led by FEUGA with the contribution of all partners. These recommendations would be re-evaluated for the final implementation of the exploitation plan. This will determine the exploitation of the Root2Res outcomes/results once the project is completed.
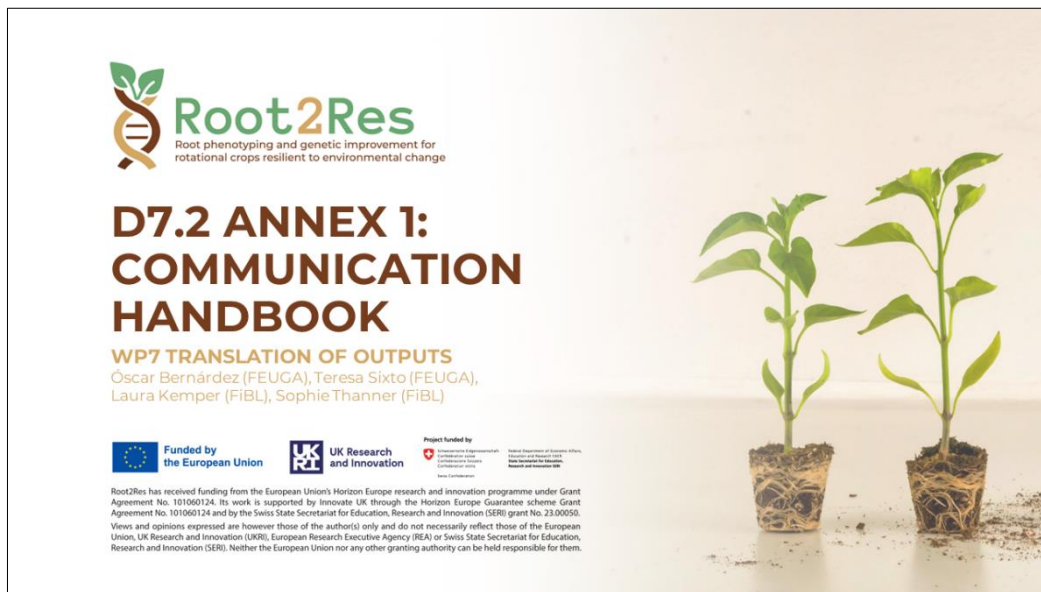
The current version does not include specific exploitation recommendations for the Key Exploitable Results. This section will be updated and competed during the analysis of the results and enhanced by the actions taken by the partners and the consortium as a whole for the Final Report on the Exploitation of Results (D7.7) that will be available at the end of the project.

5. **References**

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6. Annex 1: Communication Handbook

The Communication Handbook describes the management of communication tools and materials for Root2Res, as a daily kit to complement the Deliverable 7.2. It has been devised as a stand-alone file, ready to share and easy to access via Sharepoint (WP7 > 1_Partners WP7 > 2_Guides_Templates_Guides).

Index

Root2Res · Communication Toolkit

Channels

Channels | Sharepoint | Funding acknowledgement | Book of style   4

The Communication Manager operates the website, social media and the official mail as main channels. They are complemented by press releases, newsletters and consent forms. These channels are:

- Accessible and preferred means to the public
- Linked to the most influential and credible actors and media
- Long-term mix of sustainable platforms
- Easy to customise, target and measure

The official website for Root2Res [https://root2res.eu/] was created before the official start of the project to accommodate the outcomes of the Kick-Off Meeting, which represented Milestone 1, due by Month 1. Alongside it, social media channels were activated to reflect the impacts of the first official press release, ahead of Milestone 2 in Month 6; during their meetings with WP7, all participants will be encouraged to follow these accounts and receive indications on how to support them with their own means.

The website is considered the main information hub for the project, encapsulating the project's activities, news and events. Combining usability criteria and clear navigation for a short learning curve, plus a modular approach that can answer the requests of the partners, the platform also complements the Zenodo community with room for public deliverables and materials targeting stakeholders.

The general public can easily contact the official mail address [info@root2res.eu] and connect through social media.

Features included on the website are organised around five core sections, which are designed so that stakeholders can easily access the information they need: The Project, News and Events, Knowledge Centre, Privacy Policy and Contact. Additional useful links (newsletter, Zenodo, social media) are provided through each of them and the Home page. The header and footer include their respective menus with drop-down navigation options.

The newsletter and consent forms are stored and distributed using Mailchimp. Following Data Protection measures, access is restricted for participants, and only the Communication Manager will access it. The Data Manager will be responsible for storing and managing the resulting databases. However, all participants are expected to contribute to the contents distributed via Mailchimp.

Official youtube [https://www.youtube.com/@root2res]

Official twitter [https://twitter.com/root2res]

Official linkedIn [https://www.linkedin.com/company/root2res/]

Root2Res · Communication Toolkit

Translation contact list

English is the official language for the project. Nevertheless, reaching out to broader audiences and working with stakeholders requires translating key materials and messages. Local partners, through their designated communication officers, will ensure Root2Res is able to engage citizens from main and satellite sites.

All communication officers' addresses are available in the common repository, within the Partners section in Work Package 7. These are the recommended translators from the different agroclimatic zones. English is among the official languages for South Africa, therefore translation is not required.

- Arabic – ICARDA
- Dutch - WU
- French - ARVALIS
- German – FIBL (to be determined)
- Italian – CNR
- Slovenian – KIS
- Spanish – FEUGA

Partner category
- Applied and technical research
- Academic research
- Breeder

IRELAND
20 TEAGASC

UNITED KINDOM
2 JHI
22 UNIVDUN
3 ADAS

FRANCE
1 ARVALIS

SPAIN
12 FEUGA
13 NEIKER
8 IRTA
18 UVIGO

ITALY
6 CNR
16 UPM

NETHERLANDS
15 WU
14 SOLYNTA

DENMARK
21 AU

GERMANY
11 UFZ
10 FZJ
4 KWS-L

AUSTRIA
9 BOKU

SWITZERLAND
7 FIBL

SLOVENIA
17 KIS

MOROCCO
5 ICARDA

SOUTH AFRICA
19 ARC

Geographical representation of Root2Res

Offline communication: Poster / Infographics / Brochures

The creation of physical materials is crucial to make a recognisable brand and attract the attention of the unfamiliar audiences. The Communication Manager will coordinate the preparation of posters, infographics and brochures to accomplish the objectives marked in the Communication Strategy, while taking into account the resources resulting from the Dissemination plan. Visual materials will be made available through the website, Zenodo and the Sharepoint for their broad usage in all project activities.

Audiovisual

FEUGA will produce and edit 2 general promotion videos, followed by 3 additional videos of a shorter duration, intended for social media distribution. Although following the same standards set in section 6.2.7 of this annex, they are not to be mistaken with the dissemination videos prepared by FIBL, which target specific audiences.

Root2Res participants are expected to contribute from the very start, relying basic information during the Work Package 7 meeting that is to follow this publication. Feedback will include:

- previous experience and expertise in filming and on-site dissemination;
- recognisable and outstanding locations;
- lead and key concepts linked to their tasks;
- and a calendar for the suitable footage and personnel availability.

The Communication Manager will perform interviews and record resources that can serve multiple messages throughout the different stages of the project, avoiding additional workload for the partners while complying with the objectives set in the communication strategy.

Slide 7 – Sharepoint:

Sharepoint

Templates: deliverables, presentations, agenda, signatures, minutes.

Download

Slide 8 – Funding acknowledgement:

Funding acknowledgement

Root2Res is funded through multiple instruments, for its consortium includes four associated partners. Unlike the beneficiaries, they do not have access to the Horizon Europe funding; instead, they charge costs and contributions via Innovate UK and the Swiss State Secretariat for Education, Research and Innovation (SERI).

Different rules apply when stating how the project is funded and the responsibilities the participants bear, so here is a brief explanation of the mandatory disclaimers.

Funding must always appear in the documents and communications produced as a result of the project. In terms of appearance order, the European Union funding statement is prominent over any other. It is followed by the Innovate UK logo and grant number, then the SERI logo and grant number, due to the number of participants these organisations support and their share of the total funds allocated.

In some cases, a responsibility disclaimer must accompany the funding statement. Always including both is safer. Here are the general requirements:

- Communications on behalf of the project and promotional materials > Funding only, clearly visible

- Official reports and channels > Funding in covers and credits (reports), and either header or footer (channels); responsibility disclaimer may appear separately provided that it is accessible

- Scientific publications > A dedicated section must highlight both the funding statement and the responsibility disclaimer

Download

7. Annex 2: Guidelines and templates for dissemination materials

This annex provides an overview of the dissemination tracking document (tracker) as well as the various dissemination tools: publications, conference and event presentations, practice abstracts, factsheets, tutorials, podcasts, infographics, and policy briefs. **Error! Not a valid bookmark self-reference.** provides a summary of the key steps. More information, including tool descriptions, the division of responsibilities, required working time, the workflow and links to templates can be found in the sections below.

Table 4. Summary of key information for Root2Res dissemination materials.

Dissemination tool	Add to tracker[1] (section 8.2.1)	Sharepoint for review[2]	~ total partner time required	Workflow	~ time for workflow	More info in section
Peer-reviewed and scientific publications	"Publications" tab	45 days before submission	--	Draft → upload to SharePoint and add to tracker → publish → upload to Zenodo (after embargo period) → update tracker	--	7.2.1
Publications in non-scientific outlets	"Publications" tab	14 days before submission	--	Draft → upload to sharepoint and add to tracker → publish → upload to Zenodo (after embargo period) → update tracker	--	7.2.2
Conference (or other event) presentations	"Conferences_ events" tab	21 days before submission	--	Draft → upload to sharepoint and add to tracker → present at conference → upload to Zenodo → update tracker	--	7.2.3
Practice abstracts	"Dissemination Material" tab	14 days before publication	2.5 days per practice abstract	Add to tracker → draft → revisions by FiBL and coordinators → rounds of revision → format (FiBL) → upload to sharepoint (FiBL) → submit to EIP-Agri (FiBL) → publish (FiBL) → update tracker	>12 weeks	7.2.4

Dissemination tool	Add to tracker[1] (section 8.2.1)	Sharepoint for review[2]	~ total partner time required	Workflow	~ time for workflow	More info in section
Factsheets	"Dissemination Material" tab	14 days before publication	3 days per factsheet	Add to tracker → draft → revisions by FiBL and coordinators → rounds of revision → format (FiBL) → upload to sharepoint (FiBL) → publish (FiBL) → update tracker	>14 weeks	7.2.5
Tutorials (videos)	"Dissemination Material" tab	Upload concept 14 days before recording	2-4 days per tutorial	Add to tracker → define video production team (inform/include FiBL) → define workflow within team → upload concept to Sharepoint → review by FiBL and coordinators → publish (FiBL) → update tracker	>7 weeks	7.2.6
Podcasts	"Dissemination Material" tab	Upload concept 14 days before recording	1.5-3 days per podcast	Add to tracker → create concept and organise recording → send to FiBL for revision and upload concept to sharepoint → record podcast → edit podcast → review by FiBL and coordinators → publish → update tracker	>8 weeks	7.2.7
Infographics	"Dissemination Material" tab	14 days before publication	1 day per infographic	Add to tracker → create concept → graphic design (FiBL/FEUGA) → upload to sharepoint (FiBL) → publish → update tracker	>8 weeks	7.2.8
Policy briefs	"Dissemination Material" tab	21 days before publication	3.5 days per policy brief	Add to tracker → draft → revisions by FiBL and coordinators → rounds of revision → format (FiBL) → upload to sharepoint (FiBL) → submit to EIP-Agri (FiBL) → publish (FiBL) → update tracker	>14 weeks	7.2.9

[1] WP7 > 1_Partners WP7 > Forms_to_fill > Dissemination > Tracker
[2] WP7 > 1_Partners WP7 > Forms_to_fill > Dissemination > Articles for review

7.1. Dissemination tracking and implementation of the dissemination plan

Partners are expected to use the Excel document "Tracker" on the Roots2Res SharePoint. This Excel document acts as a tracking tool for participation in conferences and other events, publication of peer-reviewed and non-peer-reviewed articles as well as a tool for tracking the workflow of other dissemination materials.

Conferences, Events

In the sheet "Conferences_Events", partners are expected to register their participation in international and national/regional events. Information that needs to be recorded is:

- the name of the event;
- the targeted stakeholders of the event;
- the name, affiliation and email of attendee;
- the title of contribution and the type of presentation (poster, oral presentation, panel discussion, etc.);
- the date of the attendance;
- the date of upload of the contribution (poster, abstract, etc.) on Root2Res Sharepoint WP7 under WP7 > Partners > Forms to fill > Articles_for_review (21 days before submitting to the conference);
- the date of submission to the conference, date of upload of the poster/abstract of the conference presentation on Root2Res open access repository Zenodo;
- the URL of the document on Zenodo.

Publications

In the sheet "Publications", partners are expected to register their articles submitted in peer-reviewed journals and non-peer-reviewed magazines. Information that needs to be recorded is:

- the title of the publication;
- the internal contact person for the publication (name, affiliation, and email);
- The name of the journal / magazine where the article is published;
- the date of upload of the article on Root2Res Sharepoint WP7 under WP7 > Partners > Forms to fill > Articles_for_review (45 days before submitting to the journal);
- the date of submission to the journal, date of upload of the article (abstract or poster) on Root2Res open access repository Zenodo;
- the URL of the document on Zenodo.

Dissemination material

The sheet "DisseminationMaterial" is the timetable of the dissemination plan and serves as a tracker of the workflow of dissemination materials (Figure 3).

Figure 3. Excerpt of the tracker that serves as a timetable for the dissemination plan.

The information was agreed on in the work package 7 consensus meeting in November 2022 as well as in bilateral meetings in the subsequent weeks. The first draft, which is a living document, was completed in February 2023 and includes the following information:

- the working title of the dissemination material;
- the linked deliverable, milestone or scientific publication if applicable;
- the due date of the dissemination material according to the planning tool;
- the internal contact person, the people involved and their institution;
- the work packages involved.

The second part of the Excel sheet is used for the continuous planning of Root2Res dissemination. All practice abstracts, tutorials, podcast episodes, infographics and policy briefs will be scheduled here. For each dissemination material, the content will be summarized in one to three sentences. Then the dates of all process steps are registered.

For **practice abstracts, factsheets and policy briefs**, the date of submission of the raw text as well as ideas for illustrations to FiBL, the date of the provision of the edited text to the partners by FiBL, the date of provision of pictures for practice abstracts and all the dates of different reviewing steps will be registered. Finally, the date the document is uploaded onto the Root2Res Sharepoint WP7 under WP7 > Partners > Forms to fill > Articles_for_review (14 days before uploading it to Zenodo) and the URL of the document in Zenodo is registered.

For **podcast episodes and tutorials**, the format will be registered as well as the date of submission and review of the concept, the responsible person (name and email),

the recording date, the date of the end of post-production as well as the publication date on Zenodo. Finally, the URL of the document in Zenodo is registered.

For **infographics**, submission date of the concept, the date of the concept review and finalization, the date of publication on Zenodo as well as the contact person (name and email) will be recorded. Finally, the URL of the document in Zenodo is registered.

The quality assessment and control process of all dissemination materials is detailed in the Root2Res Quality Management Plan (D8.2).

7.2. Dissemination tools, timelines, and workflows

7.2.1. Peer-reviewed and scientific publications

A minimum of 45 days before submission of an article to a scientific journal, a draft of the finalized text has to be uploaded on Root2Res Sharepoint WP7 under WP7 > Partners > Forms to fill > Articles_for_review. During these 45 days, partners have the opportunity to review the article, even if they were not directly involved.

After the 45-day-review-period, the article can be submitted to the journal. Once the article is accepted, the first author is expected to upload the article to Zenodo and register this date and Zenodo-URL on the Root2Res Sharepoint under WP7 > Partners > Forms to fill > tracker.

Scientific publications can also be published through the Open Research Europe platform, an open access, publishing platform for scientific papers for Horizon 2020 and Horizon Europe beneficiaries, which features an open peer review and article revision procedure.

7.2.2. Publications in non-scientific outlets

A minimum of 14 days before the submission of an article to a non-scientific outlet, a draft of the finalized text has to be uploaded on Root2Res Sharepoint under WP7 > Partners > Forms to fill > Articles_for_review. During these 14 days partners have the opportunity to review the article, even if they were not involved before.

After the 14-day-review-period, the article can be submitted to the magazine. Once the article is accepted, the first author or a fill-in is expected to upload the article to Zenodo and register this date and Zenodo-URL on the Root2Res Sharepoint under WP7 > Partners > Forms to fill > Tracker.

7.2.3. Conference presentations

A minimum of 21 days before submission of an article for a conference, a draft of the finalized text of the abstract and the formatted poster has to be uploaded on Root2Res Sharepoint WP7 under WP7 > Partners > Forms to fill > Articles_for_review. During these 21 days, partners have the opportunity to review, even if they were not previously involved.

After the 21-days-review-period, the abstract can be submitted to the conference. Once the abstract is accepted, the first author is expected to upload the abstract to Zenodo and register this date and Zenodo-URL on the Root2Res Sharepoint WP7 under WP7 > Partners > Forms to fill > Tracker.

7.2.4. Practice abstracts

The practice abstracts are structured according to the EIP-Agri common format. EIP-AGRI is the European Innovation Partnership for Agricultural productivity and Sustainability (EIP-AGRI) and was launched in 2012 to contribute to the European Union's strategy 'Europe 2020' for smart, sustainable and inclusive growth. The EIP-Agri common format contains a set of basic elements characterising the project and includes one (or more) "practice abstract"(s). It can be downloaded as an Excel document on the EIP Agri website, an official website of the European Union (ec.europa.eu/eip/agriculture/en/eip-agri-common-format). Using the EIP-Agri common format ensures the provision of short and concise practical information to farmers, advisors, and other target groups. Additionally, it facilitates knowledge exchange and contact between potential partners in innovative projects.

Responsibilities

Partners:

- Raw text in Word template, min. 13 weeks before the due date (see Figure 4)
- mailto:laura.kemper@fibl.orgText revisions

FiBL:

- Text editing
- Uploaded on the SharePoint folder arvalis.sharepoint.com > WP7 > 1_Partners > Forms_to_fill > Dissemination> Articls_for _review.
- Upload to EIP-Agri
- Contact person: Laura Kemper laura.kemper@fibl.org

Required working time

- First author: >2 working days (WD);
- Other authors and reviewers: 0,5 WD
- Editor (FiBL): >2 WD

Timeline for each individual practice abstract

Practice abstracts linked to a scientific publication will be published after the scientific publication is accepted by the journal. Still, writing a practice abstract can be done in parallel and optimally during the journal's reviewing period. Therefore, an alert to start will be sent to the article's contact person on the date of submission, which is registered on the Root2Res Sharepoint WP7 under WP7 > Partners > Forms to fill > Tracker. The timeline and workflow (Figure 4) are rough estimates and will vary from case to case. Allocated time refers to the total amount of time given to complete each task, and not to the amount of time needed to complete the task.
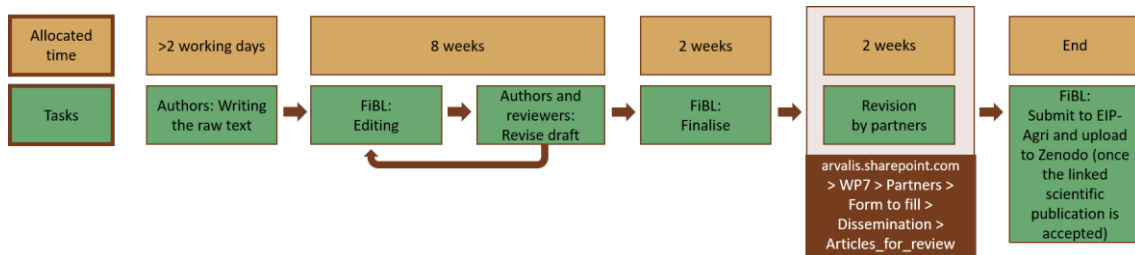
Figure 4. Timeline and workflow EIP Agri practice abstracts: >12 weeks.

Template

See arvalis.sharepoint.com for PracticeAbstract_Word_Template

7.2.5. Factsheets

The basis for the factsheets is the EIP-Agri common format for practice abstracts (see above) and should summarize key project results of relevance to agricultural practice, targeting, farmers, farm advisors, and other stakeholders. These practice abstracts should be enriched with photographs, infographics or illustrations.

The factsheets should follow the structure outlined below:

- Problem
- Solution
- Outcome
- Recommendations

For more details see template below.

Responsibilities

Partners:

- Raw text in Word template, min. 15 weeks before the due date (see Figure 5)
- Provision of pictures and concepts for illustrations
- Text revisions
- Disseminating through your work

FiBL:

- Text editing
- Layout and illustrations
- Upload on the SharePoint folder WP7 > Partners > Forms to fill > Articles_for_review
- Upload to Zenodo and other relevant platforms
- Contact person: Laura Kemper laura.kemper@fibl.org

Required working time

- First author: >2.5 working days (WD);
- Other authors and reviewers: 0,5 WD

- Editor (FiBL): >2.5 WD
- Graphics team (FiBL/FEUGA): >1 WD

Timeline for each individual factsheet

Factsheets linked to a scientific publication will be published after the scientific publication is accepted by the journal. Still, writing a factsheet can be done in parallel, optimally during the journal's reviewing period. Therefore, an alert to start writing will be sent to the article's contact person on the date of submission, that is registered on the Root2Res Sharepoint WP7 under WP7 > Partners > Forms to fill > Tracker. The timeline and workflow (Figure 5) are rough estimates and will vary from case to case. Allocated time refers to the total amount of time given to complete each task, and not to the amount of time needed to complete the task.
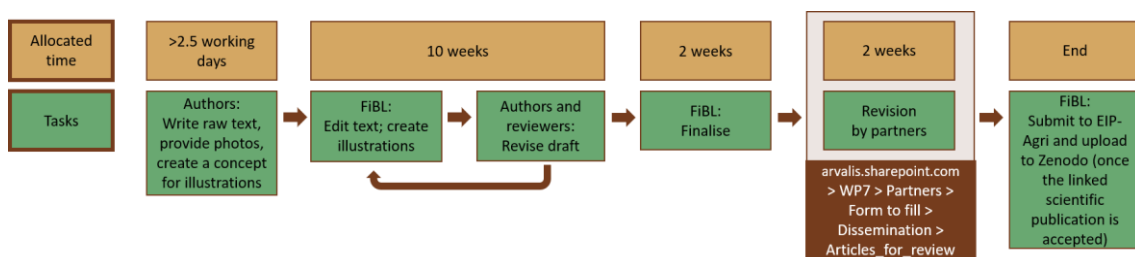

Figure 5. Timelines and workflow factsheets: >14 weeks.

Template

See arvalis.sharepoint.com for Factsheet_Word_Template

7.2.6. Tutorials (short videos)

Short videos can have different formats, depending on the purpose and target audience. The format (tutorial, story-telling in PPT, etc.) for each video is agreed upon in the consensus meeting or at the latest when finalizing the concept of the video. The target audience of these videos can be practitioners (e.g., farmers, breeders, advisors), the scientific community, policymakers, or the general public. More information about video styles, preparation and concept creation, equipment and editing is available in section 7.3.1.

Responsibilities

Partners:

- Contact and responsible person for each video
- Provide ideas for content
- Lead on the concept of the video
- Text for A-roll, interview questions
- Produce video according to the guidelines above
- Video editing (where possible)
- Subtitles when translated into another language
- Registration of workflow in the tracker on arvalis.sharepoint.com

- Disseminating through your work

FiBL:

- Technical support (guidelines, training, standardized look and feel)
- Support with text, concept and editing
- Upload to EIP-AGRI (first to a YouTube channel) and other relevant platforms
- Upload to Zenodo
- Contact person: Laura Kemper laura.kemper@fibl.org

To be decided for each video: Who does what?

- Production team
- Video production
- Editing of the video

Required working time

- Concept and organization of the video shoot: >1 working day (WD);
- Video recording: 1 WD
- Video editing: >1 WD

Timeline

The timeline and workflow will vary depending on what kind of video is being produced. For all videos, make sure to start work on the video at least eight weeks before it needs to be finished. You should also:

- Inform FiBL before starting
- Create a concept (see section 7.3.1 for more detail)
- Upload concept for Sharepoint for 14 days prior to filming
- Ensure enough time for the coordination team to review the concept as well as the final video

7.2.7. Podcasts

Podcasts can have different formats, depending on the purpose and target audience. The format (interview, panel discussion, technical note) for each podcast episode is agreed upon in the consensus meeting or latest when finalizing the podcast concept. Podcasts can be recorded live or remotely, e.g., with the software Iris FM. More information about podcast styles, preparation and concept creation, equipment, editing, and language is available in section 7.3.2.

Responsibilities

Partners:

- Contact and responsible person for each podcast episode
- Provide ideas for content
- Lead on the concept of the podcast
- Text for the technical note or interview questions for the interview or panel discussion

- Podcast editing (where possible)
- Translations
- Registration of workflow in the tracker on arvalis.sharepoint.com

FiBL:

- Technical support (guidelines, software for recording and transcript)
- Support with text, concept and editing
- Upload to Zenodo
- Contact person: Laura Kemper laura.kemper@fibl.org

To be decided for each podcast episode: Who does what?

- Production team
- Invitation of guests
- Podcast production
- Editing of the podcast

Required working time

- Concept and organization of the recording: 1 working day (WD); for technical notes: >2 WD
- Podcast recording: 2 hours for a 30 Minutes-Episode
- Podcast editing: >1 WD

Timeline

The timeline and workflow are (Figure 6) rough estimates and will vary from case to case. Allocated time refers to the total amount of time given to complete each task, and not to the amount of time needed to complete the task.
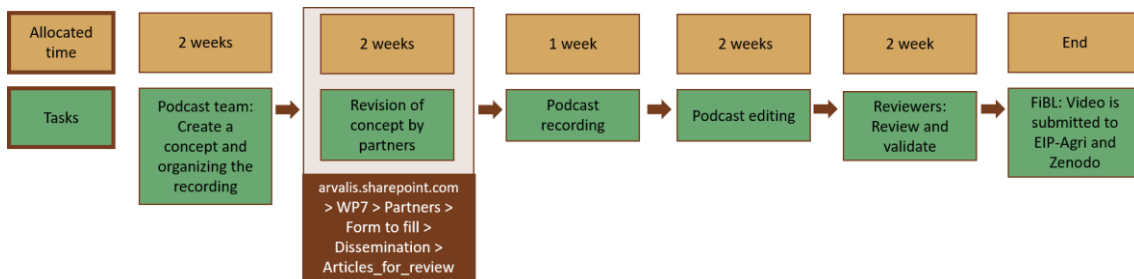
Allocated time	2 weeks	2 weeks	1 week	2 weeks	2 week	End
Tasks	Podcast team: Create a concept and organizing the recording	Revision of concept by partners arvalis.sharepoint.com > WP7 > Partners > Form to fill > Dissemination > Articles_for_review	Podcast recording	Podcast editing	Reviewers: Review and validate	FiBL: Video is submitted to EIP-Agri and Zenodo

Figure 6. Timeline and workflow podcasts: >9 weeks.

7.2.8. Infographics

Infographics are visual representations of information or data. They should include only minimal text and give an easy-to-understand overview of a topic.

Examples where infographics can be used to:

- Provide an overview of a topic
- Explain a complex process or environment
- Display research findings

An infographic can be integrated into an article, factsheet, video, website, or social media post. All Root2Res infographics have to follow the guidelines of the book of style (arvalis.sharepoint.com > Guidelines_Templates > Guides).

Responsibilities

Partners:

- Contact and responsible person for each infographic
- Provide ideas for content a minimum of six weeks before it is due (see Figure 7)
- Lead on the concept of the infographic
- Registration of workflow in the tracker on arvalis.sharepoint.com
- Use in Root2Res products

FiBL/FEUGA:

- Support on the production of infographics
- Upload to Zenodo
- Contact person: Laura Kemper laura.kemper@fibl.org

Required working time

- Concept and review of drafts: 1 working day (WD)
- Graphic design: 2 WD

Timeline

The timeline and workflow (Figure 7) are rough estimates and will vary from case to case. Allocated time refers to the total amount of time given to complete each task, and not to the amount of time needed to complete the task.
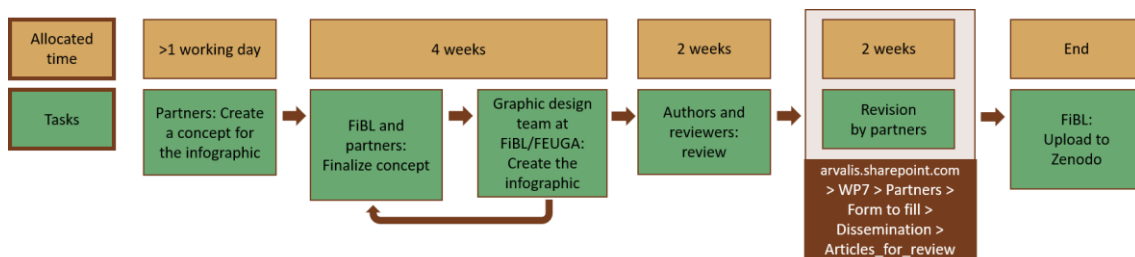

Figure 7. Timeline and workflow infographics: >8 weeks.

7.2.9. Policy briefs

Policy briefs are short documents that present findings and recommendations of a research project to government policymakers and others, who are interested in formulating or influencing policy.

There are two types of policy briefs:

- Advocacy briefs that argue in favour of a particular course of action
- Objective briefs that provide balanced information

A policy brief should:

… be short, to the point, and focus on a particular problem or issue. Instead of going into details, it should provide enough information to understand the issue and come to a decision.

… be based on firm evidence, not just one or two experiments or a single year's experience. It should draw evidence from various sources – preferably from several different areas or organizations.

… focus on meanings, not methods. Readers are interested in what the researchers found and recommended. They do not need to know methodological details.

… relate to the big picture. The policy brief may build on context-specific findings, but it should draw conclusions that are more generally applicable but, at the same time, assure that it does not become too general but remains concrete in recommendations.

Template

See arvalis.sharepoint.com for PolicyBrief_Word_Template

Responsibilities

Partners:

- Raw text in Word template, min. 14 weeks before the due date (see Figure 8)
- Provision of pictures and concepts for illustrations
- Text revisions
- Disseminating to relevant contacts

FiBL:

- Text editing
- Layout and illustrations
- Uploaded on the SharePoint folder WP7 > Partners > Forms to fill > Articles_for_review
- Upload to Zenodo and other relevant platforms
- Contact person: Laura Kemper laura.kemper@fibl.org

Required working time

- First author: >3 working days (WD);
- Other authors and reviewers: 0,5 WD
- Editor (FiBL): >3 WD
- Graphic team (FiBL/FEUGA): >1 WD

Timeline

The timeline and workflow are (Figure 8) rough estimates and will vary from case to case. Allocated time refers to the total amount of time given to complete each task, and not to the amount of time needed to complete the task.
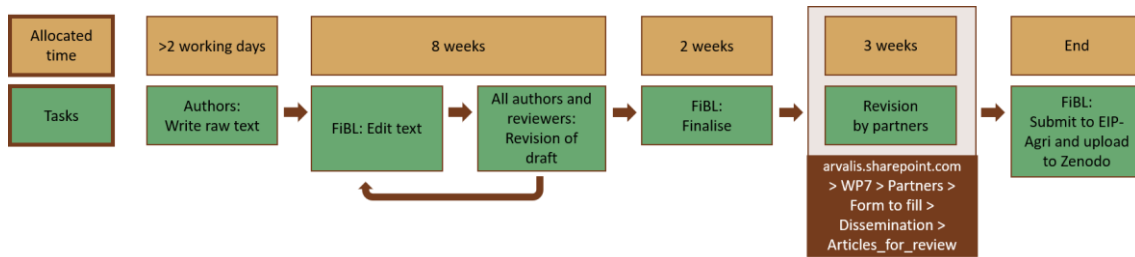
Figure 8. Timeline and workflow policy briefs: >14 weeks.

7.3. Guidelines for making videos and podcasts

7.3.1. Video guidelines and equipment

Video styles

Tutorials are filmed outdoors or in indoor facilities such as laboratories. Tutorials use a voice-over as a narrator. These technical clips show how something is done, e.g., by actors demonstrating a new sampling method.

Lecture-style videos are realized in front of a green-screen and show the narrator at least in parts of the video. They are structured similarly to tutorials and include additional information e.g., background information, why a new sampling method is required, the results of comparing the new with the old sampling method, etc.

Story-telling in PowerPoint or CapCut is structured similarly to tutorials, but instead of a video, pictures, illustrations and short video clips are used in a PowerPoint presentation / animated slide show of the software CapCut. There is always a voice-over instead of a shown narrator.

Explainer videos can be produced with several budget friendly or free software. They present an idea, concept, process visually. Like in story-telling videos there is always a voice-over instead of a shown narrator. A good overview of available software can be found here.

Preparing a video

See also Alföldi et al. (2019): Video production for agriculture, a guide for farmers, advisors and researchers. Available at: https://orgprints.org/id/eprint/37544/1/alfoeldi-etal-2019-Videoguide_EN_25June2019.pdf

Choose a production team

For almost all projects, a 2-people crew (1 director and 1 camera operator) is the basic set-up. They provide two sets of eyes to decide which shots are needed. The director leads the shoot, guides the speakers, and makes sure everything is going according to plan. The camera operator can focus on the sound and picture quality. Most projects will require at least 1 presenter. This can be an additional person, shown in the video. It can also be done as a voice-over. There can also be the main narrator (shown or voice-over) and several other speakers (shown or voice-over) that give statements or explain details.

Structuring the content

Once the topic is agreed upon, it should be narrowed down, and the most important points the video wants to get across to the audience should be written down. Then these points can be formulated in sentences. As a rule of thumb: 100 words make 1 minute of film. The basic structure consists of:

- **The Intro** starts with 2 sec of information on the project in a standardized look. A template is provided, that can be shown as a freeze frame.

Afterwards the theme and its relevance are presented. Additionally, the main speaker and the location are introduced. The viewer usually decides within the first 30 seconds if the video is worth watching!
- **The main part** presents solutions or recommendations and the main messages of the video. This part can be divided into sub-chapters.
- **The outro** draws a short conclusion, refers to further information and ends with another freeze frame of the project information (10 sec, use template).

Template for a concept of a video

Planning A-roll and B-roll

A video should be planned at a content/text level and on an image level, regardless of whether the content is narrated by a presenter or by a voice-over. The narrator's level is the A-roll. The image level is referred to as B-roll. Once the text for the narrator is written, the director has to plan the appropriate images that complement the text. B-roll can be video material, but also good photos or illustrations. See template for Planning A-roll and B-roll.

Equipment

It is advisable to test the equipment before the recording day.

- **Camera:** Camcorders or cameras with video function are designed for filming. But smartphones usually also have an excellent camera built in. Always record in the landscape with the smartphone and switch the phone to flight modus, so no notifications can disturb the recording.
- **Microphone:** Built-in microphones of smartphones are usually sufficient for quiet environments. If the video is shot outside or there is ambient noise, an external microphone should be used for smartphones or video cameras. If used outside, external lavalier and handheld microphones should be protected by a windshield (fur). Wireless lavalier microphones offer the possibility to move around freely and use hands to show and demonstrate things, but also handheld microphones are a possibility. It is important to always control the sound via headphones.
- **Tripod:** To avoid shaky videos that exhaust the viewer, a tripod should be used. There are simple rigs for smartphones available for around 20 euros. These rigs can be mounted on a tripod. Gimbals are more expensive but produce soft and dynamic movements ("steady cam").

Ethics (Consent)

Before filming, the EU data protection regulations require that you obtain free and informed consent from those whose premises will be filmed. Consent can be given by completing a short, targeted, informed consent form ensuring that the participant has understood the use of the images, knows they can withdraw consent at any time and retains the right to the footage although they allow the project to use the data captured or processed. See consent form template on the sharepoint (WP7 > Guides and templates > Templates).

A-roll: Tips for recordings

- **Relaxed atmosphere:** between production team and filmed persons. External disturbance during filming should be avoided.
- **Sitting or standing:** Usually, presenters should stand. Only long interviews should be recorded sitting.
- **Image composition:** The eye line must lie on the upper third of the image.
- **Direction of sight:** The main presenter and additional presenters that explain something to the audience should look directly into the camera. Only for interviews should the interviewee look slightly laterally past the camera (into

the eyes of the interviewer, which is positioned next to the camera but not shown in the shot).

- **Do not turn off the camera:** Let the camera roll during the entire recording time. This avoids missing statements that can be included in the video. Frames that are not needed can be deleted in post-production.
- **Silent nodding:** During the recording, the focus is on the presenter and content. To avoid intermediate remarks from the interviewer or director, communicate non-verbally, e.g., by nodding.
- **Crisp statements:** Most people cannot describe something concisely and precisely. Therefore, plan at least two takes. The first one serves to reduce nervousness, and the second one focuses on precise statements. Writing down the main points that should be presented in the concept can help.
- **Integrate the question into the answer:** If the questions of the interviewer will be cut out in post-production, the interviewee must integrate the keyword so that viewers can follow the context.

B-roll: Ensure varied image settings

The motifs should be roughly defined already in the concept. The individual clips should at least be 30 sec long, without zoom and pans. Examples of B-roll clips are:

- **Long shots as opening a scene:** At the beginning, it is recommended to give the viewer an overview of the scene when filmed in an outdoor location or indoors, when the setting is important (e.g., a lab). A long shot from the ground or if possible, from a higher vantage point is suitable for this purpose.
- **Medium long shot:** A shot that shows an overview of the scene. If used frequently or for too long, these shots can get boring.
- **Details, close-ups:** Long shots should be supplemented with close-ups. Either they start to form a long shot and zoom in (on a mobile phone, it is not easy to do that smoothly and needs some practice), or they are recorded separately, already starting zoomed in on an important detail.
- **Additional image material:** Additional material can be farmers/scientists in conversation, hands on the ground/with a pipette, plants with their roots, etc.

Editing the video

Editing is challenging and requires some practice. First you need to decide whether you want to edit on a smartphone/tablet or on a computer. Editing software for computer costs between 50 and 100 Euros, editing software for smartphones are often free or much cheaper. Editing on a computer is much more comfortable. CapCut is a free editing program, easy to apply and it works on iphone and android, Mac, and PC. The disadvantages are that it belongs to TikTok and that you can't switch your project between smartphone and computer. For editing, it is recommended to follow the following steps:

- **Rough cut of the A-roll:** editing is started with editing the narrator's track. All clips are listened to and the best versions are selected. Then the clips are strung together following the structure of the content that was agreed upon in the concept. The next step is to shorten the clips. For interviews, it is advisable to ask if a sentence is relevant for the understanding of the topic or

if it drives the story forward. This step takes between 1 and 4 hours for a person with editing experience, depending on the amount of material filmed.

- **Fine cut of the A-roll:** here "aahms", bloopers, and long pauses are cut out.
- **Insert the B-roll:** the image material from the B-roll is placed over the appropriate position of the A-roll, so what has been said in the A-roll is clarified and emphasized with the appropriate images.
- **Provide rhythm:** for example, determining the duration of the A-roll and deciding when the B-roll images should appear. Then intermediate titles, music and pauses are inserted.
- **Insert project information and subtitles:** in the beginning and end of the video, a frame with the project information is shown, template. Using YouTube, subtitles can be generated. The subtitle file can be downloaded including the timecodes and then translated to the different project languages if needed.
- **Show the video:** a person not involved in the video production and possibly belongs to the target group can indicate if the video is easy to follow and the content is understandable, the length is right and if parts have to be amended.

7.3.2. Podcast guidelines and equipment

Podcast styles

Interviews can be done by 1 or 2 hosts that interview 1 guest. The target audience of interviews can be practitioners (e.g., farmers, breeders, advisors), the scientific community, policymakers or the general public.

Pros:

- As conversation flows, minimal editing will be needed.
- Providing a list of possible questions to the interviewee(s) helps structure the episode and gives the interviewee(s) the opportunity to prepare (which eases nervousness).
- If there are two hosts, each host can concentrate on specific tasks, e.g., one is the main interviewer, and the other concentrates on follow-up questions and the "red thread" of the interview.

Cons:

- Some work needs to be done to organize the recording on the schedule of the interviewee(s).
- If there are two hosts, they should know each other and possibly already have done interviews together.

Panel discussions: here, 1 host talks to up to three guests. It is not recommended to have more than 4 different people talking, as it will then be hard for the listeners to distinguish the different voices and keep track of the guests. The target audience of a panel discussion can be practitioners (e.g., farmers, breeders, advisors), the scientific community, policymakers, or the general public.

Pros:

- The host can guide the conversation but does not need to push the conversation forward, as there are the guests that will give the main input.
- Providing a list of possible questions to the interviewee helps structure the episode and gives the interviewees the opportunity to prepare (which eases nervousness).

Cons:

- Even more work needs to be done to organize the recording on the schedule of the interviewees.
- Finding a balance of guests, with supplementing inputs is essential.
- Finding a balance in talking time, so all guests are heard equally is a skill, that the host needs to train.
- Editing will take longer, depending on the number of guests and therefore the number of tracks.

Technical notes are single podcasts, where there is one narrator, that explains a certain topic. Usually, the text is already finalized before the recording date. The content should include the description of a problem and the provision of solutions and recommendations. Optional themes can be the description of a trial, the discussion of its results and a summary of state of the art. Additional statements, e.g., from persons that already put new findings into practice, can be added and make this format more interesting and easier to listen to. The target audience of technical notes can be practitioners (e.g., farmers, breeders, advisors), the scientific community, policymakers, or the general public.

Pros:

- High-value, condensed information can teach about a certain topic.

Cons:

- Some topics can be hard to explain without supporting visuals. A solution is to provide additional material in the show notes.
- More preparation time for the text is required compared to interviews and panel discussions.

Structuring the content

Once the topic is selected, it should be narrowed down, and the most important points the podcast wants to get across to the audience should be written down (collection of questions/key points of technical notes).

- **The Intro** starts with welcoming the listeners and the presentation of the topic of the podcast episode as well as the project. Additionally, the host(s) and guest(s) are introduced. In technical notes, the presenter is introduced.
- **The main part** consists of the interview/text of the technical note.
- **The outro** in the end, the narrator draws a conclusion, says goodbye and refers to the show notes with the link to the project homepage.

Template for a concept of a podcast episode

Equipment

It is advisable to test the equipment before the recording day. Depending on whether the podcast is recorded live or remotely, different equipment is needed. For remote recordings, all participants should make sure they are in a quiet, undisturbed environment with as little as possible reverberation. It is advised to use a good headset and laptop or a mobile phone.

For live recordings, up to 4 microphones with bases, an interface to connect the microphones to a laptop, generating individual tracks, headphones (at least for the host or sound technician) and a laptop with recording software e.g., Adobe Audition are needed. The recording is done in a quiet room with little reverberation.

For remote recording, the software Iris FM can be used. It records separate video & audio tracks locally on every computer. The tracks are sent after the recording to the host. This way varying internet connections do not disturb the recording. An Iris FM meeting can be accessed via a link, that is sent by the host. The recording session can also be accessed via mobile phone. Mobile phones usually provide equal to even better sound quality compared to recordings with a laptop and headset (depending on the headset). The sound quality should be tested before the recording and the best individual solution should be found.

Recording software: Not only for live recordings, but also for remote recordings, a recording software is needed for editing. There are several options in different price ranges (e.g., Adobe Audition, Garageband, Audacity).

Ethics (Consent)

Before recording, the EU data protection regulations require that you to obtain free and informed consent from those whose premises will be filmed. Consent can be given by completing a short, targeted, informed consent form ensuring that the participant has understood the use of the images, knows they can withdraw consent at any time and retains the right to the footage although they allow the project to use the data captured or processed. See consent form template on the sharepoint (WP7 > Guides and templates > Templates).

Editing the podcast

Editing is challenging and requires some practice. It is recommended to follow the following steps:

- **Rough cut:** editing is started by integrating all tracks into one multitrack session of the editing software. It is recommended to save the original tracks and work on a copy. Then the full recording is listened to, and all parts that are not relevant are deleted. It is advisable to group all tracks, so cuts are made on the same position in all tracks. In this step, parts of the talk can also be moved to a different position if this makes more sense to follow the podcast. This step takes between 2 and 5 hours for a person with editing experience, depending on the amount of material recorded and the quality of the interview/panel discussion.

- **Fine cut:** here "aahms", bloopers, and long pauses are cut out.
- **Insert music, additional statements, opening and end:** in the final step, additional material like opening music is added.

Language

It is advisable to record the podcast in English and if the target audience needs a translation into other languages, to do this in a subsequent step. For recording in a new language, the audio file is automatically transcribed by a software (e.g., Sonix). This text is then translated into the new language. Depending on the number of voices heard in the original episode, new voices read the translated text for a recording in another language.
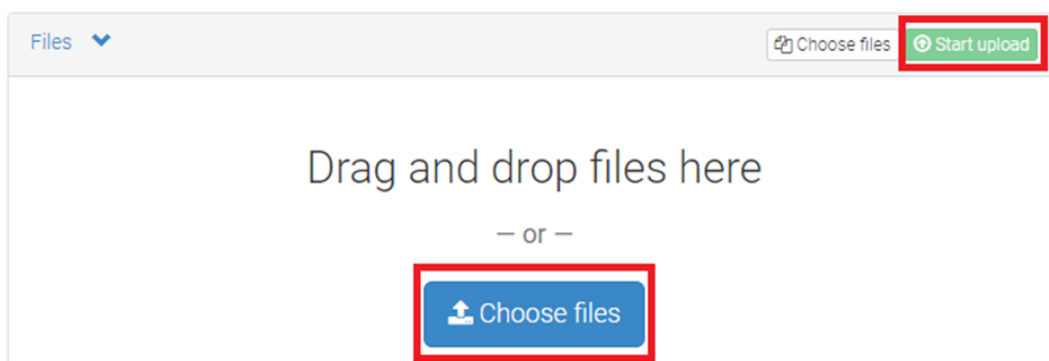
7.4. Zenodo

Zenodo is an open-access repository. All Root2Res publications (scientific and non-scientific) should uploaded to Zenodo. There is no Root2Res account, but there is a Root2Res community. Partners use their personal accounts to upload documents and link them to the Root2Res community. They will then be reviewed by FiBL and accepted to the community.

Uploading to Zenodo

1. Login to your Zenodo account
2. Upload to the Root2Res community here: https://zenodo.org/deposit/new?c=root2res.
3. Import the file(s) by dragging it/them into the appropriate field or by clicking "choose files"
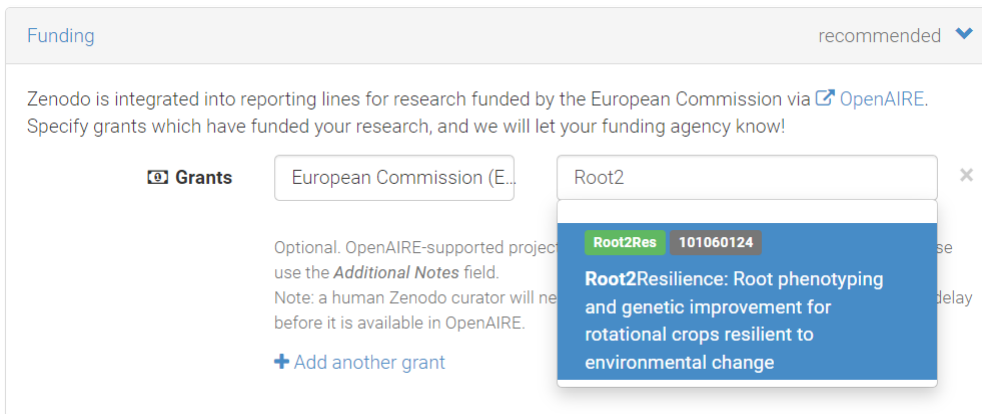4. Click "start upload". This will upload the file to Zenodo but will not publish it yet

5. Under "Basic information", you can fill in relevant keywords, such as:
   - Work package tags: Root2ResWP1, Root2ResWP2, etc.

- Format: Root2ResFactsheet, Root2ResPB (for policy briefs), Root2ResVideo, Root2ResPodcast, etc.
- Themes: Plasticity, Ideotypes, Modelling, Root phenotyping, Microbiome, Sampling, Tools, etc.
- Crops: Barley, Potato, Legume,

Note: To add more than one keyword, click on "Add another keyword", otherwise they will all appear together as one keyword.

6. Under "Funding" find the grant information by starting to type "Root2Resilience". The correct information will pop up.

7. Fill in the other relevant information
8. Once everything has been entered, click "Save" at the bottom of the page
9. Before you click "Publish" at the bottom, make sure your document is the final version. Once you publish the document you cannot exchange it with a revised version.

Note: once a file has been published you cannot delete it, but you can edit the metadata or add a new version (see below for instructions).

Editing a record (to edit metadata only)

To edit the information about a record:

1. Open the record and click the orange "edit" button
2. Make required changes and click "save" and "publish"

Uploading a new version of a document

You cannot delete files from Zenodo, but you can add a new version. The **new version will have a new doi and a new hyperlink**:

1. Open the record
2. Click the garbage can icon next to old version of the file. If you do not delete it, both the old and new versions will appear in this record. The old version will still appear in the existing record.
3. Click "Choose files" and select the file you want to upload, then click "start upload"
4. Click "Save" and then "Publish"

New version

Instructions: (i) Upload minimum one file or fill-in required fields (marked with a red star). (ii) Press "Save" to save your upload for editing later. (iii) When ready, press "Publish" to finalize and make your upload public.

Filename (2 files)	Size	Progress	Delete
Flyer_DiverIMPACTS_A3.pdf md5:a167deb41b74aa790c99baa0ce9e3d9a	2.1 Mb	✔	🗑
Flyer_DiverIMPACTS_A4.pdf md5:1776d27f14d71380074349991402fccae	2 Mb	✔	🗑

Note: File addition, removal or modification are not allowed after you have published your upload. This is because a Digital Object Identifier (DOI) is registered with DataCite for each upload.

(minimum 1 file required, max 50 GB per dataset - contact us for larger datasets)

Responsibilities

Partners:

- Create a Zenodo account
- Upload peer-reviewed publications, publications in non-scientific magazines, conference presentations and other relevant materials.

FiBL:

- Review submissions and accept them to the community
- Upload Roo2Res factsheets, tutorials, podcasts, infographics, and policy briefs
- Upload support for partners
- Contact person: Laura Kemper laura.kemper@fibl.org

8. Annex 3: Outcomes form for result identification

WP				
		RESULTS		
		RESULT 1	RESULT 2	RESULT ...
NAME				
TECHNICAL DESCRIPTION				
APPLICABILITY				
PROBLEM SOLVED/VALUE PROPOSITION				
POTENTIAL EXPLOITATION/IMPLEMENTATION IN SOCIETY ROUTE				
START: BACKGROUND BASED/PREVIOUS RESEARCH / FROM THE BEGGINING				
MATURITY EXPECTED AT THE END OF THE PROJECT				
PROJECT TASK				
INVOLVED PARTNERS				
MAIN CONTACT				