European
IP Helpdesk

www.ec.europa.eu/ip-helpdesk

Successful valorisation of knowledge and research results in Horizon Europe

Boosting the impact of your project through effective communication, dissemination and exploitation

Opening words

One of the main goals of the European IP Helpdesk is to offer a full range of capacity building and training measures to (potential) beneficiaries of EU-funded projects. Our aim is to provide them with the best possible support, so that they can develop their own intellectual property (IP) management strategies and processes. Proficient IP management is one of the major facilitators (in fact, prerequisites) of enhanced knowledge valorisation, which ensures additional value is created from research and innovation projects. That is why our training measures cover a full range of levels and topics: from basic to more advanced training, from specialised IP issues to cross-cutting topics.

When addressing exploitation in Horizon 2020/Europe projects in our training workshops, we have often been asked how IP management relates to knowledge valorisation strategies in general, and to communication, dissemination, exploitation measures in particular. All of these are crucial horizontal activities, which must be taken up in EU-funded research projects. It became clear that there was some confusion about these terms and also that there was a strong interest on how they should be addressed during the proposal and implementation phase of a project.

Although valorisation, communication, dissemination, exploitation are obviously connected in one way or another, a reference document was missing that tied them together on the one hand, but also helped to better define the individual terms on the other. In line with our goal to offer the best possible support to our European IP Helpdesk users, we set out to fill this information gap.

A first edition of this guide specifically addressing actions to maximise impact in the framework of Horizon 2020 projects was created in collaboration with members from the EC's Directorate-General for Research and Innovation – in particular the Directorate J – Common Support Centre and published in 2019.

The present, updated version of this guide builds on this previous version taking into account novel aspects related to Horizon Europe. Also, the team of authors has been expanded by members of the EC's Directorate-General for Research & Innovation, Unit E.2 – Valorisation Policies & IPR. Together with already available online manuals and guides that cover the individual topics more specifically, we hope this guide will help beneficiaries of EU-funded projects gain a better understanding of successful valorisation strategies – including communication, dissemination and exploitation activities – in order to maximise the impact of their projects and research results.
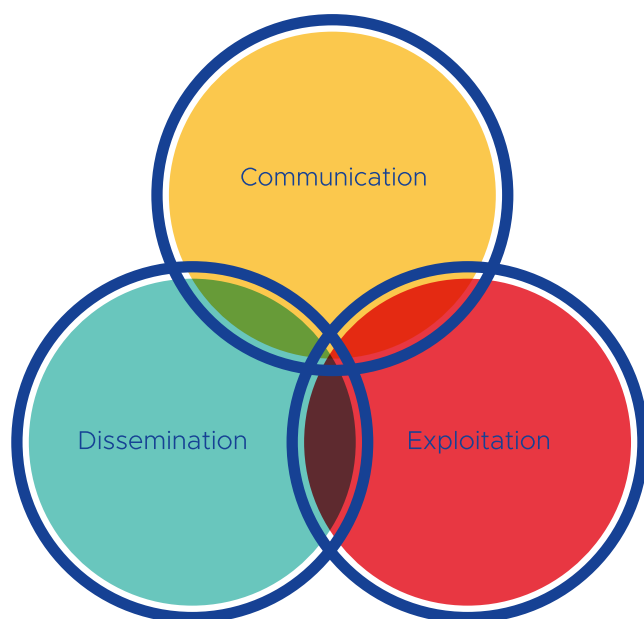
The European IP Helpdesk Team

March, 2022

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Introduction

Excellent science needs effective communication and dissemination. Bringing research and its outcomes to the attention of non-scientific audiences, scientific peers, potential business partners or policymakers fosters collaboration and innovation. Strategic communication and dissemination will help explain the wider societal relevance of science, build support for future research and innovation funding, ensure uptake of results within the scientific community, and open up potential business opportunities for novel products or services. Overall, it helps **increase the impact of research and innovation in many ways.**

The recent example of the fight against the coronavirus has demonstrated the crucial role of research and innovation (R&I) in informing policy, in making our societies resilient and in rebuilding our economy. Valorising research results and scientific knowledge is key to delivering new responses to the challenges and opportunities the EU is facing, and turning scientific knowledge into solutions that benefit the wellbeing of citizens and economic prosperity. The EU's valorisation policy sets the overall frame for project teams funded under Horizon Europe to engage in activities aimed at communicating, disseminating and exploiting newly generated knowledge and research results.

Yet, there is still a need to explain **what the terms communication, dissemination and exploitation in Horizon Europe really mean:** How do these terms and their corresponding activities relate to each other? How can they be distinguished from one another? And how do they interact with Open Science?

This document will help **clarify the different concepts and terminology** by briefly introducing key pillars of the EU' knowledge valorisation policy before illustrating the differences between communication, dissemination and exploitation activities, and pointing out the areas they have in common. It is intended as an introduction, and will provide a helpful overview when developing your project's outreach and exploitation strategy.

In addition to this document **there already exists a series of useful documents** such as online manuals and guides that provide further information on how to implement these actions. A list is included at the end of this document.

Communication

Dissemination

Exploitation

Knowledge Valorisation:
Making Results Work for Society
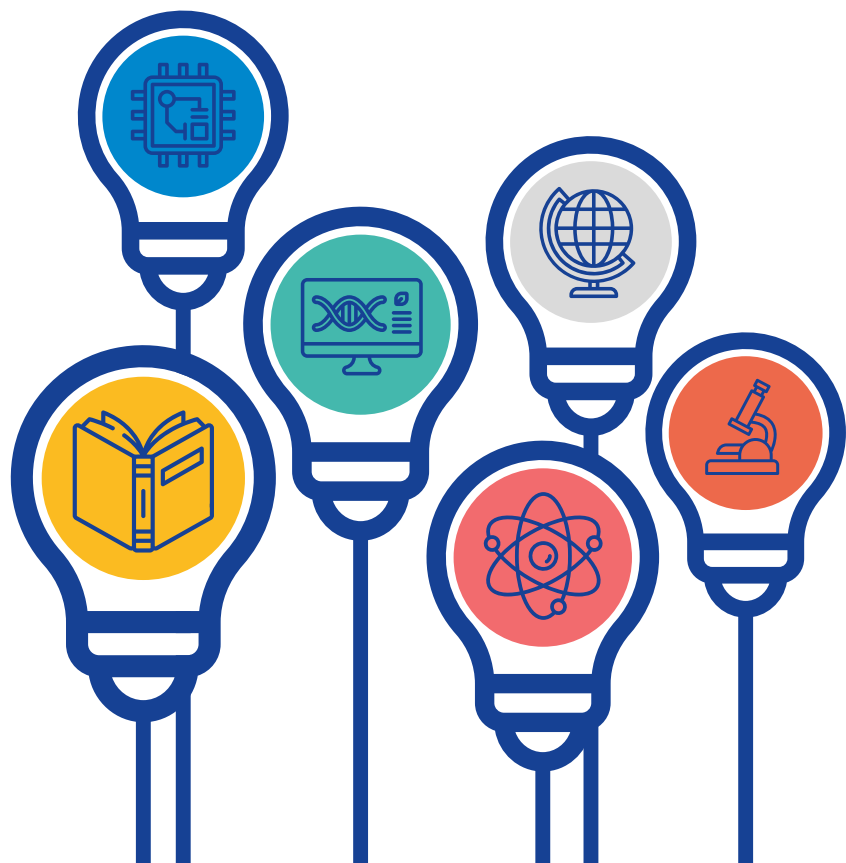
A culture of valorisation should be at the heart of European research and innovation policy. Hence, understanding the why and what of the EU's valorisation policy is a prerequisite to understanding the novelties of Horizon Europe, and putting expected communication, dissemination and exploitation activities into perspective.

The guiding principles of the implementation strategy for Horizon Europe include maximising impacts, providing greater transparency and simplification, fostering synergies with other EU funding programmes and providing easy access through the European Commission's Funding & Tenders Portal.

Knowledge valorisation plays an essential role in enabling Europe's systemic transformations into a greener, digital, inclusive and sustainable society. Research and innovation (R&I), knowledge sharing and collaboration across Member States will accelerate turning publicly funded research solutions into innovative solutions with high socio-economic impact. The Commission's proposal to revitalise the European Research Area (ERA) for Research and Innovation, clearly identifies knowledge valorisation as key element for the uptake of research and innovation results by economy and society.

Aiming to maximise the long-term leverage of EU R&I investment, knowledge valorisation seeks to involve all players and ensure that data, research results and inventions are transformed into sustainable products, processes and services that bring economic value and benefit society.

As a first step towards developing a knowledge valorisation strategy, the European Commission carried out a policy review "Valorisation Channels and Tools" that identifies and analyses the six main channels for knowledge valorisation:

1. academia-industry joint research and mobility
2. the creation of research-driven spin-offs and start-ups
3. intermediaries and knowledge transfer professional support
4. the engagement of citizens and local communities
5. intellectual property (IP) management and standardisation
6. knowledge dissemination and policy uptake.

The review provides a toolbox to promote the uptake of R&I results and data. To enhance the diffusion of excellent national, regional and organisation-level initiatives, it also includes references to European and international best practices.

Alongside the policy review, the European Commission has launched a number of discussions and initiatives to actively engage with different stakeholders from Europe's research and innovation landscape in a continued policy dialogue and foster exchange of knowledge valorisation best practices.

To conclude, the emphasis and importance placed by Horizon Europe on so-called horizontal activities such as communication, dissemination and exploitation activities must be seen against the backdrop of this overall knowledge valorisation strategy and the overarching goal to make research results work for society.

In a nutshell

People expect science to be a driving force in the transition towards a greener and fairer society. For research and innovation to play a crucial role in this transition, excellent research results and data need to be made available quickly and put into practical use across Europe.

The goal of a valorisation policy is to increase the impact of the EU's investment in research and innovation, involving all players and ensuring that data, research results and inventions are transformed into sustainable products, processes and services that bring economic value and benefit society.

The policy review is the first milestone in the definition of a **European knowledge valorisation strategy.**

It describes the different means available to:

• improve how we transform research results into new sustainable solutions,

• identify and analyse the main channels for the uptake of research and innovation results,

• get better at spreading excellent national practices,

• highlight and communicate best practices from Europe and beyond.

Find out more:
Factsheet: Making results work for society

Communication, Dissemination, Exploitaion: Why should I care?

Communication

Dissemination
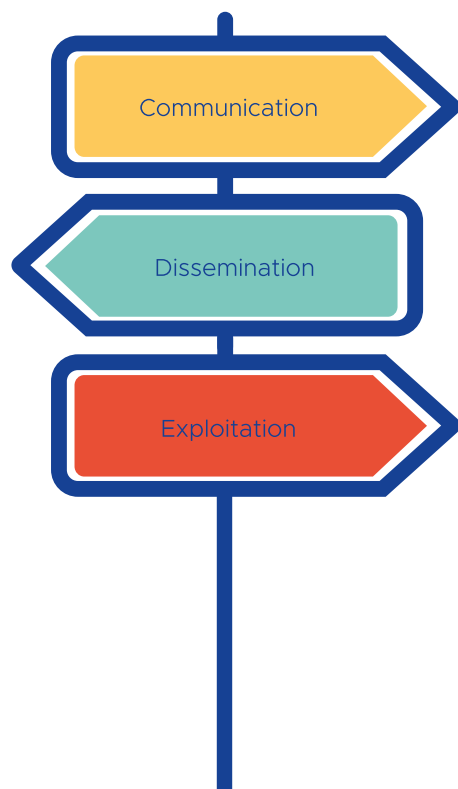
Exploitation

Making an Impact

Often when writing a proposal, project teams consider communication, dissemination and exploitation activities as abstract measures that are only marginally linked to their research activities; or they see peer-reviewed publications as the only "real" way to communicate their work. Any activities concerning potential exploitation, communication to the broader public or dissemination of results from their work to relevant stakeholders beyond the research community are sometimes considered as pro forma – they have to be mentioned in the proposal, but are seen to have no added value. Consequently, the activities planned in these areas often result in non-strategic, ad hoc efforts lacking clearly defined objectives and targets.

Moreover, to accelerate the potential uptake of the R&I projects results particular attention is required to the management of the intellectual property or more generally the intellectual assets of the project. **Creating value should be a cross-cutting objective of any research and innovation project** and should be reflected in specific activities and goals on horizontal level throughout the project's lifetime and beyond.

The extent to which projects define their approach towards communication, dissemination and exploitation activities varies depending on the project, and so a one-fits-all solution is neither reasonable nor desirable. Project teams aiming for a successful Horizon Europe project need to reflect and **address communication, dissemination and exploitation through an integrated approach** that strategically targets these activities, and which is fully embedded in the project's work plan.

Effective plans for communication, dissemination and exploitation are important for successful project evaluation; particularly given the increased focus that the Horizon Europe programme places on activities which demonstrate and maximise the scientific, the societal and economic impact of R&I funding. Communication activities to promote the project itself and its success as well as the dissemination and exploitation of results together with the management of the intellectual assets should thus be key components of every Horizon Europe project. Their successful implementation will bring EU-funded research and its results to the attention of multiple audiences, thus helping to contribute to the expected impacts and outcomes which will address the strategic objectives of Horizon Europe. This way, we ensure a valorisation culture in the implementation of the Framework Programme which allows further uptake of R&I results.

Benefits☺ If strategy for effective Comm/Diss/Ex is in place	Risks☹ If strategy for effective Comm/Diss/Ex is missing
Improve your proposal's chances of success.	**Lower prospects of success for your proposal.**
Increase the visibility of your research, enhance your reputation and help your efforts gain understanding and support (also financially), by presenting your work and its results not only to the scientific community, but also to potential industrial partners, policymakers and society at large.	**Recognition and reputation of your work remains limited** to a small circle of experts. Advancing your field of research has less traction.
Sharpen your profile within the scientific community and attract talented scientists/students for your own or partner institution(s).	**Needless duplication of your resources and spending of public funds** (i.e. limited "return on investment" of public R&I funding).
Tap into additional funding sources by explaining how your project successfully tackles current issues and challenges, and how this positively affects our daily lives (e.g. by creating new jobs, improving public knowledge, influencing a change in policy).	**Little awareness of the needs and significance of your research** on policy level, potentially resulting in limited public funding/investment.
Discover novel approaches and solutions by promoting the exchange of knowledge on all levels – cross-sectoral and interdisciplinary.	**Untapped potential** of your project results and data. New knowledge and insights, which could lead to whole new fields of application are lost.
Attract potential users of the project results – including business partners for commercial exploitation, but also other users such as reseachers, educators, policymakers, etc.	**Difficulties to find partners** who might take an interest in (commercially) exploiting your results, leading to missed opportunities for commercialisation of project results.
Help strengthen the research and innovation landscape in Europe by ensuring knowledge transfer, uptake and commercialisation of novel technologies and results by industry, decision makers and the scientific community.	Europe's **full innovation potential remains untapped.**
Spread knowledge and allow that knowledge to be built upon by making your project results openly available and searchable under fair conditions.	**Uphold barriers** that prevent others from gaining access to research publications and data they can check and re-use.

An increased awareness of EU-funded R&I activities and project results will directly and indirectly provide many benefits. For example, by helping to secure or increase research and innovation funding, establish new research or business contacts, and stimulate further research.

Contractual Rights and Obligations

A number of **rights and obligations related to communication, dissemination and exploitation** are formally outlined in different Horizon Europe documents; such as the Rules of Participation, the proposal template for Research & Innovation Actions (RIA)/Innovation Actions (IA), or the respective EU Grants AGA – Annotated Grant Agreement.

More specifically, by signing the EC Grant Agreement participants agree to:
- Promote the action and its results, by providing targeted information to multiple audiences (including the media and the public), in accordance with Annex 1, in a strategic coherent and effective manner (Article 17.1of the Model Grant Agreement)
- Disseminate results — as soon as possible — through appropriate means, including in scientific publications (Article 17of the Model Grant Agreement)
- Ensure open access (online access to research outputs provided free of charge to the end-user) to all peer-reviewed scientific publications relating to its results (Article 17 of the Model Grant Agreement)
- Manage the digital research data generated in the action responsibly, in line with the FAIR (Findable, Accessible, Interoperable and Reusable) principles (Article 17 of the Model Grant Agreement)
- Comply, where the case, with additional obligations regarding Open Science practices, such as measures regarding the validation of scientific publications (Article 17 of the Model Grant Agreement)
- Take measures aiming to ensure 'exploitation' of the results — up to four years after the end of the project – by using them in further research activities; developing, creating or marketing a product or process; creating and providing a service, or using them in standardisation activities (Article 16 of the Model Grant Agreement)

- If despite best efforts, the results have not been exploited within one year after the project end, the beneficiary must use the Horizon Results Platform to find exploitation partners (Article 16 of the Model Grant Agreement)

- In order to provide clarity in the intellectual property and assets management and to allow the European Commission to follow up and provide help when needed, the beneficiaries must indicate the owner(s) of the results (Results Ownership List) in the final periodic report (Article 16 of the Model Grant Agreement)

- Acknowledge EU funding in all communication, dissemination and exploitation activities (including IPR protection and standards) as well as on all equipment, infrastructure and major results financed by the action by using the wording and criteria specified in the Grant Agreement (Articles 17.2).

- When specified by the call and in emergency situations, additional exploitation obligations may be applied that affect the management of the intellectual assets of the projects

In addition to the articles laid out in the Horizon Europe Model Grant Agreement, Annex 5 "Specific Rules" details additional requirements linked to communications, dissemination and exploitation for specific funding programmes.

Central Definitions & Concepts
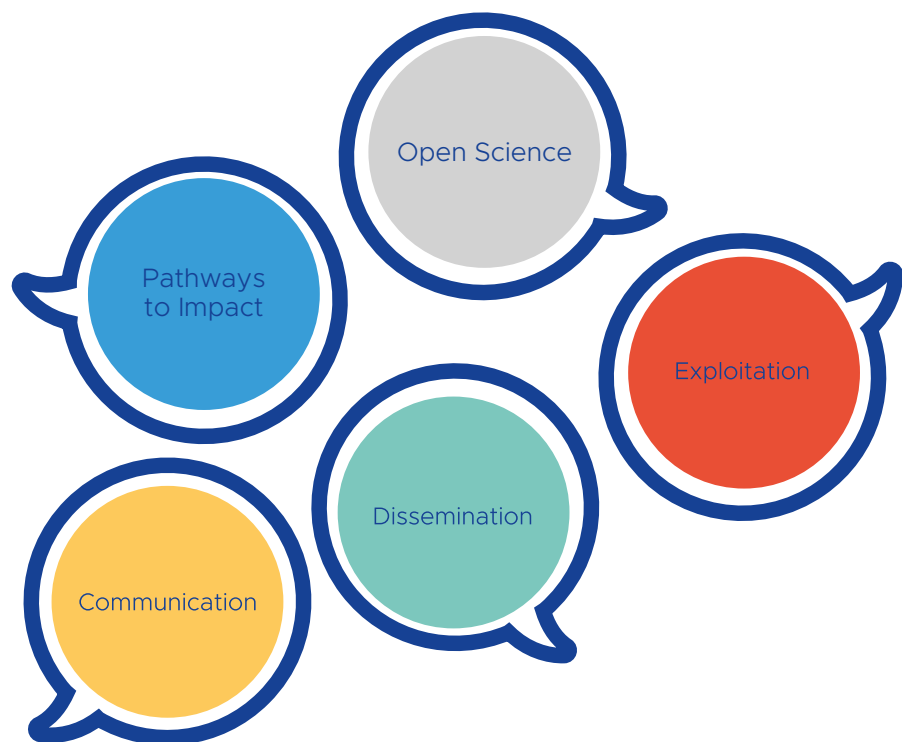
Communication, Dissemination, Exploitation

The following table was initially created on the basis of the terminology applied in Horizon 2020. While the descriptions have been slightly updated and tailored to Horizon Europe the core features of each activity still remain valid under the new Framework Programme and help provide useful orientation.

Communication	Dissemination	Exploitation	
Reach out to society and show the **impact and benefits of EU-funded R&I activities.** Targeted communication activities must address the public policy perspective of European R&I funding by considering aspects such as (i) the benefits of transnational cooperation in a European consortium or (ii) scientific excellence or (iii) contributing to competitiveness and to solving societal challenges.	**Transfer knowledge & results** with the aim to enable others to use or reuse and take up results, thus maximising the impact of EU-funded research.	**Effectively use/reuse project results** through scientific, economic, political or societal exploitation routes aiming to turn R&I actions into concrete value and impact for society.	Objective
Inform about and **promote** the **project AND its results/ success** in a non-technical manner and through strategically planned actions – possibly engaging in a two-way exchange.	**Describe** and **ensure results available** for others to **USE or REUSE** ➡ focus on results only!	**Make concrete use/reuse** of research results (not restricted to commercial use.)	Focus
Multiple audiences beyond the project's own community incl. media and the broad public.	Audiences that may take an interest in the potential **USE/REUSE** of the results (e.g. scientific community, industrial partner, policymakers).	People/organisations including project partners themselves that make concrete use/reuse of the project results, as well as user groups outside the project.	Target Audience

The boundaries between certain activities – in particular with regard to communication actions and dissemination – are often blurry or can sometimes overlap. For instance, a magazine article highlighting the project's work and achievements that is written for communication purposes could end up in the hands of potential stakeholders outside the project and trigger interest in using some of the results. The initial communication activity has now become a dissemination tool as well. This illustrates how certain tools and activities can oscillate between communication and dissemination, depending on the target group and content.

The interplay between dissemination and exploitation is closely linked on the other hand. Although they can be examined separately, they often belong together, since one drives the other – and vice versa. Demonstration activities, prototype development, data and open access management, knowledge and innovation management, IP protection strategies and active stakeholder engagement, are all examples that further facilitate and accelerate the process between both fields.

Communication, dissemination and exploitation activities all aim to help maximise the impact of R&I actions. What differentiates them from one another are the objectives, focus and target groups they address.

What is the "Plan for Dissemination and Exploitation incl. Communication Activities" all about?

An overall strategy for the communication, dissemination and exploitation of planned and future project results should be drafted during the proposal stage, and be regularly updated and potentially adjusted throughout the course of the project. In addition to the outline of the plan as part of the proposal, in Horizon Europe, **an initial "Plan for Dissemination and Exploitation including communication activities" (the PDEC) is already due in month 6 of the project.**

The D&E-Plan should include the following aspects:
- Identify the problem/needs to address
- Check what is the current offer (i.e. competitive solutions/technologies)
- What is the added value of your research/technology/methodology
- Identify the Key Exploitation Result(s) (KER)
- Explain what the outcome is (do not confuse it with the expected

impact to be addressed in the impact canvas of the application)
- Identify the target groups (early adopters)
- Describe some dissemination measures and channels to reach out to your target audience
- Describe some exploitation measures
- Have a clear intellectual assets management and define the ownership of the results of the project how your results can feed back to policy making and how it contributes to EU priorities

Stakeholders outside the project need to be made aware of results that will not be exploited or used solely by the project partners themselves. Therefore, focussed communication and dissemination actions surrounding these results are crucial to maximise their potential impact. In order to help maximise impact, **there is a new obligation to disseminate results using the** Horizon Results Platform**. If results are not exploited by the project partners one year after the project end, the results must be displayed on the platform.**

What are "Pathways to Impact"?

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

Work programmes in Horizon Europe indicate the desired impact under the "destinations" and the desired outcomes under the topics. Each project proposal should explain how its pathway towards impact contributes to the destinations and topics in the work programme.

Pathways to impact are logical steps towards the achievement of the expected impacts of the project over time, in particular beyond the duration of a project. A pathway begins with the projects' results, continues with their communication, dissemination, and exploitation leading to the expected outcomes, and ultimately ends with wider scientific, economic and societal impacts of the project. These pathways must be clearly outlined in the proposal.

Most Horizon Europe projects will be assessed on the credibility of the pathway, which should show how the steps contribute to the expected outcomes and impacts defined in the work programme topic and destination. Proposals are encouraged to present all these different aspects of the impact pathway in a visual manner in the impact canvas in your proposal. The canvas can be adapted to your project needs, filling it will help the evaluator get a broader picture of your project's contribution to scientific, economic and societal impacts.
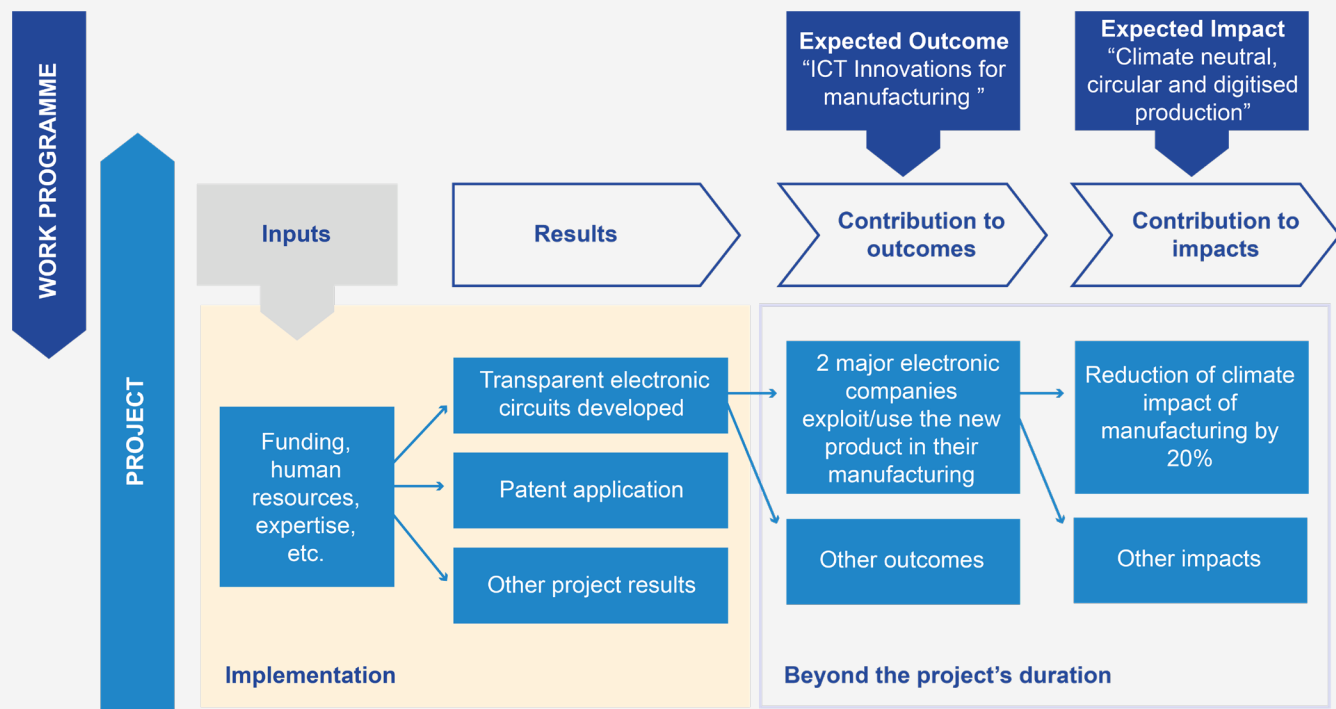
Keep in mind!

Link your proposal to the policy context of the call for proposals.

Think of how your project's results, outputs, and impacts will contribute to the topic and destination of the work programme. Proposals will be assessed based on the credibility of their pathway towards impact. In working on this pathway, consider the following questions:

- What are the expected outputs and impacts of your project?
- How do they contribute in a concrete way to the work programme?
- What target groups (user communities? Parts of the society?) would benefit from those impacts?
- What are the risks and barriers to impact, and how can they be addressed to make the pathway towards impact more credible?

Examples: Pathway to Impact
Describes the specific contribution of the project to the expected outcomes and impacts set out in the Work Programme

WORK PROGRAMME

PROJECT

Inputs

Results

Contribution to outcomes

Expected Outcome
"ICT Innovations for manufacturing "

Contribution to impacts

Expected Impact
"Climate neutral, circular and digitised production"

Funding, human resources, expertise, etc.

Transparent electronic circuits developed

Patent application

Other project results

2 major electronic companies exploit/use the new product in their manufacturing

Other outcomes

Reduction of climate impact of manufacturing by 20%

Other impacts

Implementation

Beyond the project's duration

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What about Open Science?

The European Commission promotes the overall concept of Open Science in Horizon Europe. By making project results and data accessible to all societal actors, other researchers, innovators and the public can find and re-use these for their own specific needs. In this way further research is encouraged, novel solutions can be found, and complex challenges can be tackled. Open Science is also about making research outputs more transparent and their use more efficient.

Horizon Europe defines Open Science as an approach to the scientific process based on open cooperative work, tools and diffusing knowledge. Open Science, including open access to scientific publications, research data management and the active engagement of society, as well as optimal dissemination and exploitation of knowledge have the potential to increase the quality, impact and benefits of science. They also have the potential to accelerate the advancement of knowledge by making it more reliable, efficient and accurate, more easily understood by society and responsive to societal challenges.

If peer-reviewed publications result from Horizon Europe projects, providing open access to them is mandatory. This includes articles and long-text formats, such as monographs and other types of books. Immediate open access is required i.e. at the same time as the first publication, through a trusted repository, and using specific open licences (a Creative Commons licence – CC BY in most cases – or its equivalent). Open access is encouraged for those publications that are not peer-reviewed. Beneficiaries should also ensure open access to research data via a trusted repository under the principle 'as open as possible, as closed as necessary'.

In 2020, the European Commission also set up [Open Research Europe (ORE)](#), a publishing platform for scientific papers of research funded by Horizon Europe and Horizon 2020, that many grant beneficiaries can use if they want it to, and at no cost to them. When ORE is selected, all requirements for open access to scientific publications are fulfilled,

To be able to handle the generated or re-used data in your Horizon Europe project, as well as any other data, a **Data Management Plan (DMP) is required.** It will help identifying, planning and structuring how you meet the rest of the research data management and open access requirements, in particular ensure that the relevant data is **findable, accessible, interoperable and reusable ("FAIR"),** as well as define the procedures involved in capturing, handling and managing

the research data throughout the project's life cycle and beyond. The DMP should be closely aligned with the D&E plan. It is recommended to provide open access to research outputs beyond publications and data (e.g. software tools, models, apps, etc) and share them as early and openly as possible, providing guidance for potentially interested users. Costs for providing open access to publications and data are eligible in most cases, and should be budgeted in the proposal.

Open Science does not affect the intellectual property generated by your research results and is based on an adequate management of intellectual property. Beneficiaries (or authors) must retain sufficient intellectual property rights to comply with the open access requirements related to scientific publications. The decision on whether to seek protection for intellectual property rights is made before deciding whether or not to publish results. Therefore, when aiming at patent protection, research results can only be published after the patent application has been filed. The protection of research results and their commercial exploitation (for example through patenting) is therefore guaranteed.

Open access to research data follows the principle "as open as possible, as closed as necessary". Projects may decide not to provide open access to research data if it goes against the beneficiaries' legitimate interests or due to other justified reasons (e.g. confidentiality or security concerns). However, this must be justified in the DMP.

Open Science Practices (non-exhaustive list)

| What?	How?	Mandatory in all calls/recommended
Early and open sharing of research	Preregistration, registered reports, preprints, etc.	Recommended
Research output management	Data management plan (DMP)	**Mandatory**
Measures to ensure reproduciblity of research outputs	Information on outputs/tools/instruments and access to data/results for validation of publications	**Mandatory**
Open access to research outputs through deposition in trusted repositories	• Open access to publications • Open access to data • Open access to software, models, algorithms, workflows etc.	• **Mandatory** for peer-reviewed publications • **Mandatory** for research data **but** with exceptions ('as open as possible…') • Recommended for other research outputs
Participation in open peer-review	Publishing in open peer-reviewed journals or platforms	Recommended
Involving all relevant knowledge actors	Involvement of citizens, civil society and end-users in co-creation of content (e.g. crowd-sourcing, etc.)	Recommended

• Open science practices listed in the template for proposals (section excellence>methodology)

• Mandatory in all calls: Model Grant Agreement or call requirement; all the rest recommended

Ready, Set, Action

A wide range of activities can be carried out for communication, dissemination and exploitation. The key here is to stay in line with the strategic plan of the project and select the activities that are best suited to achieve its objectives. In other words, **first define the purpose of the communication, dissemination and/or exploitation measure, and who is addressed by it, then identify the tool and carry out the activity that will optimally convey your message.**

Choose the right tools to address the challenges of the call and contribute to the expected impact!
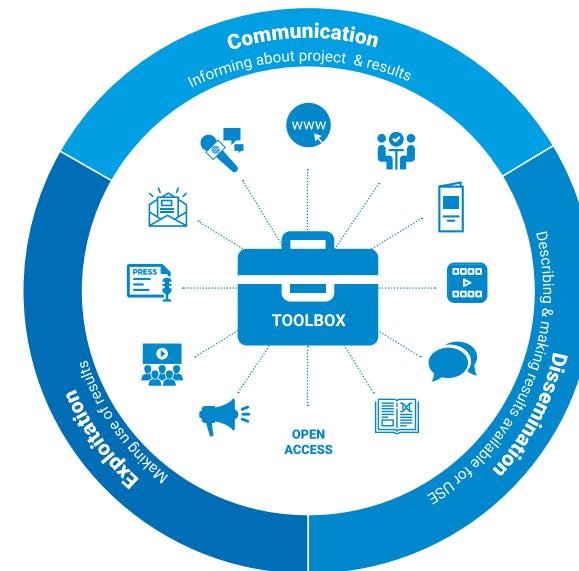
There are many tools that can be used for communication, dissemination and exploitation purposes. Some, however, are specific to the dissemination of results such as scientific publications, and sharing results in an online repository. Plus, there are other tools such as IP rights (e.g. patents, designs, utility models, database rights, copyright, trademarks) that may be used specifically to support commercial exploitation.

1. Timing & General Approach

The strategic planning of communication actions together with appropriate dissemination and exploitation measures and management of the intellectual assets **begins during the proposal stage of a project. Once it is running, the communication actions will accompany the R&I work of the project throughout its duration,** while activities related to the dissemination and exploitation of results often continue even after the project has ended.
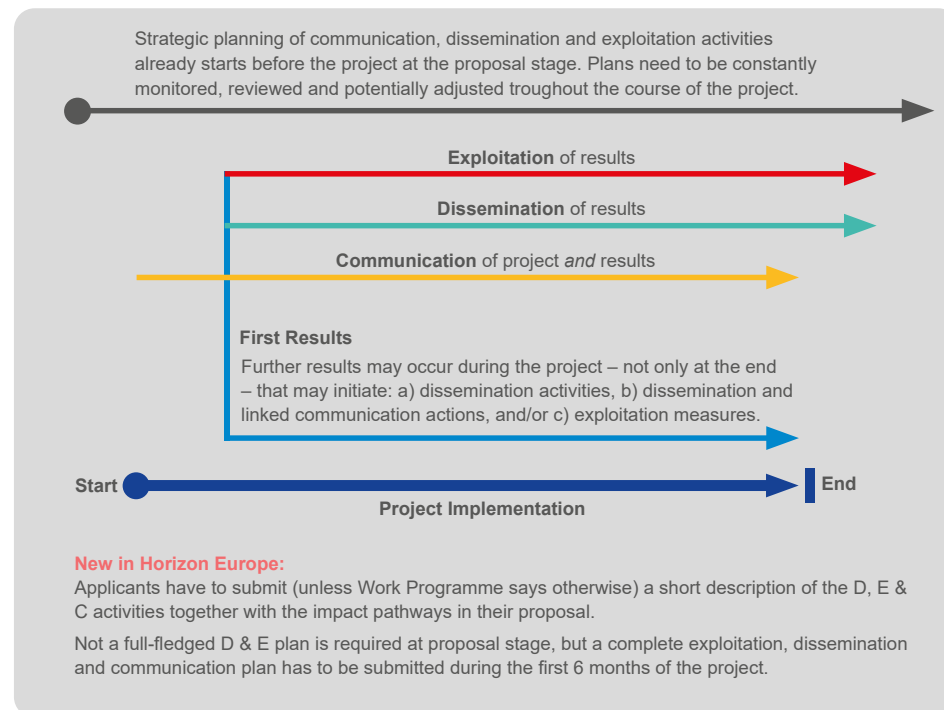
Project outputs become available throughout the course of project – not only towards the end – therefore it is essential to **closely capture, monitor and manage results** (including the accompanying Intellectual Property Rights) over the entire lifetime of the project and adjust communication activities, as well as dissemination and exploitation plans accordingly. Regularly keeping track of the project's progress will not only help capture results once they are achieved, but will also help identify possible outcomes that were not originally foreseen at the start of the project. These unforeseen results should be closely evaluated to determine their exploitation potential and further application in various fields.

Even though the dissemination and exploitation of results is relevant during the project, these activities usually gain more momentum towards the end of the project when the bulk of expected outcomes typically emerges, and can be brought together to address the call challenges and expected impacts. Consequently, there must be a viable plan in place to address what happens after the project has come to a close – even more so, since project partners are contractually obliged to use their best efforts to exploit the results four years after project completion. **Dissemination and exploitation measures thus remain relevant beyond the project's end:** results should continue to be publicised, ideally creating an increasing awareness and interest amongst potential users, which in turn fuels further exploitation of results.

During Proposal Submission

At the proposal stage the focus is on the thorough analysis and assessment of how your **project and the expected results will address the challenges and deliver the expected impact** outlined in the call topic – during and beyond the project's lifetime. This could for example be done via a structured assessment of the various determinants for

the successful delivery of expected impacts, such as surveys, market analyses, user definition and/or regulatory considerations. Based on the outcomes of this analysis you will not only be able to convincingly demonstrate how your project will generate added value and benefits, but consequently, you will also be able to strategically plan all related communication, dissemination and exploitation activities. Furthermore, this analysis can then be further elaborated and updated during the course of the project. As an example, a structured overview of the relevant factors influencing a successful dissemination and/ or exploitation of the results (such as IP management, regulatory provisions, user and market analysis etc.) in a canvas structure can help to provide a holistic overview for the reviewers and support the implementation of these activities during the course of the project.

Strategic planning of communication, dissemination and exploitation activities already starts before the project at the proposal stage. Plans need to be constantly monitored, reviewed and potentially adjusted troughout the course of the project.

Exploitation of results

Dissemination of results

Communication of project *and* results

First Results
Further results may occur during the project – not only at the end – that may initiate: a) dissemination activities, b) dissemination and linked communication actions, and/or c) exploitation measures.

Start

End

Project Implementation

New in Horizon Europe:
Applicants have to submit (unless Work Programme says otherwise) a short description of the D, E & C activities together with the impact pathways in their proposal.

Not a full-fledged D & E plan is required at proposal stage, but a complete exploitation, dissemination and communication plan has to be submitted during the first 6 months of the project.

Throughout Project Duration

While strategic assessment and planning take centre stage during the proposal writing phase, **once your project has successfully been granted, it is all about putting your concepts into practice, monitoring progress and evaluating your activities. Project participants should not assume that once the plan has been approved, it is final and definite.** "Only" a draft of the intended communication measures and dissemination and exploitation plan(s) is required in the proposal, while the first full D&E plan including a plan for communication activities is due as a deliverable in month 6 of the project. During the project's lifetime, market needs or interests of potential stakeholders may change, results that were not foreseen in the planning phase can develop, or any other number of unknown variables can come up, that require a close review and regular updates/adjustments of the plans for communication, dissemination and exploitation. This is why a clear IP management and ownership is essential from day one of the project.

In fact, since regular updates and adjustments to the communication, dissemination and exploitation plans are expected, project teams are requested to document these in their periodic project reports. Hence, a structured approach towards communication, dissemination and in particular exploitation and IP management during the proposal phase enables a thorough and well-documented management of these issues during the project. One possibility could be to document all topics discussed above via a template or canvas which can then be updated on a regular basis. To this end, the new reporting templates for Horizon Europe will also provide a clear structure to help capture and monitor respective activities.

Integrated Approach

Overall, **it takes an integrated approach to put strategies to valorise knowledge and research results within a project into practice and to effectively carry out communication, dissemination and exploitation activities.** An approach enables you to capture and monitor project results, select the right tools to inform about them, and manage open access while at the same time considering a strategy for intellectual assets (including intellectual property) management, if there are commercial opportunities. It should promote your project on many levels, reaching out to both a wider audience and interested parties, while exploring possible exploitation routes.

An approach that targets all of these objectives needs to be closely tied in with your project's actual work plan. In other words, it should be integrated in the project's day-to-day activities. For example, the regular monitoring of tasks and objectives allows you to identify project results. Also, maintaining an open and regular communication amongst all partners lets you encourage and keep track of outreach activities.

Communication, dissemination and exploitation measures as well as keeping valorisation of research results in the scope of the project, should therefore be understood as "horizontal issues" that run alongside and complement research activities throughout the project's life cycle, with the main goal to maximise the expected impact of the call topic. It is thus advisable to implement a structured and systematic approach to plan, coordinate, monitor, and assess all impact-related activities.

For example, a model canvas can help the consortium establish standards and processes that capture and assess project outputs. This will ensure an early identification of potential opportunities, conflicts, barriers and bottlenecks, thus laying the foundation for successful dissemination and exploitation activities.

Keeping track of communication, dissemination and exploitation means keeping track of your project!
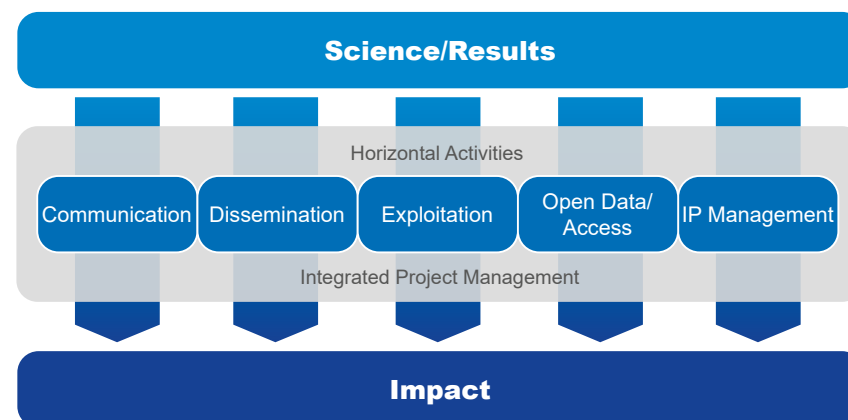
Collaborative Innovation

Collaborating with others is a major enabler of innovation. No partner can be expected to have all of the expertise or resources to develop innovations on their own. Therefore, collaboration within a Horizon Europe project allows everyone to benefit from the collective skills and resources of the team, and helps to maximise the impact of the project. The development of a collaborative innovation management strategy helps facilitate the exploitation of jointly developed innovations and ensures that all partners benefit from the collaborative approach.

Effective management of intellectual assets is crucial, particularly for 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. Expectations, needs, contributions, benefits, risks etc. need to be discussed and understood alongside a clear collective purpose and vision. A **needs and contributions matrix** can help consortia to manage and nurture a collaborative relationship between the partners in an efficient manner. Such a matrix will help partners clearly and transparently state their needs and wants, clarify expectations, identify a partner's contributions, highlight individual and collective benefits, and surface any risks that need to be considered. This matrix would also be helpful for preparing the detailed D&E plan due in month 6 of the project.

In general, collaborative projects lead to results partners, some jointly – but to contribute to the impacts, results will need to be "bundled" together (otherwise, why collaborate). Thus, it is very important that the dissemination and exploitation plan (including the management and protection of intellectual assets) takes all this into account and that results be considered as a whole, not individually by result or partner.

At the end of the project duration a Results Ownership List must also be submitted as part of the final periodic report. Therefore, the needs and contributions matrix can also be used to help identify the owner of the results based on their contributions

2. Situation Analysis

Given the importance and different character project results may have in each individual R&I endeavour, it is essential for project consortia to carefully consider the following aspects – not only in the preparation phase, but throughout the project's lifetime:

1. What are the (expected) key exploitable results of the project? How is the value for further use going to be assessed?

2. Which IP protection and IP management measures have been laid down for expected results?

3. How will project partners address the issue of (joint) ownership of results and the management of exploitation activities – especially for jointly owned results?

4. How are the results going to be used to a) address the call topic challenges and expected impacts, and b) for further uses?

5. Who are the main innovators within the consortium to drive commercial exploitation?

6. Which (other) results will be produced and could be exploited by people or organisations outside the project – under which terms and conditions?

7. What are potential additional application areas (even outside the project's field of research) that could benefit from its developments?

8. What impact do your results have for everyday life? How could society benefit from your work? What would be the consequences for future policy making?

9. Who are the relevant stakeholders which are addressed by / interested in your results?

10. What are the market & customers' needs and wants?

11. What are the key messages related to your results that you wish to communicate? (e.g. What is new? Why is it important?) What are your objectives and who are your target audiences you want to reach

In order to effectively capture the current knowledge and information available at the proposal stage, it is advisable to structure the various topics (see below) in a comprehensive manner, making use of available templates and guidance documents where relevant.

Of course, depending on each specific project proposal and the type of action (e.g. Innovation Action, EIC Pathfinder/Transition/Accelerator) as well as the specifics of the respective call topic, the above mentioned aspects may be weighted differently.

Additionally, this ensures that any predicted key results can be monitored and adjusted later during the course of the project.

• **Assess the "State of the Art"** (i.e. gather information):
   - What is the current state of knowledge/scientific literature?
   - What are the results of a patent search – if relevant?
   - What knowledge, technologies and IPR will partners bring to the project (i.e. background-related patents or other IP Rights)?
   - Which related R&I projects already exist and what are their central outcomes?
   - To what extent will the project build on existing state of the art technologies and what is the envisioned progress beyond the state of the art?

• **Reflect on the scale and significance** of your expected impacts:
   - What are the expected results, and how will they address the specific challenges of the call topic and contribute to the expected impacts?
   - Will project results be capable of stimulating further innovation and use?

• **Consider the innovation capacity of your consortium as a whole:**
   - How does each partner contribute to the overall objective? How can the consortium successfully collaborate to maximise impact?

- **Evaluate how your project is complementary to other EU-funded or national projects:**
  - How can my consortium best work with complementary EU project(s)?
  - How can the project gain leverage from a possible collaboration with national or EU-funded project(s)?

- **Evaluate the market potential** of your results:
  - What are the specific needs that triggered this Horizon Europe project?
  - Who will use or further up-take the results? Do you know their specific needs and demands?
  - What are the user's gains? What are their gains from your solution?
  - What are the potential markets?
  - Who is the competition and what solutions exist already?
  - What is the unique selling proposition of your expected outputs, and why is it "better"?

- **Analyse potential barriers and enablers** for further use of the project results:
  - Are there any critical ethical, privacy, safety or security issues?
  - Do you address all relevant regulatory aspects or standards/norms?
  - Did you carefully consider Freedom-To-Operate issues to avoid that exploitation activities can be done without infringing on intellectual property rights of others?
  - Have (joint) ownership issues, access rights and use of background/results been discussed and agreed upon amongst consortium partners?

- **Develop first approaches towards a potential exploitation strategy:**
  - What are the expected outcomes in the call topic description?
  - How do the beneficiaries' exploitation interests contribute to these?
  - What are possible exploitation routes?
  - What are appropriate exploitation activities during the project's lifetime and beyond?

- **Outline the broader scientific, economic and societal context** of your project, and **demonstrate how the expected results may contribute to the Key Impact Pathways.**

3. Strategic Planning

After the situational analysis, begin your strategic planning by:

• **Defining key objectives and describing the results** you want to achieve through communication, dissemination and exploitation

• **Defining target audiences/users**

• **Planning concrete measures** to meet the challenges of the call and expected impact (i.e. the uptake, diffusion, deployment, and/or use of the project's results by specific target groups)

• **Defining a strategy for knowledge management and protection**

• **Setting up dedicated work packages or tasks** (i.e. allocate resources: time and money) for dedicated communication activities, dissemination and exploitation actions in addition to the actual scientific work plan

• Employing a framework matrix tool to **plan and oversee all related activities in a coherent manner**

Communication

• **Take strategic and targeted measures to promote the action** itself and its results to multiple audiences beyond the project's own community.

• **Define clear (measurable) communication objectives** derived from the overall project objectives.

• **Define the audience(s) that you want to reach** with your communication activities including the media and the public, and possibly engage in a two-way exchange.

• **Formulate key messages** for each target group and **choose the right medium** and means to transport them.

• **Demonstrate how EU funding tackles societal challenges.**

• **Include specific timelines and deadlines** for concrete activities.

• Describe how you will **manage and monitor communication measures** throughout the project.

Dissemination

• Define a **coherent strategy for knowledge management** addressing background knowledge used by the project as well as new results generated by the project – including proper measures to capture, manage, assess and protect the project's key assets.

• **Define targeted audiences/stakeholders** that will potentially use your results.

• **Analyse, select, describe and disclose key exploitable project results** by appropriate means, including scientific publications, in order to get them used (exploited). If commercial/industrial opportunities consider the need/value of protecting first before disclosing.

• **Choose relevant tools** to disseminate results according to the interests/needs of your defined target audiences during and after the project.

• **Develop a Data Management Plan, in line with EC Open Science policies**, in which the data that will be open is specified: what data the project will generate, whether and how it will be exploited or made accessible for verification and re-use, and how it will be curated and preserved.

• Consider possible ways **to ensure active stakeholder involvement/ management,** e.g. through workshops with potential users interested in project results.

• Outline the significance of your results for future policy making and define concrete measures to **bring your project/results to the attention of decision makers and funding sources** (public and private) on European, national, and regional level.

• Describe how you will **manage and monitor dissemination activities** throughout the project and after project completion.

Exploitation

• **Perform a characterisation/mapping of potential valuable and exploitable results**, i.e. identify different types of results and their potential user groups – on partner and/or consortium level.

• **Choose concrete exploitation measures to ensure that results will meet real needs** and thus will be taken up. What are the relevant steps within the project's lifetime and beyond?

• **Install a clear intellectual assets management and demonstrate how interested parties will get access to results, and under which terms.** Who are the potential users of the results? And how you expect the users to take the results up?

• **Identify possible, most appropriate exploitation pathways** for the expected key exploitable results corresponding to the nature of the different results and their target users.

• **Think how your results can be linked to the policy context of the call for proposals?** How the effects of results can contribute to the outcomes or wider impact?

• Describe your plans on how to **get the expected innovations "out of the lab"** and into (or at least closer to) the market.

• **Identify any further conditions for market deployment,** i.e. financial investments, regulatory affairs, business development, marketing

• Describe where and how the innovations will be deployed. **Will new markets be created?**

• **Reflect on potential barriers/obstacles,** and how to overcome them.

• Consider including dedicated formats (workshops, questionnaires, etc.) to **capture and assess exploitation opportunities** in the project.

• **Plan and describe adequate internal structures** safeguarding effective knowledge, IP and innovation management, helping to create, capture, manage and protect research results.

4. Management and Monitoring

As soon as the project kicks off, plans need to be implemented, monitored and elaborated.

Communication

• **Set well defined goals, pick your audiences, choose your messages and adequate communication tools and channels. You cannot reach out to the whole society.** It is far better to **make a selection** and concentrate on doing that well.

• **Highlight the benefits of your project for society** for example by showing the impact of your project on everyday lives e.g. with better quality products or because the specific research is improving our life-style.

• **Tell a story, don't just list facts** – a story that can be understood by your neighbour, your grandmother or your ten-year-old son; a story that relates to the interests of the target audience you want to reach.

• **Use existing resources in your consortium** to increase outreach on international, national, and regional level – for example rely on your project partners' already existing contacts and networks, turn to the institutions' communication departments, involve your consortium's business partners who may have more experience in pitching themselves and their products.

• **Monitor and constantly update** the communication strategy and activity plan:
  - Have you chosen the **right message and communication channel for a specific audience?**
  - **Do you systematically monitor feedback** to measure the effectiveness of communication activities and adapt accordingly?
  - **Do you tell a story** instead of sticking to the mere (scientific) facts? Are you able to **visualise and make complex data/ information attractive** and more "digestible" for the general public/ layman audience?

  - Have you been able to reach your communication objectives? What lessons have been learned and/or **what could be improved?**

• **Document and demonstrate** communication activities and outcomes in periodic reports.

Dissemination

• **Disseminate results** that emerge throughout the project in a targeted manner **through effective dissemination channels/platforms** according to the information needs of the envisaged user group – for example through:
  - Scientific publications/posters
  - Open Access/Data repositories
  - User workshops
  - Training and teaching materials
  - Cluster meetings
  - Conferences
  - Brokerage events/Investor pitches
  - Policy Briefs/Recommendations
  - Horizon Results Platform

• Constantly **monitor, evaluate and potentially adjust** the dissemination plan:
  - Do the actual results still meet the initially anticipated needs of a specific target group? Are there "new" stakeholders that need to be taken into account?
  - Have you picked the right measures for the right audiences?
  - What have been concrete follow-up actions/results of certain dissemination measures?
  - Have novel, unexpected results emerged? How can these be effectively disseminated?
  - To what extent have stakeholders been actively involved/ contacted?

• **Update and review the Data Management Plan** when necessary and/or with the periodic reports

- **Assess the compatibility of IP policies/management** strategies and dissemination activities:

    - Do the IP policies and managing structures conceived at the beginning of the project fit the dissemination and exploitation interests within the consortium?

    - Have conflicts of interests among project partners occurred in this regard?

- Document and demonstrate dissemination activities and achievements in periodic reports.

Exploitation

- **Raise awareness** among all partners concerning good research practice and the importance of IP management (incl. confidentiality, ownership, access rights, responsibilities).

- Assess, balance and moderate the possibly varying exploitation interests of project partners (e.g. through exploitation or innovation questionnaires) and **come up with a common strategy** that responds to the general objective of the project, which is to jointly address the specific call's challenges and its expected impacts.

- **Systematically plan, prepare and implement appropriate activities** to identify, assess and prioritise key exploitable results – for example with:
    - Follow-up research
    - Demonstrators and prototypes
    - Designs/Design studies
    - IP rights, such as patents
    - FTO analysis/Market analysis
    - Licences
    - Transfer agreements
    - Policy change
    - Products and/or services
    - Standards
    - Business plan
    - Start-ups/Joint ventures

- Establish procedures to **recognise, capture and characterise project outputs** (e.g. notification of partners of any publication or disclosure).

- Establish proper arrangements to **ensure that legitimate interests of project partners will not be compromised** (e.g. filing a patent, or the need to keep results confidential) – such as pre-publication reviews.

- **Identify market opportunities**
    - Use strategic intelligence to identify and assess competing technologies, market competitors, future trends, etc.
    - Describe the main target groups/customers including their needs, expectations and potential benefits
    - Provide details about the size and readiness of the market (including time plan, risks, barriers) to deploy the innovation

- **Define and effectively use appropriate intellectual asset management and exploitation strategies (commercial or non-commercial)**
    - Describe how the project results will be accessed and used (i.e. for further research, policy issues or licensing, new products/services, start-ups, joint ventures, standards, etc)
    - Define the expected terms for access and use

- Clarify who brings what, and who owns what in the project and after its end through a **Results Ownership List.** This will ensure straightforward information as to who is responsible for continuing management, protection and exploitation of results beyond project end.

- You could also **consider support schemes for follow-up exploitation steps**, e.g. national programmes, European Innovation Council, Enterprise Europe Network, Horizon Results Platform, Horizon Results Booster or Horizon IP Scan services

Helpful Documents & Resources

- Horizon Europe Programme Guide
- Horizon Europe Annotated Model Grant Agreement
- European IP Helpdesk Bulletin "Horizon Europe"
- Virtual Training Session: Dissemination and Exploitation in Horizon Europe
- Policy Review "Valorisation Channels and Tools"
- Factsheet: Making Results Work for Society
- Horizon Results Platform
- Open Research Europe
- Horizon Europe Programme Analysis

Support Services

While there is a wide range of support available through various organisations such as the Enterprise Europe Network or the National Contact Points for Horizon Europe, the following service initiatives have a particular focus on providing support measures targeting dissemination and exploitation activities in EU-funded projects. All of them are funded by the European Commission.

European IP Helpdesk

The European Intellectual Property (IP) Helpdesk supports European small and medium-sized enterprises (SMEs) and project teams involved in EU-funded research and innovation activities to manage and valorise their IP. Offering a broad range of information material, a Helpline service as well as on-site and online training, the European IP Helpdesk's main goal is to support IP capacity building along the full scale of IP practices: from awareness to strategic use and successful exploitation. All services are offered free of charge.

Find out more: https://intellectual-property-helpdesk.ec.europa.eu/regional-helpdesks/european-ip-helpdesk_en

Horizon IP Scan

Horizon Intellectual Property (IP) Scan is a tailored, free-of-charge, first-line IP support service provided by the European Commission specifically designed to help European start-ups and other small and medium-sized enterprises (SMEs) involved in EU-funded collaborative research projects to efficiently manage and valorise IP in collaborative research and innovation efforts. To this end, particular attention is paid on helping project partners develop a shared strategy to manage and exploit new IP jointly created within a project.

Find out more: https://horizon-ipscan.eu

Horizon Results Booster

The Horizon Results Booster is a new initiative funded by the European Commission which aims to maximise the impact of research projects funded by FP7, Horizon 2020 and Horizon Europe. It provides guidance to EU-funded research projects on how to best disseminate and exploit their research results through a variety of free-of-charge services.

Find out more: https://www.horizonresultsbooster.eu/

THE EUROPEAN IP HELPDESK SERVICES

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The heart of our service portfolio to keep you updated

HELPLINE

Our Helpline team answers your individual IP questions

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Gain IP knowledge in our free online and on-site training sessions

PUBLICATIONS

Detailed IP knowledge provided through our high level publications

AMBASSADORS

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Please feel free to get in touch with us anytime for further information or if you have questions regarding our services.

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