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Pathways to impact in Horizon Europe

Demonstrating impact can often be a challenge for applicants to the EU framework programme for research and innovation, Horizon Europe (HEU). With HEU, which runs from 2021 to 2027, the European Commission has devised a new approach for capturing and communicating impact – *pathways to impact*. This relates both to how the Commission wants to capture the impact of HEU as a whole – on programme level, as well as how individual applicants should demonstrate impact in an application – on project level. As the briefing will explain, on a programme level the Commission refers to *key impact pathways*, whereas on a project level the term used is *pathways to impact*. The new way of developing the framework programme, through 'strategic planning', also brings with it a new context in which the demonstration of impact sits as a key part of the 'intervention logic' of the programme.

This briefing seeks to clarify all these concepts and give practical advice on how to think about impact when preparing an application to the programme, be it an IA, RIA or CSA. It also seeks to clarify some of the terminology, of which EU programmes and policy have plenty. The focus of this briefing is largely, but not exclusively, on the collaborative projects on global challenges in pillar II of the programme.

In this document

Policy context

The greater focus on impact can be said to stem from a perceived need to demonstrate the value for money of EU funding both to national budget authorities and to EU citizens.

When designing HEU, the Commission has wanted to take a much broader approach to impact. On a programme level, the Commission talks about 'Key Impact Pathways', which is a methodology to capture the difference that Horizon Europe as a whole will have made around nine 'key story lines':

- *Scientific impact*
    1. *Creating high-quality new knowledge*
    2. *Strengthening human capital in research and innovation*

3. *Fostering diffusion of knowledge and Open source*

- *Societal impact*

4. *Addressing EU policy priorities and global challenges through research and innovation*

5. *Delivering benefits and impact through research and innovation missions*

6. *Strengthening the uptake of research and innovation in society*

- *Towards technological/economic impact*

7. *Generating innovation-based growth*

8. *Creating more and better jobs*

9. *Leveraging investment in research and innovation*

The purpose of these story lines is to help define indicators that the Commission will use for short, medium and long term evaluation of the programme, for itself and to the benefit of wider society.

This list of story lines gives an idea of the width of impacts that can be demonstrated in a Horizon Europe funded project. This is not to say that an individual HEU project must deliver on all of these, but it should certainly attempt to cover as many as possible.

The intervention logic of Horizon Europe

Horizon Europe introduces a new step in the implementation of the programme – the Strategic Plan. This first plan, which runs from 2021 to 2024 (the first half of the programme), acts as a bridge between the overarching intervention areas set out in the HEU legislation, and the detailed topics in the work programmes.

Taking the current political priorities of the European Commission as a starting point, the Strategic Plan defines four *Key Strategic Orientations* (KSO) for R&I, which will guide the HEU work programmes until 2024:

- *Promoting an open strategic autonomy by leading the development of key digital, enabling and emerging technologies, sectors and value chains*

- *Restoring Europe's ecosystems and biodiversity, and managing sustainably natural resources*

- *Making Europe the first digitally enabled circular, climate-neutral and sustainable economy*

- *Creating a more resilient, inclusive and democratic European society*

These four KSOs are in turn underpinned by 15 impact areas, which are formulated based on 32 expected impacts.[1] These impacts define the wider effects on society, the economy and science to be targeted by research and innovation activities, but not the manner in which to achieve them (that is up to applicants).

The work programme is then the document where the expected impacts are translated into actions, via so called 'destinations'. The destinations indicate both the specific direction and the ultimate point of arrival of the projects to be supported through Horizon Europe. The calls with topics are then found under each destination.

This forms the structure of the intervention logic of Horizon Europe, which can be illustrated like in Figure 1. Figure 2 also illustrates the sequence from policy priorities to expected impacts and projects.

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[1] These expected impacts can be found in both the HEU Strategic Plan, as well as the relevant ones in the introduction section of each cluster Work Programme.

For more in-depth reading, the Strategic Plan also includes tables that explain for each cluster the sequence from KSO to impact areas and expected impacts.
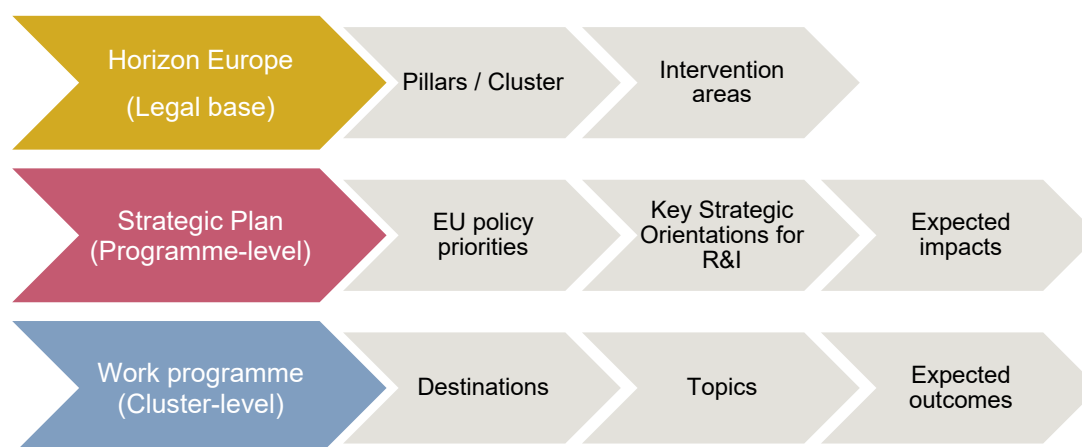
Figure 1

Figure 2

The application form – What is included in the impact section?

When looking at the project level in HEU, such as the application form template, the Commission uses *'pathways to impact'*. Let us start by looking at how the Commission defines this:[2]

> *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, to their dissemination, exploitation and communication, contributing*

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to the expected outcomes in the work programme topic, and ultimately to the wider scientific, economic and societal impacts of the work programme destination.

This pathway, or the distinction between outputs, outcomes and impacts, is a novelty introduced in Horizon Europe. The three terms are defined as follows, as per the HEU guidance materials:

- ***Output***, *or research output, are results generated by the action to which access can be given in the form of scientific publications, data or other engineered outcomes and processes such as software, algorithms, protocols and electronic notebooks.*

- ***Outcomes*** *are the expected effects, over the medium term, of projects supported under a given topic. The results of a project should contribute to these outcomes, fostered in particular by the dissemination and exploitation measures. This may include the uptake, diffusion, deployment, and/or use of the project's results by direct target groups. Outcomes generally occur during or shortly after the end of the project.*

- ***Impacts*** *are the wider long term effects on society (including the environment), the economy and science, enabled by the outcomes of R&I investments (long term). It refers to the specific contribution of the project to the work programme expected impacts described in the destination. Impacts generally occur some time after the end of the project.*

Applicants are being asked to respond to each of these three pathway categories in their project proposal, for which a new table format has been included in the proposal template. See an example of this completed table in Figure 4 on page 7 of the briefing. The section about the project's pathways towards impact should take up roughly four pages (out of 45) in a proposal. The Commission has stressed that this canvas should not be seen as a set of boxes to be ticked, but rather as a way for the applicant to consider what they can gain from the format in order to increase their chances of winning funding.

Impact is one of three evaluation criteria in Horizon Europe, and accounts for a third of the final score (5/15). The aspects that are being assessed by evaluators within the impact section are:

- *Credibility of the pathways to achieve the expected outcomes and impacts specified in the work programme, and the likely scale and significance of the contributions due to the project.*

- *Suitability and quality of the measures to maximise expected outcomes and impacts, as set out in the dissemination and exploitation plan, including communication activities.*

When evaluating the proposals, the independent experts performing the evaluation are asked to look at the following in the impact section:

- *Is the contribution of the project towards the expected outcomes of the topic and the wider impacts, in the longer term, as specified in the respective destinations of the WP, credible?*

- *Are potential barriers to the expected outcomes and impacts identified (i.e. other R&I work within and beyond HEU; regulatory environment; targeted markets; user behaviour), and mitigation measures proposed? Is any potential negative environmental outcome or impact identified? Is the management of the potential negative impacts properly described?*

- *Are the scale and significance of the project's contribution to the expected outcomes and impacts estimated and quantified?*

- *Are the proposed dissemination, exploitation and communication measures suitable and proportionate for the project and of good quality?*

- *Are the target groups (e.g. scientific community, end users, financial actors, public at large) for these measures identified?*

- *Is the strategy for the management of intellectual property properly outlined and suitable to support exploitation of results?*

The application – How to complete the pathways to impact

The writing of the impact section can be compared to writing a business plan for a project, in that it is supposed to demonstrate the wider scientific/societal/technological/economical value of the project, that goes beyond its immediate results.

Examples of outcomes and impacts of a project may be:

- Scientific – e.g. contributing to specific scientific advances, across and within disciplines, creating new knowledge, reinforcing scientific equipment and instruments, computing systems (i.e. research infrastructures)

- Economic/technological – e.g. bringing new products, services, business processes to the market, increasing efficiency, decreasing costs, increasing profits, contributing to standards' setting

- Societal – e.g. decreasing CO_2 emissions, decreasing avoidable mortality, improving policies and decision making, raising consumer awareness

A solid dissemination and exploitation plan is a good way to demonstrate impact and, if well-planned, it can contribute a lot to the success of a proposal. But what is exactly meant by communication, dissemination and exploitation?

- **Communication** is the broadest term and is about reaching out to society as a whole, to multiple non-specialised audiences during the lifetime of the project.

- **Dissemination** is much more targeted and is about sharing and making accessible research results with potential users, be it research peers, industry and policymakers – thereby safeguarding that the impact can be larger than originally expected.

- **Exploitation** is the use of results, be it for further research or re-use, for commercial purposes, for training and education or for public policymaking and guidance.

Some further tips and suggestions:

- In addition to reading the call text for the topic in question, do read the expected impacts section in the introduction of the cluster work programme in question.

- Describe the unique contribution of this project, and not R&I in the field in general

- Only include impacts where the project would make a significant and direct contribution. Avoid describing very tenuous links to wider impacts.

- Do include any potential negative environmental outcome or impact of the project including when expected results are brought at scale, and, where relevant, explain how the potential harm can be managed.

- Be specific about the target groups benefiting from the results of the project, breaking them down into particular interest groups or segments of society.

Further reading

- European Commission – Strategic Plan 2021-2024

- European Commission – Horizon Europe Programme Guide

- SLU – Proposal writing advice on impact

- Enspire – Measures to maximise impact in Horizon Europe

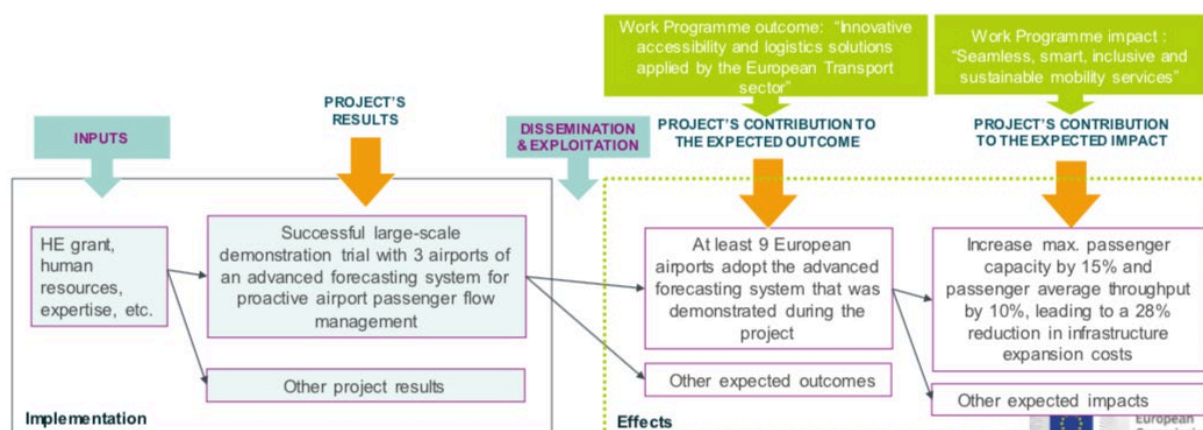# Annex – Illustrations of how to describe impact in a proposal

Figure 3

Figure 4