14/07/2021
Matteo Di Rosa
... in bibliography

- “Consequences of an action that affects people’s lives in areas that matter to them” (ESF, 2012).
- “An effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia” (REF, 2014).
- “Influence of research or its effect on an individual, a community, the development of a policy, or the creation of a new product or service” (Pathways to Impact, AHRC).
- Your **demonstrable** contributions...
Impact

Impact = The benefits derived from the innovation;

- The larger the benefit, the larger the impact
- Impact is not limited to economic or commercial aspects;
- It can also be societal, environmental, technical, educational, or scientific

It must go beyond the life-cycle of the project
The impact in different contests

European Science Foundation Impact Classifications

- **Cultural**: Contribution to understanding of ideas and reality, values and beliefs.
- **Economic**: Contribution to the sale price of products, a firm’s costs and revenues (micro level), and economic returns either through economic growth or productivity growth (macro level).
- **Environmental**: Contribution to the management of the environment, for example, natural resources, environmental pollution, climate and meteorology.
- **Health**: Contribution to public health, life expectancy, prevention of illnesses and quality of life.
- **Political**: Contribution to how policy makers act and how policies are constructed and to political stability.
- **Scientific**: Contribution to the subsequent progress of knowledge, the formation of disciplines, training and capacity building.
- **Social**: Contribution to community welfare, quality of life, behaviour, practices and activities of people and groups.
- **Technological**: Contribution to the creation of product, process and service innovations.
- **Training**: Contribution to curricula, pedagogical tools, qualifications.
HORIZON EUROPE CYCLE
Impact-driven Framework Programme

IMPACT DESIGN
- Intervention logic
- Clusters, destinations, missions,

IMPLEMENTATION
- Strategic Plan
- Work Programme
- Proposal template
- Project reporting

IMPACT TRACKING & EVALUATION
- Monitoring Key Impact Pathways
- Management & Implementation Data
- Interim and ex-post evaluation
Definizione di documenti strategici

**Pianificazione strategica:** il processo che – partendo dal testo legislativo «consolidato» – porterà alla definizione del piano strategico e delle priorità di ricerca e innovazione dell’Unione per gli anni dal 2021 al 2024, preparando i contenuti dei programmi di lavoro e dei bandi di finanziamento del primo quadriennio del prossimo programma.

Il piano strategico definitivo dovrà identificare quattro elementi principali:

❖ le priorità (orientamenti strategici) per il sostegno alla R&I;
❖ le missioni;
❖ i partenariati europei co-programmati (co-programmed) e co-finanziati (co-funded);
❖ le aree per la cooperazione internazionale.

Il documento conterrà inoltre delle linee guida su una serie di aspetti più specifici, tra cui: l’equilibrio tra ricerca e innovazione; l’integrazione delle scienze umane e sociali nelle attività del programma; il ruolo delle tecnologie abilitanti (KET); le priorità per la diffusione e lo sfruttamento dei risultati.

**Strategia di implementazione:** definirà come il programma verrà implementato nella pratica.
...dall’Implementation Strategy...

- 2 livelli di impatto: a lungo termine (descritto nelle destinations) a medio termine (descritto nel testo dei topic)
- Impatto come criterio: valutato come si genera e come si massimizza
- Specifiche azioni per massimizzare l’impatto del programma: Mission e EIC Pathfinder
- Indicatori per misurare e valutare: Key Impact Pathways (KIP)
- Massimizzare l’impatto oltre la vita del progetto Horizon Results Platform e Impact Award and Innovation Radar
- Attenzione a come i risultati di progetto possono essere utilizzati dai eu policy making
Definizione di documenti strategici

Pianificazione strategica: il processo che – partendo dal testo legislativo «consolidato» – porterà alla definizione del piano strategico e delle priorità di ricerca e innovazione dell’Unione per gli anni dal 2021 al 2024, preparando i contenuti dei programmi di lavoro e dei bandi di finanziamento del primo quadriennio del prossimo programma.

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Strategia di implementazione: definirà come il programma verrà implementato nella pratica
## Impact Logic

<table>
<thead>
<tr>
<th>Strategic Plan*</th>
<th>EC Policy Priority</th>
<th>Based on the Political Guidelines for the European Commission 2019-2024 with a focus on three key priorities: Green Deal, Europe fit for the Digital Age, and Economy that Works for People</th>
<th>General policy level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Strategic Orientation</td>
<td>Set of strategic objectives within the EC policy priorities where R&amp;I investments are expected to make a difference</td>
<td>Programme level</td>
<td></td>
</tr>
<tr>
<td>Expected Impacts</td>
<td>Wider effects on society (including the environment), the economy and science, enabled by the outcomes of R&amp;I outcomes (long-term)</td>
<td>Cluster level</td>
<td></td>
</tr>
<tr>
<td>Work Programme</td>
<td>Destination</td>
<td>Packages of actions around which each Work Programme part within Pillar II will be designed. Destinations are a series of coherent packages aimed at contributing to the expected impacts set out in the Strategic Plan. The Destinations will provide the policy narrative for the calls and actions included in the WP. In the WP, the text of the Destination should reflect the expected impact as set out in the Strategic Plan.</td>
<td>Cluster WP Level</td>
</tr>
<tr>
<td>Call for proposal</td>
<td>Each Destination will be implemented by means of calls for proposals. Under Horizon Europe, we need to align our definition of a ‘call’ with the Financial Regulation and with the common approach across all MFF programmes.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*This first Horizon Europe Strategic Plan defines the strategic orientations for our research and innovation investments over the period 2021-2024 and acts as a compass to stay on course with the political priorities of the Commission: a climate-neutral and green Europe, fit for the digital age, where the economy works for the people. The aim is to ensure an effective interface between EU policy priorities and programme activities.*
Impact – aspects to be taken into account.

- 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.

The results of your project should make a contribution to the expected outcomes set out for the work programme topic over the medium term, and to the wider expected impacts set out in the ‘destination’ over the longer term.

In this section you should show how your project could contribute to the outcomes and impacts described in the work programme, the likely scale and significance of this contribution, and the measures to maximise these impacts.
2.1 Project’s pathways towards impact [e.g. 4 pages]

Provide a narrative explaining how the project’s results are expected to make a difference in terms of impact, beyond the immediate scope and duration of the project. The narrative should include the components below, tailored to your project.

(a) Describe the unique contribution your project results would make towards (1) the outcomes specified in this topic, and (2) the wider impacts, in the longer term, specified in the respective destinations in the work programme.

(b) Describe any requirements and potential barriers - arising from factors beyond the scope and duration of the project - that may determine whether the desired outcomes and impacts are achieved. These may include, for example, other R&I work within and beyond Horizon Europe; regulatory environment; targeted markets; user behaviour. Indicate if these factors might evolve over time. Describe any mitigating measures you propose, within or beyond your project, that could be needed should your assumptions prove to be wrong, or to address identified barriers.

(c) Give an indication of the scale and significance of the project’s contribution to the expected outcomes and impacts, should the project be successful. Provide quantified estimates where possible and meaningful.
2.1 Project’s pathways towards impact [e.g. 4 pages]

Describe the unique contribution your project results would make towards (1) the outcomes specified in this topic, and (2) the wider impacts, in the longer term, specified in the respective destinations in the work programme.

• Be specific, referring to the effects of your project, and not R&I in general in this field.

• State the target groups that would benefit. Even if target groups are mentioned in general terms in the work programme, you should be specific here, breaking target groups into particular interest groups or segments of society relevant to this project.

• The outcomes and impacts of your project may:
  • 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, etc.
  • Societal, e.g. decreasing CO2 emissions, decreasing avoidable mortality, improving policies and decision making, raising consumer awareness.

• Only include such outcomes and impacts where your project would make a significant and direct contribution. Avoid describing very tenuous links to wider impacts. However, include any potential negative environmental outcome or impact of the project including when expected results are brought at scale (such as at commercial level). Where relevant, explain how the potential harm can be managed.
2.1 Project’s pathways towards impact [e.g. 4 pages]

Describe any requirements and potential barriers - arising from factors beyond the scope and duration of the project - that may determine whether the desired outcomes and impacts are achieved. These may include, for example, other R&I work within and beyond Horizon Europe; regulatory environment; targeted markets; user behaviour. Indicate if these factors might evolve over time. Describe any mitigating measures you propose, within or beyond your project, that could be needed should your assumptions prove to be wrong, or to address identified barriers.

• Note that this does not include the critical risks inherent to the management of the project itself, which should be described below under ‘Implementation’
2.1 Project’s pathways towards impact [e.g. 4 pages]

Give an indication of the scale and significance of the project’s contribution to the expected outcomes and impacts, should the project be successful. Provide quantified estimates where possible and meaningful.

- ‘Scale’ refers to how widespread the outcomes and impacts are likely to be. For example, in terms of the size of the target group, or the proportion of that group, that should benefit over time; ‘Significance’ refers to the importance, or value, of those benefits. For example, number of additional healthy life years; efficiency savings in energy supply.

- Explain your baselines, benchmarks and assumptions used for those estimates. Wherever possible, quantify your estimation of the effects that you expect from your project. Explain assumptions that you make, referring for example to any relevant studies or statistics. Where appropriate, try to use only one methodology for calculating your estimates: not different methodologies for each partner, region or country (the extrapolation should preferably be prepared by one partner).

- Your estimate must relate to this project only - the effect of other initiatives should not be taken into account.
2.2 Measures to maximise impact - Dissemination, exploitation and communication [e.g. 5 pages]

- Describe the planned measures to maximise the impact of your project by providing a first version of your ‘plan for the dissemination and exploitation including communication activities’. Describe the dissemination, exploitation and communication measures that are planned, and the target group(s) addressed (e.g. scientific community, end users, financial actors, public at large).

- Outline your strategy for the management of intellectual property, foreseen protection measures, such as patents, design rights, copyright, trade secrets, etc., and how these would be used to support exploitation.
2.2 Measures to maximise impact - Dissemination, exploitation and communication [e.g. 5 pages]

Describe the planned measures to maximise the impact of your project by providing a first version of your ‘plan for the dissemination and exploitation including communication activities’. Describe the dissemination, exploitation and communication measures that are planned, and the target group(s) addressed (e.g. scientific community, end users, financial actors, public at large).

• Please remember that this plan is an admissibility condition, unless the work programme topic explicitly states otherwise. In case your proposal is selected for funding, a more detailed ‘plan for dissemination and exploitation including communication activities’ will need to be provided as a mandatory project deliverable within 6 months after signature date. This plan shall be periodically updated in alignment with the project’s progress.

• Communication measures should promote the project throughout the full lifespan of the project. The aim is to inform and reach out to society and show the activities performed, and the use and the benefits the project will have for citizens. Activities must be strategically planned, with clear objectives, start at the outset and continue through the lifetime of the project. The description of the communication activities needs to state the main messages as well as the tools and channels that will be used to reach out to each of the chosen target groups.
2.2 Measures to maximise impact - Dissemination, exploitation and communication [e.g. 5 pages]

Describe the planned measures to maximise the impact of your project by providing a first version of your ‘plan for the dissemination and exploitation including communication activities’. Describe the dissemination, exploitation and communication measures that are planned, and the target group(s) addressed (e.g. scientific community, end users, financial actors, public at large).

- All measures should be proportionate to the scale of the project, and should contain concrete actions to be implemented both during and after the end of the project, e.g. standardisation activities. Your plan should give due consideration to the possible follow-up of your project, once it is finished. In the justification, explain why each measure chosen is best suited to reach the target group addressed. Where relevant, and for innovation actions, in particular, describe the measures for a plausible path to commercialise the innovations.

- If exploitation is expected primarily in non-associated third countries, justify by explaining how that exploitation is still in the Union’s interest.

- Describe possible feedback to policy measures generated by the project that will contribute to designing, monitoring, reviewing and rectifying (if necessary) existing policy and programmatic measures or shaping and supporting the implementation of new policy initiatives and decisions.
2.2 Measures to maximise impact - Dissemination, exploitation and communication [e.g. 5 pages]

- Outline your strategy for the management of intellectual property, foreseen protection measures, such as patents, design rights, copyright, trade secrets, etc., and how these would be used to support exploitation.

- If your project is selected, you will need an appropriate consortium agreement to manage (amongst other things) the ownership and access to key knowledge (IPR, research data etc.). Where relevant, these will allow you, collectively and individually, to pursue market opportunities arising from the project. If your project is selected, you must indicate the owner(s) of the results (results ownership list) in the final periodic report.
Summary 2.3

Provide a summary of this section by presenting in the canvas below the key elements of your project impact pathway and of the measures to maximise its impact.

KEY ELEMENT OF THE IMPACT SECTION
<table>
<thead>
<tr>
<th>SPECIFIC NEEDS</th>
<th>EXPECTED RESULTS</th>
<th>D &amp; E &amp; C MEASURES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What are the specific needs that triggered this project?</strong></td>
<td><strong>What do you expect to generate by the end of the project?</strong></td>
<td><strong>What dissemination, exploitation and communication measures will you apply to the results?</strong></td>
</tr>
<tr>
<td>Example 1  Most airports use process flow-oriented models based on static</td>
<td>Example 1  Successful large-scale demonstrator: Trial with 3 airports of an</td>
<td>Example 1  Exploitation: Patenting the algorithmic model. Dissemination towards</td>
</tr>
<tr>
<td>mathematical values limiting the optimal management of passenger flow and</td>
<td>advanced forecasting system for proactive airport passenger flow management.</td>
<td>the scientific community and airports: Scientific publication with the results of</td>
</tr>
<tr>
<td>hampering the accurate use of the available resources to the actual demand of</td>
<td><strong>Algorithmic model:</strong> Novel algorithmic model for proactive airport passenger</td>
<td>the large-scale demonstration. Communication towards citizens: An event in a</td>
</tr>
<tr>
<td>passengers.</td>
<td>flow management.</td>
<td>shopping mall to show how the outcomes of the action are relevant to our everyday</td>
</tr>
<tr>
<td>Example 2  Electronic components need to get smaller and lighter to match the</td>
<td>Example 2  Publication of a scientific discovery on transparent electronics.</td>
<td>lives.</td>
</tr>
<tr>
<td>expectations of the end-users. At the same time there is a problem of sourcing</td>
<td><strong>New product:</strong> More sustainable electronic circuits. Three PhD students trained.</td>
<td>Exploitation of the new product: Patenting the new product; Licencing to major</td>
</tr>
<tr>
<td>of raw materials that has an environmental impact.</td>
<td></td>
<td>electronic companies. Dissemination towards the scientific community and industry:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participating at conferences; Developing a platform of material compositions for</td>
</tr>
<tr>
<td></td>
<td></td>
<td>industry; Participation at EC project portfolios to disseminate the results as part of a group and maximise the visibility vis-à-vis companies</td>
</tr>
</tbody>
</table>

Example 1  **Successful large-scale demonstrator:** Trial with 3 airports of an advanced forecasting system for proactive airport passenger flow management. **Algorithmic model:** Novel algorithmic model for proactive airport passenger flow management.

Example 2  **Publication of a scientific discovery on transparent electronics.** **New product:** More sustainable electronic circuits. Three PhD students trained.
<table>
<thead>
<tr>
<th>TARGET GROUPS</th>
<th>OUTCOMES</th>
<th>IMPACTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who will use or further up-take the results of the project? Who will benefit from the results of the project?</td>
<td>What change do you expect to see after successful dissemination and exploitation of project results to the target group(s)?</td>
<td>What are the expected wider scientific, economic and societal effects of the project contributing to the expected impacts outlined in the respective destination in the work programme?</td>
</tr>
<tr>
<td>Example 1</td>
<td>Example 1 Up-take by airports: 9 European airports adopt the advanced forecasting system demonstrated during the project.</td>
<td>Example 1 Scientific: New breakthrough scientific discovery on passenger forecast modelling.</td>
</tr>
<tr>
<td>9 European airports: Schiphol, Brussels airport, etc.</td>
<td>Example 2 High use of the scientific discovery published (measured with the relative rate of citation index of project publications).</td>
<td>Economic: Increased airport efficiency Size: 15% increase of maximum passenger capacity in European airports, leading to a 28% reduction in infrastructure expansion costs.</td>
</tr>
<tr>
<td>Air passengers (indirect).</td>
<td></td>
<td>Societal: Lower climate impact of electronics manufacturing (including through material sourcing and waste management).</td>
</tr>
<tr>
<td>Example 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>End-users: consumers of electronic devices.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major electronic companies: Samsung, Apple, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scientific community (field of transparent electronics).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Horizon Europe – Pathway to Impact

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

- **Strategy**
- **Plan**
- **Activities**
- **Outcomes**

**Science/Results**
- Horizontal Activities
  - Communication
  - Dissemination
  - Exploitation
  - Open Data/Access
  - IP Management

**Impact**

Integrated Project Management
I KER

A Key Exploitable Result (KER) is an identified main interesting result which has been selected and prioritised due to its high potential to be “exploited” – meaning to make use and derive benefits downstream the value chain of a product, process or solution, or act as an important input to policy, further research or education.

In order for you to select and prioritise your results, we would recommend that you use the following criteria:

a) degree of innovation, b) exploitability and c) impact.
The Horizon Results Platform:

- **Is Free** – you can promote the Key Exploitable Results* (KER’s) of your projects
- **Is Easy** to use – *hosted under the Funding & Tenders Portal* where you manage everything else for your projects
- **Is a Matchmaking tool** - use the wide range of *flags* and *attention-grabbing features* to attract your target audiences
- **Is Managed by you** – *you can publish* and update KERs whenever they are available,
- **Reaches out to many audiences** – politicians, investors, researchers, scientists, scholars, entrepreneurs, financing experts, IP specialists, and other stakeholders visit regularly
- **Triggers services and opportunities at no cost to you** – depending on the nature and needs of your result(s) it allows us to inform you about relevant upcoming calls for proposals, pitching events with investors, possibilities for assistance with your dissemination plans, business development plans, innovation management, IP management, and many more.
Facilitate and promote the uptake of R&I KERs

KERs from FP7, Horizon 2020, the future Horizon Europe and possibly other EC R&I Programmes are in scope

Beneficiaries from above programmes can upload results through their project roles on the Funding & Tenders Portal

- Primary Coordinator Contact (PCoCo), Coordinator Contact (CoCo) and Participant Contact (PaCo) roles only!
More about the Horizon Results Platform (HRP) …

- **Live platform** – update and enrich the result whenever you want
- **When a partner publishes (or updates) a result:** Automated alerts to all partners, EC Project Officer for soft peer-to-peer validation
- If in doubt on whether a (usually sensitive) result is to be made public use the principle “as open as possible as closed as necessary” – you may also check with your Project Officer

✓ **Multiple benefits** – visibility, matchmaking with investors, policy and linking support services (e.g. Horizon Results Booster, EU IP Heldpesk)
Key impact pathways in Horizon Europe

The KIPs will aim to:

- Tell the story of the progress of the Programme as a whole, according to its objectives
- Monitor progress at any moment in time (short-term, mid-term, long-term)
IMPACT DESIGN IN HORIZON EUROPE

THREE TYPES OF IMPACT BASED ON OBJECTIVES

**Scientific impact**
Promote scientific excellence, support the creation and diffusion of high-quality new fundamental and applied knowledge, skills, training and mobility of researchers, attract talent at all levels, and contribute to full engagement of Union's talent pool in actions supported under the Programme.

**Societal impact**
Generate knowledge, strengthen the impact of R&I in developing, supporting and implementing Union policies, and support the uptake of innovative solutions in industry, notably in SMEs, and society to address global challenges, inter alia the SDGs.

**Economic impact**
Foster all forms of innovation, facilitate technological development, demonstration and knowledge transfer, and strengthen deployment of innovative solutions.
Key impact pathways in Horizon Europe

In this process, we need to:

• Know who the individual researchers are (e.g. through unique identifiers)
• Track the FP outputs better, through a structured reference to the funding source in publications, patents and other IPR applications
• Make more use of available data and links to relevant existing databases so as to minimise the administrative burden of beneficiaries

Article 50 & Annex V ‘Time-bound indicators to report on an annual basis on progress of the Programme towards the achievement of the objectives referred to in Article 3 and set in Annex V along impact pathways’
Key impact pathways in Horizon Europe

Pathway 1. Creating high quality new knowledge

**Story Line:** The FP creates and diffuses high quality new knowledge, as shown by the high-quality publications that become influential in their field and worldwide.

**Indicators (short, medium, long-term)**

- **Typically As of YEAR 1+**
  - Number of FP peer reviewed scientific publications
  - Field-Weighted Citation Index of FP peer reviewed publications

- **Typically As of YEAR 3+**
  - Number and share of peer reviewed publications from FP projects that are core contribution to scientific fields

**Data Needs:** Identification of publications co-funded by the FP through the insertion of a specific funding source ID when publishing, allowing follow-up tracking of the perceived quality and influence through publication databases and topic mapping.

**The 9 KIPs**

1. Creating high-quality new knowledge
2. Strengthening human capital in R&I
3. Fostering diffusion of knowledge and Open Science
4. Addressing EU policy priorities & global challenges through R&I
5. Delivering benefits & impact via R&I missions
6. Strengthening the uptake of R&I in society
7. Generating innovation-based growth
8. Creating more and better jobs
9. Leveraging investments in R&I
CHIEDI SUPPORTO AI
TEAM TEMATICI IN APRE

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