



ASSESSING THE IMPACT PATHWAYS OF IA/RIA SC5 PROJECTS THROUGH THE USE OF PORTFOLIO ANALYSIS

IMPACT-SC5 Final Dissemination Workshop
Presentation of the project and its methodology

16th of June 2021

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IMPACT-SC5 objective and scope



Review the impacts of the **53 RIA** and **34 IA** projects (87 projects) granted under Horizon 2020 Societal Challenge 5, Work Programme 2014-2015.

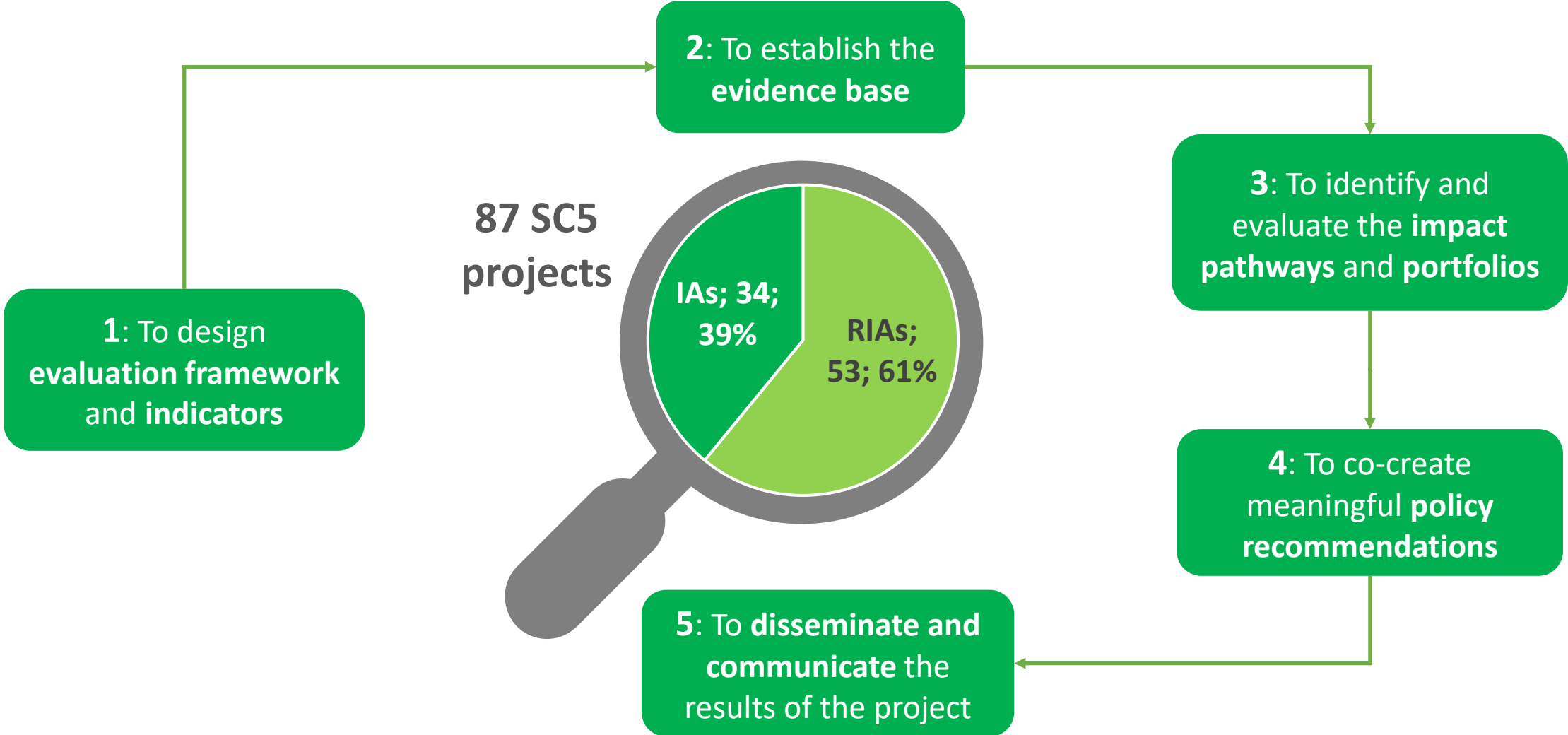
HOW?



- **Ex-post evaluation** of the progress made and achievements: **Performance and effectiveness**
- Exploring the **impact pathways**: Scientific, societal and environmental and economic impacts.
- **Project, portfolio, and programme** levels of analysis.
- Based on **quantitative and qualitative** analysis of data.



IMPACT-SC5 specific objectives



The impact pathway definition

Impact pathway: a simple and likely interpretation on how a project (group of projects, programme, policy) expects to lead to impact*.

Sketching impact pathways typically include the identification of a set of steps in the **short**, **medium** or **longer** term which indicate that the outputs are likely transforming into wider aggregated impacts.

An impact pathway typically consists of:

- **Story line**
- **Indicators:** short-term, medium-term and long-term
- **Data needs**

*Source: Bruno, N. & Kadunc, M. 2019. "Impact Pathways: Tracking and communicating the impact of the European Framework Programme for research and innovation." *fteval Journal for Research and Technology Policy Evaluation*, 47, 62-71



IMPACT-SC5 Impact pathways approach

Creating high quality new knowledge

Strengthening human capital in R&I

Fostering diffusion of knowledge and open data

Partnerships and international openness

Scientific

Addressing EU policy priorities

Strengthening the uptake of innovation in society

Societal and environmental

Generating innovation based growth

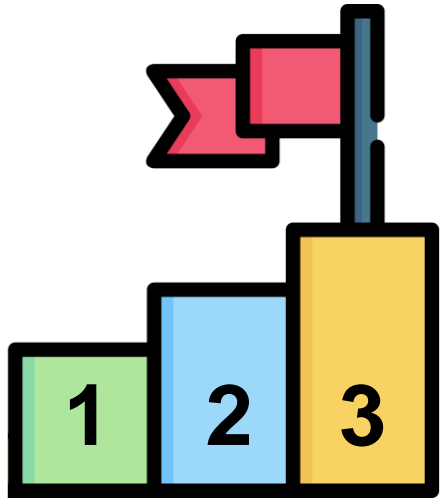
Creating more and better jobs

Leveraging investment in R&I

Development and adoption of innovative technological solutions

Economic





3 levels of analysis:

- **Individual project:** Each of the 87 target projects granted by SC5 WP 2014-2015.
- **Project portfolio:** Groups of projects that are analysed as a functional whole from a systemic perspective, identifying relations, synergies and collaborations found between them*.
- **Programme level:** The whole SC5 WP 2014-2015.

*Cf. Wallace, M.L. & Rafols, I. 2015. Research Portfolio Analysis in Science Policy: Moving from Financial Returns to Societal Benefits. *Minerva*, 53, 89-115.

Criteria for the development of project portfolios:



- **Topic-driven** as a way of embracing the different “research options” of the SC5 WP 2014-2015.
- **Not too limited, but neither too high number** of projects.
- **Specific and clear objectives** - and **well defined expected impacts**.
- **Availability of information** and consideration of the **data protection policy**.
- To the extent possible, **balanced distribution** of number of projects – Max EC contribution.
- Due to the heterogeneity of the sample of projects, another level of project aggregation was deemed necessary: **cluster of projects**, addressing different scientific fields under the same domain.

The IMPACT-SC5 project portfolios

Portfolio Description	Number of projects	EU Maxim. Contribution	% number of projects	% EU Max. Contribut.
Portfolio 1: Climate Change	12	93,634,480	14%	16%
Cluster 1.1: Fighting, adapting and mitigating climate change	10	64,327,634	11%	11%
Cluster 1.2: Advanced Earth System Models	2	29,306,846	2%	5%
Portfolio 2: Environment, ecosystems and biodiversity	16	129,411,034	18%	23%
Cluster 2.1: Protecting the environment, sustainably managing natural resources, water, biodiversity and ecosystems	7	68,654,213	8%	12%
Cluster 2.2: Protecting the environment, sustainably managing natural resources, water, biodiversity and ecosystems: Observation, information and data systems	9	60,756,821	10%	11%
Portfolio 3: Raw Materials	16	104,371,843	18%	18%
Cluster 3.1: Sustainable production of Raw Materials	12	85,694,642	14%	15%
Cluster 3.2: Sustainable substitution of Raw Material	4	18,677,201	5%	3%
Portfolio 4: Waste	14	105,030,552	16%	18%
Cluster 4.1: Industrial waste	7	55,808,020	8%	10%
Cluster 4.2: Urban waste	7	49,222,532	8%	9%
Portfolio 5: Water	29	137,991,486	33%	24%
Cluster 5.1: Water resources / resilience	16	78,790,155	18%	14%
Cluster 5.2: Water treatment technologies	13	59,201,331	15%	10%

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 869746





2 Assessment criteria:

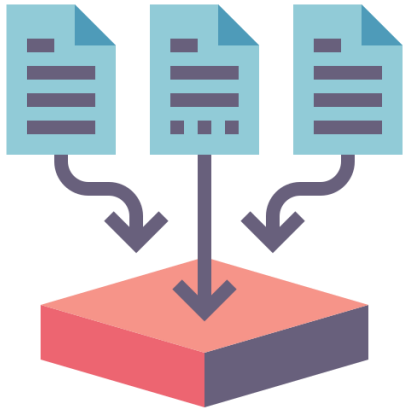
1. **Performance**: Assessment of the overall results achieved by the projects; focused on the **outputs** (short-term results).

To what extent has the project /project portfolio produced the expected outputs?

2. **Effectiveness**: Assessment of the extent to what the results achieved by the individual projects and or project portfolios have contributed to the overall objectives and the objectives of the calls under the SC5 WP 2014-2015. Identification of the drivers and barriers. Focused on **outcomes** and **impacts** (medium and long-term results).

To what extent and how has the project / project portfolio contributed to its specific objectives and expected impacts?

Data collection tools



- **Desk research:** CORDIS database , projects' official websites, social media contents, EC datasets, etc.
- **Survey:** 250 responses covering 81 out of the 87 target projects
- **Interviews:** 60 interviews out of the 87 target projects.
- **Group interviews:** 22 project partners representing four selected projects.
- **Workshops:** 5 thematic policy co-creation workshops based on the domains of the project portfolios

Limitations on implementation issues



- Data availability:
 - ✓ Lack of access to projects' interim or final reports due to **GDPR**.
 - ✓ Overall **shortage of indicator data** on medium- and long-term impacts.
 - ✓ **Uneven participation** of SC5 beneficiaries in the data collection activities
- Data quality and consistency:
 - ✓ **Inconsistency** of indicator data depending on the sources of information.
 - ✓ **Discrepancies among project partners** and lack of a common perception on project results and impacts achieved by projects.
- Ending dates of the target projects:
 - ✓ Many of the target projects were **recently finished**: 75% in 2019, 2020 or in the first months of 2021

