



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

IMPACT-SC5 Final Dissemination Workshop

Results at portfolio level

June 16, 2021

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Project portfolios at a glance

Portfolio	EC Programmes	Project cluster description	# of projects	Max. EC Contribution (€)
Portfolio 1	CLIMATE CHANGE			
Project Cluster 1.1	EU 3.5 EU 3.5.1	Fighting, adapting and mitigating climate change	10	64,327,633
Project Cluster 1.2	EU 3.5.1	Advanced Earth System Models	2	29,306,846
Portfolio 2	ENVIRONMENT, ECOSYSTEMS, BIODIVERSITY			
Project cluster 2.1	EU 3.5 EU 3.5.2	Protecting the environment, sustainably managing natural resources, water, biodiversity and ecosystems	7	68,654,214
Project cluster 2.2	EU 3.5 EU 3.5.5	Environment, Ecosystems and Biodiversity: observation and monitoring data	9	60,756,821
Portfolio 3	RAW MATERIALS			
Project cluster 3.1		Sustainable production of Raw Materials	12	85,694,642
Project cluster 3.2	EU 3.5.3	Sustainable substitution of Raw Material	4	18,677,201
Portfolio 4	WASTE			
Project cluster 4.1	EU 3.5.4	Industrial Waste	7	55,808,020
Project cluster 4.2		Urban Waste	7	49,222,532
Portfolio 5	WATER			
Project cluster 5.1	EU 3.5.4	Water resources / resilience	16	78,790,155
Project cluster 5.2		Water treatment technologies	13	59,201,331



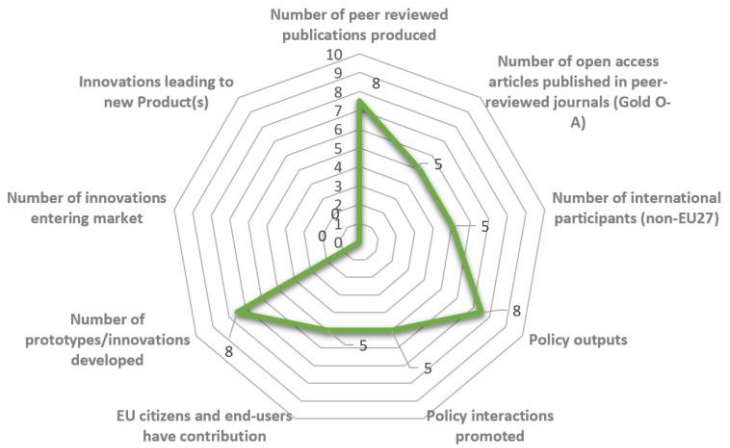


SC5 2014-2015: Expected impacts

- **Scientific impacts:** Addressing gaps in the knowledge base, developing new methods, tools and policies, generating world-class excellence in science, developing skills and improving working conditions, promoting the use of open data, as well as establishing international partnerships
- **Societal impacts:** Providing evidence-based advice and recommendations to better position EU in the international agenda to address global societal challenges concerning sustainable development, and strengthening the uptake of green innovations and solutions by society
- **Economic impacts:** Generation of innovation-based growth to improve the EU's competitiveness and achieve its global leadership, the capacity to create more and better direct and indirect jobs and leverage investments in R&I from public and private funding sources



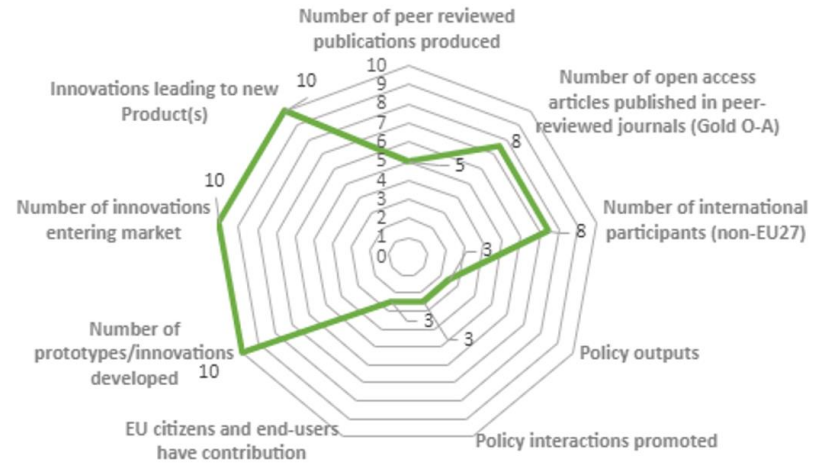
CLIMATE CHANGE



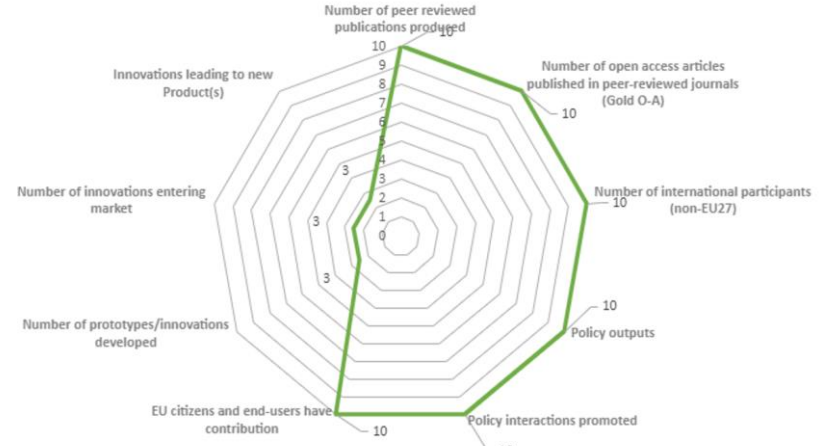
RAW MATERIALS



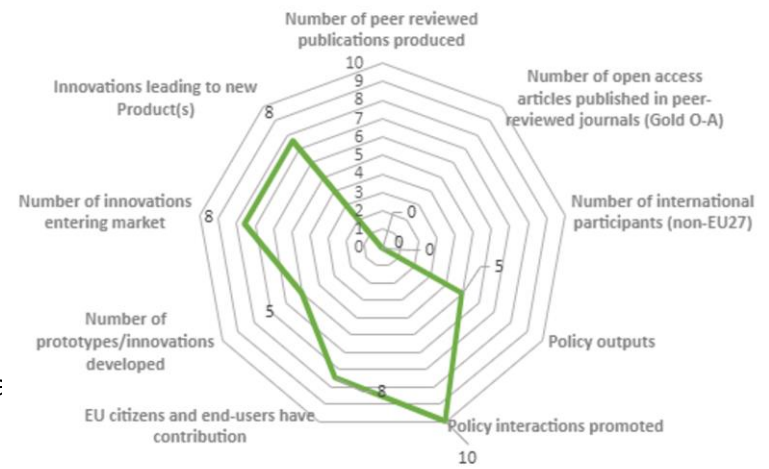
WATER



ENVIRONMENT, ECOSYSTEMS, BIODIVERSITY



WASTE

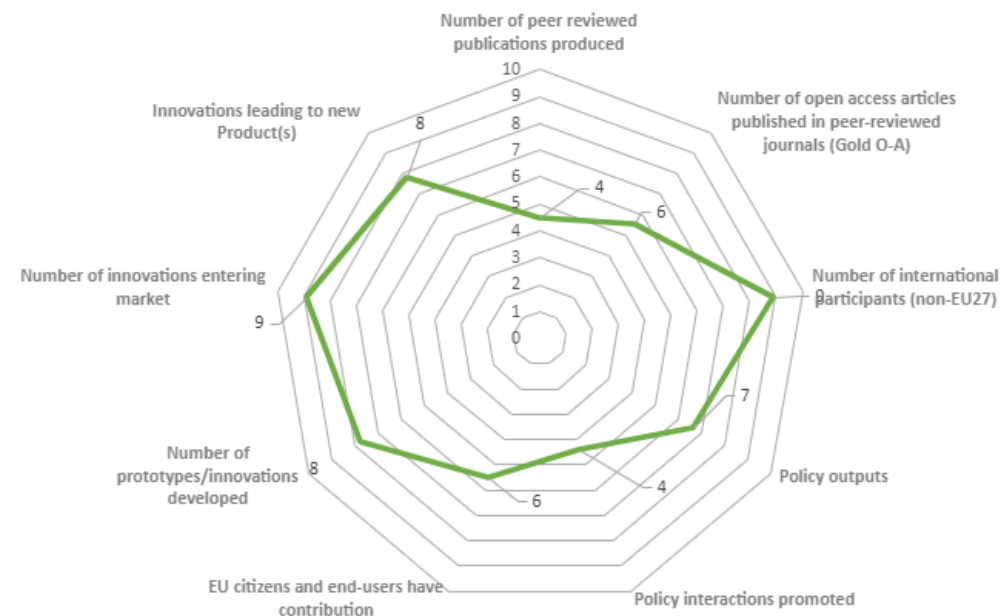


This project

research a



Cluster 1: Water resources and resilience



Cluster 2: Water treatment technologies

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





Portfolio comparison: Scientific impact pathway

- High variation in publication output
 - ENVIRONMENT, ECOSYSTEMS AND BIODIVERSITY: 37 peer-reviewed publications per EUR 10 million invested vs. WASTE: 4 peer-reviewed publications per EUR 10 million invested
- Slow uptake of open access
 - Best performer: ENVIRONMENT, ECOSYSTEMS, BIODIVERSITY with c. 50% share of open access peer-reviewed publications
- Human capital dominated by males
 - 2 females to 3 males on average (researchers), no major differences between portfolios
- International partnerships as common practice
 - The share of international partners 20% on average, no major differences between portfolios





Portfolio comparison: Societal impact pathway

- Policy-informed research as mainstream
 - Over 60% of the projects produced policy outputs and promoted policy interactions with decision makers, no major differences between portfolios
- Citizen engagement and co-participatory approaches not yet as mainstream
 - 45% of the projects supported the uptake of innovation in society via the means of citizen engagement and co-participatory approaches
 - ENVIRONMENT, ECOSYSTEMS, BIODIVERSITY: the only project portfolio where the majority of the projects reported on the use of citizen engagement and co-participatory approaches





Portfolio comparison: Economic impact pathway

- High variation in commercial orientation
 - CLIMATE CHANGE and ENVIRONMENT, ECOSYSTEMS, BIODIVERSITY: commercialization activities largely absent
 - WATER and WASTE: high number of reported patents, prototypes, testing activities & rises in Technology Readiness Levels (TRLs)
- SMEs see benefits in participating in research projects even in absence of commercial orientation
 - ENVIRONMENT, ECOSYSTEMS, BIODIVERSITY: SME participation rate 18%





Cross-cutting issues: Clustering activities

- Project coordinators: Key role in horizontal collaboration with other European research projects, mainly by information sharing (workshops, meetings)
- Project partners: Participation in clustering activities likely in case of a shared agenda & coincidence of interests (new emerging research field, new applications)
- Nexus Project Cluster of the WATER portfolio: SIM4NEXUS, DAFNE & MAGIC (<https://nexuscluster.eu/Home.aspx>)





Cross-cutting issues: EU added value

- Added value to research activities:
 - Larger project size and faster execution
 - More ambitious research agenda
 - More diverse collaborative relationships (between industry and academics)
- Added value to research capabilities:
 - Interdisciplinary collaboration skills (co-authoring)
 - Career development (junior researchers working with seniors)
 - Access to knowledge: markets, users, countries
 - Visibility: both in academic community and media

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