



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

Policy Co-Creation Workshop on “Fighting and Adapting to Climate Change” related projects of Societal Challenge 5

**Impact Pathways Approach and Results:
Waste Portfolio**

11th of May 2021

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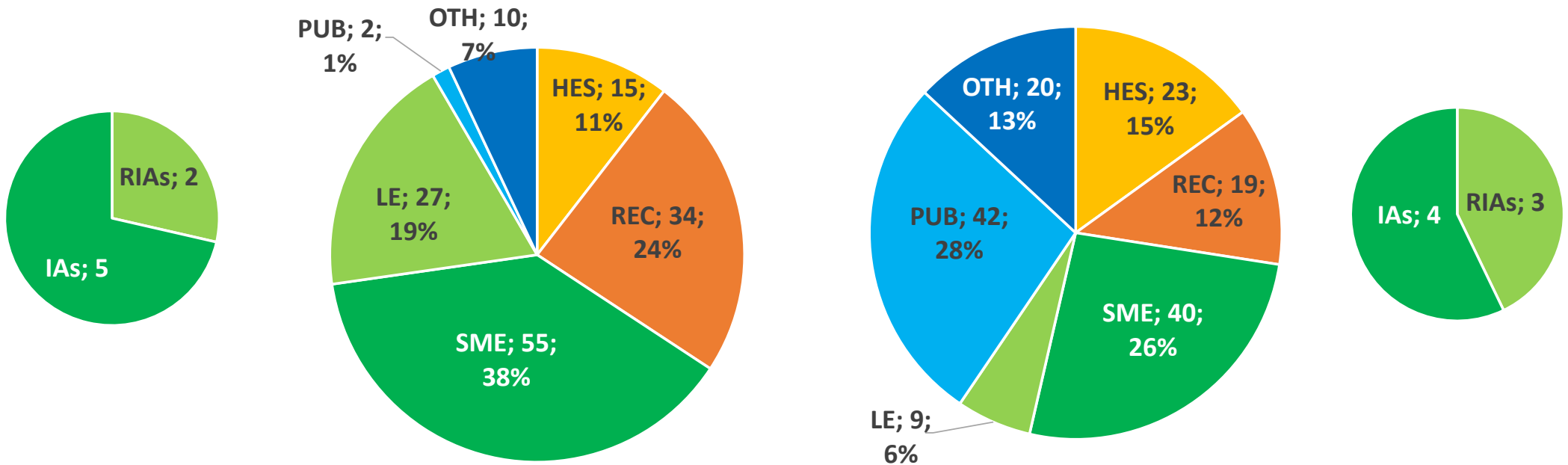




WASTE portfolio SC5 2014-15

Project clusters under WASTE portfolio	Call topics	Number of projects	EC Contribution (€)
Cluster 4.1: Industrial Waste	WASTE-1-2014 (IA, RESYNTEX, CABRISS, RESLAG, FISSAC and BAMB) WASTE-3-2014 (RIA, CloseWEEE and HISER)	7	55,8 M€
Cluster 4.2: Urban Waste	WASTE-6a-2015 (IA, Waste4Think, FORCE, DECISIVE and URBANREC) WASTE-6b-2015 (RIA, REPAiR, Urban_Wins and UrBAN-WASTE)	7	49,22 M€

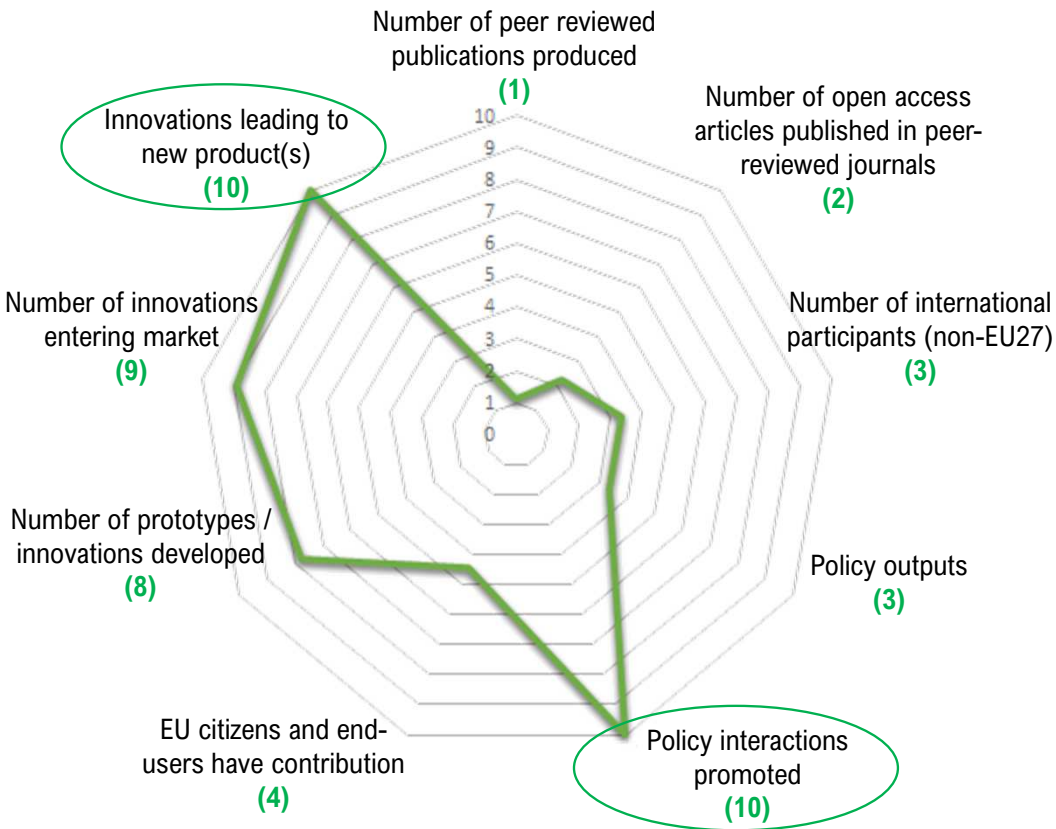
The WASTE portfolio Overview of clusters: Type of partners



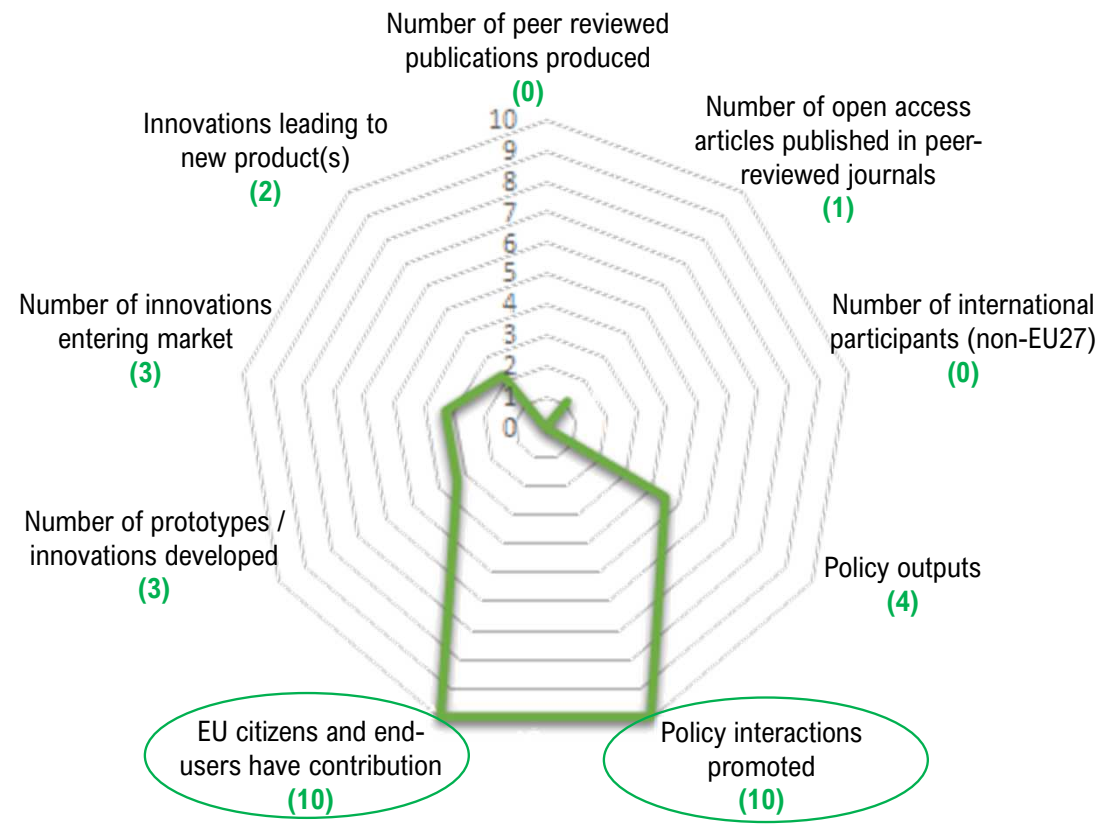
Cluster 4.1: Industrial waste

Cluster 4.2: Urban Waste

WASTE portfolio: KPI per cluster



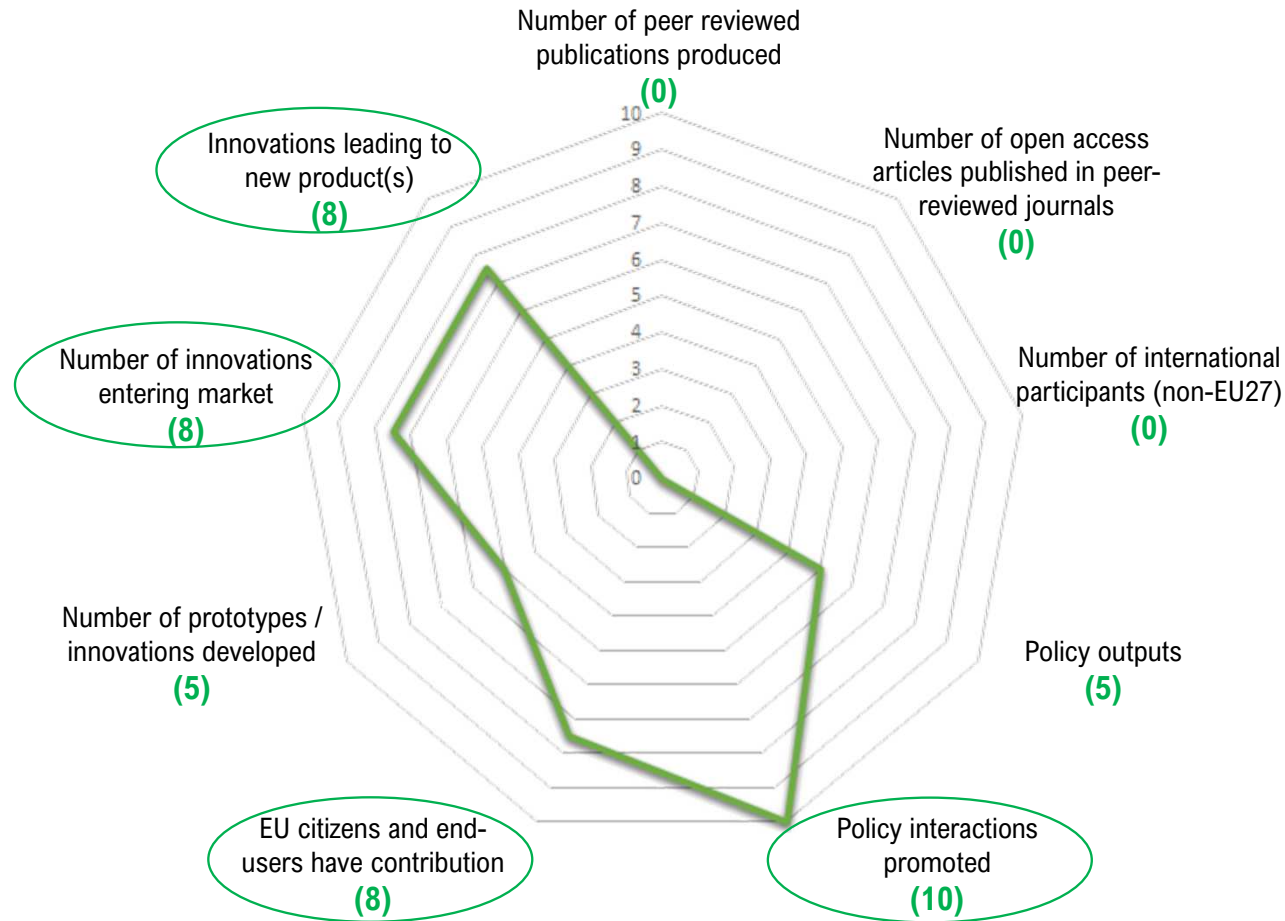
Cluster 4.1: Industrial Waste



Cluster 4.2: Urban Waste



WASTE portfolio: KPI for the whole portfolio





WASTE portfolio: Scientific impact pathway

SCIENTIFIC RESULTS & CONTRIBUTION (1/2)

- **Creating high quality new knowledge:** Total number of **publications 404: 69 peer reviewed articles.**
- **Diffusion of knowledge:** **Less than half of the publications (41,6%) were granted Green or Gold Open Access.** (73% of cluster 4.1 and 25% in cluster 4.2).
- **Gender:** Researchers 61%-39% (916 males/574 females) and non-researchers (52%-48%) (552 males-508 females). **No relevant gender knowledge seems to have been developed.**
- **Strengthening human capital:** **PhD and master students have been supported,** but not exact number reported.
- **Partnerships and international openness:**
 - Most of the projects have **participated in joint activities with other H2020 projects** mostly with a focus on disseminating the projects' results, exchange knowledge and experiences.
 - **Limited activity outside the European borders** or associated countries. Out of 296, twenty-three (23) were from a non-EU 27 country and only one (1) was from a non-European or associated country.



WASTE portfolio: Scientific impact pathway

SCIENTIFIC RESULTS & CONTRIBUTION (2/2)

- **Focus on innovation and policy development** and not so much on delivering scientific excellence.
- However, it has definitely contributed to enhance the knowledge base in different scientific fields related to the prevention, recycling, recovery and /or reuse of waste by:
 - **Developing in-depth knowledge and publishing and /or disseminating the results of the research activity.**
 - **Producing, validating and demonstrating in real scale scenarios methodologies, procedures, technologies, tools, models, solutions and /or products** based on the life-cycle analysis of the materials' flows.
 - **Supporting the scientific career of young researchers.**



WASTE portfolio: Societal impact pathway

SOCIETAL RESULTS & CONTRIBUTION (1/2)

- **Policy priorities:**
 - Majority of the projects **addressed EU policy priorities via policy outputs and policy interactions.**
 - Participation in several conferences, discussion forums or experts/ focus groups, both at **local/regional, national or even European level** and that, in most cases, those considerably contributed to the achievement of the project impacts.
 - Recommendations for future policies, **“soft legislation” and regulation and standardisation related recommendations** have been issued.
 - Contribution to **minimising waste generation and environmental depletion** and the **implementation of the Circular Economy** motto.
 - Impacts expected in terms of **overcoming regulatory barriers** for the uptake of innovations and the **enhanced adoption of innovations by public bodies** and the development of future public **waste management policies further incorporating the circular economy principles.**



WASTE portfolio: Societal impact pathway

SOCIETAL RESULTS & CONTRIBUTION (2/2)

- **Citizen engagement:** Different approaches in each cluster.
 - Industrial waste related projects:
 - **Slight involvement** of civil society. Relationship established with industrial stakeholders.
 - Focused on the **dissemination to society and validation of results** in the professional arena.
 - Urban waste related projects:
 - **Citizen engagement by different means**, i.e. participation in survey, workshops or online platforms, face-to-face interactions, pilot users, partners via CSOs. NGOs, Citizen Labs, participants in crowdsourcing activities, etc.
 - Expected impact is to influence in their consumption and recycling patterns.



WASTE portfolio: Economic impact pathway

ECONOMIC RESULTS & CONTRIBUTION (1/2)

- **Innovation based growth:**
 - Most of the projects report on the production of **innovative products, processes or methods, demonstrated and technically validated** in most of the occasions.
 - **Testing activities, innovations in market and or company and prototypes** are the most common innovative results.
 - **Patent applications issued and granted. Other IPR such as copyrights, trademarks or intellectual property** in the form of “**know-how**” have been also gained.
 - Contribution to the **creation or development of standards, development of new regulations and contribution to some existing standard committees.**
 - **Clear innovation focus of the portfolio** providing innovative and more cost-effective models, tools and/or technologies applying the circular economy principles.
 - Contribution to the **more efficient exploitation of secondary raw materials** and to **boost the eco-industry** trough enhanced capacities to produce innovative products incorporating the eco-design principles.



WASTE portfolio: Economic impact pathway

ECONOMIC RESULTS & CONTRIBUTION (2/2)

- **Adoption of innovative technological solutions:**
 - Majority of the projects report on **great advancements in raising the TRLs** of the technologies under development (ranging from TRL 4 to TRL9, depending on the technology or product).
 - **High participation of the private sector.** Out of 296 organisations involved, 131 private companies, 95 SME.
 - **Market related research conducted** in many cases with different scopes and definition levels.
 - At least, six of the fourteen projects in the WASTE portfolio have **already commercialised products** or are on the way to the market.
 - **Wide market uptake of the proposed solutions has not been achieved in some cases.** Further research to optimise performance and achieve validation of the solutions under a wider range of conditions and applications is needed.
 - Production of **assets that have already reached the market**; others that could be marketed in a one- to two-year timeframe; others that could be commercialised in a period of four years; and others that need more R&D before they will be ready for market uptake.
- **No information on job creation and leverage of complementary or follow up funding.**

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WASTE portfolio: Success factors



- Interdisciplinarity and cross-thematic approach of consortia;
- The involvement of industry;
- The policy impact achieved; and
- Pilot activities and demonstrators.



WASTE: Questions for discussion

- Compared to the rest of portfolios, it has been noticed that the waste portfolio is more innovation and policy driven and not so much focused on delivering scientific excellence.

All the projects / project portfolios should contribute to all the impact pathways to a minimum extent? What determines the scientific / policy / economic approach of the projects?

- Policy outputs and interactions have been considerably relevant in this portfolio. However, it takes some time to turn the policy recommendations into specific policy shifts.

How could this process be streamlined?



WASTE: Questions for discussion

- This project portfolio integrates many of the ingredients that should lead to a wide market uptake of the developed innovations: developed innovations to market and company, prototypes, high private sector participation, IPR, etc.

How can this market uptake process be enhanced / supported during or after the lifetime of the project? Which are the main barriers that should be overcome?

- Interdisciplinarity and cross-thematic approach of consortia and the involvement of industry in this portfolio have been mentioned as success factors.

What positive effects has had the involvement of different kind of stakeholders and industry in the achievement of projects results / expected impacts?



Next steps



- One more thematic workshops
 1. 12 May: Water
- Final stakeholder conference
 - ✓ 3 June 2021
- [Indicators](https://impact-sc5.eu) and other project results are available on our website:
<https://impact-sc5.eu>
 - ✓ We are also present in LinkedIn

