# Policy Brief #5

**N: NEW HORRIZON**

## SOCIAL RESPONSIBILITY IN RESEARCH AND INNOVATION: FROM CONCEPT TO CHANGING RULES AND INCENTIVES

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## RECOMMENDED POLICY ACTIONS

**(1)** New funding rules and incentives must be introduced that guide and enable researchers to engage in socially oriented and responsible research and innovation practices.

- Research funding organizations (RFOs) must include procedures specific to RRI-related criteria, together with RRI expertise in evaluation panels.

- Evaluators and research performing organizations (RPOs) making decisions on the funding and promotion of excellence in research should recognize and reward the importance of societal impact and engagement beyond bibliometric impacts and provide capacity-building resources to that end.

**(2)** Research and innovation processes must involve all types of stakeholders at all stages, including the definition of research agendas and planning of calls for research and innovation funding.

- Stakeholders, among them lay people, should be included and granted decision-making power in RFOs defining research agendas and planning of calls;

- Institutionalized stakeholder networks, experimenting with new ways of policy interventions must be set up by RFOs in all research and innovation areas, on national and EC level, to assist policy makers in drafting new funding programmes and calls and in defining new rules and incentives for their R&I territories and institutions.

The multifold crises of our time – climate change, global inequality, loss of biodiversity, pollution of air, soil and sea, over-consumption, to name a few – necessitate fundamental rethinking, redirecting, and transforming of our societal systems. This includes how research and innovation are organized, incentivized, and practiced. 'Business as usual' is no longer an option, nor is it desirable.

Cutting-edge research and innovation (R&I) is one necessary element amongst others – e.g. social innovation - to propel the necessary processes of transformative change, bringing new knowledge and ideas to tackle "Grand Challenges", and assisting policy makers in devising appropriate policies to meet Sustainable Development Goals (SDGs). Ecological, social and economic transitions require R&I that is oriented towards citizens' priorities, societal needs and that is inclusive, anticipatory and responsive in setting research priorities, in conducting research, and in transferring its results to policy and practice.

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Horizon Europe, the current funding instrument of the European Commission, captures the need for change in a range of policy terms and narratives such as Open Science, co-creation, citizen science and mission-oriented innovation. The question is: how to implement these policies effectively, and to improve the lives of citizens across Europe? Efforts in Horizon Europe can benefit from lessons learned in implementing Responsible Research and Innovation (RRI).

RRI as policy was strongly promoted in the previous European research and innovation investment programmes yet did not fully manifest in the rules and incentives that determine R&I (funding and operational) practices. While endorsed on a political level, RRI's implementation in actual policy remained lacking as confirmed by a publication in *Science* Magazine[4].
Looking into the reasons why, the NewHoRRIzon project brought to light that many key stakeholders in the R&I system are ready for and open to change, but that they experienced trouble in acting on their intentions because of the rules and incentive structures that dominate their professional work. Among them the "publish or perish" culture in research and dominant market-logics in innovation. It was found that revising current incentive structures is key to any policy that seeks to improve on actual research and innovation practices, captured in whichever norm driven name or narrative.

# POLICY RECOMMENDATIONS

To achieve positive changes in the European research and innovation system, findings of 4 years of participatory action research with hundreds of stakeholders in the NewHoRRIzon project[5] suggest the following actions:

**1)** Policy makers and funders must introduce funding rules and incentives that stimulate and enable researchers to engage in responsible and socially oriented research and innovation practices. In the evaluation procedures specific sets of RRI-related criteria should be included, together with RRI expertise in evaluation panels and briefings of evaluators on RRI-related themes[6] to enable adequate consideration of specific actions in regard to submission of proposals and in awarding projects.

**2)** Funding rules and incentives must give all types of stakeholders the opportunity to take part in the research process at different stages. This also includes research agenda setting and call formulation. CSOs and citizens must be offered the practical (financial) means and decision-making power and offered appropriate funding to enter consultation, agenda deliberation and target setting, proposal writing and participation in research.

**3)** Evaluators and research performing organizations that make decisions on funding and promotion of outstanding researchers should recognize and reward the importance of societal impact and engagement beyond bibliometric impacts. They should provide (early career) researchers with options for capacity building to implement activities that enhance science literacy, public engagement and societal impact of research and innovation across Europe.

**4)** Research and innovation policymakers should invest in the creation of governance networks and/or alliances thereof to enhance the R&I system towards RRI. These policy experiments should invite a broad range of stakeholders (researchers, innovators, citizen and CSO representatives and businesses) to experiment with new ways and forms of policy interventions which may provide input for policy makers in drafting new rules and incentives for their R&I fields and institutions.

**5)** Uptake of responsibility in actual research projects requires **(a)** including a requirement to attach a supplement addressing project-specific RRI-related questions and reflections[7]; (b) incorporating RRI-specific actions in the submission tasks, deliverables, milestones, and budgets; (c) promoting RRI-informed criteria in the evaluation of research proposals, training evaluators in RRI, open science, citizen science, and include RRI experts/expertise in the evaluation panel.[8]

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4. See: https://www.science.org/doi/abs/10.1126/science.abb3415
5. For a short description of NewHoRRIzon, see the final section of this policy brief. For more information about the project see www.newhorrizon.eu.
6. For example: the briefing of MSCA-evaluators includes reference to a video that draws attention to unconscious bias, produced by the Royal Society: https://www.youtube.com/watch?v=dVp9Z5k0dEE
7. https://newhorrizon.eu/thinking-tool/
8. See: https://newhorrizon.eu/policy-briefs/

Stakeholders participating in our experimental project also argued that R&I system must drastically open up in all sectors, research organizations (RPOs), funders (RFOs) and business organizations, and in all stages. Opening means within and beyond research and innovation. This does not only include open access and open data, but policy formulation, definition of research programmes and the entire research processes.

# NEWHORRIZON

The H2020 CSA NewHoRRIzon project set out to promote the uptake and institutionalization of RRI in H2020 and beyond. In order to reach this goal, it set up 19 Social Labs, covering the entirety of H2020 programme lines and institutions. It engaged more than 700 researchers, policymakers, managers, CSO representatives, emerging scholars, citizens, in experimental and temporal settings operating for over three years developing 59 pilots and prototypes for change actions in their respective fields and institutions. These pilots were based on co-determined social challenges, problems and questions of their respective research fields. They were co-evaluated, reflected upon, fine-tuned and re-trialed in Social Labs to offer workable directions to bring the required practical, rules and incentive-based change that is attentive to societal needs, and has a responsibility orientation in its focus. Process and outputs, including pilots, of all Social Labs and the proposed changes may be found at the [NewHoRRIzon website](#), a [booklet describing the pilot actions](#), a [virtual exhibition](#) of project results and in [policy briefs](#).

Practitioners and policymakers participating in the project's Social Labs confirmed, that creating adequate policies supporting the integration of social responsibility into Horizon Europe is relevant to reach SDGs as well as to overturn a growing disbelief in science, and the political suspicion towards evidence-based policy making. The lack of responsible and inclusive research principles and appropriate rules and incentives to make this operational practice severely limits the ability of European societies, researchers and innovators to tackle societal challenges such as climate change, sustainable transport and energy, demographic change and public health, economic wellbeing, employment and the security of European societies.

# EXAMPLE PRACTICES FOR CHANGE IN R&I

## 1) RULES AND INCENTIVES:

● During the project we came across multiple levels on which rules and incentives may be changed to stimulate researchers to engage in responsible and socially oriented R&I practices. On the local level, *RRI-zing the University of Novi Sad* provided an example of addressing RRI in a Serbian University. Here, with the cooperation of the university management, researchers created a dedicated RRI team that came up with new institutional measures to promote elements of RRI such as Public Engagement and Gender Equality.

● The *Responsible AI Framework* provides a showcase of using RRI to improve a call for research into Artificial Intelligence on the regional level. With the support of Tampere policymakers RRI was integrated in a regional call for research into AI. This helped to increase attention to the societal and ethical challenges associated with AI and its possible impact on society.

● *RRI Principles Implementation in TACR* provides an example of how principles such as Public Engagement can be implemented on the strategic level in a national R&D funder and *Magna Charta* provides an example of how RRI could be used to improve the Open Access Charta with guidelines for Research Infrastructures across Europe.

## 2) STAKEHOLDERS PARTICIPATING IN THE RESEARCH PROCESS AT DIFFERENT STAGES:

● *Public Engagement from "nice to have" to "NEED to have"* showed us the necessity of engaging with the public in the context of upcoming sustainability transitions. It provided us with the understanding that research and innovation without public consultation may lead to a sustainability backlash that blocks any reforms in the way in which our societies are organized and hampers our ability to respond to environmental challenges.

9. See: Job Timmermans, Vincent Blok, Robert Braun, Renate Wesselink & Rasmus Øjvind Nielsen (2020): Social labs as an inclusive methodology to implement and study social change: the case of responsible research and innovation, Journal of Responsible Innovation, DOI: 10.1080/23299460.2020.1787751

- *Involvement of CSOs/NGOs in proposal writing* showed how often these societal partners have a hard time to engage in proposal writing because of a lack of mutual understanding and support. Therefore, it called for more investment in support for the participation of these stakeholders from the start of project proposal writing.

- *In the Genvoice* action experimental workshop were organized with young adults and students to gather their input and visions for transportation in the city of Žilina. Researchers gained insights into the challenges, perceptions, and interests of an often times neglected and paternalized stakeholder group. Policymakers were familiarized with the importance of citizen engagement as the imaginative potential of the children and young adults provided valuable input for "out of the box" approaches.

- *The Quadralogue* developed a low-threshold 45-minutes dialogue format where four people - a researcher, a lay person, a student, a representative of research administration/funding organization - can discuss "over a cup of coffee" the bigger picture of research. It can be organized almost everywhere against minimum financial and organizational costs to discuss social and ethical questions around research and unlock the creative potential of different individuals. It flips upside down the idea that taking societal and ethical issues into consideration is a burden.

- *The Knowledge Kiosk* attempts to foster this two-way engagement between science and society in real life through a series of co-creation workshops. The Kiosk is a fun and engaging activity in which citizens and scientists already engage in dialogue during the design of a long-term engagement format. It uses Design Thinking methodology and therefore involves the energy and capacity of local citizens and scientists in shaping localized prototypes for public engagement.

## 3) REWARDING SOCIETAL IMPACT AND ENGAGEMENT BEYOND BIBLIOMETRIC IMPACTS:

- *RRI Career Assessment Matrix* brought different early-career researchers together to produce the policy brief *Towards Responsible Research Career Assessment.*[10] The brief contains five recommendations including a call to MSCA policymakers to broaden current excellence evaluation criteria in dialogue with all relevant stakeholders.

Preparing (early career) researchers for an improved R&I system also requires capacity building with both researchers and research administrators and advisors. Here, one can build on the many experiences with developing RRI Trainings, a Stakeholder Integration Training and Coordinators' Cafés from the NewHoRRIzon project.

## 4) INVESTMENT IN THE CREATION OF ALLIANCES FOR POLICY EXPERIMENTS:

- Policymakers can take inspiration from the 19 Social Labs, a network of experimental spaces engaging a wide set of participants organized by NewHoRRIzon with more than 700 stakeholders involved. Participants developed 59 pilots for change towards RRI. It proved that participatory, experimental structures work well in conceptualizing rule- and incentive-based processes of change. Engendering change can build on these successes of Social Labs.

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10. https://zenodo.org/record/3560479