Policy Brief #2

N NEW HORRIZON

POLICY BRIEF #2 | SEPTEMBER 2019

LACKING INTEGRATION OF SOCIETAL NEEDS AND ETHICAL CONCERNS INTO EUROPEAN RESEARCH AND INNOVATION POLICY SEVERELY LIMITS THE ABILITY TO TACKLE 'GRAND CHALLENGES'

Robert Braun, Anne Loeber, Peter Novitzky

CONTENTS

1. INTRODUCTION

Societal needs, expectations, and values have only been modestly integrated into research and innovation (R&I) policies in the European Framework Programme Horizon 2020 through the policy instrument "Responsible Research and Innovation" (RRI). Lacking consistent integration of the instrument's core elements, such as ethics, open access, open innovation, and public engagement, is worrying considering that these are repeatedly and normatively claimed by political decision makers to be relevant for R&I, as evidenced by a multitude of European Commission (EC) documents. Considering the consistent political support for RRI, the main obstacle for RRI integration appears to be the policy integration strategy itself.

These conclusions from the NewHoRRIzon project suggest that in order to contribute to the achievement of SDGs via R&I and to systematically integrate ethical, societal, and open access considerations into the 9th Framework Program (FP9 – Horizon Europe), the following must be achieved (1) all research proposals submitted under Horizon Europe should require an attached supplement addressing project-specific RRI-related questions and reflections; (2) every research proposal should incorporate RRI-specific actions in the submissions' tasks, deliverables, milestones, and budgets; (3) every research evaluation process under Horizon Europe should incorporate RRI-informed criteria in the evaluation of research proposals or include RRI experts/expertise in the evaluation panel; (4) the establishment of a specific policy, advocacy and expertise centre for mainstreaming RRI.

CALL FOR ACTIONS

Based on these findings[1] we call for the following actions:

(1) To include in the *Orientations document* on Horizon Europe, provided by the EC:

a. a specific call for stronger integration of European citizens into the production of knowledge, technology, and impact by means of adequate participatory or representative approaches, where appropriate, in order to make such integration part of the evaluation criteria for proposals, and

b. guidelines for the integration of all R&I stakeholder groups (researchers, citizens, policy makers, business, third sector organisations, etc.) into the R&I process, in order to better align desired outcomes with the values, needs and expectations of European peoples.

■ **1.** Cf. http://pathways2019.eu/declaration/; https://www.rri-practice.eu/wp-content/uploads/2019/06/Richard-Owen-RRI-Practice-Policy-
■ Recommendations-Presentation-Brussels-June-21.pdf

(2) To include *in the grant requirements for research proposal submission* under Horizon Europe a section in Part B that stipulates, in addition to 'Ethics', the inclusion of a PDF supplement, generated with the NewHoRRIzon online Societal-Readiness (SR) Thinking Tool, addressing project-specific RRI-related questions and reflections. This supplement would serve to incite researchers to reflect on their work in relation to societal needs, and publics. It would also offer a basis for further discussions on how to assess the proposal in terms of its potential contribution towards the SDGs and RRI.

(3) To include *in the grant requirements for research proposal submission* under Horizon Europe the request to incorporate RRI specific actions in the submissions' tasks, deliverables, milestones, and budgets. Criteria for assessing RRI, based on previous research actions and approaches (e.g. MORRI, RRI-Tools), must be clearly communicated to applicants, evaluators, and reviewers in both the proposal and in the subsequent delivery.

(4) To include *in research proposal evaluation process* under Horizon Europe a specific set of RRI-related criteria relevant for the R&I domain, as well as include RRI expertise in evaluation panels in order to ensure that RRI specific actions are adequately considered in submissions and projects to be awarded.

(5) As part of the European Commission's Research Executive Agency, *establishment of a policy advocacy and expertise centre dedicated to mainstreaming RRI* in order to ensure RRI policy integration and delivery in the research supervision process. The interdisciplinary centre should offer advice, training, consultation, and quality control throughout Horizon Europe, drawing on the current and future RRI knowledge-base developed in previous framework programmes. The centre will offer a clearinghouse of information to accommodate the RRI-experts in the evaluation of R&I proposals and project activities. Additionally, the centre will host relevant committees and boards in order to assist the effective, long-term integration and implementation of RRI policies into research funding and delivery.

Creating adequate policies for the integration of RRI into Horizon Europe is relevant to reaching the SDGs, overturning a growing disbelief in science, and mitigating political suspicion towards evidence-based policy making. Inadequately applying responsible and democratic research principles and practices severely limits the ability of European societies to assist its researchers and innovators in tackling societal challenges such as climate change, sustainable transport and energy, demographic change and public health, economic wellbeing, employment and the security of European societies.

2. BACKGROUND

To what extent have ideas surrounding responsibility impacted the European Research Area? Research and Innovation (R&I) excellence can be achieved, as numerous EC documents have argued, by systematically and methodologically integrating societal needs, expectations, and values into R&I policy and investment decisions. Ever since the 6th Framework Program of the European Research Funding Scheme, the European polity has consistently promoted a strong ethical and political position for the European R&I ecosystem. To that end, it has actively supported developments towards Responsible Research and Innovation (RRI) and its operationalization in research policy. A major motivation for doing so is the expectation that if R&I processes and associated values are better aligned with the needs and expectations of societies, R&I may effectively address the 'Grand Challenges' European communities are encountering and ultimately, contribute to the achievement of Sustainable Development Goals (SDGs).[2] RRI, and the operationalization thereof, are prerequisites to reach SDGs. According to the EC, continuous stakeholder engagement in R&I activities is essential for sustainable, desirable, and acceptable innovation (EC 2014).

The H2020 CSA "NewHoRRIzon"[3] seeks to promote the uptake and institutionalization of RRI in order to assist European societies in reaching the SDGs. In reviewing the 8th Framework Program Horizon 2020 (H2020), our findings showed that despite laudable first steps, the EC's vision for RRI is insufficiently represented and operationalized at the program level. There, RRI often is included merely as a *pro-forma* set of practices, with limited impact on the actual research project's alignment with social needs, expectations, or the achievement of the SDGs.

■   **2.** Responsible Research & Innovation: https://ec.europa.eu/programmes/horizon2020/en/h2020-section/responsible-research-
■   innovation

3. These findings are in line with and complementing the recommendations made by other RRI projects funded under H2020: Excellence in Science and Innovation for Europe by Adopting the Concept of Responsible Research and Innovation (NewHoRRIzon – H2020 grant agreement no. 741402) http://newhorrizon.eu/

3. RESEARCH FINDINGS

With the intention to analyze and promote the adoption of RRI, NewHoRRIzon has (1) produced a comprehensive analysis of RRI policy integration, analyzing the uptake of responsibility in H2020; (2) engaged hundreds of stakeholders in 19 so-called Social Labs to experiment with new ways and methods of promoting the uptake of RRI; and (3) designed a new tool that offers practical guidance to researchers on how to mature the societal readiness of their research projects: the *Societal-Readiness (SR) Thinking Tool*.

Our RRI policy analysis demonstrates the overall limited and disparate integration of the RRI concept throughout the Program Sections and subthemes in H2020. While some RRI policy elements emerge as prominent in some subthemes, especially those tackling societal challenges, other subthemes demonstrate modest or merely superficial integration. These results lead us to conclude that the integration of the RRI policy framework in H2020 is low.

Among the hundreds of stakeholders who joined forces in our Social Labs to design and experiment with applying RRI in their particular research area, there is a great eagerness to engage with societal needs, ethical concerns, and different publics in their research endeavors. In the Social Labs, researchers and other key stakeholders have expressed time and again a need for (a) an operationalizable concept of value-based procedural responsibility in R&I; (b) a policy level operationalization of such a concept that can be applied in research designs and processes, (c) a concept sufficiently open to include emerging, contextualized interpretations of RRI ("de-facto RRI").

Considering the consistent political and research practitioners' support for RRI, the main obstacle for RRI integration appears to be the policy integration strategy itself. This is supported by the experiences of stakeholders whose accounts suggest that (a) the RRI framework is not clear to those who are the intended users; and (b) this lack of conceptual clarity hinders the effective operationalization of RRI in research practice. As a result, typically, the RRI framework is present on the declarative policy level, e.g. in the subtheme's general description, yet it 'phases out' on the funding-call level and is absent in the evaluation criteria used to assess proposals. Consequently, researchers are not challenged to incorporate RRI during the design and drafting of their research proposals and they do not employ RRI specific actions and activities to systematically integrate societal needs, expectations, and values into their research when seeking funding.

To better integrate RRI into research funding and governance, the first step is to **work towards a joint acknowledgment of the** *relevance of responsibility* **in R&I among key stakeholders**. In order to institutionalize RRI into the subthemes of European research funding it is imperative that RRI, as a policy construct, shifts from a general 'cross-cutting issue' to an **explicit policy goal, explicated in clear guidelines for action**. Clear and credible RRI policy goals will incentivize researchers and investing parties to formulate attainable, feasible, and desirable aims regarding responsibility issues that are consistent with the views of relevant stakeholders in an R&I ecosystem.

Furthermore, our findings suggest that the **EC should develop and actively disseminate information on RRI policy implementation tools** that (a) clearly explain the rationale and benefits of RRI in the social uptake of R&I by connecting RRI to a practitioner's context and process; (b) select and train, as well as support, change agents among key stakeholders in the European R&I ecosystem, securing wider organizational acceptance and uptake; and (c) tackle the status quo and current orientation of R&I institutions by offering institutional incentives that support RRI-oriented change.

4. RELEVANT EC DOCUMENTS ON RRI

EC (2006): DECISION No 1982/2006/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007-2013).

EC (2007): COMMUNICATION FROM THE COMMISSION TO THE COUNCIL, THE EUROPEAN PARLIAMENT, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS A lead market initiative for Europe. Online available at:

http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0860:FIN:EN:PDF (04.09.2012)

EC (2008): COMMISSION RECOMMENDATION of 07/02/2008 on a code of conduct for responsible nanosciences and nanotechnologies research. Brussels, 07.02.2008, C(2008) 424 final. Online available at:

http://ec.europa.eu/nanotechnology/pdf/nanocode-rec_pe0894c_en.pdf (04.04.2012)

EC (2009a): COMMISSION STAFF WORKING DOCUMENT accompanying the COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS "Preparing for our future: Developing a common strategy for key enabling technologies in the EU" Current situation of key enabling technologies in Europe {COM(2009) 512/3}

EC (2009b): COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS. Reviewing Community innovation policy in a changing world. COM(2009) 442 final

EC (2009c): "The Lund Declaration: Europe Must Focus on the Grand Challenges of Our Time." European Union.

EC (2010a): Public Procurement Indicators 2009. Brussels, November 2010. Online available at:

http://ec.europa.eu/internal_market/publicprocurement/docs/indicators2009_en.pdf (20.03.2012)

EC (2010b): Communication from the Commission: Europe 2020 - A strategy for smart, sustainabel and inclusive growth. Brussels, 3.3.2010, COM(2010) 2020final. Online available at:

http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF (16.02.2012)

EC (2010c): Council Conclusions: Social Dimension of the European Research Area. Brussels, 28.5.2010,9108/10 RECH 172 SOC 320

http://register.consilium.europa.eu/pdf/en/10/st10270.en10.pdf (04.09.2012)

EC (2011a): Breakdown of the Horizon 2020 budget. Online available at:

http://ec.europa.eu/research/horizon2020/pdf/press/horizon_2020_budget_constant_2011.pdf#view=fit&pagemode=non

EC (2011b): Snapshot on European Wind Energy. Online available at:

http://ec.europa.eu/energy/renewables/wind_energy/doc/2011_wind_snapshot.pdf (17.02.2012)

EC (2011c): Competitiveness and Innovation Framework Programme.

http://ec.europa.eu/cip/index_en.htm (16.02.2012)

EC (2011d): Research, Innovation and Competitiveness Package - Proposal for a Regulation of the European Parliament and of the Council establishing a Programme for the Competitiveness of Enterprises and small and medium-sized enterprises (2014 - 2020), Brussels, 30.11.2011, COM(2011) 834 final. Online available at:

http://ec.europa.eu/cip/files/cosme/com_2011_0834_proposition_de_reglement_en.pdf (16.02.2012)

EC (2012a): Renewable Energy - targets by 2020. Online available at:

http://ec.europa.eu/energy/renewables/targets_en.htm (17.02.2012)

EC (2012b): Ethical and Regulatory Challenges to Science and Research Policy at the Global Level. Directorate General for Research and Innovation.

EC (2014): "Rome Declaration on Responsible Research and Innovation in Europe." Declaration. Rome.

https://ec.europa.eu/digitalsinglemarket/en/news/rome-declaration-responsible-research-and-innovation-europe