

A NEW CHALLENGE BY THE EUROPEAN UNION HAS ALREADY STARTED: RESPONSIBLE RESEARCH AND INNOVATION

Bulent Cavas

Dokuz Eylul University, Turkey

It has been revealed by The Directorate-General for Research and Innovation of the European Union that scientific studies and their outcomes, carried out within the last 15 years, haven't been adequately shared within the society. In this context, the search for project applications, reviewing efficient communication strategies between European citizens and science was initiated by the European Union's Science and Society action plan in 2001.

The European Union further developed action plans, under its FP7 program which began in 2007, with a view to increasing participation within society and to enhance two-way dialogues and larger interactions through actualizing Science in Society's action.

Since 2010, a new concept has been developed, addressing factors playing an actual role in social changes and contributing to the scientific improvement process. This has been called: Responsible Research and Innovation.

The concept was explained by Quinn as follows:

Responsible Research and Innovation (RRI) means that societal actors work together during the whole research and innovation process in order to better align both the process and its outcomes, with the values, needs and expectations of European society. RRI is an ambitious challenge for the creation of a Research and Innovation policy driven by the needs of society and engaging all societal actors via inclusive participatory approaches. Ref

As an approach, RRI was defined by the European Commission, as follows:

Responsible research and innovation is an approach that anticipates and assesses potential implications and societal expectations with regard to research and innovation, with the aim to foster the design of inclusive and sustainable research and innovation. Ref

As inferred in both quotes, the fact that societal actors, such as researchers, citizens, policy makers, business, third sector organizations, are supposed to work cooperatively during research and innovation process has been heavily stressed. As a result of this collaboration, society's expectation, values and needs are foreseen to be better met.

In addition to the indicators mentioned above, RRI is intended to cover 6 thematic elements, namely: public engagement, open access, gender, ethics, science education and governance. Each of these thematic elements are shortly defined in the official Horizon 2020 web pages as follows:

Public Engagement (PE): Public engagement (PE) in relation to Responsible Research and Innovation (RRI) is about co-creating the future between citizens and civil society organizations on matters of science and technology and bringing on board the widest possible diversity of actors that do not normally interact with each other.

Open Access: The global shift towards making research findings available free of charge for readers, the so-



called 'Open access', has become a core strategy in the European Commission to improve knowledge circulation and thus, innovation. It is illustrated in particular by the general principle for open access to scientific publications in Horizon 2020 and the pilot initiated for sharing research data.

Gender: In Horizon 2020, gender is a cross-cutting issue and is mainstreamed in each of the different parts of the Work Programme, ensuring a more integrated approach to research and innovation.

Ethics: For all activities funded by the European Union, ethics is an integral part of research from beginning to end, and ethical compliance is seen as pivotal to achieve real research excellence.

Science Education: Building capacities and developing innovative ways of connecting science to society is a priority under Horizon 2020. This is intended to help make science more attractive to young people, increase society's appetite for innovation, and open up further research and innovation activities.

Governance: Policymakers also have a responsibility to prevent harmful or unethical developments in research and innovation. Through careful governance the expectation is to develop harmonious models for Responsible Research and Innovation that integrate public engagement, gender equality, science education, open access and ethics (Horizon 2020).

Within the frame of these thematic elements, Horizon 2020 Work Programme 2014-2015 schedule was prepared and within the frame of titles below, project calls were circulated.

Call for Making Science Education and Careers Attractive For Young People

SEAC.1.2014.2015 - Innovative ways to make science education and scientific careers attractive to young people

SEAC.2.2014 - Responsible Research and Innovation in Higher Education Curricula

SEAC.3.2014 – Trans-national operation of the EURAXESS Service network

SEAC.4.2015 - EURAXESS outreach to Industry

Call for promoting Gender Equality in Research and Innovation

GERI.1.2014- Innovative approach to communication, encouraging girls to study science

GERI.2.2014 - Impact of gender diversity on Research & Innovation

GERI.3.2015 - Evaluation of initiatives to promote gender equality in the research policy and research organizations

GERI.4.2014-2015 - Support to research organizations to implement gender equality plans

Call for integrating Society in Science and Innovation

ISSI.1.2014.2015 - Pan-European public outreach: exhibitions and science cafés engaging citizens in science

ISSI.2.2014 - Citizens and multi-actor engagement for scenario building

ISSI.3.2015 – Knowledge Sharing Platform

ISSI.4.2015 - On-line mechanisms for knowledge-based policy advice

ISSI.5.2014.2015 - Supporting structural change in research organizations to promote Responsible Research and Innovation

Call for developing governance for the advancement of Responsible Research and Innovation

GARRI.1.2014 - Fostering RRI uptake in current research and innovation systems

GARRI.2.2015 - Responsible Research and Innovation in industrial context

GARRI.3.2014 - Scientific Information in the Digital Age: Text and Data Mining (TDM)

GARRI.4.2015 - Innovative approach to release and disseminate research results and measure their impact

GARRI.5.2014 - Ethics in Research: Promoting Integrity

GARRI.6.2014 - Reducing the risk of exporting non ethical practices to third countries

GARRI.7.2014 - Science with and for Society National Contact Points (NCPs) in Horizon 2020

GARRI.8.2014 - National Contact Points for quality standards and horizontal issues

GARRI.9.2015 – Estimating the costs of research misconduct and the socioeconomic benefit of research integrity

GARRI.10.2015- European Ethics and Research Integrity Network



As seen from the project call titles above, a new framework programme in which social actors such as, researchers, citizens, policy makers, business, third sector organizations play the role, has been launched.

Within the scope of this programme, it is expected that European citizens contribute to the scientific and technological improvement process in an efficient way. With the help of these contributions, European citizens' values, needs and expectations are foreseen to be integrated with scientific and technological research. Thus, more citizens are anticipated to take responsibility for scientific and technological improvements and significantly contribute to positive outcomes. The results from this work programme are eagerly anticipated not only by European researchers, but also stakeholders all around the world.

For further information about the EU project calls, please check the resources below.

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Received: *May 30, 2015*

Accepted: *June 12, 2015*

Bulent Cavas

PhD., Associate Professor, Dokuz Eylul University, Faculty of Education, Department of Science Education, Izmir, Turkey.

Phone: + 90 232 3012294.

E-mail: bulentcavas@gmail.com

Website: <http://people.deu.edu.tr/bulent.cavas>

