

Addressing Expectations of Societal and Economic Impact

The impact of research

Political decision-makers worldwide commit substantial amounts of public funds to support and foster scientific research on behalf of and for the society they represent. In return, they expect publicly funded research to generate some measure of impact. Research funding organisations have a key role in identifying and supporting research that generates such impact, using specific funding criteria and decision-making processes.

No research is impact-free, but the impact of research can have different forms. Research funded by GRC participants has a wide range of impacts including among others the advancement of knowledge (*scientific impact*), the development of societies (*societal impact*) and fostering innovation (*economic impact*). The different forms of impact can come in different degrees and at different points of time and vary in their predictability and measurability.

Addressing increased expectations of societal and economic impact

- (1) GRC participants find that demands for research that generate more economic and societal impact have considerably increased over the last decades. These demands do not reflect a deficit of research, but varied expectations among stakeholders for the temporal horizons and predictability by which research contributes to the solution of societal challenges or to fostering innovation. In addition, these demands also express limited attention of the research ecosystem to assessing and demonstrating the societal and economic impact of research to political decision-makers and the society.
- (2) GRC participants agree that there is a need to address these increased expectations of societal and economic impact. Doing so can raise awareness for and maximise the contribution of research to society and the economy and thereby strengthen the case for GRC participants to justify the use of public funds for research.
- (3) GRC participants strongly reaffirm the value of both investing in research that advances and transcends the boundaries of knowledge as well as supporting research that may deliver more immediate and measurable societal and economic impact. Therefore, while GRC participants need to consider the expectations of their funders, they also have a responsibility to ensure a balanced approach in supporting different forms of research within national systems.
- (4) GRC participants reaffirm the importance of research investments in areas which might not seem of particular societal interest at any particular point in time. Societal challenges change over time, not least because they are always subject to political debate. Maintaining a broad knowledge base is a prerequisite to be able to adequately and timely respond when new societal challenges emerge.¹

General principles for assessing the societal and economic impact of research

- (5) GRC participants recognise that the forms and the extent of societal and economic impact assessments differ according to an organisation's mandate and its role in respective national research ecosystems.
- (6) GRC participants agree that no single impact assessment practice will be able to fully capture the value of research.

¹ GRC participants therefore reiterate the 2017 Statement of Principles on the Dynamic Interplay between Fundamental Research and Innovation that "focusing too much on short-term results will put the future seeds of innovation at risk".

- (7) GRC participants recognise the need for flexible approaches for assessing the societal and economic impact of research in order to respond to the specificities of the given geographic and social context, as well as respect the peculiarities of impact expectations within each discipline. The specific requirements need to be made transparent to researchers.
- (8) GRC participants recognise that impact assessments should be sensitive and responsive to aspects such as gender, diversity and equitable access in order to unleash the full potential of research impact.
- (9) GRC participants acknowledge that any form of impact assessment needs prior training for researchers, reviewers, funding agencies and policy specialists.

Applying societal and economic impact *ex ante* as funding criteria

- (10) GRC participants confirm that societal and economic impact assessments are particularly valuable in use-oriented research, as they assist in selecting research proposals which are expected to be better capable of contributing to specific short-term objectives and missions. These assessments can encourage researchers to contemplate the benefit of their research to society and the economy.
- (11) GRC participants reaffirm that scientific excellence must remain the core criterion of research evaluation for use-oriented research. GRC participants recognise that one way to ensure this could be to separate evaluation procedures for excellence and impact.
- (12) GRC participants agree to exercise caution when using societal and economic impact as funding criteria for curiosity-driven research. Its impact is often unexpected, unintended and materialises much later, but can then lead to disruptive innovations and address problems which society had not been able to conceive of before the research.

Assessing the impact of research *ex post*

- (13) GRC participants recognise that assessing the impact of research *ex post* can enhance the trust of decision-makers as well as society, in that the research they fund contribute to the solution of societal challenges or to fostering innovation.
- (14) GRC participants recognise that bibliometric and patent studies, econometric studies, case studies, narrative studies, surveys and programme evaluations all represent useful ways to assess different forms of research impact.
- (15) GRC participants agree that, in the assessment of research impact, they should not only focus on the impact of singular research investments, but also look at the impact of their broad portfolio of investments.
- (16) GRC participants acknowledge that *ex post* assessments of societal and economic impact can benefit from involving stakeholders outside the science system, where the societal and economic impact of research materialises.

Demonstrating the impact of research

- (17) GRC participants agree that target group-specific strategies should be selected when communicating the impact of research to the research community, society or government.
- (18) GRC participants agree that communicating research impacts outside of the research community requires not only focusing on the impact of the research as such, but also on how it was generated during the research process. This should contribute to an increased awareness for the temporal horizons and predictability by which research contributes to the solution of societal challenges or to fostering innovation.