



Science Europe Position Statement

On a New Vision for More Meaningful
Research Impact Assessment

JULY 2017



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Shaping the future of research

July 2017

'Science Europe Position Statement on a New Vision for More Meaningful Research Impact Assessment': D/2016/13.324/5

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Rethinking the Pathways to Impact and Societal Value of Research

Research has always had a wide impact on society, but this does not always come in the form of a clearly defined outcome, application, or effect. It frequently occurs as a more gradual development in the understanding of the consequences of new knowledge. It may also happen long after the corresponding research was done, or be the outcome of repeated interactions between research and society. This can make societal impact difficult or impossible to trace back and attribute to the specific research from which it originated. In addition, that research may have already been evaluated without this impact having been taken into account.

Despite this complexity, impact assessment is becoming an increasingly common practice. Research organisations, funders, and policy makers are all regularly asked to provide evidence for the effects of scientific and scholarly research on society, and for its contribution to societal progress and wellbeing. Understanding how research generates value and benefits for society is the main challenge in dealing with the practise of research impact assessment.

The Value of Science

Science Europe advocates using the notion of ‘value’ of research to address this challenge. It is wider than ‘impact’ and reflects the intrinsic value of scientific research and its capacity to generate new knowledge, hence new benefits for society, even when this is not directly measurable in clearly defined instances of impact. It also recognises that different types of research may have different types of impact that cannot be easily compared. A broader variety of societal benefits needs to be taken into account to create a better understanding of the true value of scientific research.

Impact assessment practices should integrate and reflect the many ways in which research can generate this value for society, as well as the wealth of benefits emerging from different scientific and scholarly disciplines and findings. Adopting a broader notion of research impact, enriched by societal value, will contribute to making impact assessment more meaningful, and prevent damage to the research system as a result of the erroneous use of concepts or methods.

The Principles

The value of research can take many forms and can be found everywhere: from technological breakthroughs and practical applications to intangible cultural value and education; from political, social, economic, and environmental changes to intrinsic value that society attributes to knowledge itself.

Societal progress is a result of combining research outcomes with many other inputs. Research can contribute to this progress without producing immediate societal impact by itself: cultural, social, environmental and economic benefits can develop without the application of research results to

the direct production of new goods or services. Researchers themselves are increasingly asked to consider potential long-term benefits of their work and to combine curiosity- and challenge-driven research. The value generated by research and its numerous applications is frequently unanticipated and unexpected. This can make the identification, measurement, and assessment of research impact difficult, contestable, and – when used to inform research policy – may generate unintended effects on research activity.

Science Europe believes that the following set of principles should inform any decision about research impact assessment, and form the basis of a thoughtful, broad, and long-term strategy to orient the impact agenda at both national and European level.

Key Principles

1. No impact assessment practice can ever fully capture the value of research.

The contributions of research to society across scientific disciplines are highly diverse, in addition to the intrinsic value that research provides for continuous knowledge generation. This diversity cannot be captured by any single practice for impact assessment.

2. Different pathways connect research to its practical applications.

The ways in which research contributions find their way into society are also highly diverse. There is no single standardised pathway that links research to its practical applications.

3. A too narrow notion of impact can lead to misinformed decisions and risks undermining research independence.

Attempting to assess impact where it cannot be measured, or by using a wrong definition, can be extremely detrimental to the research system. The risk of defining impact as an immediate, one-directional effect of research on society to bring about observable and intended change, must be avoided. Consequently, impact assessment should avoid putting additional administrative burden on researchers and research organisations, and it must not have any negative effects on researchers' autonomy and scientific independence.

4. There needs to be methodological diversity for correct assessment of research impact.

Evaluation techniques and the availability of specific indicators should not drive assessments. Any research policy decision addressing impact assessment should be coherent with the objectives of the research itself.

5. Trust between research and society reinforces the potential for societal impact of research itself.

Productive interactions between researchers and society that lead to a diversified use of knowledge should guide research impact assessment policies.

6. The creation of knowledge that broadens the options available to society ('options value') should be taken into account in impact assessment.

Research organisations should identify the value that the research is expected to generate from the start, including the value that it can create for future generations.

The Actions

Impact assessment should be integrated into a research culture where the criteria of the evaluation strategy are based on the objectives of the activities being evaluated. It should also be kept in mind that not every research activity has a specific type of impact as its objective. It is important to consider the appropriate level of analysis (programme, project, research group, and so on) to define the framework and purpose of an appropriate research assessment policy.

To move forward with shared strategies and responsibilities between research organisations, policy makers, academics, and other stakeholders, decisions need to be taken towards a consistent framework to value the societal impact of research.

Research institutions should develop and bring forward a new vision of impact assessment to meet this objective. They should consider ways to support the following actions.

Actions

1. Help to include a **broad notion of impact** that incorporates the societal value of research in the practices and policies that will be implemented by research organisations, stakeholders, and policy makers in Europe.
2. Invest in **understanding how impact processes vary across different environments** where research activities or projects are conducted.
3. Adopt **flexible approaches for dealing with impact assessment and ensure diversity of methodologies**. Any impact assessment methodology should ensure that indicators used as part of an assessment that attempts to show causal links between the research and observable effects, are integrated into narratives and/or quantitative models.
4. Support a **process of mutual trust** between researchers and society. This includes facilitating close interaction between evaluators, researchers, policy makers, and research managers, as well as developing tools and incentives for researchers to reward their societal engagement.
5. Recognise the impact of **international collaboration** in research and promote it with appropriate strategies aimed to facilitate the participation of societal actors in this fundamental aspect of research.
6. Adopt meaningful strategies that **emphasise the importance of knowledge creation and the wide spectrum of values and options that research brings to society**. These should take into consideration the long-term effects of research in developing new impact-assessment policies and in promoting impact pathways.

Conclusion

There is great diversity in the ways in which research brings its immense value to society. Some of these ways are indirect or intangible and cannot easily be measured by strictly defined impact assessment criteria. Others are long-term or unpredictable and may not yet be visible at the time that the research is evaluated.

Impact assessment can provide powerful and valuable information for decisions about research policies, programme design, and the allocation of resources on condition that they are adapted to the specific purposes of the research being assessed. For some types of research, impact assessment may provide essential elements for decision making, while for others it may not be adequate at all. But in all cases, it should be acknowledged that no single indicator or methodology of impact assessment can ever capture the full value of research and predict all of its innumerable contributions to society. Ultimately, the best way to maximise the value of research to society is by ensuring that the research produced meets the highest standards of quality and excellence.



Science Europe is a non-profit organisation based in Brussels representing major Research Funding and Research Performing Organisations across Europe.

More information on its mission and activities is provided at www.scienceeurope.org.

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