

Demonstrating the impact of research to society is a worldwide challenge

May 6 2019



Credit: CC0 Public Domain

Different societies have different expectations about the impact of research. Many seek immediate results from public investment in the various knowledge areas. However, warn heads of research funding

organizations, it is important not to overlook the fact that many research projects have an impact only after many years, and should be considered a store of knowledge for the future.

The growing demand for impactful research and the different ways of responding to such expectations were central concerns at the 8th Annual Meeting of the Global Research Council (GRC), held in São Paulo, Brazil, on May 1-3, 2019.

Attended by some 50 heads of research funding agencies from the same number of countries on all five continents, the meeting was organized by the São Paulo Research Foundation (FAPESP), Argentina's National Scientific and Technical Research Council (CONICET) and the German Research Foundation (DFG).

For Molapo Qhobela, CEO of South Africa's National Research Foundation (NRF), demand for impactful research has always been there but has probably intensified in the last 15 years. "To some extent the successes of science have led nations to believe in the power of knowledge to develop their societies," he said. "So as we show that this power can change people's lives, they expect this to happen and demand more. I believe this demand strengthens from time to time."

For Carlos Henrique Brito da Cruz, FAPESP's scientific director, in addition to the natural desire to produce impactful research, universities and funding agencies are pressured by this demand step up their efforts to demonstrate to society how research has an impact.

Brito stressed that curiosity-driven research should continue to be encouraged, even if its outcomes become visible only many years later. "Here in Brazil in the 1970s, there was a decision to try using ethanol as an automotive fuel because we had a problem with fossil fuel prices. This acted as an incentive to grow more sugarcane and process it to

produce ethanol for the domestic market. Only 10 years later was it realized that this was also a good way of reducing greenhouse gas emissions," he said.

Ex post impact assessment

To meet this demand from society, mechanisms are being created by governments, universities and research [funding agencies](#) in different parts of the world to assess the impact of research ex post, i.e. after the results are published.

In the United Kingdom, university departments must contribute to a portfolio of case studies assessing the impact of their [research projects](#) in the past seven years. The first criterion is the number of people affected.

"If you improve the quality of the lives of millions of people, that's a big impact. On the other hand, if you save the lives of a relatively small number of people, that's also a very significant impact," said David Sweeney, Executive Chair of Research England, a Council of UK Research and Innovation (UKRI).

The impact of research in areas such as the humanities is also assessed, including studies in history that contribute to tourism in certain regions, for example, or research in philosophy that helps establish ethical initiatives relating to climate change.

"There are plenty of opportunities for researchers in the humanities to demonstrate the impact of their work, but based on criteria defined by other professionals in the same field and not in terms of economic impact, for example, as you'd do for a major investment in engineering research," Sweeney said. "The general principles are the same. We expect academics working in a given field to determine the relevant

criteria for that field."

Indonesia's research infrastructure is open to non-university actors, who can also make use of the facilities available to academics. "In the last three year we've asked research centres to open the doors of their infrastructure to private enterprise, including industry. This facilitates collaboration among users of all kinds," said Laksana Tri Handoko, Chairman of the Indonesian Institute of Sciences (LIPI).

For Claudia Guerrero Monteza, Director of International Cooperation at Panamá's National Department of Science, Technology and Innovation (SENACYT), one of the priorities should be to improve people's understanding of what societal impact means and make it part of funding instruments and policies.

"In Panama, for example, scientists committed to society have finally internalized the concern with societal impact," she said. "We've learnt that this means implementing codes of ethics and understanding the implications of participatory methods for sharing and producing worldviews, knowledge and practices."

This year Zimbabwe will embark on studies designed to produce a better understanding of the impact of its research. "A model for ex post impact assessment may be developed and could be adapted for use by other African countries. This should be our priority, given the growing demand to demonstrate research impacts in Africa," said Susan Muzite, Executive Director of the Research Council of Zimbabwe (RCZ).

Different realities

For John-Arne Røttingen, Director-General of the Research Council of Norway (RCN), the roles and responsibilities of funders vary according to each different context. Some organizations focus solely on funding

basic research, while others must deliver innovation to society.

"I don't think this is a choice," he said. "Research and innovation ecosystems must have all these capabilities. Society will continue demanding more evidence and more direct action. We know it's hard, but it's possible to demonstrate this impact ex post."

Funding agencies must be clear about the different approaches such ecosystems require, Røttingen added. In the global context some societies naturally feel a more urgent need for innovation and improvement than others.

"We should respect these differences and empower all these actors so that research has both short- and long-term impacts. We must invest sustainably in research and innovation systems to contribute to the development of these places," he said.

Provided by FAPESP

Citation: Demonstrating the impact of research to society is a worldwide challenge (2019, May 6) retrieved 28 April 2024 from <https://phys.org/news/2019-05-impact-society-worldwide.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.