

Exploring Societal Impact *Part Three: Researcher support and attitudes*

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ADVANCING
DISCOVERY

About this report

This report forms the third part of a three-part summary of the findings of a global survey with more than 9,000 researchers, conducted in June 2019. The work took place as part of a joint project between Springer Nature and the Association of Universities in the Netherlands (VSNU), [Towards societal impact through open research](#).

The goals of the survey were to better define the criteria for research impact in relation to the UN's 17 sustainable development goals, asking researchers what motivations are relevant where their work relates to one of these SDGs; to which audiences is impact generation focused outside of academia; to what end do researchers undertake activities to generate impact as part of their work; and how important it is. The research also aimed to identify means of support for impact generation, from the library, institution, funder, publisher or from other third parties.

In addition to analysis of global trends, this report highlights findings from a subset of 99 responses from researchers in the Netherlands. However given the small sample size, these highlights should be treated with caution.

The findings from this survey will be used to develop a best practice toolkit for researchers, focused on the specific needs of researchers in the Netherlands, working on individual SDGs. The toolkit will be made freely available from the project website.

For further details about our methodology and the demographics of the survey respondents, please see the [Appendix](#). A full list of survey questions and the raw data can be downloaded from [Zenodo](#). Part one and two of the report can be found [here](#).

Headline findings:

A quarter of respondents receive no support for increasing the societal impact of their research

- Of those that did receive support, most say that it came from part of their institution or from colleagues
- Of those receiving support from their institution, most say they are supported by their research office or their communications department
- The two most common types of support are financial or communications support (e.g. press releases or media coverage)

More than half of respondents feel research funding should be more strongly linked to demonstrable societal impact

- 60% feel that funding should be tied more closely to societal impact, however 19% disagree
- This was most strongly felt by younger researchers (71% who first published in 2010 or later strongly or somewhat agreed)
- Respondents who agree were most likely to point to the purpose of research
- Respondents who disagree were most likely to point to pragmatic reasons, for example that societal impact is not of equal relevance across all disciplines, was difficult to measure and would likely only manifest over the long-term.

Section 1: Support for increasing impact

This section explores:

- What support is received with regards to societal impact?
- Who is providing the support?
- What types of support are reported?

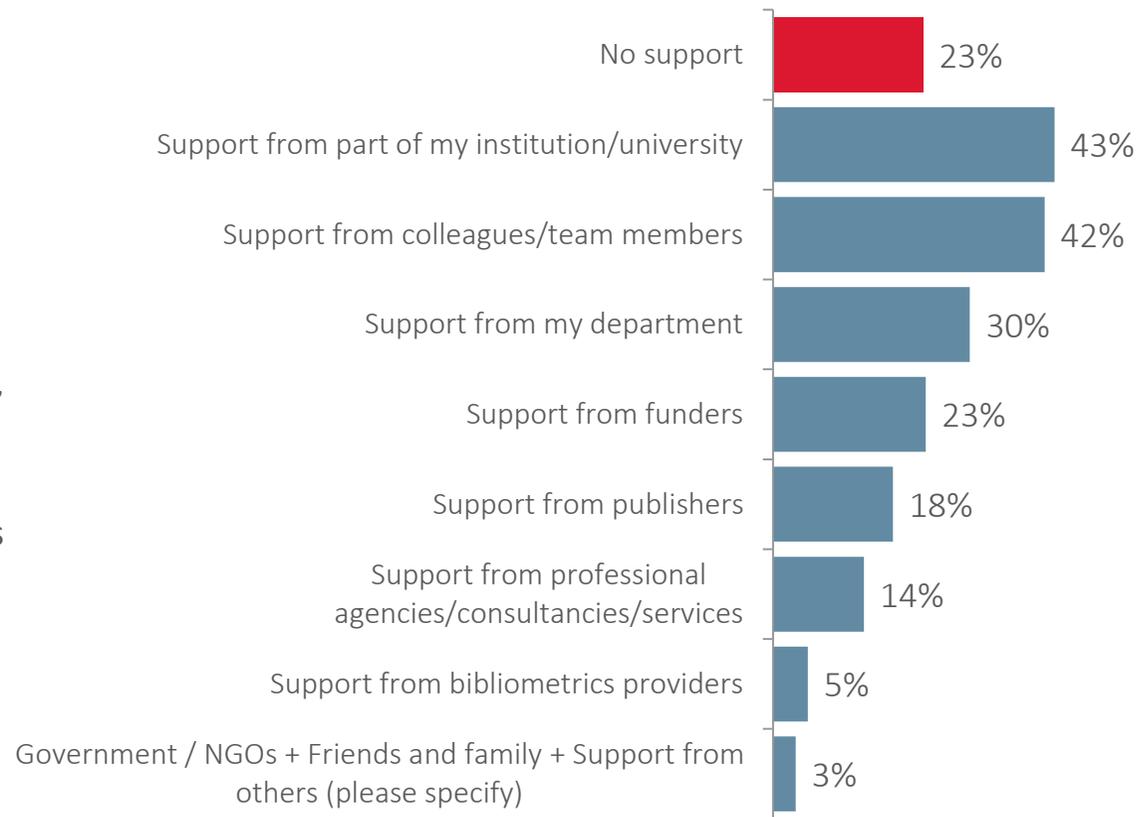
Support for activities to increase societal impact

A quarter of respondents say they receive no support for increasing societal impact

Nearly a quarter of respondents said that they received no support for increasing the societal impact of their research:

- Of those that did receive support, most answered that it came from part of their institution (43%) or from colleagues (42%)
- 18% said they got support from publishers, and 14% said they were supported by professional agencies, consultancies or services
- Respondents from Europe reported the lowest levels of support (28% vs a mean of 23%). This was notably higher for respondents from the Netherlands, where only 19% reported no support.

What support do you get, if any, for activities that are intended to increase the societal impact of your research? (n=5,350)



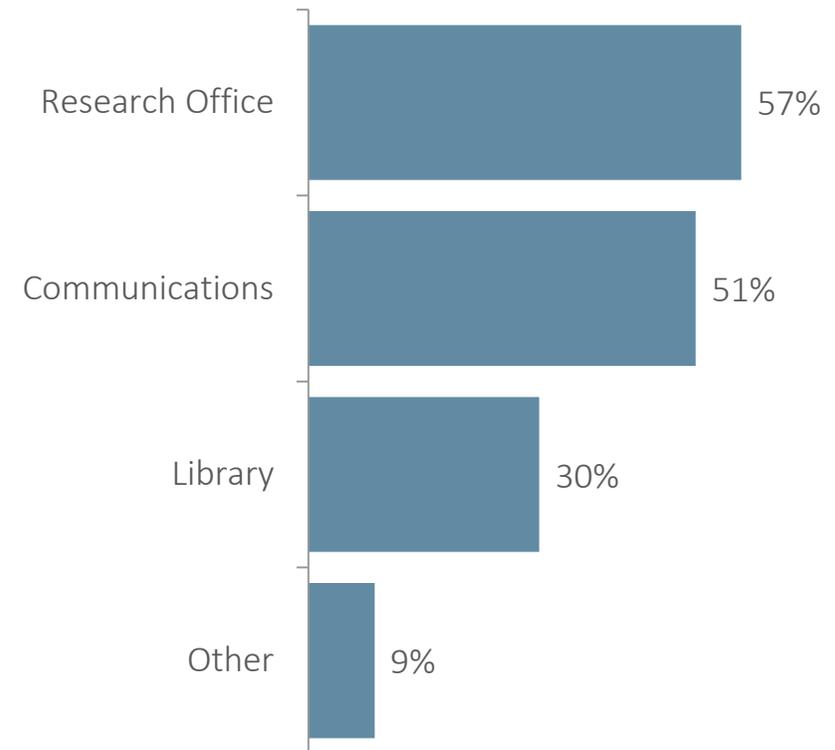
Supporters of activities to increase societal impact

Most support comes from research offices and communications departments

Of those receiving support from their institution, most said they were supported by their research office or their communications department. Around a third reported that they were supported by their library.

Although there was little variation by region, Chinese respondents reported a much higher rate of support by Communications departments (68%) and India was more likely to say the library played a role (46%).

Which part(s) of your institution provides support in increasing the societal impact of your research?
(n=2,299)



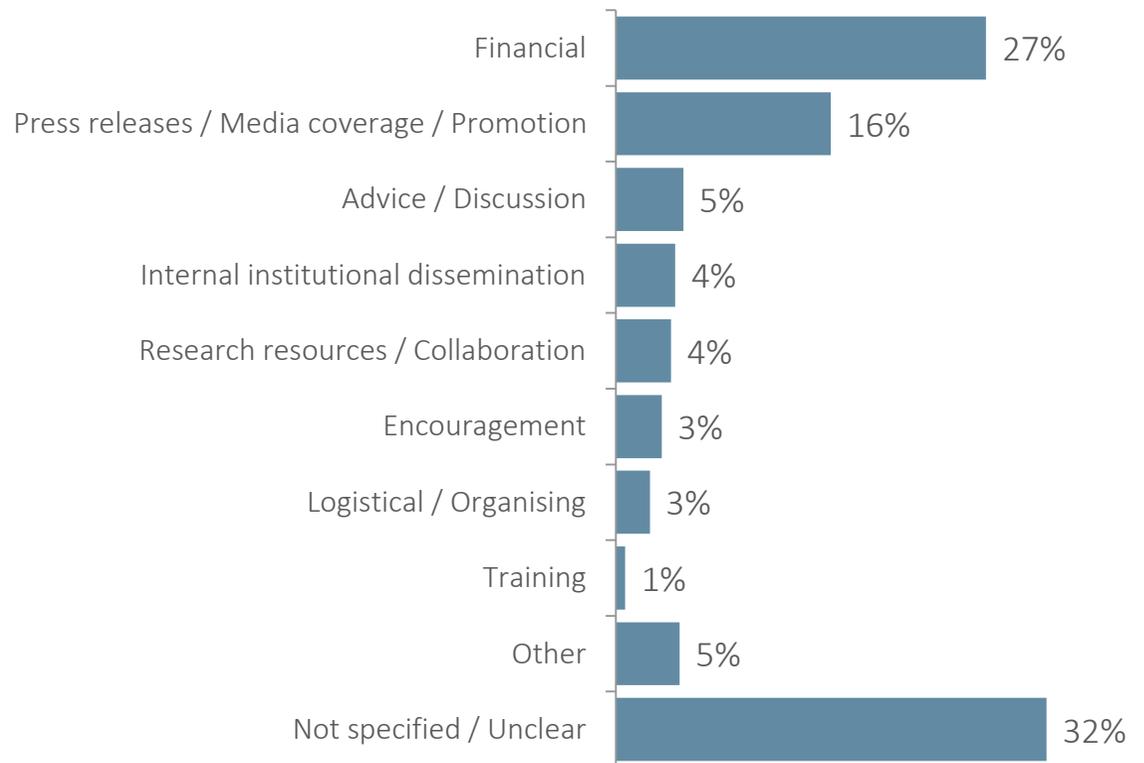
Types of support

The most commonly cited types of support are financial or professional communications activity

For respondents who said they received support, the two most common types of support were:

- Financial – either grant money or separate funds that could be used to attend conferences or promote the research in some other way
- Press releases / media coverage / promotion – a wide variety of types of support provided by another party outside the research team, either inside or outside the institution
- Approximately a third of responses did not specify what type of support they received or the response was unclear.

Please describe the type of support you have received in increasing the societal impact of your research (Coded from open texts. n=2,502)



Section 2: Attitudes to societal impact

This section explores:

- Do researchers feel societal impact should be more closely tied to funding?
- What further thoughts do respondents have on the topic of societal impact?

Should funding of research be more tied to societal impact?

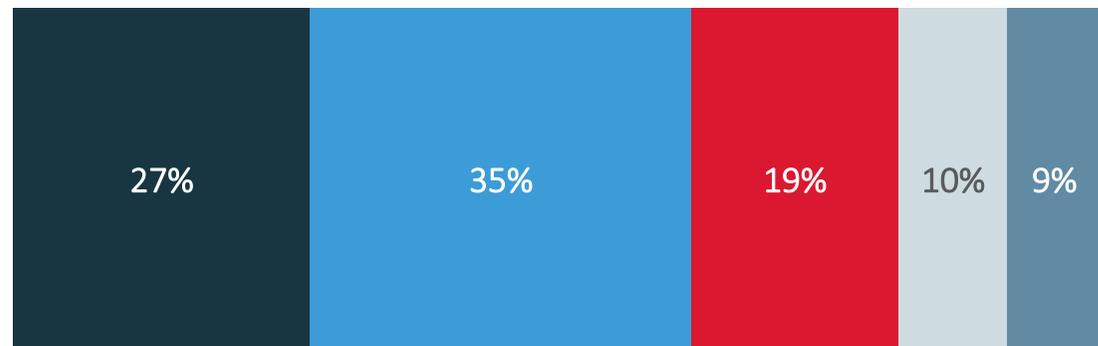
Most – but certainly not all – researchers feel that funding should be tied to societal impact

Over 60% of respondents agreed with the statement that research funding should be more strongly linked to demonstrable societal impact, with 19% disagreeing:

- This was most strongly felt by **younger researchers** (71% who first published in 2010 or later strongly or somewhat agreed), and **researchers from medicine** (68% strongly or somewhat agreed)
- By contrast, there was lower agreement from researchers in Physics/Chemistry/Materials (54%) and Arts & Humanities (43%).

“The funding of research should be more strongly linked to demonstrable societal impact” (n=5,147)

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree



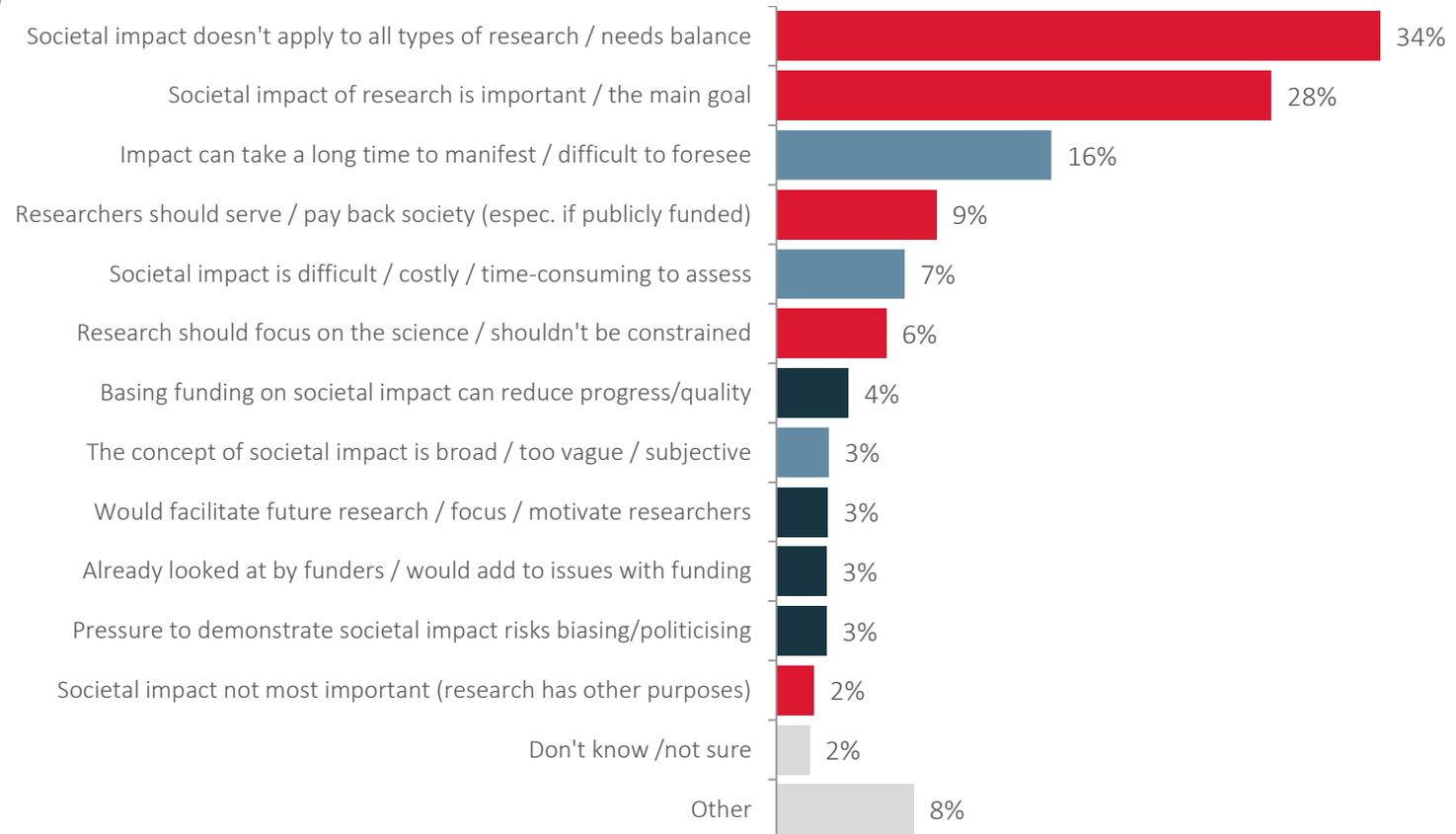
Should funding of research be more tied to societal impact?

The majority of respondents point to the purpose of research and sciences in why funding should or should not be more strongly linked to societal impact

Respondents were asked to explain their reasons why funding should be more strongly linked to demonstrable societal impact, or not.

Open comments concentrated around three topics:

- **The purpose of research** and science
- **Pragmatics** related to measuring and demonstrating societal impact
- **The consequences of focusing on societal impact** in general or on its relation to funding more specifically



Should funding of research be more tied to societal impact?

Those who agreed funding should be linked to societal impact were more likely to give reasons related to the purpose of research

The majority of respondents (62%) either strongly agreed or somewhat agreed with the statement that “the funding of research should be more strongly linked to demonstrable societal impact”.

PURPOSE:

Those who agreed with the statement tended to make connections between the purpose of research and wider social good, such as benefits to humanity, improving lives, giving back to society and being accountable to the public:

- 45% of responses were about how societal impact of research is important or even should be its ultimate goal.
- 15% of responses expressed a sentiment that researchers should give back to society or should be accountable to the public, especially if they were publicly funded.
- However, 19% of those who agreed also brought up the point that not all types of research have a demonstrable societal impact and that there needs to be a balance in funding a variety of research – both applied and pure.

The research world is funded by tax payers' money and hence, as a matter of accountability and pay back to the society, the research findings should have a demonstrable societal impact sooner or later. This is the only way society will get better and will lead to overall improvement in mankind and society.

I think social impact is important, but I have also done research on very obscure aspects of the biology of very obscure animals. All science is good, if it is good science. And it is the methodologies and not the social impact that first and foremost decide whether it is "good".

Should funding of research be more tied to societal impact?

Societal impact may not apply to all types of research

Of the 19% who neither agreed nor disagreed, many pointed to the purpose of research and pragmatic reasons why funding of research should be more strongly linked to demonstrable societal research:

PURPOSE:

- 56% of those who neither agreed nor disagreed felt that societal impact doesn't apply to all types of research and/or there needs to be a balance of funding different types of research.

PRAGMATICS:

- 21% commented on the fact that societal impact can take a long time to manifest or is difficult to foresee when designing and carrying out research.
- 12% thought that societal impact was difficult to demonstrate.

If there are no standards for measuring it, then it cannot be accounted. Moreover, basic information will have impact beyond when the grant closes, so it is impossible to prove it to the funders in time. And years later the funders cannot make anybody accountable.



Should funding of research be more tied to societal impact?

Those who disagreed that funding should be linked to societal impact were more likely to point to pragmatic reasons

Of the 19% who disagreed, respondents tended to highlight the difficulties and problems associated with expectations that research should lead to demonstrable societal impact.

PURPOSE:

- 53% stressed that some types of research should not be expected to deliver societal impact and there should be a balance in funding a variety of research types
- 15% believed research is about improving science and knowledge and shouldn't be constrained by societal agendas

PRAGMATICS:

- 33% highlighted impact can take a long time to manifest and/or is difficult to foresee
- 12% said societal impact was difficult to demonstrate: either being time- or resource-consuming or hampered by researchers not knowing how to do it

CONSEQUENCES:

- 12% believed that basing funding on societal impact reduced quality of research or even scientific progress.

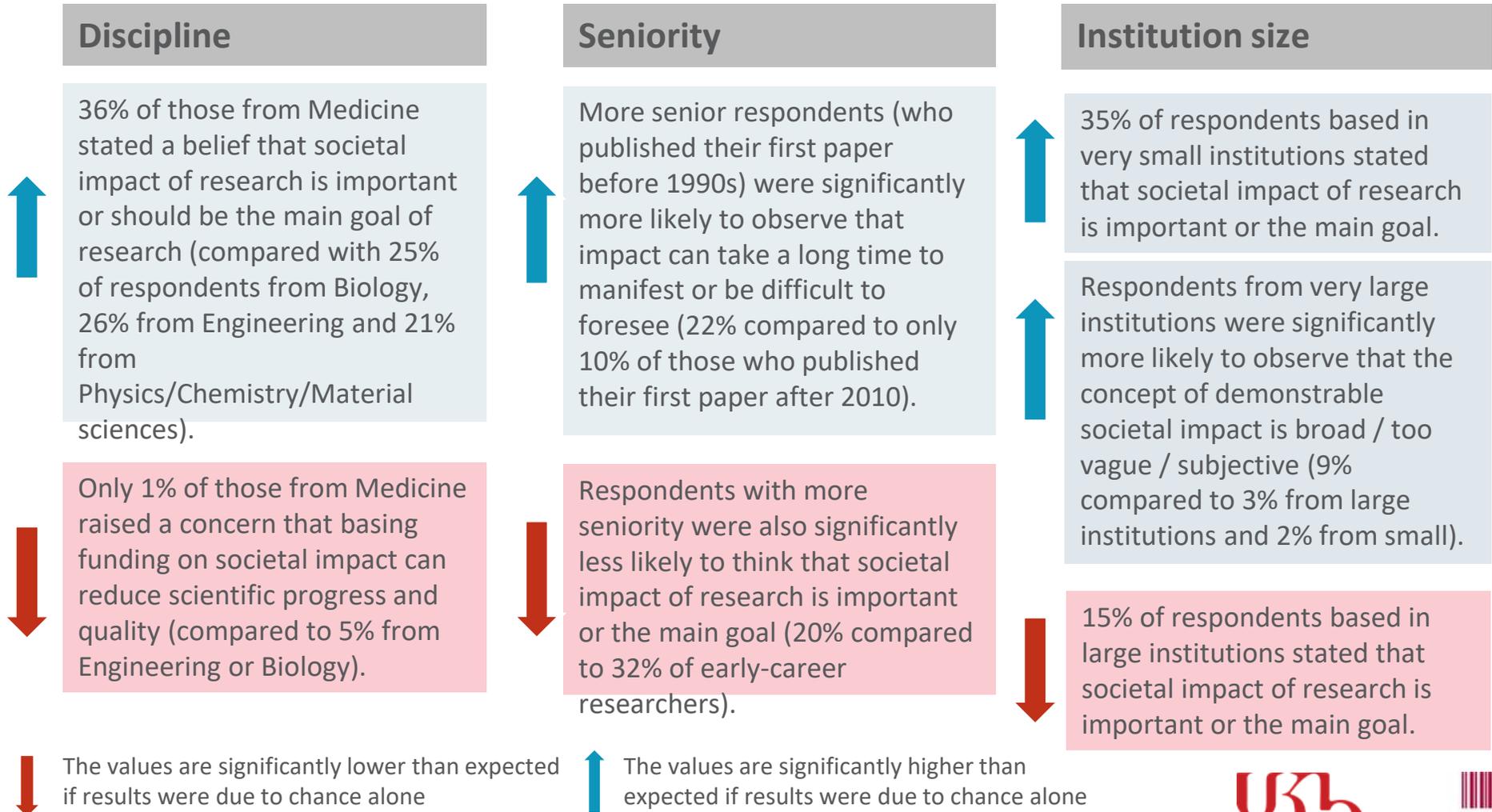
There has been a push towards science with expected benefits for society, yet devising reliable tools to predict and measure the social impact of research remains a major challenge.

Demonstrating societal immediate impact has had a negative effect on funding profiles in the country where I work, leading to the proliferation of repetitive, scientifically weak proposals that have poor basic science inbuilt.



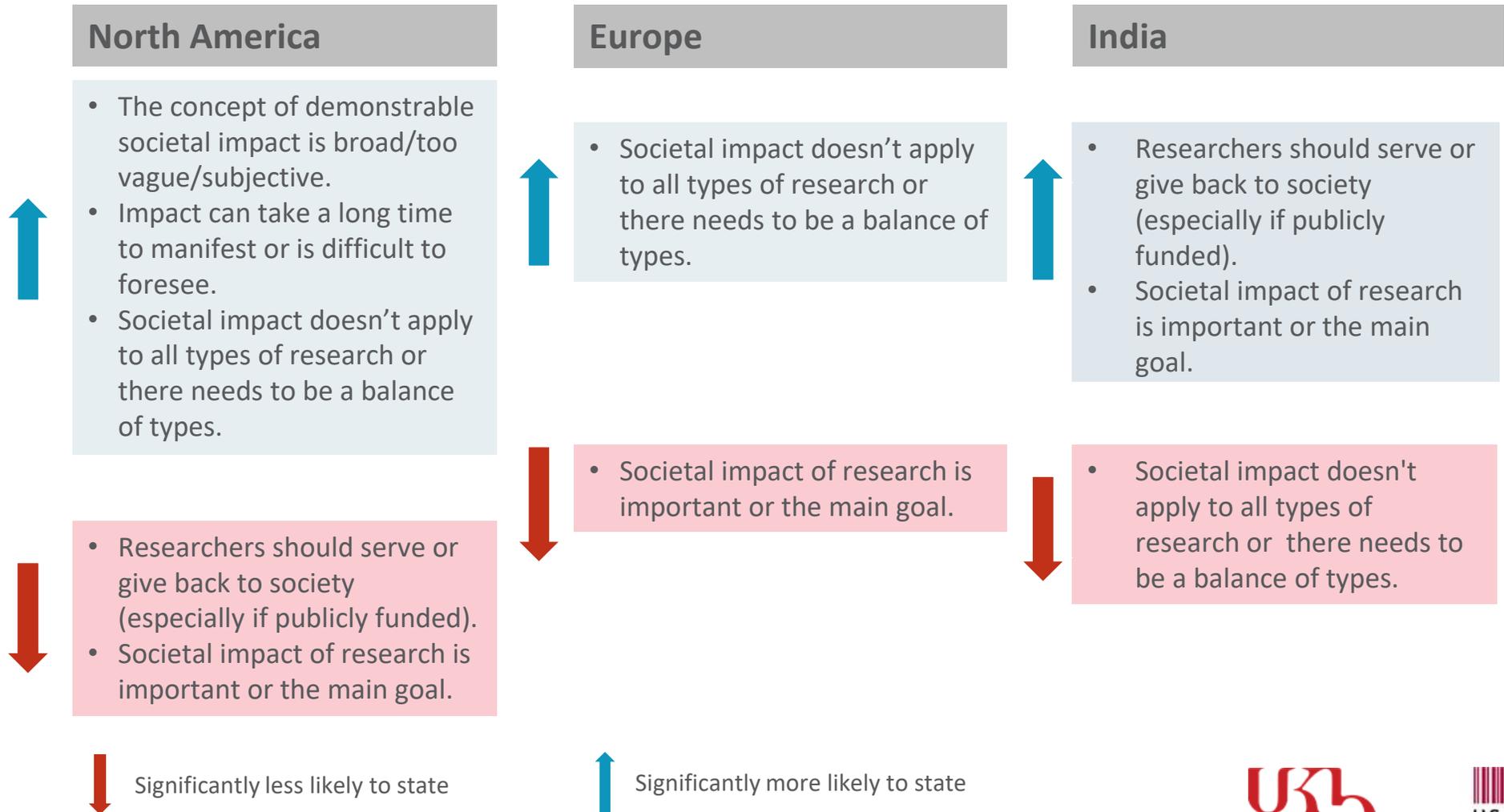
Should funding of research be more tied to societal impact?

Variance by demographics



Should funding of research be more tied to societal impact?

Variance by region



Further thoughts on the topic

Several comments suggest that there is more funders, publishers and institutions can do

FUNDERS:

- One of the most popular recommendation was a call for more funding or more variety in funding, such as funds available to developing countries
- Many also restated a need for more balance in funding across different types of research, including pure science

PUBLISHERS and JOURNALS:

- Most comments were about the importance of more open access

INSTITUTIONS:

- Some wanted institutions to take societal impact more into account in research evaluations
- Others stated it should not be linked to promotion

Other recommendations included:

- A call for support for researchers in enhancing or demonstrating the societal impact of their research
- The need for more research on measuring research

Until publishers don't [prevent] researchers to maintain or freely use their published data, and request thousands of euros per opened access publication, it is difficult to increase societal impact.

Societal impact is not always related to global reach of research. There is growing obsession from journals (with Nature being a remarkable example) about global research, global impact. The reality is different. Funding organizations are more and more interested in national, local research and thus national and local impacts.

There should be a more organized methodology of assessing and tracking societal impact and ample training opportunities should be provided for researchers.

Many universities still consider societal impact as a 'nice to have'. Good that you do it, but it doesn't count towards tenure or anything. Funders have started changing, fortunately.

Further thoughts on the topic

Many comments showed support for demonstrating societal impact

Comments supportive of societal impact

There were many comments in support of enhancing the societal impact of research or reaffirming the importance of societal impact.

They tended to mention these arguments:

- science should benefit society or improve lives
- researchers have a moral obligation to contribute to society or make a change for the good
- publicly funded research should be shared with and benefit the public
- researchers should be held more accountable to the public.

The support for societal impact was also visible in comments that highlighted the need for researchers and the science ecosystem to be more mindful of societal impact and enhance it further.

Many commented that there is more room for improvement and more effort should be dedicated to making research more impactful.

Still money constitutes a big obstacle to researchers in low-resourced countries to consider tracking and spreading the societal impact of their research.

It would be great if there would be a possibility or mechanism on how to favor research that has a strong orientation to practical implementation, which frequently includes high societal impact. I sometimes get the impression that there is so much research going on for topics that are not always of direct practical use and thus are not doing much for the society / world population. Therefore, many financial resources, amongst others, are more or less "lost" to my opinion and also space in journals is getting more and more rare, i.e. it is very difficult to be accepted by a journal because these have to deal with too many submissions.

Not less than 50% research is undertaken for projection of the author's own self as a researcher rather than for having some impact on society.

Further thoughts on the topic

However others were critical of a focus on demonstrating societal impact

Critical thoughts on societal impact

Many comments held negative views on societal impact – they tended to either focus on negative direct or indirect consequences of the impact agenda, or expressed pragmatic concerns around demonstrating impact.

NEGATIVE CONSEQUENCES:

- societal impact too often focuses on innovation that has economic benefits rather than wider social good
- societal impact focuses too much on large-scale impact
- societal impact is often agenda-driven and doesn't necessarily offer the best solutions for society
- societal impact risks being reduced to another bureaucratic metric
- research can also impact society in a negative way
- Too much focus on societal impact can be damaging to the quality of research.

PRACTICAL CHALLENGES

- societal impact needs lots of funding and monitoring
- societal impact can take a long time to manifest
- measuring and demonstrating societal impact is problematic
- the concept of societal impact is vague and subjective.

There is an important distinction between research focused on "innovation", which most often has potential economic benefits for a small number of stakeholders, and "societal benefits" that have broader benefits. The general trend has been to emphasize the former.

Although there is a requirement to demonstrate societal impact in grants and when discussing the results of a study, there isn't any practical way to be 100% sure if it will create a societal impact. Being cited and having indexes help, but it doesn't necessarily guarantee that there is an actual impact being made.

I suspect "societal" impact will have to be part of a broader transformation in research cultures, involving changes like Public/Patient Involvement and Shared Decision Making. I worry, though, that any systems measuring societal impact will become easy to game, as they get absorbed into accounting culture in the modern university.

Further thoughts on the topic

Others highlighted that societal impact is often not the main purpose of research

General comments about the purpose of research

Many respondents used this question to highlight that societal impact is not the only, or even main, purpose of research – restating the points mentioned elsewhere, including:

- Societal impact is not applicable to all types of research – for example, fundamental or pure science is just as important and needed.
- Others felt strongly that societal impact should not be expected from research, which should focus on scientific outcomes alone.

The best - and most useful - research begins with curiosity, not social need. Emphasizing societal impact narrows researchers' scope and actually stifles their potential impact. At the bottom of this situation is an inability to wait for results to become useful and a desire for immediate impact. Science does not work that way.

There is far too much emphasis on societal impacts and knowledge transfer these days. Researchers need to be left alone to make discoveries, not spend their time justifying why their discoveries might or might not benefit society right now (or in the near future).

Societal impact is important for research, but within limits. If overdone it may lead to too much goal oriented research, biased research, opportunistic research which may mean lower quality, lower reliability research.

Thank you

Find out more about the project and download further resources from <https://www.springernature.com/gp/researchers/sdg-impact>

The story behind the image



Antarctica meltdown could double sea level rise

Researchers at Pennsylvania State University have been considering how quickly a glacial ice melt in Antarctica would raise sea levels. By updating models with new discoveries and comparing them with past sea-level rise events they predict that a melting Antarctica could raise oceans by more than 3 feet by the end of the century if greenhouse gas emissions continued unabated, roughly doubling previous total sea-level rise estimates. Rising seas could put many of the world's coastlines underwater or at risk of flooding and storm surges.



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