

KYSELYLOMAKE: FSD3160 TUTKIMUKSEN LAAJEMPI VAIKUTTAVUUS YHTEISKUNNASSA
2016

QUESTIONNAIRE: FSD3160 BROADER IMPACT OF RESEARCH IN SOCIETY 2016

Tämä kyselylomake on osa yllä mainittua Yhteiskuntatieteelliseen tietoaarkistoon arkistoitua tutkimusaineistoa.

Kyselylomaketta hyödyntävien tulee viitata siihen asianmukaisesti lähdeviitteellä.

Lisätiedot: <http://www.fsd.uta.fi/>

This questionnaire forms a part of the above mentioned dataset, archived at the Finnish Social Science Data Archive.

If the questionnaire is used or referred to in any way, the source must be acknowledged by means of an appropriate bibliographic citation.

More information: <http://www.fsd.uta.fi/>

Detta frågeformulär utgör en del av den ovannämnda datamängden, arkiverad på Finlands samhällsvetenskapliga dataarkiv.

Om frågeformuläret är utnyttjat eller refererat till måste källan anges i form av bibliografisk referens.

Mer information: <http://www.fsd.uta.fi/>

3. Cover letter

Dear researcher,

The Academy of Finland has reviewed the state of scientific research in Finland regularly since the 1990s. The reviews have focused on the resources, outputs and scientific impact of Finnish universities and government research institutes by discipline and organisation. As a special theme in the *State of Scientific Research in Finland 2016* review, we also survey the broader impacts of research in society. Our goal is to make various impacts visible and illustrate their pathways beyond academia.

Research impacts beyond academia are surveyed in four research fields: 1) ecology, evolutionary biology and ecophysiology, 2) history, 3) materials science and technology, and 4) medical engineering and health technologies. The target group of this survey consists of researchers active in these fields in Finland. Respondents have been identified by using the application data, expertise and networks of the Academy of Finland.

In this survey, we collect data on the interactions, influences and broader impacts of research. Scientific impacts as such are not included in this survey; they are assessed by other means.

We kindly ask that you respond by 9 February 2016. By responding to the survey you can also influence the way in which research impacts will be monitored in the future, and how they are discussed in science policy.

All responses will be treated confidentially. The survey results will be published as part of the *State of Scientific Research in Finland 2016* review in the form of statistics, summaries and figures from which individual respondents cannot be identified. Case-specific examples will not be used without the permission of the respondent. The survey will be complemented with focus group interviews to be held with select survey respondents and stakeholder groups. For this purpose, we will identify individual respondents on the basis of their response address. Those data will only be used for correspondence with potential interviewees.

We plan to open the anonymized data generated in this survey, with the exception of responses to the open-ended questions, to the use of researchers and other interested parties after the publication of the review. In opening the data, we will follow the principles set by the Open Science and Research Initiative, see <http://openscience.fi/>.

We are happy to answer any questions you may have. For further information about the survey, please contact Dr Katri Huutoniemi, Science Adviser at the Academy. For more information about the *State of Scientific Research in Finland 2016* review and its impact assessments, please contact Dr Anssi Mälkki, Senior Science Adviser at the Academy, or see the webpage www.aka.fi/tieteentila (>In English).

Sincerely,
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4. Questionnaire

Survey on the broader impacts of research in society

BACKGROUND INFORMATION

1. Years of experience in research after doctorate *

- Less than five years
- 5-10 years
- More than ten years

2. Which of the following disciplines does your research represent? *

- Ecology, evolutionary biology and ecophysiology
- History
- Materials science and technology
- Medical engineering and health technologies
- None of the above (The survey ends here for your part. Please finish the survey by clicking on *Next*, which will take you directly to the last page to submit your responses.)

3. Which of the following descriptions best captures your role in academia? *

Please answer **all** questions from the perspective of the selected role. If you are a leader of a research group, for example, think about the research of the entire group. If you work as an individual researcher, you can answer from your own perspective.

- Leader of a broad scientific network, unit, etc. consisting of several research groups
- Leader of a research group/principal investigator
- Member of a research group
- Individual researcher
- Part-time researcher
- I am no longer active in research (The survey ends here for your part. Please finish the survey by clicking on *Next*, which will take you directly to the last page to submit your responses.)

SOCIETAL CONTEXT OF RESEARCH

4. Principal site of your research *

- University
- Government research institute
- Company
- Other, please specify

5. Objective or purpose of your research *

How compatible are the following descriptions with the purpose of your research?

(5=very compatible, 4=fairly compatible, 3=neither compatible nor incompatible, 2=fairly incompatible, 1=incompatible, IDK=I don't know)

	5	4	3	2	1	IDK
The research aims to advance scientific understanding of some phenomena without obvious links to practical applications or societal needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The research aims to advance scientific understanding of some phenomena of practical relevance or timeliness.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The research aims to find new evidence or a new perspective that transforms/renews an existing practice or conception.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The research aims to solve some problems or find solutions in the realm of practice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. From where has your research received funding recently?

Please select all important funding sources.

- University's or institute's own core/budget funding (other than the self-financing share required for externally funded projects)
- University's or institute's self-financing share required for externally funded projects
- Academy of Finland
- Tekes
- Other public funding from Finland (e.g. ministries), please specify
- Foundation or fund, please specify
- Company
- EU
- Other public funding outside Finland, please specify

PATHWAYS TO IMPACT

7. In what way are the new knowledge, technology or know-how, created by your research, being conveyed beyond academia? *

Please assess the importance of the following pathways to impact in terms of your research. Importance in this context refers to the actual use of the pathway.

(5=very important, 4=fairly important, 3=neither important nor unimportant, 2=fairly unimportant, 1=unimportant, IDK=I don't know)

	5	4	3	2	1	IDK
Knowledge is disseminated through coordinated actions with other research fields (e.g. via multidisciplinary publications, conferences)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The results are transferred to potential users (e.g. the utilization of models, patents, guidelines)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research information is made openly accessible to the wider use (e.g. opening research data, open access publishing)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research is discussed with various stakeholders (e.g. at meetings, workshops)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowledge is interpreted for a general audience (e.g. via popular articles, exhibitions)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowledge walks with skilled people (e.g. expert mobility and training)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Researchers take action to influence others (e.g. public comments, appearances, lobbying)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research is done in an interactive process that involves actors beyond academia (e.g. participatory research, co-design)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acquiring new knowledge is already an intervention (e.g. addressing unquestioned beliefs or silenced issues, running social experiments)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. To illustrate your selections above, please briefly describe the pathways to impact that are most important to your research.

9. Please identify one or more of your publications or other outputs that have had an influence beyond academia.

Give the exact title and publication details of the output (or other identifiers) – we may trace its diffusion and use. Give also your own idea of where and how the publication etc. has been influential. The potential impacts of your research will be surveyed more extensively in later questions.

INTERACTION

It is often argued that research impact emerges through productive interactions. Interaction can be either direct (personal contacts) or indirect (e.g. the media, publications) and it can range from informal encounters to well-established forms of cooperation (e.g. advisory boards). In this section, we survey researchers' various interactions beyond their own scientific community. As different aspects of interaction are covered by separate questions, we recommend taking a look at the whole section (i.e. this page) before answering the questions.

10. What kinds of stakeholders, organisations or actors has your research deliberately interacted with?

Please select all groups with whom you have actively shared knowledge or viewpoints relevant to the research, such as about the framing of research problems or the meaning of research results. (If you have interacted with an actor that represents more than one of the following groups, select a group that best captures the interests of the actor in terms of your research.)

- Academic actors, beyond the scientific community in your field (e.g. other fields of research, other types of organisations) [A]
- Educational actors, beyond the scientific community in your field (e.g. polytechnics, curricula designers) [B]
- Industry and commerce (e.g. companies) [C]
- Public administrative actors (e.g. officials, policy-makers) [D]
- Civil society actors (e.g. nongovernmental organisations, societies, clubs) [E]
- Ordinary citizens or the general public (e.g. patients, consumers) [F]
- Other, please specify [G]

11. In what roles have the above stakeholders acted in your research?

If you selected more than one stakeholder group above, please specify the role(s) of each group by entering the letter (A–G) of that group after the selected role(s). One stakeholder group can have several roles.

- As a research partner
- As an adviser or overseer
- As a financial supporter
- As an active follower
- As an informant, inspirer or assistant
- As a knowledge user or beneficiary
- As a mediator or critic
- In another role

12. To illustrate your selections above (questions 10 and 11), please identify some of the most important stakeholders, organisations or actors that your research has interacted with, and tell a few words about the interaction.

Our goal is to understand the patterns of interaction. Case-specific examples will not be reported without the permission of the respondent.

13. Besides productive interactions, what other actions have you taken for your research to make an impact in society?

IMPACTS

The questions (14-17) in this section are based on the idea that research has an impact beyond academia when it contributes to developments that are considered valuable in society. Our goal here is to inquire about the contribution of your research to various developments, not about your personal preferences or values (even if they are often interconnected).

14. What are some of the concrete contributions your research has made to developments beyond academia?

Please identify one or more ongoing developments to which your research has made a positive contribution, and briefly explain the importance and nature of your contribution (e.g. what result or viewpoint has made the difference, where, to whom it matters, and how?).

15. What kinds of factors are likely to hinder the attribution of impact to your research, and/or the potential impacts to realize? *

Please assess the validity of the following statements in terms of your research.

(5=I strongly agree, 4=I agree, 3=I neither agree nor disagree, 2=I disagree, 1=I strongly disagree, IDK=I don't know)

	5	4	3	2	1	IDK
There is a significant time lag between the research and the realization of the impact (more than ten years).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Potential impacts depend a great deal on how the research succeeds (such as in the case of high-risk, high-gain research).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The realization of impacts depends essentially on other people, or on processes over which researchers have have very limited influence.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are clearly different opinions about the potential impacts or their desirability.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. Please tell a few words about the challenges involved in assessing the impacts of your research.

17. Where will the potential impacts of your research be seen in the (short or) long run?

Please select all developments to which your research, if successful, can make a contribution. If the categories provided below do not (sufficiently) capture the potential impacts of your research, please type in your own description of the impacts in the open-ended question on the next page (question 18).

Public institutions and services

- Preparation of policy-making, legislation or other regulations
- Renewal of teaching curricula; educational planning
- Improvements related to other public services (e.g. public security, transportation, social services)
- Improved function of public institutions (e.g. tackling problems, open discussion forums)
- Other impact on public institutions and services, please specify

Economy and economic renewal

- Improved business capability or competitiveness of individual companies (e.g. through new or improved products or services)
- Improved prospects for employment or expert work (e.g. through making experts more attractive for recruitment)
- New business activity; attraction of investments
- Development or renewal of the economic environment; adaptive capacity of the economy (e.g. structural diversity, new modi operandi)
- Other impact on the economy and economic renewal, please specify

Health and wellbeing

- Reduced morbidity or illness; improved physical or mental health
- Reduction of social problems; improved social welfare
- Improvement of healthcare
- Management or prevention of health-related risks
- Other impact on health and wellbeing, please specify

The environment and natural resources

- Reduction of environmental stress; improved state of the environment
- Sustainable use of natural resources; protection of biodiversity
- Sustainability of the built environment, infrastructures or land use
- Management or prevention of environmental risks; improved ecological resilience
- Other impact on the environment and natural resources, please specify

Human capacities and culture

- Strengthening of civilization, citizen participation or civil activity

- Protection of cultural diversity; improved cultural interaction or coexistence
- Development of environments supporting creativity, experimentation and learning
- Development of national or international community (e.g. national identity, global justice)
- Other impact on human capacities and culture, please specify

OPEN COMMENTS AND FURTHER PARTICIPATION

18. Other comments on the broader impacts of your research or on the assessment of research impact more generally.

Feel free to complement any of your answers above.

19. Would you like to participate in a focus group interview about the broader impacts of research in your field? *

A focus group is a semi-structured interview with a selected group of individuals, who are encouraged to share their views with other group members. One focus group will involve 4–10 persons invited from within and beyond academia. The interviews will take place in Helsinki in March/April 2016.

- Yes – I volunteer to be contacted about the interview
- Possibly – I volunteer to be contacted about the interview
- No – please do not contact me about the interview

20. If you volunteer to participate in the interview, please recommend potential stakeholders to be invited to the same focus group.

If possible, also name a contact person and give his/her contact details. (If you respond to this survey via the public link instead of a personal link emailed to you, please also give your own contact details!)

THANK YOU FOR PARTICIPATING!