Multidisciplinarity in Funding Instruments at the Academy of Finland

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## Public research funding in Finland



## Academy funding in 2017, by instrument

The Academy of Finland is funding basic science in all research fields which enables promotion and funding of multidisciplinary research


Researcher-oriented
funding

## - 246.8 m

- Academy Professors
- Academy Research Fellows
- Research costs of the above researchers
- Academy Project funding
- Centres of Excellence

Thematic funding
$€ 99.1 \mathrm{~m}$

- Academy Programmes and international cooperation
- ICT 2023 programme
- Strategic R\&D funding

Organisation-oriented funding €66.9m

- Funding for research infrastructures
- Funding to strengthen university research profiles

Other targeted funding
€28.6m

- International membership fees
- Researcher mobility
- Application review, Academy Programme coordination, development and maintenance of research funding information systems


## Method to analyse multidisciplinarity in proposals

- Algorithm based analysis
- Analysis is based on research fields indicated by the applicant
- Proposal is monodisciplinary if only one research field is indicated



## Thematic funding: Strategic research




## Multidisciplinarity on 2017 SRC proposals: Disruptive Technologies and Changing Institutions



## Thematic funding: Academy Programmes



- Support the regeneration of Finnish science by providing funding for research into specific themes
- Typical characteristics:
- Science-driven
- Multidisciplinary
- Promote science renewal
- International


## Multidisciplinarity on 2017 proposals for the Academy programme: Health from Science



## The Academy programme: Computational Science

- The instrumental goal of interdisciplinarity in the program has been largely achieved
- The funded research projects have successfully applied computational methods to understanding and solving complex problems in various domains of science and society, including domains that have not as yet fully exploited the advanced computing capabilities
- The added value of the programme was the multi- or interdisciplinarity and unlimited collaboration
- Enabled research spin-offs, changing of ideas and support from a wider international network of scientists
- Study executed by Dr. Huutoniemi as a part of programme evaluation 2018


## Majority of bottom-up research proposals ( $n=2357$ ) on 2017 were multidisciplinary

On 2017 September call - researcher oriented bottom-up projects

- $15 \%$ of all bottom-up Academy project applications were monodisciplinary
- $85 \%$ was multidisciplinary



## Questions raised by the data

- Effect on evaluation of proposals?
- Effect on criteria for expert panelist?
- Effect on decision making?
- Recognision of new openings?
- Applicants experience and feedback?
- Need for reflection!


## Next steps

- Validate used algorithms
- Is analysed multidisciplinarity in line with obderved one in proposals
- Compare results of algorithm based analysis with qualitative study
- Systemically follow development of multidisciplinarity on proposals in a yearly manner
- Recognise novel combinations of research fields implicated in proposals
$\rightarrow$ may indicate development of new research areas


## Conclusions

- Data analysis showcases the change ongoing already today in science
- Questions faced today request multidisciplinarity from bottom-up research
- Data analysis tool is needed to recognize the changing environment
- Wicked problems span several administrative domains / research fields
- Multi- and interdisciplinary research promote renewal of science
- International (non-thematic) initiatives for promoting interdisciplinary research
- ERC Synergy Grant
- NordForsk's initiative: Nordic Programme for Interdisciplinary Research


