

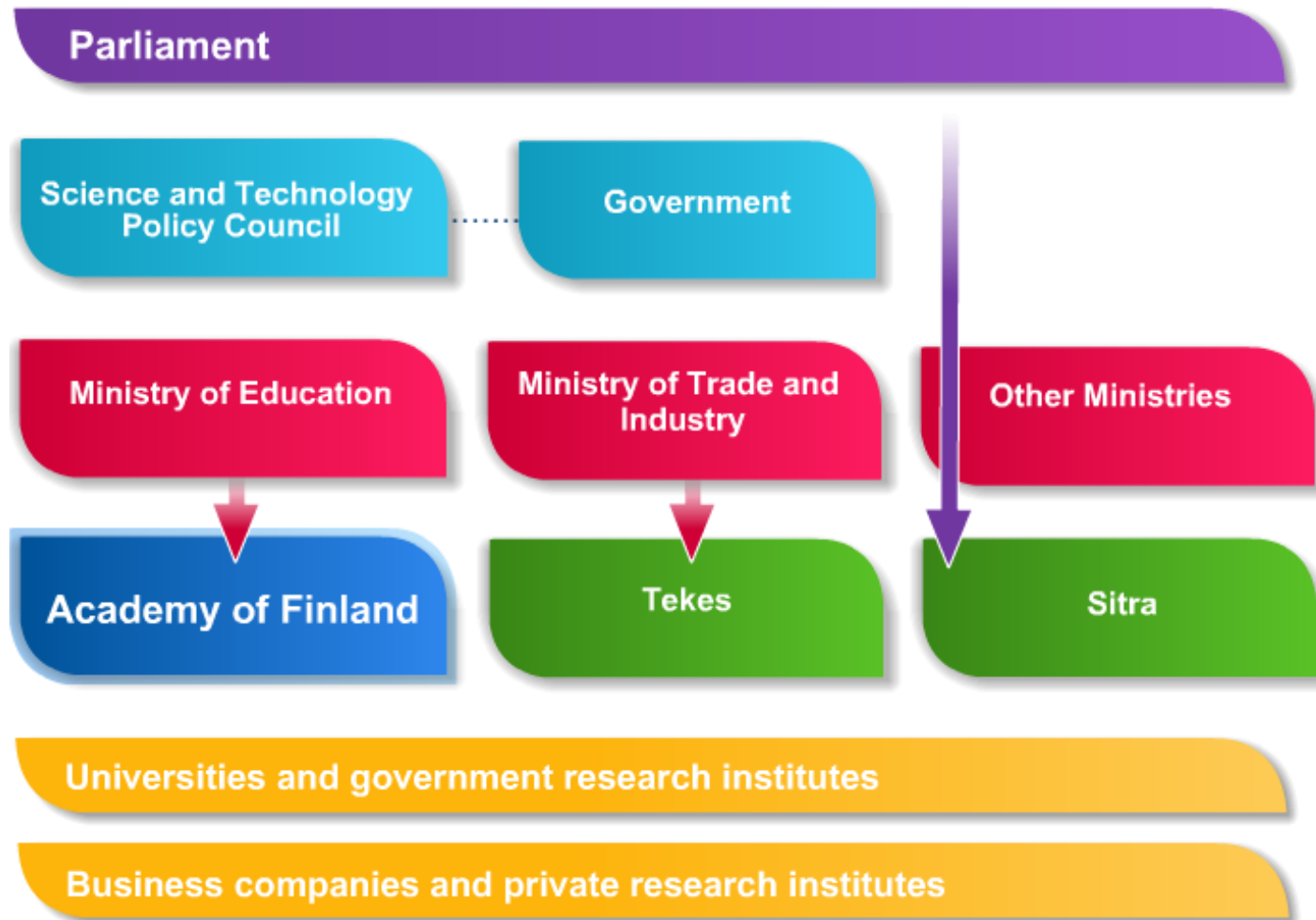


ACADEMY OF FINLAND
RESEARCH FUNDING AND EXPERTISE

Evaluation Activities at the Academy of Finland

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Public research funding actors in Finland





Academy of Finland in brief

- The Academy's tasks
 - to promote scientific research and its application
 - to develop international scientific cooperation
 - to act as a science policy expert
 - to provide funding for scientific research and other promotion of science
- In 2007, the Academy provides 260 million euros in funding for high-level scientific research
- The Academy's operations cover all scientific disciplines
- Each year some 3,000 people benefit from Academy research funding



Application for Academy research funding

- Open competition
- Awarded to the best researchers and the most promising young researchers
- Funding decisions based on scientific review of the research plan and the applicant as well as on research and science policy strategies
- Fixed-term funding
- Academy received applications worth €1.1 billion in 2006
- Academy made funding decisions worth a total of €239 million in 2006
- Research Councils processed in all 5,567 applications in 2006
 - several times more applications received than could be funded
 - heavy demands on selection procedure

Evaluation activities

A. The research system

Review of the state and
quality of scientific research
in Finland

Evaluation of disciplines
and research fields

B. Organisation

International evaluation of
the Academy's activities

Evaluation of funding applications

C. Operational processes

Evaluation
of research
programmes

Evaluation
of Centre of
Excellence
programmes

Evaluation activities at the Academy

- Evaluations commissioned out to third-party experts, usually from outside Finland
- Core mission is to conduct impact assessments and to develop the methods, indicators and procedures of evaluations
- Aimed at developing and improving the research and innovation system and the Academy's own operation and funding instruments
- Makes use of both existing reviews and assessments and future foresighting
- Evaluation activity branches out to three directions: national level, organisational level and funding instrument level



1 National level

Assessment of the state and quality of scientific research in Finland once during the three-year term of Academy's research councils

- in compliance with Government decisions on the development of education and research in Finland and with performance agreements signed between the Academy and the Ministry of Education
- a comprehensive overview of the Finnish research system as a whole
- published four times, i.e. in 1997, in 2000, 2003 and in 2006.

Discipline and research field assessments.

- a few discipline or research field assessments carried out each year
- a major influence on the esteem and development of the discipline in question



State and Quality of Scientific Research in Finland in 2006

- Main focus of the review was on assessing and foresighting the impacts of science and research
- In order to develop the necessary methods for this impact assessment, a survey was commissioned of the most appropriate tools available
- The impact of Academy research funding was assessed by an outside panel of national experts
- the Academy's Research Councils assessed the impacts of the research they had funded in separate reports
- The Academy collaborated with the Tekes (Finnish Funding Agency for Technology and Innovation) on the FinnSight 2015 foresight_project, which identified future challenges for innovation and research and key areas of competence in Finland
- Next review completed in 2009

Aims of discipline and research field evaluations

The purpose of evaluation is to

- provide information about the international standing and quality of Finnish research
- identify the strengths and weaknesses of the discipline or field of research in question and to explore the underlying reasons
- identify development needs and prepare recommendations for researchers, research organisations and funding bodies on how to raise the quality of research
- provide information about the societal, technical and economic impacts of research
- help to identify the weaknesses and development needs of Finnish research and the Finnish research system
- increase awareness of researchers and their achievements both in Finland and abroad.

Discipline and research field evaluations

Funding agency perspective

- how the investments have paid off
- get feedback on how to develop the discipline or research field

Researcher/research community perspective

- increase the exposure of the discipline or research field and raise its status
- get feedback on how it could be developed

In cooperation

- what the research community and funding agencies could do to raise the level of research

2 Organisation

- At the organisational level, external experts evaluate the Academy organisation and its processes regularly
- The Academy of Finland has been evaluated recently twice by external expert panels:
 - International evaluation of the Academy in 2004
 - Evaluation of the impact of Academy s research funding in 2006



3 Funding instruments

Funding Schemes

- General research grants
- Research programmes
- Centre of Excellence programmes
- Research posts: Academy Professor and Academy Research Fellow
- Finland Distinguished Professor Programme (FiDiPro)
- Postdoctoral researcher's projects
- Researcher mobility in working life and doctoral studies of employed persons
- Other funding

Programme Evaluations

- Research programmes and Centre of Excellence programmes funded by the Academy are evaluated on their completion by outside experts
- Evaluations consider
 - achievement of the objectives set for the programmes
 - success in generating new knowledge
 - value added produced by the programme
- Main focus in evaluations of Centre of Excellence programmes is on their scientific and societal impact

Research programmes

- A research programme is focused on a defined subject area or a set of problems, financed for a fixed period (usually 4 years), and has a coordinated management
- A research programme generates added value in comparison to project-based separate funding
- Research programmes have special science policy objectives, such as
 - to promote multidisciplinary and interdisciplinarity
 - to develop national and international cooperation between researchers, funding agencies and end-users of research results
 - to piece together scattered research capacities
- Research programmes as promoters of international cooperation
 - international networking of programmes
 - co-funded international programmes
 - opening up of whole programmes or programme elements to the international research community

Evaluation of Research Programmes

- All Academy s research programmes are evaluated against their objectives and funding volumes by international evaluation panels
- Follow-up and evaluation plans are included in early stages of planning of the programme:
 - What kind of added value the research programme has generated in comparison with individual project funding?
 - Programme considered as a single entity, focusing on the areas most significant to the programme within the framework of the resources allocated for evaluation purposes
 - Results and impacts achieved during the course of the research programme
 - Preparation and implementation of the programme
- Utilisation of evaluation: after-care plans of the issues raised by the programme evaluation are made and future research needs and directions are identified

Evaluation methods

- Evaluations are most typically conducted using the peer review method, with a group of usually foreign experts solicited to assess the success of the programme
- Programmes can also be evaluated simultaneously
- Many research programmes include objectives of societal impact
 - assessment of the impacts achieved will include an evaluation of the societal (social, cultural, political), economic and technological impacts of the programme
 - may be commissioned from experts specialising in impact assessments
 - impact assessments may also be conducted separately, some time after the completion of the programme.

Follow-up and Evaluation Plan of the Programme

Follow-up and evaluation plan

- objectives of the follow-up and evaluation
 - responsible parties
 - methods of monitoring and evaluation
 - timetables
 - budget
 - evaluation material collected
 - areas of the programme to be evaluated
 - evaluation criteria applied
- ➔ shall be revised and updated if and as necessary



Objectives of the Evaluation

- provides information on how the objectives of the programme were attained
- provides information on its success in generating new information and on the added value it produces
- feedback on the programme process and coordination as well as other information that is useful for purposes of science policy planning and decision-making
- contributes to the development of the evaluation process itself and serves as a learning process for those involved in the evaluation
- feedback to the researchers





Duties and Responsibilities of Parties Involved in the Evaluation

Programme Steering Group

- planning and implementation of the programme evaluation
- appoints a Chair for the evaluation panel as well as its members
- draws up an assignment for the evaluation panel: objectives, timetable, remunerations

Programme Coordinator

- assisting role since the evaluation also comprises programme coordination
- systematically compiles and prepares the materials needed for the monitoring and evaluation throughout the programme
- is responsible for the practical arrangements
- organises the programme's self-evaluation

International peer-review panel of experts

- conducts the evaluation

Self-evaluation

- serves both as material for the final evaluation and as the researchers' own self-analysis
- programme coordinator and researchers give their own assessment of how the programme has succeeded and how well they themselves have performed
- can be carried out in the form of written questionnaires and/or interviews on individual projects or themes

Utilising the results of evaluations

Players

- Key part: Research Councils, the Academy's Board, other funding bodies
- Researchers
- Other end-users of the results

After-care plan for the programme

- Implementation of the recommendations in so far as they are considered justified
- Identification of future research needs and directions

Examples of evaluation criteria 1/3

RESULTS AND IMPACTS

- How has the programme succeeded in reaching the objectives set for it (e.g. internationalisation, researcher training)?
- What is the programme's added value? What has been achieved compared to the situation that no such programme had ever been launched?
- What is the scientific quality of the research results obtained (innovativeness and significance to the development of the field of research)? Have there been any scientific breakthroughs, are any such breakthroughs on the horizon? How have the other scientific objectives of the programme been reached?
- In what ways has the research programme generated new cooperation among researchers and on the other hand between researchers and other actors in the innovation system? How have the other objectives related to the development of the research system been attained?
- What kind of success has the programme as a whole had with regard to integrating and synthesising the results?
- Are there any social, economic or technological impacts in sight that are in line with the objectives set for the research programme? If so, what kinds of impacts?

Examples of evaluation criteria 2/3

IMPLEMENTATION OF THE RESEARCH PROGRAMME

- Preparation of the research programme and planning of its content
- Has programme planning been systematic and effective?
- Has there been strong justification for the relevance of the programme?
- Are the programme objectives at different levels realistic?
- Are the programme's common scenarios and main points of emphases appropriate?

Examples of evaluation criteria 3/3

Funding decisions and coordination: creating the necessary preconditions for the research programme

- To what extent has the coordination plan and contract been carried out (activities of the programme coordinator: seminars, information, national and international cooperation, researcher training etc.)? How has the coordinator reacted in situations of change within the programme or in its environment?
- Did the projects selected for inclusion in the programme meet the research programme's objectives in terms of their plans?
- Was the funding made available to the projects appropriate in view of their research plans?
- Was the contract signed with the research programme coordinator appropriate in view of the programme objectives?
- What kind of role has the programme steering group had during the course of the research programme, has its work promoted the attainment of the programme objectives?
- How have individual researchers and research teams participated in the joint programme action? How has the participation been reflected in the work of the research groups?



Centre of Excellence programmes

Objectives:

- to raise the quality standards of research
- to improve the international competitiveness of research and increase its visibility and esteem
- to integrate cutting-edge research as part of research, education and technology policy
- to develop high-level, innovative and efficient research and research training environments

Preconditions:

- consists of one or more top-level research teams
- at or close to the international cutting edge of research in its field
- distinct common research objectives and a common management

The first centre of excellence programme, as it is known in its present form, was launched in 2000

Monitoring and Evaluation of Centre of Excellence Programmes

Work at centres of excellence is supported, promoted and monitored by Scientific Advisory Boards, which consists of

- leading foreign experts
- a member of the Academy's relevant Research Council
- representatives of the funding bodies and the host organisation of the centre of excellence

In 2008, a final evaluation of the 2000–2005 and 2002–2007 centre of excellence programmes will be conducted on completion of the latter programme

- Aim will be to establish the scientific and societal impact of these programmes



Conclusions

Every evaluation is a picture of an arrested moment, an assessment of the situation at the time of the evaluation that also makes use of retrospective data. Most important of all is what happens in the future, because research is in a constant state of flux. The changes taking place in the nature of research constantly throw up new challenges to evaluations.

- Clear and clear aims and criteria stated for each evaluation
- Right timing
- Cost-effectiveness
- Selection of evaluators of crucial importance
- Results in a user-friendly format
- Combining evaluation with strategic planning / forward-looking / foresight

