

Finnish Assessment Experience

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1. Academy of Finland - Evaluation activities and criteria

Evaluation activities at the Academy

Research project applications

Programmes

- Research programmes
- Programmes for Centres of Excellence in research

**International
peer review**

Disciplines or fields of research

Research system

- Improving science indicators
- Reviewing the state, quality and impact of scientific research
- Foresighting

Processing of applications - Academy

1. Initial processing

- Registration of applications to appropriate Research Councils
- Selection of experts, mainly foreign experts



2. Scientific evaluation by external peers

- Joint statement by panel of experts, or
- Written statement usually by two Finnish or foreign experts



3. Preparation and decision-making by Research Councils

A. Drafting groups

- Council members and possible outside experts go through the applications and statements obtained on them
- Drafting groups submit to the executive group a proposal on the projects to be funded

B. Executive group

- Council members together with the presenting official prepare a proposal on the projects to be funded

C. Decision-making at Research Council meeting

- The Council makes the decision on the basis of the proposal, within the limits of its budget
- The Council's decision is sent to each applicant in writing. The funding decisions are also posted on the Academy's website

Evaluation criteria applied by the Academy

- Scientific quality and innovativeness of the research plan
- Competence of the applicant/research team
- Feasibility of the research plan
- Research contacts
- Significance of the research project for the promotion of professional careers in research and for researcher training
- Other research policy objectives adopted by the Academy



2. Tekes – Evaluation activities and criteria

Tekes: Funding criteria for company R&D projects

Tekes' experts evaluate the project, the business, resources and the company from a holistic viewpoint

The key issues of the evaluation are

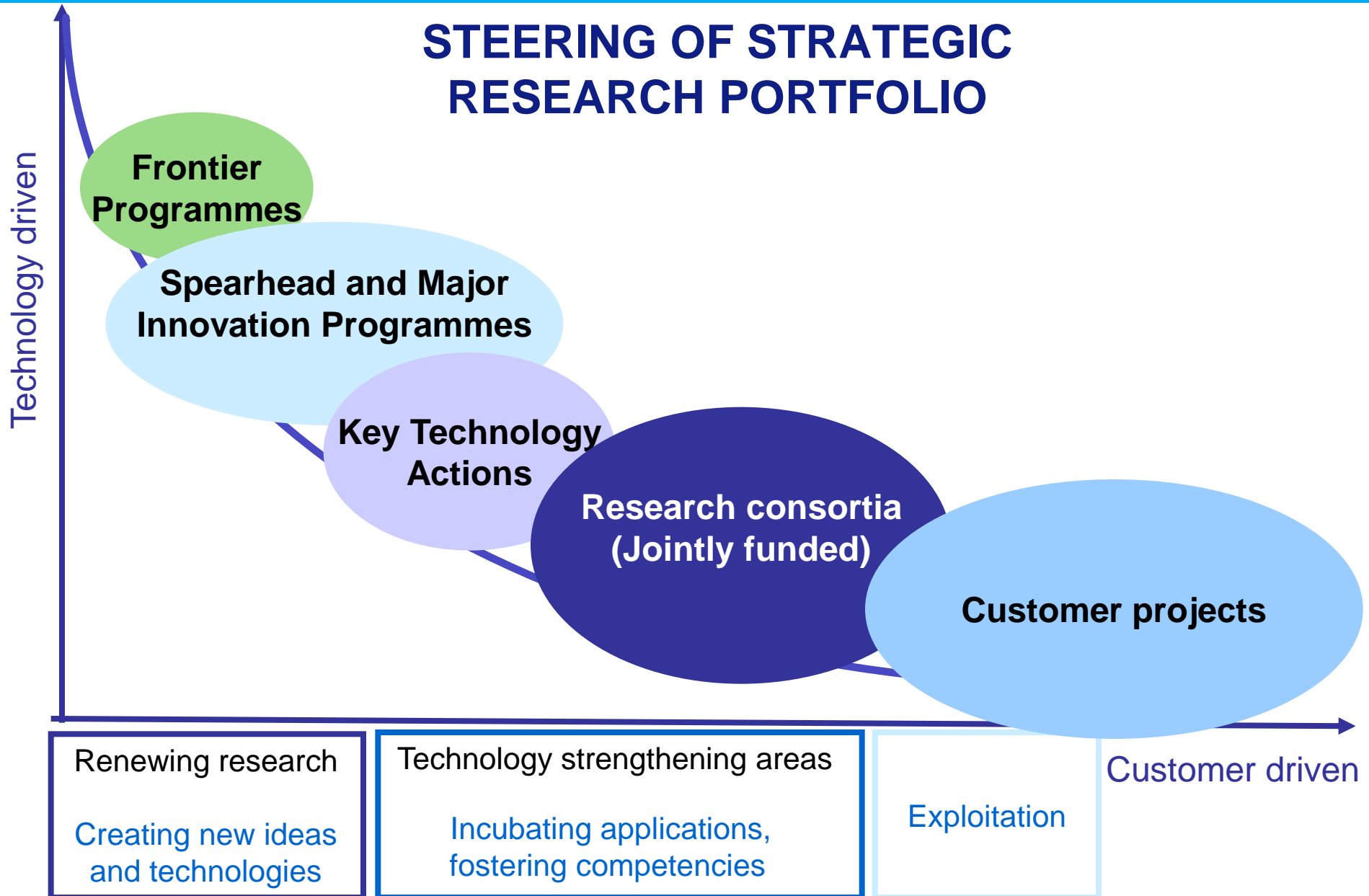
- *Business activity* to be pursued
- *Technology, innovation, competence and know-how* to be developed
- *Resources* available for the project
- *Cooperation* to be developed and utilised
- Direct affect on social, environmental and *welfare* aspects
- *Impact* of Tekes' funding and expert work on project implementation



Other funding applications and the indirect impacts of the project on other companies will be taken into account in the evaluation.

3. VTT's Research portfolio - Programmes

STEERING OF STRATEGIC RESEARCH PORTFOLIO



POSITIONING OF VTT'S STRATEGIC RESEARCH PORTFOLIO

	Frontier programs	Major innovation programs	Spearhead programs	KTA programs
Target	To survey and identify the potential of new technology initiatives and emerging technologies	To create significant technological solutions and to generate genuine innovations to promote the competitiveness of VTT's customer businesses and to meet the new challenges set for the society.		Agile response to industrial needs by novel combinations of existing competences and technologies
Technological uncertainty level	Very high	Fairly high - medium		Fairly high -medium
Scientific and technol. ambition level	Very high	Very high	High	High
Multitechnol. / crossdisciplinary	Not necessary	Very desirable	Desirable	Desirable
Customer driven	Not necessary	Moderate	Strong	Strong
Annual volume/ programme	Approx. 50-500 k€	> 3 mill. €	> 10 mill. €	Approx. 100 - 700 k€
Time period	1 - 2 years	3 - 4 years	3 - 4 years	2 - 3 years
Target time period for exploitation of the results	> 5 years	Generation of research outputs to be exploited throughout the life-time of the programme		> 1 year
Exploitation of research output	VTT and customers (90:10)	VTT and customers (30:70)	VTT and customers (20:80)	VTT and customers (20:80)
The role of the program leader	Very important ("pioneer")	Important ("co-ordinator")	Very Important ("managing director")	Important (co-ordinator)

4. VTT – Evaluation activities and criteria

VTT's research evaluation and assessment frame

Topic	Assessment/evaluation by
Evaluation of strategic research (overall view)	VTT's Scientific Advisory Board
Evaluation of technology and innovation programmes <i>Midterm and final evaluation</i>	External experts
Evaluation of strategic research fields <i>One selected field/year</i>	External experts
Assessment of impacts for customers and customer satisfaction <i>Annually</i>	Survey by external consulting companies (customer interviews)
Impact assessments of special topics (examples: VTT's social impacts, VTT's regional impacts...) <i>On demand</i>	VTT's scientists and/or external experts
Project self-assessment <i>At the end of each project</i>	Project assessment group: project manager, project group, management representative
Customer feedback request (web-based) <i>At the end of each project</i>	Project customer

Key topics of programme evaluation (1/2)

Programme focus

- Has the programme and the projects addressed the most urgent and relevant challenges which were important when the programme was launched?

Knowledge generation and effectiveness

- What new knowledge and know-how has been generated during the programme? What is their relevance?
- Has the programme created significant new competences at VTT?

Exploitability and impacts of the results

- What is the exploitability of the results?
- What kind of impacts will the programme have both nationally and internationally?
- Has the level of industry involvement or potential interest of industry been appropriate?
- What do you regard as the most important results?

Scientific and technical quality of the work

- Have the scientific and technical goals been met?
- What is the scientific quality of publications and reports?
- Has the risk level of the projects been appropriate?

Key topics of programme evaluation (2/2)

Customer focus, dissemination of results and technology transfer

- What is the level of customer focus?
- How efficient has the publication and communication with industry been?
- Has the dissemination of results and technology transfer been effective enough?

International and national networking

- What is the level and quality of networking? National, international networking?
What is the level of multidisciplinary of the projects?
- What is the level of internal networking and co-operation?

Conclusions and recommendations for VTT

- What would you like to suggest for VTT to further develop the VTT programmes

Key performance indicators of a programme

- Publications
- Inventions
- Documented methods, prototypes
- Networking
- Financing: External funding (industrial financing, public funding), budget funding
- Visiting scientists
- Impacts: patents, media references, social impacts
- Theses

Key topics of strategic research field evaluation

- ❑ relevance of VTT's research strategy
- ❑ customer focus, scientific and technological level of research, knowledge generation
- ❑ exploitability and impacts of research results
- ❑ level of competencies and networking
- ❑ appropriateness of VTT's research facilities
- ❑ the fluency of VTT's innovation process

Criteria for self- and jointly funded projects **project selection phase**

- Novelty value (compare state-of-the-art) and techno-scientific innovativeness**
- Placement on VTT's technology focus areas and strategic fit to VTT's research portfolio. Applicability to VTT*s programmes.**
- Develops new know-how at VTT and in Finland and strengthens VTT's competence.**
- Exploitability, market views and interest of enterprises.**
- Short- and long-term effects (VTT, beneficiaries, society)**
- Networking and combining knowledge (VTT, Finland, EU and other countries). Connections to research (or other) programmes**
- International research work included in the project, especially longer than one-month research periods of VTT's researchers in the USA and Japan.**
- Financial structure**



**VTT creates business from
technology**