

Science, innovation and knowledge transfer in a diversified higher education landscape

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Tekes – the Finnish Funding Agency for Innovation

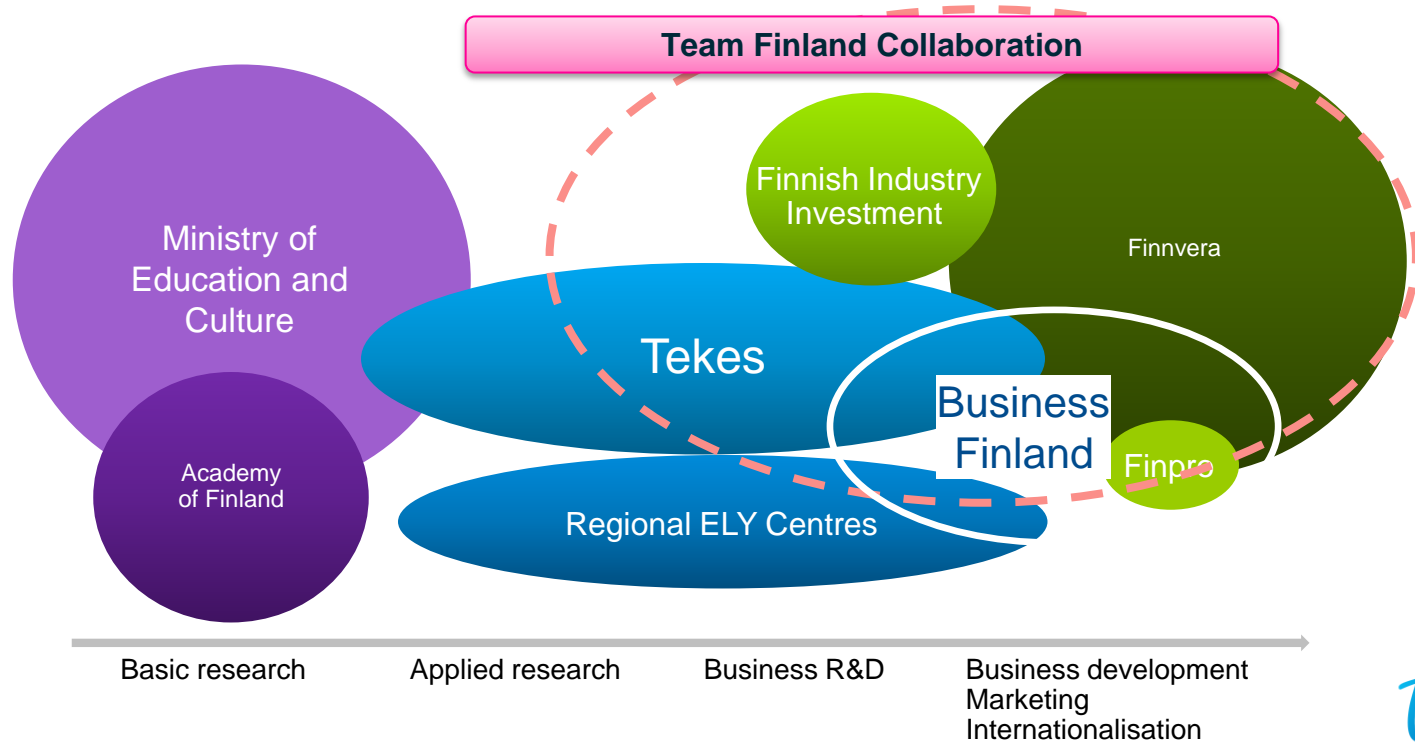
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OECD Workshop

Questions to be addressed

- How to best organise science and higher education and their relations with industry,
 - in a configuration where research universities (driven toward excellence but under mounting pressure to also produce useful research-based innovation) coexist with universities of applied research (i.e. 'polytechnics', expected to engage in practice-based research and professional development, with close relationships with local communities and SMEs, in particular through innovation)?
 - What division of labour between institutions works best?
 - What are opportunities for synergies?
- What best practice examples exist in Portugal and abroad?

Public funding actors in the Finnish innovation environment



1 Working with customers
We provide advice for our customers and help them to achieve their growth visions.

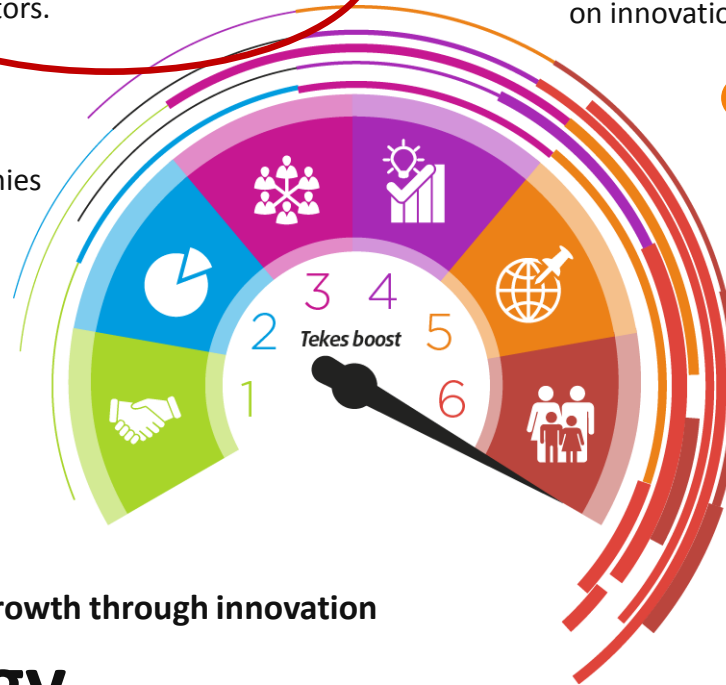
2 Funding
We provide funding for R&D projects and companies pursuing growth and innovation.

3 Networks
We build networks between companies, research groups and investors.

4 Innovation-driven export growth
We promote export growth based on innovation.

5 An attractive innovation ecosystem
We contribute to making Finland an innovation ecosystem that attracts companies and people with high expertise.

6 Working in the interests of society
We provide funding for innovations that improve quality of life and create jobs, while driving export and generating tax revenue.



Creating value for Finland – growth through innovation

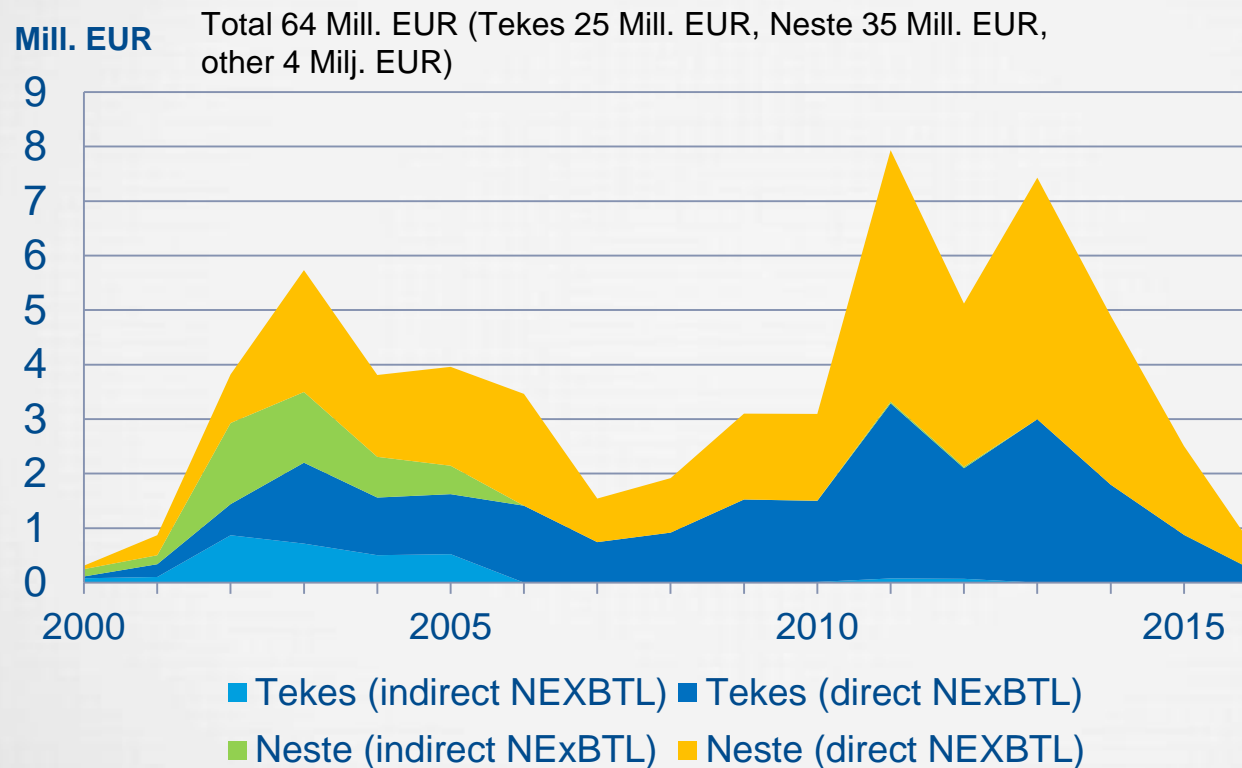
Tekes strategy

Tekes accelerates the growth of Finnish companies and helps them to succeed in international competition.

OECD country report 2017:

One of Finland's greatest challenges is transforming research results and new ideas into innovations that serve the global market.

Example: Biofuel NEXBTL and Tekes Funding



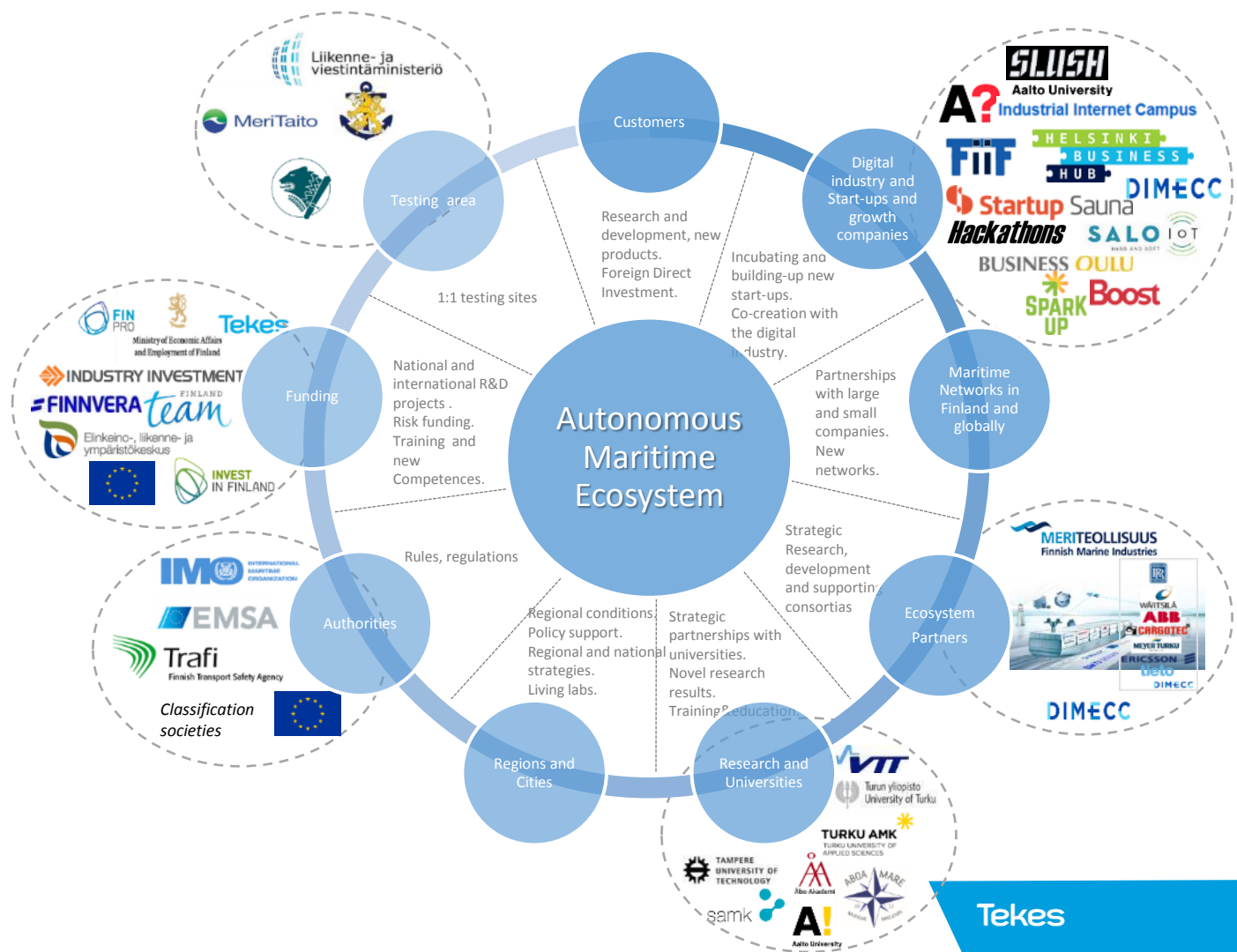
Neste Oil renewable fuels total turnover was 2 372 MEUR and profit 402 MEUR in 2015, Source: Neste Oil Annual Report 2015

Lähde: Tekes 2016

Tavoite: Luoda Suomeen maailman ensimmäiset itseohjautuvan merenkulun tuotteet ja palvelut 2025 mennessä.

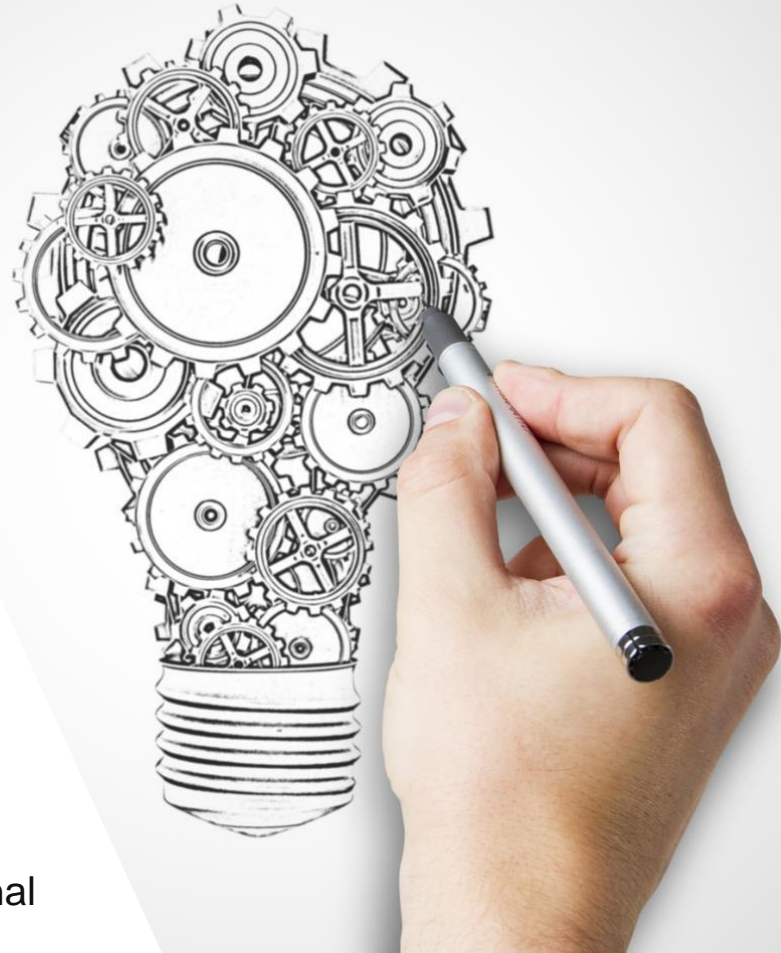
Vaikuttavuus:

- Suomen edelläkävijyys ja houkutteleva kehitysympäristö. LVM sitoutunut testialueen luomiseen. Rolls Royce aloittanut rekrytoinnit kehitysyksikköön Turussa.
- Teollisuutta uudistavaa uutta liiketoimintaa ja työpaikkoja. Digitaalisuus uudistaa meriteollisuutta.
- Rolls Royce; AAWA-tutkimushankkeen merkitys olennainen. Hanke aikaisti yrityksessä autonomisen meriliikenteen kehitystä.



What will change compared to Tekes' research funding?

- Researchers and companies are encouraged to engage in more active cooperation
- Two new funding services: Co-Creation and Co-Innovation
- No more application periods and the current theme calls will end
- Research ideas will be discussed and challenged before the application phase and more in the Co-Creation phase to determine e.g. the idea's business potential and to find out other more suitable financiers
- Not affected by the change: New business from research ideas funding, ERDF funding and international calls (e.g. Eureka)



Business Finland Research Funding 2018

Co-Creation

Develop a research idea, build on cooperation

Research organisations and companies develop the research idea.

Project aims to verify the demand for the R&D and achieve good problem solution customer fit. It also evaluates the idea's compatibility for businesses and creates a network for cooperation.

Co-Innovation

Search for solutions with the help of research, cooperate and develop new export products

Research organisations and companies jointly develop solutions and new knowledge for business purposes.

Funding advances the use of research results, increases the creation of new Finnish export products and strengthens networks in ecosystems.

New business from research ideas

Create new knowledge and business applications from research ideas

Research organisations prepare an idea for business purposes.

Funding advances the commercialisation of research ideas.

International and other special calls (ESA, ERDF, Eureka etc.) have their own specific criteria

Funding for research organisations
and companies to develop
solutions that respond to business
needs

Conclusions

- Public support for research-company cooperation is scarcer and more focused on company needs
 - Financial cuts for public research funding: less international co-operation
- 1) The University Reform of 2010 and 2) the Comprehensive Reform of State Research Institutes and research Funding 2013: new financial incentives for research partnerships
 - Incentives of universities to invest in commercialization?
- Focus of research commercialization towards ecosystems, availability of open knowledge and data, digitalization and global value networks
 - innovation competitions and “hackathon” concepts
 - co-creation models e.g. co-working spaces
 - hype of the start-up scene, entrepreneurship communities, companies, and cities

Appendix

Research organisation

Carry out high-level research and simultaneously cooperate with companies

Company

Renew your business activities by working closely together with researchers



Co-Creation funding

Funding for developing a
research idea and for
building cooperative
networks

Co-Creation funding

For whom?

For research organisations aiming at a Co-Innovation project to be completed in close co-operation with companies.

Possibly for companies (this will be verified later), which jointly develop a research idea together with research organisations and other companies, and, which aim for a Co-Innovation project.

For what purpose?

Research organisations and companies jointly develop a research idea. The goal is to create a Co-Innovation project among companies and researchers.

Funding ensures the research goal, the need for the solution and its suitability for business use. It also helps build a network for a possible Co-Innovation project.

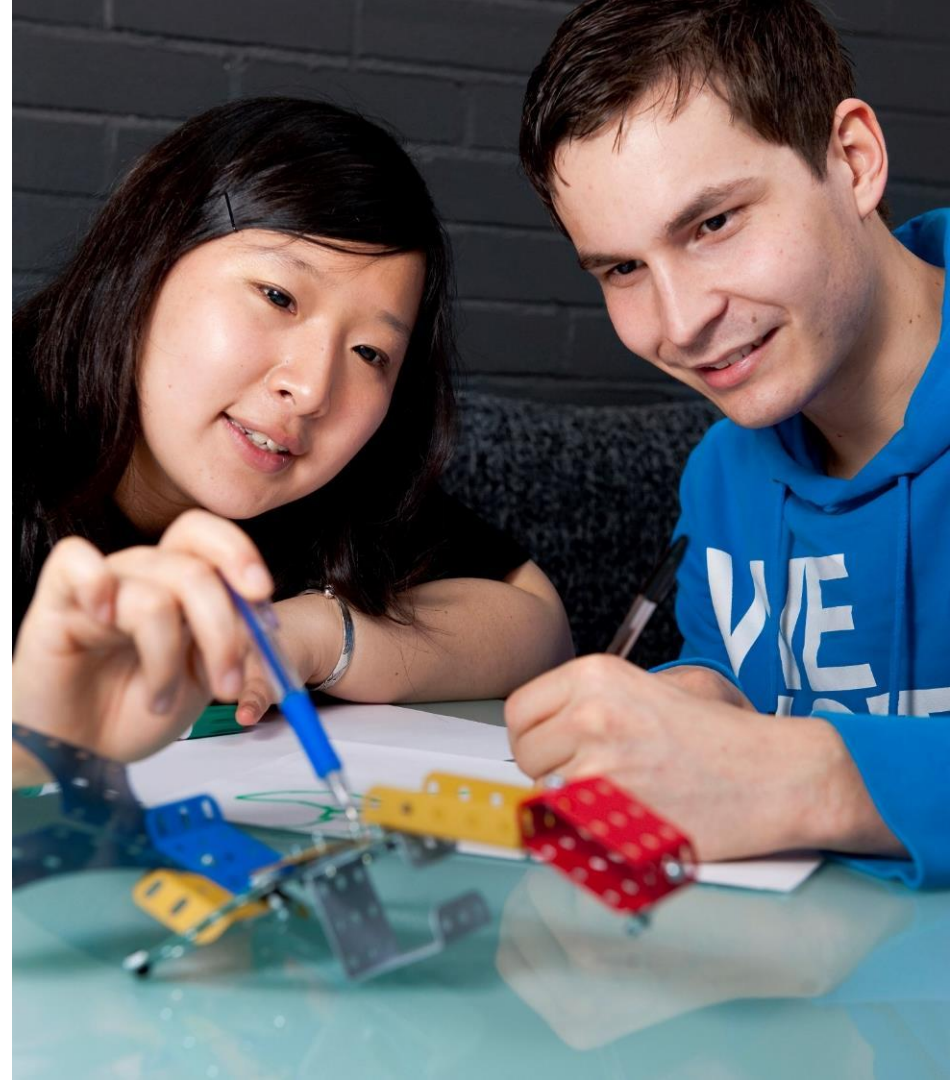
Not necessary for all: Formed consortiums can advance directly to the Co-Innovation funding phase.

Co-Creation funding

How does it work?

The maximum size of the project is 100 000 euros.

- Funding covers 60% of the project's total expenses
- Fixed overhead percentage 20% and coefficient for indirect employee costs 50%
- Project duration 4–6 months
- No application period



Co-Creation funding

What are the criteria for the funding?

- The quality of the plan to determine the relevance of the idea and demand, as well as the quality of the plan to create cooperation with companies and the R&D consortium
- The novelty value and business potential of the idea

Including Business Finland's strategic themes in the plan will positively influence the evaluation process.

Co-Innovation funding

Funding for R&D projects by companies and research organisations, in which they jointly develop new knowledge and innovations for business needs.

Co-Innovation funding

For whom?

- For research organisations and businesses of all sizes for their joint projects
- Prioritises projects that support SME growth and internationalisation
- Companies can have various roles: either an own R&D project or participating in another organisation's project as a financier, a subcontractor or in any other way

For what purpose?

- Research organisations and companies jointly develop new knowledge and innovations for business needs
- The funding accelerates the use of research findings, boosts the creation of new Finnish export products and strengthens networks in ecosystems
- Funding is meant for projects that have either already finalised the Co-Creation phase or for those that are directly ready to start a joint project

Co-Innovation funding

How does it work?

- There must be at least two company-run R&D projects parallel to the public research project, and the project must receive in kind or monetary investment from at least one company (minimum 3 companies)
- The project can include multiple research organisations or teams
- Maximum duration for the project is 2 years
- Research project funding level is 60-70%. Company funding is granted in accordance with the regular funding options or levels offered to companies
- No application period; if necessary, there will be theme calls or submission deadlines
- Priority is given to projects that include high-quality R&D projects that support SME growth and internationalisation

Co-Innovation funding

What are the criteria for the funding?

- Proved relevance and demand
- Credibility of the commercialisation consortium
- The novelty value and competitive advantage of the solution model, market potential, societal influence as well as the project's international collaboration



New business from research ideas funding

Funding that helps research
organisations prepare for
commercialising their
research idea

New business from research ideas funding

For whom?

- Funding is intended for research groups and researchers in research organisations, who want to build a new business based on their research and realise their idea by commercialising it
- The researcher will also have the chance to develop his or her own commercialisation expertise

For what purpose?

- Projects by research organisations involving preparations for the commercialisation of an idea, such as innovation searches, the determination of customer value or other analyses, as well as projects involving applied research
- At least 40 percent of the project costs must be targeted at preparation of commercialisation

New business from research ideas funding

How does it work?

- Tekes can fund 70% of the total cost of projects which have high commercial potential and on which the basis for a new business activity can be built.
- The project must have several commercialisation options. The actual commercialisation of the idea will occur either within the new company being formed, or as a new business activity in an existing company.

New business from research ideas funding

What are the criteria for the funding?

- The novelty value and challenging nature of the technology or competence to be developed by the research project
- The project's impacts on the development of a major international business and on society
- The role of businesses in the realisation and steering of the project and the utilisation of its results
- The project resources, competence level and international cooperation The team's commercialisation skills tend to present the greatest challenge.