

Summaries of the final reports of Profi 1 projects

Aalto University

Funding 13,6 €m

Summary

Supported by the writing process of Profi 1 application, Aalto was able to explicate its seven key research areas. These include four core competence areas: ICT and digitalization, Advanced materials and sustainable use of natural resources, Art and design knowledge building, and Global business dynamics; and three multidisciplinary grand challenges. Profi 1 funding strengthened the research foundations of the abovementioned four core competence areas and allowed us to speed up the change and to direct additional resources to promising research areas that further define our research profile.

Supported by Profi 1 funding, Aalto focused on the recruitment of tenure track professors in order to proactively renew faculty and balance the large number of retirements. Tenure track system has dramatically increased the number of applicants for our open professor slots and improved recruitment of international faculty and female professors.

During the Profi 1 period, Aalto has improved markedly in rankings specific to these core competence areas. The aspired research excellence is reflected also for example by the high amount of prestigious European Research Council (ERC) grants and two Aalto coordinated AoF Flagship projects.

Academic excellence is only part of Aalto University's mission. Multidisciplinary research environment fosters innovation and entrepreneurship, and our innovation ecosystem builds on Aalto's core competence areas. Innovation activities have led to

several technology transfers, spinoff companies and numerous Research to Business grants from Business Finland. Our profiling has increased the attractiveness of Aalto, which enabled us to create and strengthen our strategic collaborations with industry. A key societal impact is education, and the steadily growing interest in Aalto's study programmes is another sign of the success of profiling.

Hanken School of Economics

Funding 350 000 €

Summary

With Profi 1 funding, Hanken School of Economics was able to hire one new assistant professor in the area of finance and statistics. The temporary Profi funding served as bridge funding to fund this professor, until another professor in another subject area retired, and Hanken shifted that professor's funding to the assistant professor originally recruited with Profi 1 funding. After the end of the Profi 1 funding in 2019, Hanken continues to permanently fund this new professor, from its budget funds.

Simultaneously, the professor advanced in Hanken's tenure track, and was promoted to a tenured full professorship from 2019 onwards.

Despite sufficing only for funding one (assistant) professor, Profi 1 funding supported the implementation of Hanken's strategy, especially by allowing the integration of a previously separate subject area of statistics into the larger subject area of finance. In other words, statistics was deselected as a separate subject area, as the finance subject area (including the newly recruited professor) started incorporating research on statistical applications. Research and education on statistics per se (beyond statistical applications in finance and economics) was and is, thus, left for other universities to concentrate on. Furthermore, the recruitment of the new professor to the subject area of integrated finance and statistics, with Profi 1 funding, contributed to raising the quality level of that research area as well as increasing the share of international faculty of Hanken's senior faculty. This led to the subject area becoming identified as one of Hanken's four Areas of Strength by an international expert panel in 2018. Hanken's own investments in this Area

of Strength, during 2019-23, help to further leverage the investments made in this area with Profi 1 funding.

Tampere University

Funding 7,90 €m

* In 2015 Profi-funding was granted to the **University of Tampere 4,75 €m** and **Tampere University of Technology (TUT) 3,15 €m**. 1.1.2019 University of Tampere merged with Tampere University of Technology to form **Tampere University**. The new Tampere University has prepared Profi 1 reports.

Summary

The University of Tampere and Tampere University of Technology presented BioMediTech as their major joint strategic initiative in the first profiling round. The undeniable added value of combining the complementary competencies of the two universities in the areas of biomedicine, biotechnology and biomedical engineering was probably the most decisive single argument leading to the university merger. In this way, Academy of Finland profiling funding has contributed essentially to the biggest reorganization of Finnish Universities during the past decades.

The funding was instrumental in allowing the recruitment of new group leaders in the profiling area. The profiling funding jointly with host institutions' strategic funding and investments to the new infrastructure has enabled BioMediTech to excel in research and strengthen its profile in this research area. In addition to the high-quality research, BioMediTech has produced a number of patents, innovation disclosures and active commercialization projects to promote high societal impact. Overall, the profiling measures have significantly enhanced the scientific output of the current Faculty of Medicine and Health Technology (MET) nationally and internationally.

In addition, TUT applied first profiling funding to strengthen the intelligent machines area and to build a new collaboration platform between TUT and VTT Technical Research Centre of



Finland (VTT). The chosen strategic key measure was tenure track recruitments into the profiling areas. The funding was instrumental because it allowed the recruitment of new group leaders more quickly, as it wasn't necessary to wait for the resources to become available through retirements. The profiling funding jointly with host institutions' strategic funding and investments to the new infrastructure has enabled profiling areas to excel in research and strengthen their profile in these research areas. The profiling funding has also been a key contributor to enabling close collaboration with VTT in the area of intelligent machines.

University of Eastern Finland

Funding 5,8 €m

Summary

The strategy of the University of Eastern Finland 2015-2020 calls for research-based innovations to solve the following global challenges: 1) Ageing, lifestyles and health, 2) Learning in a digitised society, 3) Cultural encounters, mobilities and borders, and 4) Environmental change and sufficiency of natural resources. Solutions to these challenges are to be sought through interdisciplinary, thematic research areas. PROFI 1 funding in 2015-2019 focused to develop the key expertise in the following top-level international research area identified in the strategy of the UEF: 1) Aerosols, climate change and human health, 2) Cardiovascular and metabolic diseases, 3) Forests, global change and bioeconomy, 4) Neurosciences, and 5) Borders, mobilities and cultural encounters. PROFI 1 funding together with UEF's strategic funding enabled the development of these thematic profiling areas towards interdisciplinary competence clusters. Thematic approach and multidisciplinary collaboration have generated several innovative research projects from the new challenge based funding instruments (STN and H2020) calling for a greater impact. UEF's PROFI 1 profiling areas have established a significant national and international role and visibility during 2015-2019 (UEF Research Assessment Exercise 2019). UEF will further develop research in these profiling areas according to the goals of our new strategy 2030, by seizing a sustainable future with interdisciplinary research approaches.

University of Helsinki

Funding 9 €m

Summary

The Profi 1 funding at the University of Helsinki was aimed at Helsinki Institute of Life Science (HiLIFE), Physics and ICT, and Statistics profiling areas. The key strategic aims in all of them were the societally meaningful pursuit of excellence and strong multidisciplinary. Targeted goals were the structural development of research in the life science area, research collaboration and clarified distribution of labour between UH and Aalto University in Physics and ICT areas, and world-class research and teaching infrastructure in Statistics.

HiLIFE has managed to bring together several research infrastructure platforms in the life sciences field, which are also supporting wider national outreach. By integrating life sciences expertise across the UH campuses, HiLIFE has enhanced the interdisciplinary research and staff competence development. HiLIFE has enabled new openings of aligning biomedical data and informatics with Helsinki University Hospital and wider Finnish health data.

In the Physics and ICT area distribution of work between the UH and Aalto, both in research and education has been clarified. These are represented e.g. as a joint HICT Doctoral network, Helsinki Institute for Information Technology and a flagship Finnish Centre for AI.

Profiling in Statistics area has supported multidisciplinary research in statistical genetics, through collaboration with the Institute for Molecular Medicine Finland. It has also enabled organising the biostatistics research under a common umbrella and developing digital teaching methods in the field.

University of Jyväskylä

Funding 5,7 €m

Summary

The Strategy of the University of Jyväskylä (JYU) for 2015–2020 with the core research areas has been the strong basis of JYU profiling. The results and implementation of the profiling actions in all the profiling rounds have been one of the key drivers to the renewed JYU strategy called “Wisdom and wellbeing for us all”. The formation of this new strategy continues the profiling work, which at the same time speeds up the focusing of JYU into solving global societal problems and developing excellence of our research environment.

JYU selected three profiling actions in Profiling round one, directly linking JYU strategy and vision to the core fields. Multidisciplinary research on learning and teaching –area concentrated mostly on learning difficulties, classroom interactions and technology enhanced learning with major research results and many new pathways for further studies. Accelerator based physics connected material physics to nuclear physics, laser technologies and research developed for thin films in a global network of other research institutes. The third area, Cyber security, connects risks of human behaviour, cryptology and security management of software and applications into an area, which seeks solutions to problems that people and organisations meet every day.

The tremendous impact, which JYU achieved with these profiling actions, has been based on carefully implemented recruitment plans to further increase number of leading researchers in the core research areas. Commitment, support for the necessary infrastructure and resources by the university itself were essential, e.g. JYU allocated funding for each of the profiling for doctoral students, started programs for International Visiting Scholars and supports open science in many ways. International conferences, seminars, community events and summer schools have been channels to disseminate and publish research results. The number and level of peer reviewed international publications, research funding and national and international collaboration activities

have substantially increased during the profiling period 2015-2019. These actions of the profiling areas have led for instance to new educational and teaching policies, profound discoveries in nuclear physics and tools protecting and making information networks more secure.

University of Lapland

Funding 2,15 €m

Summary

The University of Lapland PROFI 1 Action plan supported the strengthening of the University of Lapland key strategic profile area: ‘Research on change in the Arctic and the North’. In order to achieve this, the PROFI 1 funding was targeted to two specific research areas: “Arctic rights & natural resources” and “Indigenous peoples in the Arctic”. Together these areas cover research in law, environmental law, Arctic law, anthropology, indigenous research, Sámi research, and social science.

The investments on these two profiling areas have strengthened the University’s position as Finland’s leading expert in understanding the changing relations between human societies and their environments in the Arctic and northern areas. The actions have mainly supported research in these areas in two units of the University: at the Arctic Centre and the Faculty of Social Sciences. The permanent impact of the funding has been achieved through recruitments but all together the PROFI 1 funding has directly supported 15 individual researchers through various actions in the profiling areas. Indirectly the impact has been even more extensive with the help of acquired external project funding from various national and international funding mechanisms. In addition to the scientific impact, the chosen profiling areas have already demonstrated also a strong societal and policy relevance.

University of Turku

Funding 2,5 €m

Summary

The Profi 1 funding has supported the implementation of the overall strategy of the University of Turku very well, strengthening the multidisciplinary activities and crossing of organisational borders. It has also played a role in the preparation and implementation of the strategy 2016-2020, and its impact carries over to the strategy 2021-2030. It has aided both the national profiling and local collaboration, especially in making the South-West Finland region into a nationally and internationally important ecosystem for health research, drug development and diagnostics. In Education and learning, the strategically important change of generation in leading researchers has been implemented efficiently and with excellent results.

Several strategic measures have strengthened the Drug development and diagnostics platform in Turku. The activities have been implemented in close cooperation with the Åbo Akademi University. They include recruiting several professors or tenure track professors and displaying the profiling focus clearly in undergraduate and researcher training. Visibility and dissemination have been reached through coordinated activities between UTU and ÅAU in establishing a joint website and arranging a large industry-academia event Life Science Live.

The plan to strengthen UTU's nationally and internationally renowned research in learning and education included recruiting new Associate Professors and redefining the other opened professor positions at the Faculty of Education. The research at the Faculty of Education was reorganized into two research centres, and the implemented Visiting Professor Scheme brought robust effect on international research collaboration.

Åbo Akademi University

Funding 3 €m

Summary

Profi 1 funding led Åbo Akademi University into a new era of research, which is based on strategic long-term investments and selections. Through Profi 1 we founded three profiling areas, which are based on existing high-quality research in the fields they represent, and on the potential to advance into internationally acclaimed centres of excellent research with the capacity to address global challenges of our time.

The first three profiling areas at ÅAU were: Minority Research – an interdisciplinary centre for studying minorities from social science and humanities perspectives; Molecular Process and Material Technology – chemical engineering and materials technology for the advanced utilization of nature-based compounds; and Drug Development and Diagnostics – a profiling area that is shared with the University of Turku, supporting and uniting disciplines needed for developing modern health care solutions.

To realise our profiling goals we first created a tenure track system, where young, promising researchers are given the opportunity to develop their career and the profiling area they represent. A broad international recruitment strategy was designed and implemented in order to attract the best candidates for the positions. We also invited international Adjunct professors with 20% contracts to contribute to the research and teaching in the profiles. These investments bring sustainability and continuity to research at ÅAU and expand the realm of our research activities into a large international network, which is especially vital for the impact of our small university.

The profiling areas have begun to evolve in different ways and at different rates based on their initial coherence and existing collaborations. Overall a common impact of Profi 1 funding can be seen in how the profiling areas have become integral parts of the



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university and how through them ÅAU has been able to position itself in the national and international research landscape. Due to Profi 1, we are tuned to recognise the research needs of Finland, Europe and the world and are organised to respond to them.

