

Evaluation of International R&D Collaboration Advice and Funding

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Finland offers an extensive slate of national programs to support the research and development (R&D) and internationalization efforts of Finnish innovators. In addition to these national efforts, the European Union (EU) and inter-governmental organizations such as Eureka also offer international R&D collaboration opportunities, funded through various platforms and programmes, which are intended to support both the advancement of research and innovation, and the development of networks among innovators from across the EU. The platforms evaluated are the Eurostars programme, the Ecsel Joint Undertaking, the ERA-NETs, and the Eureka Clusters. The past Horizon 2020 and the current Horizon Europe programmes are addressed through an exploration of the advisory services provided by Business Finland. The purpose of this evaluation is two-fold:

- 1) to assess the degree to which Business Finland has been successful in raising awareness of, and facilitating access to, the platforms and programmes in question, and
- 2) determine the impact of the platforms and programmes on participants.

To address these evaluation questions the assessment progressed from analysis of internal Business Finland documentation and documentation about the platforms and programmes under consideration, to internal interviews conducted with Business Finland staff, external stakeholder interviews, benchmarking interviews, survey research, and quantitative analysis. The material for the evaluation was collected from September to December 2021.

The platforms and Horizon 2020 (now Horizon Europe) are key to advancing Finland's innovation policy.

Importance of International Collaborations for Finland's Innovation Ecosystem

Finland is known the world-over as having a strong knowledge economy. The considerable domestic investments made to support and encourage R&D in Finland have led to the country being considered an innovation leader within the European Union (EU). However, in order for innovative Finnish companies to survive and thrive, it is increasingly important that they find pathways for their innovations into international markets. This is reflected in the national innovation policy of Finland, as articulated by the Ministry of Economic Affairs and Employment of Finland, which aims to create an environment that encourages enterprises to develop bold innovations and embrace renewal and international growth.

Though they comprise only a portion of the total funding available for R&D in the Finnish innovation ecosystem, the platforms as well as Horizon 2020 (now Horizon Europe)

represent a significant portion of the funding available for the purposes of collaborating internationally on R&D projects. As such, the ability of Finnish innovators to benefit from the opportunities made available through the platforms and programmes is of central importance to the country's pursuit of bold innovation and internationalization.

Finnish companies need access to international value chains, the platforms & Horizon 2020 (now Horizon Europe) facilitate this access.

Building Networks for Companies

Despite broad consensus that internationalization is key to the long-term success of Finnish companies, few companies incorporate EU-level funding into their strategic plans. However, the evaluation points to considerable benefits for participants involved in international R&D collaboration projects made available through the platforms and Horizon 2020 (now Horizon Europe). When compared to domestic programs designed to facilitate the internationalization of Finnish companies, the platforms excel in enabling companies to develop international business and research linkages.

Business Finland plays an important role in raising awareness of Horizon 2020 (now Horizon Europe), but there is room for improvement in how Business Finland raises awareness about the platforms.

Business Finland Efforts to Raise Awareness and Facilitate Access to International R&D Collaboration Opportunities

Business Finland, in its capacity as the EU Research and Innovation Programmes (EUTI) office, operates as the official liaison for the EU Framework Programmes for Research and Technological Development (EU Framework Programmes) in Finland. Additionally, the organization liaises with both the European Commission and the Eureka Secretariat to support the delivery of other EU and inter-governmental platforms. This positions Business Finland as the natural authority for EU-level R&D related programmes and platforms within the Finnish innovation ecosystem. As a result, Business Finland is responsible for raising awareness of, and facilitating access to, these funding opportunities.

The diligent efforts of Business Finland to raise awareness of Horizon 2020 (now Horizon Europe) are perceived by the innovation ecosystem to be very effective. To this end, Business Finland has engaged the ecosystem by leveraging the Horizon National Contact Point (NCP) network, regionally located innovation intermediaries, and social media to provide helpful information to potential applicants to ensure the funding calls and the application requirements for Horizon 2020 (now Horizon Europe) are well understood by Finnish applicants.

Business Finland has historically been responsible for raising awareness of the international R&D collaboration opportunities made available through the platforms (the Eurostars programme, the Ecsel Joint Undertaking, the ERA-NETs, and the Eureka Clusters). However, the analysis reveals that although subject matter experts within the organization hold an unparalleled depth of expertise about the platforms, the knowledge of these subject matter experts is not being effectively communicated to the front-line personnel of Business Finland or out into the Finnish innovation ecosystem. This is in part due to the limited resources allocated within Business Finland in support of the platforms and in part due to the limited use of regionally entities, such as the ELY Centres and universities, to bolster Business Finland's internal efforts to bring awareness to the platforms. As a result, there is limited knowledge about the platforms within Finland's innovation ecosystem.

Challenges for First-time Applicants

The important role played by Business Finland in increasing awareness of the platforms and Horizon 2020 (now Horizon Europe) is merely the first step towards involving Finnish innovators in international R&D collaboration opportunities. The next critical step comes during the application process.

Despite the limited efforts to raise Finnish innovators aware of the platforms, Business Finland personnel provide effective support to applicants during the application process. Based on a survey of past participants, 83% of those that needed assistance in selecting an appropriate funding instrument reported that Business Finland provided them with adequate or excellent support in this regard. Further, of those that indicated they required assistance in developing their project proposal, 29% reported that Business Finland provided them with excellent support.

The support provided during the application process is particularly important, as the analysis revealed that projects are more likely to be funded if at least one of the Finnish collaborators on the project has either a strong track record of application success or has past application experience and therefore familiarity with the application process. This means that first-time applicants, which often lack an understanding of, and appreciation for, the application rules and procedures, are at a considerable disadvantage unless they are partnered with more experienced collaborators.

Participants report significant benefits from having participated in the platforms, though SMEs benefit most and very small companies benefit the least.

The Benefits of Participating in International R&D Collaboration Opportunities

In order to fully assess the degree to which the international R&D collaboration opportunities facilitated by Business Finland are of added value to participating companies, research organizations, and universities, an exploration of impact was conducted for the four platforms: the Eurostars Programme, the Ecsel Joint Undertaking, the Eureka Clusters, and the ERA-NETs. As Horizon 2020 (now Horizon Europe) applications are sent directly to the European Commission, Business Finland has no visibility into who has applied and as such participants in Horizon 2020 (now Horizon Europe) were excluded from the impact assessment.

Following a logic model approach for the assessment of impact, the platforms achieve long-term impacts in the form of socio-economic benefits by helping companies, research organizations, and universities to improve their performance. These performance improvements occur as a consequence of the impact that the platforms have on improving the capabilities of participating organizations. Through the funding of international R&D collaboration projects, the platforms are expected to have directly impacted the capabilities (e.g., knowledge, skills, and connectivity) of the participants, and indirectly impacted their performance.

The evaluation finds that participants in projects funded through the platforms attribute considerable improvements to their capabilities. This analysis identified important points of divergence between the platforms, which represent areas of strength particular to each one. Also important is the alignment between these areas of strength and the stated objectives of the platforms. For example, the technology focused ITEA Eureka Cluster has the greatest impact on improvements to participants' technical capabilities. In contrast, the research focused ERA-NETs have the greatest impact on enhancing the research networks of participants. Additionally, the platforms play an important role in helping improve participants' international operational expertise. This measure encompasses impact on participants' knowledge of the skills required to internationalize;

knowledge of how to manage actions in target markets; ability to acquire international customers; and knowledge of distribution models for products or services in target markets. This suggests that while the platforms may be funding projects intended to develop and advance specific innovations, participants are also gaining transferable skillsets that will remain relevant well beyond the conclusion of the project. Given the relatively small domestic market of Finland, it is imperative that companies with aspirations for growth have the internal capacity to expand internationally and the international R&D collaboration projects funded through the platforms are helping to improve that capacity in the Finnish marketplace.

In terms of impact on performance, the platforms are having the greatest impact on the areas of performance that most closely align to the broad objectives of international R&D collaboration. Though each platform has more nuanced objectives, the consistent intent of all platforms is to encourage companies to invest in R&D and engage new partners in an effort to bring new products, processes, or services to market. Consistent with these objectives, the three areas in which the platforms are having the greatest impact on the performance of companies are: the number of new partnerships established, the introduction of new products, processes or services to market, and increased investment in R&D. That participation in the projects is having any impact on more distantly related measures such as making the companies more attractive as they seek private financing or increasing their annual export revenues is laudable.

For participating researchers, the platforms are having the greatest impact on the publication of research findings. Given the importance of publishing within the research community, this should be viewed as a meaningful value-add of the platforms. Additionally, researchers attribute the platforms with improvements to their networks through the engagement of new partners, which is of particular importance as researchers require a broad network from which to draw use cases, and subsequently attract more funding.

The impact results were segmented by respondent type (e.g., very small companies, SMEs, large companies, and university & research institutes). This segmentation revealed a considerable disparity in the impacts of the platforms on companies with fewer than ten employees and the impacts on all other groups of respondents. This suggests that for a participant to fully benefit from the international R&D collaboration opportunities, the participating entity must possess a minimum level of absorptive capacity. Without the internal ability to absorb and make use of the new knowledge, skills, and connections facilitated by participation in the projects, the benefits are greatly diminished. This aligns to the expectations of the Business Finland personnel interviewed, many of whom noted that with the exception of the Eurostars Programme, the platforms are not appropriate for small or newly formed companies.

Few innovators are aware of the opportunities available through the platforms

The Platforms are Impactful but Underutilized

According to the evidence gathered, the platforms (the Eurostars Programme, the Ecsel Joint Undertaking, the Eureka Clusters, and the ERA-NETs) are not well known in the Finnish innovation ecosystem. This is to be expected as limited resources are committed within Business Finland to raising awareness of the funding opportunities available through the platforms and marketing efforts are largely passive. The limited marketing efforts are coupled with the perception that the funding available through the platforms is difficult to obtain, and considerably more difficult to obtain than the funding available

through Finland's national funding instruments. As a result, the platforms are underutilized as a tool to advance R&D in Finland.

However, for those that were made aware of the platforms, the support provided by Business Finland in their pursuit of funding was valuable and participation in the funded projects through the platforms is highly impactful.

The Efforts to Raise Awareness of Horizon 2020 (now Horizon Europe) Have Been Worthwhile

The EUTI and the NCP network have made a concerted effort to raise awareness about Horizon 2020 (now Horizon Europe) by actively marketing the programmes. By hosting regular informational events via webinar and through leveraging existing regional support structures to co-host such events, information about Horizon 2020 (now Horizon Europe) has been disseminated across Finland. Based on the evidence gathered through the interviews, potential applicants find the information shared during these events to be helpful as they seek to determine which funding instrument is most appropriate for their purposes. The information provided also helps to clarify what is required in the application process, which ultimately sets applicants up for greater success.

Business Finland has the opportunity to advance not only its own mandate, but the innovation objectives of Finland by encouraging greater participation in the platforms & Horizon Europe.

Three Key Recommendations

1. Raise Awareness of the Platforms

The platforms have been truly impactful for those participating in the funded projects, however a number of avenues to raise awareness about the platforms have been underutilized, and therefore the platforms themselves are underutilized in Finland's innovation ecosystem. To address this moving forward, Business Finland should: 1) train internal, client-facing personnel on the platforms, 2) use regionally located organizations to identify potential applicants, and 3) more actively market the platforms.

2. Leverage the Platforms and Programmes to Support Finland's Innovation Objectives

The objectives of the platforms and Horizon 2020 (now Horizon Europe) are closely aligned to the national innovation objectives of Finland, and yet are an afterthought for companies seeking to internationalize. By clearly articulating how the international R&D collaboration opportunities can contribute towards the innovation objectives of individual companies, the innovation objectives of Finland will be advanced.

3. Offer Greater Assistance to First Time Applicants

To help first time applicants overcome the learning curve required to be successful, Business Finland has a number of options at their disposal. At a minimum, Business Finland could increase the number of training sessions addressing the topic of how to develop a successful application for the platforms to more closely mirror the efforts made by the EUTI and the NCPs in the support offered to first time Horizon 2020 (now Horizon Europe) applicants.

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