

Innovation, Funding and Investments

RDI policy

Subject overview

The chemical industry in Finland is a growth-oriented problem solver with the goal of becoming a nature-positive, carbon-neutral sector. Achieving this requires investments that leverage new innovations and technologies. To meet the objectives of the green transition, investments in the chemical industry must multiply from current levels. Climate goals are only a few innovation cycles away. Parliamentary cooperation on RDI matters and the current government's ambitious policy commitments create a unique opportunity to establish one of the world's best RDI infrastructures in Finland through collaboration among various stakeholders. The aim should be to elevate Finland's research and innovation capabilities to at least their previous levels, ideally placing the country among the global leaders. If successful, this will generate both desired growth and employment opportunities.

In the ambitious reform of RDI policy, it is not solely about funding instruments but also about policies that enable innovation and collaboration among various stakeholders. The foundation of innovation policy is that technologies and innovations are borderless, and our sector is in constant global competition. Companies will invest in RDI activities and invest in Finland only if Finland is seen as a competitive environment. The policy must create space for development and success, as well as share the associated risks.

In 2022, the state expenditure on research and development (R&D) allocated €1.387 billion to the higher education sector and €244 million to the business sector. Additionally, the level of collaboration between higher education institutions and businesses has declined (from 2010 to 2017, cooperation between companies and universities decreased by over 40%). The Chemical Industry Federation of Finland believes that the additional investments in RDI activities and the R&D funding law to be allocated in the coming years should not only support business-driven RDI funding but also focus on revitalizing and supporting collaboration between businesses and higher education institutions.

Objective of the Chemical Industry

Two-thirds of the additional public funding for research and development is allocated to increasing R&D grants for businesses. The funding is distributed competitively through Business Finland for business-driven research and development activities.

Chemistry Industry Association of Finland believes that companies of all sizes should be able to benefit from support instruments. Currently, larger companies face difficulties in obtaining support for R&D projects. This affects where global companies choose to place their product development units, as countries are competing to offer the best development environments. Currently, Business Finland's funding programs for research and development are too short-term. The goal is to operate with a longer-term perspective, and therefore, the duration of the funding programs should be extended from the current term to five years. This would better align with the timeframes of R&D activities in companies. Additionally, the funding should provide support for a sufficient duration to cover pre-commercial activities.

Resources should be allocated to the commercialization of innovations, as there is currently no state-backed funding available in Finland for pilot and demonstration projects following the merger of the Climate Fund and Finnish Industry Investment. Finnish Industry Investment should either implement asymmetric financing instruments or establish a new funding mechanism for pilot and demonstration projects. In the chemical industry, pilot and demonstration phases typically involve constructing a scaled-down version of the production process, which requires facility investments. These investments typically range from tens of millions to approximately one hundred million euros. For smaller companies, this stage often presents significant growth barriers due to the substantial costs and the limited size of Finland's financial markets, leading to the sale of technology abroad. The absence of a public risk financing mechanism also slows the pace of technology piloting in Finland or results in piloting being carried out in more favorable environments. Consequently, production is often established outside of Finland. Finland should fully leverage all opportunities provided by the EU's state aid exemption rules.

The RDI tax incentive should be expanded to include equipment purchases that support innovation. Particularly now, companies aiming for renewal are compelled to invest in new types of product development equipment due to rapid digital advancements. For instance, artificial intelligence presents opportunities for the chemical industry, but new technologies in this sector require significant investments. Equipment support would also enhance Finland's competitiveness in attracting global RDI functions. Additionally, increasing equipment investments would create new jobs, as companies would need to train highly skilled personnel.

The chemical industry is also calling for a discussion on how to support the commercialization of disruptive technologies. Commercializing disruptive technology is highly capital-intensive, with costs in the chemical sector ranging from tens of millions to several hundred million euros for new products (in the pharmaceutical industry, the figure is between 1.5 and 2 billion euros). For smaller-scale process improvements, the costs range in the hundreds of thousands. The time frame typically ranges from about ten to twenty years. A company is unlikely to commercialize inventions unless it can share the risk. Completely new technologies or the use of existing technologies in entirely new ways require venture capital. High-risk projects are expected to increase as companies seek growth in new areas, and financing these initiatives will accelerate the transition to a green economy.

Establishing new technology programs that facilitate collaboration between companies and researchers. Currently, our industry finds collaboration with universities particularly challenging, as university contract law is often inflexible and tends to view companies primarily as clients. This approach does not encourage cooperation, making it essential to create new platforms that foster collaboration.

Attracting top experts, including leading researchers, to Finland. The entry process must be smooth, and top researchers must be provided with the framework to conduct high-quality research, which requires sufficiently long-term research funding. The applicability of research in businesses needs to be ensured, as innovation is only truly valuable when it is productive. Researchers should be able to move seamlessly between universities and companies, as the commercialization of inventions often requires the researcher's involvement in the new company or commercialization project.

Addressing barriers to innovation both domestically and within EU legislation. For example, strengthening research conditions in public hospitals and reforming the "Act on the Secondary Use of Health Information" to ensure that data is used responsibly to accelerate research and development.

EU legislation should aim for technological neutrality, and the selection of winning technologies should not be driven by political considerations. A complete ban on certain technologies should be considered very carefully, especially if competing countries continue to utilize those technologies. Furthermore, in funding policy, as many programs as possible should operate on the principle of excellence rather than the principle of cohesion.

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