

Multi-year programme
2021 to 2024

TOP SPOT



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Innosuisse – Swiss Innovation Agency

Innosuisse is the Swiss Innovation Agency. We fund science-based Innovation in the interest of the economy and society with the aim of increasing the competitiveness of small and medium-sized enterprises (SMEs) and start-ups in Switzerland.

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Management summary

Swiss innovation promotion is facing a number of challenges in the coming years, including digital transformation, declining investment by SMEs in research and development, sustainable use of resources and the creation of a strong, internationally competitive start-up culture. As the Swiss Confederation's agency for promoting innovation, Innosuisse wants to play a major part in successfully meeting these challenges. It is the goal of Innosuisse to help Switzerland take advantage of the opportunities offered by digital transformation with a view to securing a top spot for the country as a leading innovator for many years to come. To do so, Innosuisse offers effective support measures geared towards enabling innovative Swiss companies to make a success of digital transformation. It also aims to promote small and medium-sized enterprises (SMEs) in Switzerland by further strengthening their propensity and power to innovate. It helps SMEs to invest in their future and brings together players from science and business to transform scientific knowledge into marketable solutions. By helping to bundle forces in the innovation ecosystem and tap synergies, Innosuisse assists in fostering Switzerland's position as an internationally competitive start-up nation. The promotion activities of Innosuisse take the Sustainable Development Goals of the United Nations (UN) set out in its 2030 Agenda into careful consideration and thus aim to make the Swiss economy more resource efficient and sustainable.

With a view to becoming more effective in fulfilling its duties and mission, Innosuisse has set itself four priorities. First, it systematically gears its funding portfolio to benefiting society and the economy. To this end, it combines the proven bottom-up principle with targeted incentives to drive innovation in key thematic areas. Second, Innosuisse strives to dynamically and actively align its funding opportunities to changing needs, without unnecessary legal constraints. The current framework conditions are too restrictive to enable the most effective and targeted promotion of innovation pos-

sible. The legal basis (RIPA) will therefore have to be amended in order for Innosuisse to implement all the measures envisaged in the multi-year programme. Third, Innosuisse helps to mitigate innovation risks through targeted measures. In line with the subsidiarity principle, it wants to be able to adjust its share of financing to the degree of risk and, for example, bear a higher share when the risks are bigger but the payoff is also greater in the event of success. Fourth, Innosuisse aims to offer Switzerland an effective platform for innovation. Together with suitable partner organisers, Innosuisse wants to establish a standardised platform that provides players with simple and swift access to funding opportunities and that enables resources, which are frequently rather fragmented, to be bundled.

The funding portfolio of recent years has largely proved successful. For this reason, Innosuisse intends to continue its existing funding instruments and to optimise and supplement them with targeted offers. The **promotion of innovation projects** will remain the central funding instrument. By making its offering more flexible, Innosuisse aims to create incentives for start-ups from universities to carry out projects, too. It will provide them with financial support in the initial start-up phase, giving them the necessary backing to drive their innovation forward. Innosuisse also wants to have the opportunity to help set the course on economically and socially relevant topics, such as key issues of digitisation, climate change and the energy revolution. Consortia consisting of several research and implementation partners are to be given the opportunity to work for an extended period of time on finding concrete solutions to specific issues within the framework of flagship projects.

Innosuisse intends to further intensify the **promotion of entrepreneurship and start-ups** and to supplement its offering in this area in a targeted manner. In particular, it aims to further the internationalisation of

start-ups to make it easier for them to access foreign markets from their Swiss home base. Innosuisse is also introducing a new area of focus in the promotion of individuals. The goal is to engage with them in a more targeted way, and in some instances at an earlier stage than is currently the case, so as to equip them with what they need and facilitate their entry into entrepreneurship, including a career in “intrapreneurship” within an established company or as a lecturer with practical experience at a university.

In the area of **knowledge and technology transfer (KTT)**, Innosuisse wants to put a stop to the trend in recent years towards an ever smaller number of companies investing in research and development (R&D). The funding opportunities offered by Innosuisse in this area are to be optimised, expanded and aligned with the existing offerings of third parties. Close cooperation with other cantonal and regional players in the area of KTT is generally very important to Innosuisse.

Switzerland must defend its leading position as an innovative country on the international stage. In this respect, the consistent expansion of **international cooperation** not only brings highly welcome additional knowledge into the country but can also serve as inspiration for new approaches, while offering Swiss players the opportunity to extend and broaden their own value chains with new partners.

At the organisational level, Innosuisse regularly reviews its structures and adapts them to the new challenges. Its goal is to make the best possible use of available resources to achieve maximum impact. In 2021–2024, Innosuisse will continue to improve its processes, tools and IT systems, with a special focus on conducting a systematic impact analysis with respect to its funding activity and on measuring productivity.

The financial requirements for all planned promotion measures including functional expenses declared by Innosuisse for 2021–2024 total CHF 1,260 million. Of this amount, more than 91% is earmarked for promotional measures. The additional funds requested are to be used primarily for the new flagship projects and to double the budget of BRIDGE, the joint programme of the Swiss National Science Foundation (SNSF) and Innosuisse.

Challenges facing public innovation promotion

Digital transformation

Innosuisse helps Switzerland take advantage of the opportunities offered by digital transformation with a view to securing a top spot for the country as a leading innovator for many years to come.

The digital transformation is progressing ever faster and affecting all areas of life. Countries that cannot keep up run the risk of being left behind. Switzerland must seize the opportunities associated with the digital transformation and ensure that it keeps pace with international cutting-edge developments. According to the IMD World Digital Competitiveness Ranking 2018, Switzerland occupies a solid 5th place and has gained ground over the last three years. However pleasing this result is, it also shows that there are weak points that should be addressed by an innovation promotion agency such as Innosuisse. Potential is present for optimisation, in particular with regard to the low proportion of women in the fields of mathematics, science and technology, the low rate of high-tech patents and the still comparatively very low use of digital technologies in the interaction between government and society. However, promoting digital technologies on its own is not enough to successfully manage the digital transformation of the economy and society. More importantly, we must ensure that issues relating to the digital transformation are raised as a topic across all sectors and specialist areas and are adequately addressed.

To attract more women to creative jobs in technological fields means society as a whole must take measures at all levels and, in particular, begin targeting girls at pre-school age. Raising awareness of hidden bias in the way many people think and act, as well as giving girls positive role models can help in this regard. The Swiss economy is highly developed overall and in recent decades has successfully used incremental innovations in many areas, especially in highly lucrative niche markets, to consolidate its leading position. Digital transformation requires more, though. With the emergence of new, networked processes for production and value creation, the bundling of products and services into comprehensive offerings and the disappearance of geographic and time limits on supply and demand, business models have to be fundamentally rethought. This will tend to be much more difficult for established, solid companies than for young, agile companies. However, it is crucial that the former also manage this change if full employment in our country is to be sustained.

THE ROLE OF INNOSUISSE

Innosuisse wants to create practical incentives and effective support measures to facilitate a successful digital transformation. Applicants should remain free to choose their own innovation topic according to their needs. However, they will have to provide more information in their applications about the consideration they have given to digital transformation in the framework of their concrete innovation pro-

ject. Innosuisse will also repeatedly remind applicants of the importance of integrative, interdisciplinary approaches in dealing with digital challenges, also in the context of the innovation projects it supports. In all its areas of activity, Innosuisse attaches great importance to diversity, in particular to gender diversity, and takes appropriate measures to ensure the most balanced representation possible.

Sustainable development

Innosuisse aligns its funding activities with the sustainability goals of the UN's 2030 Agenda.

In September 2015, all UN member states adopted the 2030 Agenda comprising 17 Sustainable Development Goals (SDGs). In its June 2018 country report¹, the Federal Council stated that the UN's 2030 Agenda has created a new global frame of reference, which will also guide sustainable development in Switzerland.

Switzerland is performing well to very well on certain goals, such as ending poverty (SDG 1) and hunger (SDG 2), ensuring healthy lives and promoting well-being (SDG 3), and ensuring quality education and promoting lifelong learning (SDG 4). Unfortunately, though, it is trending the wrong way on others, especially SDG 12, ensuring sustainable consumption and production patterns. The report stresses that the federal government, together with industry, is aiming at a transition to a resource-efficient and sustainable economy that assumes responsibility along the entire value chain. In this context, it points to the importance of technical and social innovations as prerequisites for reducing the consumption of resources.

Awareness of the topic of sustainability among broad sections of the global population has increased, not least as a result of recent climatic upheavals and the challenges posed by migration. Alignment of innovation activities with the Sustainable Development Goals therefore opens up great opportunities to gain a decisive competitive advantage on the international market with sustainable solutions. The Swiss economy is in a good position to assume a pioneering role in this regard.

THE ROLE OF INNOSUISSE

As the federal innovation promotion agency, Innosuisse always considers the Sustainable Development Goals (SDGs) of the UN's 2030 Agenda in its funding activities. These can only be achieved if all relevant parties engage with them and take them into account in their actions. However, it should be borne in mind that the SDGs can also conflict with one another. Responsible action must therefore take into account the interactions between the different SDGs and carefully weigh the different interests.

The sustainability of innovation projects is an explicit evaluation criterion of Innosuisse, which it examines in its assessment of applications. Innosuisse will continue to further optimise this evaluation approach and better align it with the UN's SDGs. This goal is in line with the already established legal principle according to which Innosuisse particularly supports projects that contribute to the sustainable use of resources².

SMEs as innovation makers

Innosuisse promotes the propensity of small and medium-sized enterprises to innovate and their innovative strength.

Switzerland has a large proportion of SMEs. According to surveys conducted by the Federal Statistical Office (FSO)³, in 2015 around 99.7% of all companies in Switzerland were small and medium-sized enterprises (SMEs); micro-enterprises with fewer than ten employees accounted for the largest share by far (almost 90%). They are particularly prevalent in the tertiary and primary sectors and much less so in the secondary sector. Of the nearly 4.4 million employees in Switzerland, almost 68% worked for an SME during the period surveyed, of which about 25% were employed in the secondary sector.

Various analyses, including the 2016 Innovation Survey conducted by the KOF Swiss Economic Institute at the Federal Institute of Technology (ETH) in Zurich on behalf of the State Secretariat for Education, Research and Innovation (SERI), which was published in October 2018, show that the proportion of Swiss companies with research and development (R&D) activities has been declining steadily since the late 1990s. While more than a quarter of companies invested in R&D in the early 2000s, this figure had dropped to just over 13% by 2016. This means that Switzerland is also falling behind by international standards. Although those who continue to invest in R&D have increased their activities in this area, and the proportion of companies with foreign R&D activities has also remained stable, the noticeable concentration and tendency to outsource R&D abroad raises questions with regard to Switzerland's long-term innovative strength, the diversity of the local industry and thus the resilience of our economy to crises.

In addition, companies' sales growth cannot keep pace with the growth of their R&D expenditure. Another finding also gives cause for concern: while the sales share of innovative products in companies with R&D increased as a percentage of total sales, sales of new products decreased and in 2016 were less than 5%. This implies that Swiss companies have a tendency to follow technical developments rather than shape them at the forefront.

A thought-provoking picture is also provided by the 2018 sector study of the Swiss medical technology industry⁴. The medtech industry, which in 2017 had an export volume of CHF 11.3 billion and was thus responsible for around 5.1% of Swiss exports, expects above-average sales growth in the coming years. However, R&D spending in this particularly research-intensive sector fell, in some cases significantly, between 2015 and 2017 as a percentage of sales. This is probably due not least to rising cost pressure and increasing regulatory requirements. According to the innovation survey, small companies with fewer than 50 employees also lack the necessary equity capital and/or access to third-party funding for R&D investments.

THE ROLE OF INNOSUISSE

Innosuisse's mission is to promote the innovative strength of Swiss SMEs and their propensity to innovate, and to work towards reversing the current trend. A broad base of innovative SMEs is central to safeguarding the country's prosperity and employment. It is important to invest in the future and secure a future competitive advantage, especially when

times are good economically. Thanks to the strong scientific basis in Switzerland, the necessary conditions are in place. With its support, Innosuisse brings together players from science and business with the aim of turning scientific findings into marketable solutions.

Competitive Swiss start-up culture

Innosuisse helps to position Switzerland as an internationally competitive start-up nation.

The existence of a strong start-up environment is of central importance for a country's innovative capacity and power. Start-ups, especially those that emerge from scientific research, are the main drivers of disruptive innovation. They are best placed to pick up on and test new business ideas unencumbered by existing business constraints. The Swiss start-up scene has gained momentum in recent years. In the greater Zug area, for example, we have even seen the rapid emergence of an internationally renowned start-up cluster around blockchain technology.

A study commissioned by Innosuisse⁵ on the gaps in the Swiss start-up ecosystem shows that many public and private incubators and accelerators now offer their support. However, the offerings are poorly coordinated, primarily regional and not very specialised. Bundling these forces and developing synergies would markedly increase the efficiency and effectiveness of the offerings.

Entrepreneurship in Switzerland is still not afforded the position it needs to turn the country into a genuine start-up nation. This is probably largely attributable to the survey's finding that other career prospects are regarded as more attractive, a fact that otherwise may be regarded as positive. According to the GEM 2017/2018 Global Report⁶, in terms of opinion on whether entrepreneurship is a good career path to follow, Switzerland ranks only 43rd out of 54 countries. This finding applies to entrepreneurship in general, and while the perspective on scientific or research-based entrepreneurship may be somewhat different, there is nonetheless considerable potential for optimisation.

The low proportion of entrepreneurs who are women is a particular cause for concern. Again, according to the GEM report, women in Switzerland are significantly more likely to be driven to entrepreneurship by necessity rather than opportunity as compared with their male counterparts. In science and research, where entrepreneurship is primarily driven by opportunities, the negative effects of this are particularly pronounced, with women being greatly underrepresented. The share of women in the management of the start-ups that received the CTI label in 2017 was only 14%. In the previous year, the proportion of women was only a single-digit figure. Attracting women to science-based entrepreneurship must therefore be a top priority.

The promotion of start-ups founded by those over the age of 40 also deserve special attention. Many experienced professionals want to spend the rest of their professional careers exploring new avenues and bring with them not only a high level of motivation, but also a lot of relevant experience. Innosuisse's support measures should address these founders, too. However, this does not mean that the framework conditions have to be adjusted to the sometimes different needs these potential applicants have in terms of how they are addressed and the specific support offered.

THE ROLE OF INNOSUISSE

As a national funding organisation of the federal government, Innosuisse has a duty of impartiality, neutrality and objectivity. As such, it is best placed to proactively work towards better coordinating and aligning the various offerings available, where necessary also by means of financial incentives, to exploit synergies and to close identified gaps. The idea is not to simply inject cash into individual initiatives, but rather to act in the interest of the overall system and create the right

framework conditions that make it easier to bring about the desired changes by pooling resources. In accordance with the subsidiarity principle to which it subscribes, Innosuisse will position its funding instruments in such a way that they do not compete with private or public initiatives, particularly at regional and cantonal level. The offerings are to be structured in such a way that they appeal in particular to women and people over the age of 40.

Priorities of Innosuisse 2021–2024

Gearing towards achieving economic and social benefits

As a federal funding agency for science-based innovation, it is Innosuisse's task to generate economic benefits through its activities. Its support should enable companies to operate and expand even more successfully on the market. However, the benefit of this support can also lie in the reduction of economic costs, especially in the social or healthcare sectors.

As a subsidiser of research institutions, in particular universities of applied sciences, Innosuisse's importance in terms of securing and strengthening their research capabilities cannot be underestimated, and this despite the relatively small proportion of funding it provides compared with the overall budgets of research institutions. With many players vying for funds, competition among application-oriented research projects and institutions is lively, which contributes to the quality of the overall system. Unlike the Swiss National Science Foundation (SNSF), Innosuisse consistently gears its research funding to the needs of those players that put research findings into practice. This also helps to ensure that by closely linking research and real-world application the supported research institutions can offer training that integrates the needs of business and society.

The bottom-up principle applied by Innosuisse in its funding activities ensures that the agency promotes that which actually addresses the concrete needs of the economy and society. Previous impact analyses have shown that the projects are initiated to a considerable degree on the research side. However, funding decisions are based less on where an impulse came from and more on the motivation underlying an innovation project. A project should not be motivated primarily by the financing requirements of the research side, but by the willingness of all participants to create value. Innosuisse will therefore pay even more attention in the future to ensuring that the expected value creation potential is clearly identified in the projects submitted. Ultimately, researchers will also gain in relevance and up their profile if they more consistently take into account what comes after the research.

Certain innovation topics, which are of great and sometimes transdisciplinary importance, often take a long time to be put into business practice. Be it because their potential and relevance is not immediately recognised or because the challenges of everyday business prevent us from seeing the bigger picture. Innosuisse sees it as its duty to ensure that the relevant parties take action in good time. It will therefore complement its bottom-up approach with a targeted top-down approach. In project funding, it will use flagship projects to create incentives to ensure that issues of great relevance are taken up and dealt with in good time by powerful consortia combining different perspectives for the benefit of the economy and society. The results of its systematic impact assessments and its contact with the relevant interest groups will provide it with important information so that it can act where the biggest economic benefit can be expected and where the potential for ground-breaking new solutions is greatest.

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Innosuisse places the
benefits for the economy
and society at the centre of
its promotional activities.

 **Increasing the agility and reactivity of funding opportunities**

The economy and society are changing at an ever faster pace. Technological progress and, in particular, the rapidly advancing digital transformation demand a high degree of flexibility and agility from economic players if they are to survive in the rapidly changing market. Public innovation promotion must take these conditions into account and also be able to adapt to changing needs. At the same time, it must keep an eye on the international competition. With Swiss companies so closely intertwined with global business, they are inevitably at risk of being marginalised if framework conditions at international level shift in favour of their international competitors. In this respect, it is important to pay particular attention to Europe's stated intention of significantly strengthening the promotion of innovation in the future. Appropriate measures should be taken to ensure that conditions remain at least equally favourable for Swiss companies.

The Commission for Technology and Innovation (CTI), Innosuisse's predecessor organisation, was able to develop its funding practice over many years and introduce new activities, in part thanks to there being practically no applicable legal regulation. In the course of anchoring innovation promotion as a federal task in the Federal Constitution, innovation promotion was anchored in law. Since the total revision of the Federal Research and Innovation Promotion Act (RIPA) in 2012, innovation promotion has been heavily regulated in detail. This applies in particular to the most important funding instrument, the promotion of innovation projects. Any further development of this instrument can be achieved only via legislation. Given the time and complexity involved in legislative procedures to promote innovation, this approach is not practical. In a dynamic environment, it must be possible to try out new funding formats quickly and easily, also in the form of pilot measures, without the basic parameters of such measures needing to be anchored in law. The requirements of subsidy law are also always be met in full this way.

Some of the support measures envisaged in this multi-year programme, which address a real need, will therefore only be able to be implemented if it is possible to adapt the legal bases set out in RIPA accordingly. The current framework conditions are proving disadvantageous in terms of being able to offer the most effective and targeted promotion of innovation possible. Innosuisse therefore hopes that legislators will grant it a more flexible legal basis for the new contribution dispatch period.

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Innosuisse wants to be able to adapt its funding opportunities quickly and proactively to changing needs.

 **Providing support in the controlled assumption of risk**

By law, Innosuisse should only support projects that would probably not be realised without its support. This requirement, which is based on the principle of subsidiarity, makes it clear that state support cannot be about relieving innovators of the burdens they would be prepared to bear without support. Rather, government support should act as an incentive to take risks and seize opportunities that would otherwise be lost.

Innovation projects inherently carry risk. Such risk may lie on the research side (e.g. technical feasibility) as well as on the market side (e.g. launch costs, market acceptance) and may be a matter of timing. The longer it takes for a project to be market-ready, the greater the uncertainty about future business success. Public funding is intended to help mitigate these risks and provide the necessary time frame for the project. It should enable the project partners to assume the risks in a responsible manner in the first place.

It thus stands to reason that Innosuisse should be given the opportunity to adjust its financing share to the level of risk involved and to bear a higher share if the risks, but also the potential in the event of success, are greater. On the one hand, this requires a willingness to accept that failure, despite the necessary diligence and skill, is a possibility. This should be all the easier given that valuable lessons can also be drawn from failed projects, which may be invaluable for the next time. On

the other hand, support in line with the measure of risk involved also requires a flexible legal basis which takes sufficient account of the diversity of constellations, permits flexible financing and support solutions, and does not impose a blanket approach. As explained above, Innosuisse sees a need for optimisation in this respect.

Innosuisse helps to mitigate innovation risks through targeted measures.

 **Creating a platform for an innovative Switzerland**

As a nationally active promotion agency that is obliged to act objectively and neutrally due to its public mission, Innosuisse is predestined to play a unifying, coordinating and, where necessary, integrating role.

Political and social circles frequently bemoan the complexity of the Swiss innovation system. This is not an entirely unfounded complaint, as a multitude of public and private offers are available at different federal levels. This diversity has its advantages and allows recipients to select the offer that best addresses their needs. However, there can be a lack of clarity regarding what is available, and access is often difficult. This is where Innosuisse wants to step in, not alone but in cooperation with other players.

Innosuisse is convinced that the existing offers have merit, but also believes that better collaboration and the move away from obstructive competitive thinking can serve to sharpen and more coherently position its own offering. For this reason, Innosuisse plans to work together with suitable partner organisations to develop

a uniform platform that will enable players quick and easy access. The aim is not only to provide information on existing funding opportunities, but also to offer genuine services and assistance, for example in dealing with intellectual property rights – using state-of-the-art interactive technology, of course.

These measures will also enable Innosuisse to better fulfil its statutory duties of coordination.

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Innosuisse offers an effective platform for an innovative Switzerland.

Funding portfolio 2021–2024

Innosuisse currently works along four lines of promotion. These will be continued throughout the 2021–2024 contribution dispatch period.



START YOUR INNOVATION PROJECT

Financial
requirement
2021–2024
CHF

913m

Innovation projects and programmes

The aim of project and programme funding is to align the tried-and-tested offering even more specifically with the needs of innovation players and thus to provide a range of instruments that is effective also in terms of international standards. This requires a flexible offering that also takes particular account of the special situation of start-ups. In addition, it should create the necessary incentives for innovative forces to come together and develop ground-breaking new solutions for the imminent technological and social shift.

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BRIDGE programme

With this programme, SNSF and Innosuisse are building a bridge between the basic research funding of SNSF and the innovation funding of Innosuisse, thereby helping scientific findings to be rapidly implemented for the benefit of society and the economy.

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START AND GROW YOUR BUSINESS

Financial
requirement
2021–2024
CHF

60m

Entrepreneurship and start-ups

Innosuisse aims to further intensify and expand the promotion of entrepreneurship and start-ups in a targeted manner. In particular, the aim is to further the internationalisation of start-ups to make it even easier for them to access foreign markets from their Swiss home base. Individuals should also be addressed more specifically and in some cases earlier than previously, in order to equip them for and facilitate their entry into entrepreneurship, including a career in “intrapreneurship” within an established company or as a lecturer with practical experience at a university.

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CHF 1,150m

is the **financial requirement** reported by Innosuisse
for innovation funding 2021–2024.



BE
CONNECTED

Financial
requirement
2021–2024
CHF

78m

Knowledge and technology transfer (KTT) and the dissemination of information

The trend towards ever fewer companies investing in R&D must be stopped if Switzerland is to remain one of the world's most innovative countries. KTT plays a key role here. The funding opportunities offered by Innosuisse are to be optimised, expanded and aligned with the existing offerings of third parties. Similarly, the measures in the area of dissemination of information must also be consistently geared to the needs of their intended targets. Information on existing funding opportunities is effective if it reaches potential applicants, even if in combination with other activities.

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GO
GLOBAL

Financial
requirement
2021–2024
CHF

99m

International cooperation

In an international comparison, Switzerland is at risk of being left behind in terms of innovative capacity. In this respect, the consistent expansion of international cooperation not only brings highly welcome additional knowledge into the country but can also serve as inspiration for new approaches, as well as offering Swiss players the opportunity to extend and broaden their own value chains with new partners.

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START YOUR
INNOVATION
PROJECT

Promotion of innovation projects and programmes

Financial requirement
2021–2024
CHF

913m



START YOUR INNOVATION PROJECT

The promotion of innovation projects is set to remain Innosuisse's central funding instrument in the 2021–2024 dispatch period. Project cooperation between research institutions and private or public enterprises enables efficient and direct transfer of research results into practice. The knowledge acquired at Swiss research institutions, especially at universities, can thus immediately be made available to industry and society. Innosuisse's bottom-up approach helps to ensure that the funding covers the needs of business and society. The eligibility criteria for promotion laid down in the law, in particular the concentration of state support on the research partner and the requirement that the implementation partner bear half the project costs, have generally proved their worth.

Public promotion of innovation is not only justified but indispensable if Switzerland wants to compete internationally as a business location, especially when it comes to mitigating the risks of innovation projects offering great value creation potential. This is all the more true where an SME would not otherwise be able to undertake such projects at the right time or to the extent necessary. The structural change associated with the digital transformation requires a radical rethink by practically all economic players. Production processes and supply chains need to be revised, and even entire business models may need to be reconsidered. The large amounts of data collected must be put to good and innovative use for companies' own business activities, but at the same time sufficiently well protected against unauthorised access and processed in accordance with the law.

Innovation projects

2021–2024, Innosuisse will continue to use the majority of its funding to promote innovation projects in accordance with its proven funding criteria. In particular, applicants should be encouraged to submit projects with a higher risk in terms of both scientific and economic success, provided that they can demonstrate that their project has above-average potential for creating added economic value.

Innosuisse wants to be in a position to take account of different risk levels of projects through variable degrees of financing. For instance, it would like to be able to provide projects carrying greater risk with funding worth more than half of the total project cost. This could enable Innosuisse to counteract the tendency for SMEs not to invest in R&D at all because of the high level of resources required. However, this will only be possible if the current legally stipulated financing rules are relaxed somewhat.

Regarding projects without an implementation partner, Innosuisse intends to take a cautious approach in the future and possibly forego funding altogether. This, however, is subject to two conditions. One, it must be ensured that the implementation aspects of the projects funded under the BRIDGE programme – jointly implemented with the Swiss National Science Foundation (SNSF) – are further strengthened and that BRIDGE becomes a real alternative to the current projects without an implementation partner. Two, university start-ups must be offered more adequate funding conditions for innovation projects than is the case today.

Financial
requirement
2021–2024
CHF
567m
excluding
overhead
contributions

Financial requirement 2021–2024 CHF **12m** excluding overhead contributions

Innovation cheques

“Innovation cheques”, which have been offered in a modified form since 2018, have proved to be particularly attractive. They provide SMEs with direct access to the services of research institutions. The innovation cheques, which are limited to a maximum of CHF 15,000, are often an SME’s gateway to further project co-operation with the research institutions involved. This form of support is intended to be continued throughout the 2021–2024 dispatch period.

NEW OFFER

Financial requirement 2021–2024 CHF **20m** excluding overhead contributions

Projects of start-ups from university research institutions

Start-ups generate disruptive new business ideas. Companies are increasingly offsetting their stagnating or even declining expenditure on research and development by integrating suitable young companies pursuing new approaches. For young companies, especially in the life sciences sector, this is a good alternative, especially if they do not have realistic chances of obtaining the considerable funds or the necessary know-how required for market launch themselves within a useful period of time. Supporting such start-ups and their innovation projects is therefore in the interest of the economy as a whole. However, particular attention must be paid to promising young start-ups that have the potential to survive and grow in the longer term. Efficient and targeted public promotion of innovation aimed at start-ups, especially in the university sector, is of central importance for Switzerland’s long-term competitiveness and attractiveness as a business location.

In Switzerland, the regulatory doctrine dictates that public funding used to promote innovation should not directly benefit companies. The resulting principle of independence between research and implementation partner represents a major handicap, especially for start-ups from the university sector, which is probably not in line with the legislator’s original intention. Innosuisse would therefore like to relax the eligibility criteria for university start-ups in the 2021–2024 dispatch period. However, this requires the provisions set out in Article 19 RIPA to be amended. Start-ups emerging from the university environment, whose founders are frequently still partially tied to the university during the transitional phase, are in future to also act as implementation partners for an innovation project with the relevant university and to be able to apply for support for their own participation in the project.

Rendering the promotion offering more flexible in this way could boost the founding of promising start-ups. If founders could receive financing for the work they themselves contribute to the project, start-ups would have the financial backing they need in the first phase of their existence. It would allow them to become independent at an early stage and, if necessary, leave the university environment, and to drive their innovation forward until they attract the attention of potential investors.



START YOUR
INNOVATION
PROJECT

NEW OFFER

Flagship projects

Public innovation promotion in Switzerland is committed to following a bottom-up approach. This does not, however, stand in the way of – where justified – creating incentives to encourage applicants to increasingly focus on areas of particular interest for the future prosperity of the country and requiring disruptive solutions and business models. Given the concentration of innovation-related expertise within its organisation, Innosuisse is particularly well placed to set thematic priorities in this regard. Accordingly, the 2021–2024 dispatch period will focus on relatively generic topics that are relevant across many sectors – such as core issues of digitisation (quantum computing, artificial intelligence, big data, Internet of Things, cyber security etc.) and challenges relating to the energy revolution and other sustainability issues (climate, water and other natural resources, healthcare, migration, ageing etc.) – with a view to developing concrete solutions for business and society. Research and implementation partners will be invited to form larger consortia in which several research and implementation partners participate across universities, disciplines and value chains to jointly develop solutions. In addition to the funding to cover research partners' research costs, other funds will also be made available to the consortia, in particular for the performance of coordination tasks, joint workshops, training and specific transfer measures (hosting researchers at the implementation partner, participation in further training measures). In a departure from the otherwise strict participation rules, the implementation partner should also be able to benefit from this in individual cases. Consortia projects are more comprehensive than regular innovation projects in terms of content and are likely to be designed for the longer term. Aside from the usual "linear" innovation, Innosuisse also wants to focus on "systemic" innovation by promoting projects aimed at not just making small improvements to an existing system (e.g. increasing the efficiency of a drive system or improving the properties of a material) but at sustainably overhauling a system (e.g. integrated mobility management or the circular economy). A special focus will also be placed on transdisciplinary projects in which researchers from different disciplines, for example technology and socio-economics, work together.

Flagship projects are to be awarded by means of regular calls for tenders with case-specific thematic requirements and, where appropriate, indicative budgets. The award process is competitive. A two-stage procedure is planned. In a first step, the consortia submit a short project outline that is open to content review, on the basis of which an initial selection is made. Detailed applications are then submitted in a second step upon explicit invitation. Lean processes are an essential factor in the attractiveness of a funding instrument, not only in awarding contracts but also in supporting a project.

The flagship projects also represent an interesting funding instrument for existing Swiss Competence Centers for Energy Research (SCCER), in particular, to continue advancing highly relevant energy topics in larger consortia once specific support has ended. The eight SCCERs established in seven fields of action in 2013 in response to the energy revolution will have received funding of around CHF 200 million by 2020. The capabilities acquired as a result of this promotion should also continue to be put

Financial
requirement
2021–2024
CHF
135m
excluding
overhead
contributions

to effective use for the benefit of Switzerland's future energy system throughout the 2021–2024 dispatch period by means of flagship projects. Innosuisse thus expects to receive excellent, highly competitive applications from the SCCERs. The precise nature of the flagship projects will in part also depend on how soon and to what extent the legal bases can be made more flexible.

Financial
requirement
2021–2024
CHF
70m

Bridging the gap between basic research and innovation (BRIDGE)

The Swiss National Science Foundation (SNSF) and Innosuisse have been collaborating on the BRIDGE joint programme since 2017. It builds a bridge between the research funding of the SNSF and the innovation funding of Innosuisse. The aim is to give researchers the opportunity to continue working on research findings that harbour great potential for implementation so as to generate innovations from them. The programme has two funding lines: "Proof of Concept" and "Discovery". While "Proof of Concept" is aimed at young researchers with a Bachelor's degree or higher who want to take their own research results in the direction of entrepreneurship, "Discovery" allows up to three research teams to jointly develop research results into application-ready solutions. Although it is still too early to thoroughly evaluate BRIDGE, the first impact assessments for "Proof of Concept" are planned to be carried out before the end of 2020. However, it is already apparent today that BRIDGE meets an obvious need. The funds available to date have by no means been sufficient to support all eligible applications. After the first call for tenders in 2017, the success rate for "Proof of Concept" was extremely low at 11%. Since then, the number of applications has stabilised at a lower level, which has raised the success rate to 36% for the latest call for tenders in 2018. The situation with respect to "Discovery" projects, however, is far more critical, as only eight, that is 4%, of the 190 projects submitted could be supported in 2017. In 2018, 87 applications were submitted. Thanks to the fact that the SNSF was able to inject additional funds of its own, 12 projects were financed and the success rate increased to 14%. Nevertheless, the success rate for "Discovery" projects needs to be about twice that if all promising, high-quality projects are to be supported and understandable frustrations about futile preparatory efforts avoided. This is only possible within the given budget of CHF 70 million over four years, though, if the number of applications falls drastically again. This is neither to be expected nor would it be desirable.

SNSF and Innosuisse intend to strengthen and further develop BRIDGE in the 2021–2024 dispatch period. The aim is to establish BRIDGE as an independent funding programme within the relevant circles that is recognised and valued as a useful bridge between basic research and practice. The plan is to optimise its content as well as to intensify and target communication in such a manner that information about BRIDGE reaches the relevant target groups in the right way.

The potential for optimisation identified in carrying out the programme to date will be realised through various measures. For "Proof of Concept", a number of accompanying measures are to be expanded into a fixed element and, together with the funding granted, bundled into a comprehensive support package. Funding recipients are to be accompanied by a start-up coach accredited by Innosuisse already during



START YOUR INNOVATION PROJECT

the implementation of their proof-of-concept studies. This should ensure that realisable ideas are implemented more successfully and that the course towards entrepreneurship is set early on. Comprehensive support packages will, for example, include patent searches by the Swiss Federal Institute of Intellectual Property (IPI), early contact with potential investors and support in spinning a university-bound project off into the start-up sphere, as needed.

For “Discovery” projects, two additional development measures in particular are planned. First, support is to be extended beyond the technological fields to all areas of research. Today more than ever, business and society depend on innovations that are based on a broad spectrum of scientific disciplines, combine different competencies and are increasingly based on a systemic view of innovation. “Discovery” projects offer an excellent opportunity for collaboration across disciplinary boundaries. Second, support will in future also be available to projects in the social sciences and humanities. However, applicants will also have to successfully demonstrate the benefits to the economy and society of their project if implemented. The implementation aspect will generally become more of a focal point. Applicants will have to give greater consideration to and explain how they intend to put their findings into practice in their submissions. The idea is for project members to deal with this aspect from the very beginning. Various approaches are conceivable. For example, maybe one of the researches involved wants to lead the implementation, or the project needs to find external implementation partners. In the first case, Innosuisse’s role will be to equip the person in question with the necessary tools and knowledge; in the second, it is more a matter of defining strategies as to how future realisation partners can be made aware of and inspired by the potential of the issues being worked on and the solutions envisaged in good time.

To be able to implement these adjustments effectively and achieve a success rate of between 20% and 30%, the SNSF and Innosuisse jointly propose doubling the previous year’s budget from CHF 70 million to CHF 140 million. The funds should again be distributed evenly between the SNSF and Innosuisse.



START AND
GROW YOUR
BUSINESS

Promotion of entrepreneurship and start-ups

Financial requirement
2021–2024
CHF

60m



START AND GROW YOUR BUSINESS

Innosuisse offers prospective and already active young entrepreneurs tailor-made support in the form of awareness and training programmes and start-up coaching. With this coaching and the associated accompanying measures, the start-ups receive individual, tailor-made support from proven Innosuisse-accredited coaches throughout their entire development cycle. With its funding activities in the field of start-ups, Innosuisse acts as a driver (inspiration) and catalyst for knowledge-based innovations within the Swiss economy. The aim is to promote economic value creation and job creation. In doing so, Innosuisse always ensures that its offer is subsidiary to that of the other players in the existing start-up ecosystem.

The funding instruments in the area of entrepreneurship and start-ups have proved their worth. The new concept of start-up coaching, which was introduced with the establishment of Innosuisse in 2018, has met with particular interest among young entrepreneurs and has led to a significant increase in applications. In the 2021–2024 dispatch period, Innosuisse will continue the proven measures and further optimise them and selectively supplement them with new initiatives in areas not yet developed. In particular, it intends to strengthen its role as an integrator and launch a funding opportunity tailored to highly qualified individuals.

Awareness and training measures

As far as seizing opportunities and the capabilities of the population in the area of entrepreneurship are concerned, Switzerland has recently improved in comparison to other innovation-based economies. According to the GEM Report 2017, however, there is further room for improvement when it comes to starting an entrepreneurial activity and considering entrepreneurship as a good career choice. Innosuisse's awareness and training measures encourage students at universities of applied sciences and universities to opt for an entrepreneurial career. With its modular courses, it raises awareness about entrepreneurship among students and provides them with the necessary aids. The training comprises various modules that cover all phases from establishing to growing a start-up.

In order to even better access the potential of future entrepreneurs, Innosuisse intends to address a broader group of people with its courses in the 2021–2024 dispatch period, especially with regard to age and gender. This will involve addressing young people in tertiary education, but in future also in secondary education. In addition, Innosuisse intends to reach out to university graduates and employees of research institutions, for example. It will also work on developing new channels, either alone or in collaboration with partners from within the ecosystem, so as to reach the public in general, and older people and women in particular, to inspire them to get involved in entrepreneurial projects. This opening-up is proving to be an adequate response to the need for lifelong learning and career change due to the technological revolution. The aim must be to significantly increase the participation rate of women in particular, so as to counteract the downward trend in their entrepreneurial activity. Finally, the potential of foreign entrepreneurs should also be exploited by increasingly offering the measures in English too.

Financial
requirement
2021–2024
CHF
20m

Financial
requirement
2021–2024
CHF
26m

Start-up coaching and accompanying measures

Innosuisse continues to offer young entrepreneurs support in the form of tailored start-up coaching across all phases of their company’s development. It provides them with guidance, establishes contact with business partners and investors, and makes the necessary tools available, so as to support the targeted development of the company in various respects and to accelerate its growth in Switzerland and abroad. The way this coaching offer works is simple. Innosuisse provides selected entrepreneurs with funds in the form of a voucher that enables them to use the services of an Innosuisse-accredited coach. The entrepreneurs can then independently decide how to use these funds to achieve the successive development stages defined for them. Depending on the entrepreneur’s needs, the voucher can be used for one or for several accredited coaches, including specialised coaches such as patent attorneys or sales promotion specialists. This support is available throughout Switzerland and remarkable for its high level of quality, comprehensive approach and long-term view. The revised coaching concept introduced in 2018 will be offered in various stages. Starting in 2019, a third support package tailored to more mature start-ups in the growth phase will also be offered. This stronger focus on the development cycle of young companies is to be continued and, where appropriate, strengthened. The offer will be graduated in line with a company’s development phase, with start-ups at each individual stage receiving support that is even more strongly geared to their individual needs and even more broadly based in terms of expertise.

Young companies in the high-tech sector in particular soon become dependent on expansion abroad in order to grow and develop further. The internationalisation camps offered by Innosuisse give start-ups the opportunity to test the attractiveness and potential of their business idea in other markets and, where appropriate, to gain a foothold in the relevant market. The support provided involves putting start-ups in touch with potential business partners and investors, offering advice on market development and making infrastructure such as temporary office space available. In addition to the internationalisation camps, Innosuisse also supports young entrepreneurs and start-ups who want to find business partners by participating in international trade fairs by allowing them to use the Innosuisse stand or to attend fairs as a visitor. In the 2021–2024 dispatch period, Innosuisse will increasingly promote networking in general and, in particular, international networking for start-ups. The internationalisation camps offering is to be expanded and other interesting world regions added. Moreover, Innosuisse wants to promote participation in a larger number of trade fairs and events abroad. As part of these international support measures, greater attention will also have to be paid to enabling access to international risk capital.

Financial
requirement
2021–2024:
see
Dissemination
of information,
page 30

A national platform for the Swiss start-up ecosystem

Coordinated improvement of the efforts of the various ecosystem players is a key factor in getting the most out of the development of innovative companies. According to Spigel (2017)⁷, ecosystems can be defined as a combination of social, political, economic and cultural elements of a particular region. These contribute to the development and growth of innovative start-ups and encourage budding entrepreneurs and other players to take the risks of setting up, financing and developing entrepre-



START AND GROW YOUR BUSINESS

neurial ventures. Based on this premise, Innosuisse intends to position itself as an umbrella organisation (platform) that brings together all the relevant elements in Switzerland. In this role, it can act as a catalyst for the start-up ecosystem and its initiatives and activities. It can also offer its customers clear, centralised and comprehensive information, as well as continuing to oversee the development of the entire ecosystem and closing any gaps in the promotion and support of science-based start-ups. If the necessary legal foundations are created in this respect, it also intends to promote private or public – both national and regional – initiatives through targeted start-up financing and thereby make a decisive contribution to a lively, effective and well-networked Swiss start-up ecosystem (see the section on the Swiss Innovation Platform, page 31).

Promotion of highly qualified innovators

Science-based innovations are driven by people – people who combine an interest in research with entrepreneurial spirit and who are comfortable in both worlds. Both sides need people in them who are capable of bridging the gap between research and practice. One effective way to ensure that this capability exists is to enable interaction and networking of representatives from both areas. The measures promoted by Innosuisse in the context of knowledge and technology transfer offer welcome support here. These efforts can, however, be significantly strengthened by specifically promoting individuals. This approach was already set out as an aim in early 2018, when support for next-generation innovators was anchored in RIPA. Consequently, Innosuisse wants to address individuals that have what it takes to build the necessary bridges on a personal level and support them with tailored measures, provided the legal basis to do so is put in place.

In addition to its existing offering in the field of innovation management at universities, Innosuisse intends to also create an offering for continued education in collaboration with suitable service providers. This should not only impart theoretical knowledge, but also prepare participants for their role as intrapreneurs within the companies employing them – primarily SMEs – through strong practical elements involving case studies and short internships.

Given their close ties with business, universities of applied sciences are the obvious prime candidates for providing this service. Nevertheless, the selection process is intended to be a competitive one. One decisive criterion in selecting a partner will be the proportion of teaching staff that was recruited from the business world. In terms of participants in the further education offering, appropriate admission criteria need to be defined. Given that the offering is generally not free of charge, there also needs to be some assessment of whether and how Innosuisse could offer participants, particularly those from SMEs, a way of applying for a cost contribution. In addition, such individuals should be able to take advantage of suitable foreign continuing education offers at renowned institutions (e.g. Babson College), if necessary also through corresponding cost reductions.

Successfully implementing science-based innovations requires experts in both research and business who know and understand each other's working methods, processes and challenges. Where this is given, the chances of success for a particular

Financial
requirement
2021–2024
CHF
14m

project-based collaboration between the two spheres are significant. Innosuisse will therefore establish an exchange programme during the dispatch period which will enable individuals from the scientific community to temporarily work in a company and company staff to spend the same period of time working in a research institution. In the first case, the main aim is to contribute to promoting the dual (academic-practical) approach to training junior professors at universities of applied sciences. In the second case, the focus will be on enabling the staff of SMEs to acquire additional, up-to-date scientific knowledge. This knowledge may also be sought at suitable institutions abroad. The personal networks created by such exchanges are also likely to give rise to joint innovation projects, in some cases across national borders. The funding opportunity presented here is completed by the offer presented above to support innovation projects of start-ups from universities, whose founders, thanks to the financing of their own project work, are able to concentrate entirely on their project. This creates a range of support that directly addresses and promotes people who are committed to science-based innovation.



BE
CONNECTED

Promoting knowledge and technology transfer (KTT) and the dissemination of information

Financial requirement
2021–2024
CHF

78m

In a globally competitive environment, it is becoming increasingly important for Swiss companies to remain competitive by being able to react quickly to changes and to seize opportunities. Knowledge and technology transfer (KTT) between universities and business partners gives the business community the opportunity to benefit directly from the latest developments. Innosuisse supports those involved in defining their needs, developing new ideas and discovering opportunities, finding the right partners, discussing solutions and initiating promising innovation projects. Innovation mentoring, specialised thematic events and the National Thematic Networks (NTN) made significant contributions to achieving these goals in the last dispatch period. Particularly in view of the dwindling number of SMEs investing in research and development (R&D) in Switzerland, support for knowledge and technology transfer must be further intensified in the coming dispatch period. For any funding to be effective, those eligible must be aware the funding is available. This is why Innosuisse has a legal mandate to provide information within its area of competence on national and international programmes and on the submission of applications. To this end, it communicates across various information channels and, in particular, also cooperates with partner organisations.

The support required by businesses varies considerably, depending on which phase of the innovation cycle they are currently in⁸. Recognising and properly addressing these needs is the stated goal of Innosuisse. To this effect, it seeks to establish closer collaboration with universities, regional innovation and business promoters and industry associations, among others. As part of this collaboration, companies offering interesting potential in the area of science-based innovation projects should be identified more readily and addressed more effectively. Regular innovation promotion conferences organised in collaboration with the State Secretariat for Economic Affairs (SECO), for instance, aim to offer players in this field better networking opportunities and the chance to regularly share their experience.

Financial
requirement
2021–2024
CHF
8m

Specialised thematic events

As a catalyst for entrepreneurial innovation, specialised thematic events aim to promote the exchange on specific, current innovation topics relevant to the Swiss economy and society and thus to foster the establishing of new partnerships and innovation projects that are as concrete as possible. These events bring together representatives from research and industry to discuss new technologies, business models, experiences, needs, challenges and opportunities. The topics are selected in a bottom-up process, whereby Innosuisse, together with its partners, identifies areas that are considered particularly promising for the future of the Swiss economy and society. The aim here is to identify the issues relevant to Switzerland as early as possible and to provide optimum support to the initiators. The findings of these events are made available to a broader interested public so as to increase their immediate and long-term impact.

Innosuisse promotes the exchange of experience between organisers and actively favours formats that are shown to lend themselves particularly well to result-oriented dialogue. By linking these events with other Innosuisse funding measures (e.g. NTN, innovation mentoring, EEN offerings), their efficiency and benefits are to be further



enhanced. The specialist events should act as flagship events and encourage others to organise relevant satellite events and to cover regional and more customer-specific needs (multiplication effect)⁹.

National Thematic Networks (NTN)

NTN addresses important topics of the future from outside the classical industries and bring together a critical mass of relevant players. Tailored formats enable new perspectives to be explored and new approaches and ideas to be developed. They lay the foundations for new innovation projects to be initiated. They also provide companies with easier access to research infrastructure and competencies.

Regular invitations to tender ensure that new, emerging topics for the future can be quickly identified and addressed. Efforts will also have to be made to involve more non-technical, socially relevant topics. Finally, NTN should also benefit more from synergies in international networking.

In newly emerging interdisciplinary areas with disruptive potential, using the traditional linear approach to turning ideas into concrete projects may not be very successful. Setting trends and realigning a company requires a new approach, with regard to cooperation models with external partners as well as the methods used to generate ideas and manage projects and a company's corporate culture. Innosuisse's intention behind the NTN is to promote the necessary creativity, knowledge exchange and innovation culture, in line with the concept of "Open Innovation". The idea is for new formats to be created and tested in which companies create new ideas in exchange with interdisciplinary teams along the value chain, including students, researchers, representatives of suppliers and/or customers. Research and business thus mutually enrich each other, and students receive additional "intrapreneurship training" and stimulate the discussion with unconventional ideas. In addition, the necessary funds are to be made available so that concrete ideas and initial hypotheses can be tested in small projects by the NTN participants on their own initiative and in an uncomplicated manner. A concerted approach and discussion of concrete project results (successes and failures alike) produce cross-industry and cross-disciplinary learning effects and new ideas. In this way, Innosuisse supports the evolution from bilateral development of ideas to multilateral exploration of new and disruptive approaches.

Financial
requirement
2021–2024
CHF
36m

Innovation mentoring

Innovation mentors provide immediate support to SMEs by helping them concretise their innovation idea and set up a concrete innovation project. They offer companies a neutral external perspective, help them structure the project, offer support in the search for suitable research partners and evaluate the project plans and business models to be presented in applications for funding.

Before the new legal basis came into force on 1 January 2018, innovation mentors acted proactively, sought contact with companies and potential project partners and were able to help remove hurdles and identify opportunities at a very early stage. Since 2018, the system requires that SMEs first apply to Innosuisse for a voucher

Financial
requirement
2021–2024
CHF
18m

before they can claim refundable services from the innovation mentors. As a result, SMEs that are not very familiar with the innovation promotion offering are no longer being reached. If the propensity of SMEs to innovate is to be strengthened again, conditions in the next dispatch period must be changed so that SMEs can be addressed proactively and directly again. In general, the activities of the innovation mentors should contribute to the integration and closer cooperation of all players involved in this field. In order for them to be able to assume this role, however, the currently very tight legislation must be relaxed.

Financial
requirement
2021–2024
CHF
16m

Dissemination of information

Innosuisse is responsible for providing information within its area of competence on national and international programmes and on the submission of applications. The effectiveness of this dissemination of information depends to a large degree on the ability to reach and activate the right target audience. Companies that actively pursue science-based innovation projects are already aware of the issue, tend to be familiar with Innosuisse's offerings and can be reached via existing channels. In order to reach companies that do not have any experience or contact with Innosuisse in this respect yet, it is important to improve cooperation with those players who are in regular contact with companies and support them with complementary offers (e.g. RIS, location promotion, industry associations, business networks).

For companies and Innosuisse, Swiss universities, universities of applied sciences and research institutes are the most important partners for initiating and implementing innovation projects. Innosuisse informs these partners about current events and developments through its own channels (website, social media, publications etc.) and selected roadshows. Over the years, research partners have participated in many innovation projects with different companies and play a major part in making a success of a project through their contribution and expertise. They are therefore also important partners for Innosuisse in ensuring the quality of the applications and projects submitted. Aside from using its usual channels, Innosuisse therefore intends to work even more closely with partner organisations in the research sector, to provide them with information tailored to their needs and thereby ensure that they can effectively represent Innosuisse's offerings when in contact with customers.

Switzerland offers a varied range of events that are directly related to innovation, appeal to the target audience and have a considerable widespread impact due to the audience and media presence. Innosuisse enters into strategic partnerships with the providers of such events, provided that it can ensure that these events appropriately showcase and represent the public promotion of innovation. These partnerships are designed for the medium to long term and serve to develop joint formats and activities in the interests of both partners.

Innosuisse is setting up a presence in key locations in Switzerland (technoparks, innovation centres) in order to establish direct contact with the relevant customer groups. These outstations act as multipliers to increase awareness of its funding instruments. Through interactive information stations and the use of modern communication technologies (e.g. chat bots), Innosuisse can inform its customers in real time and respond better to their needs.



The large number of players and support services in the field of innovation promotion is increasing the need for an overview and easy and quick access to relevant information. A large amount of publicly accessible data (e.g. databases of publicly funded research and innovation projects, member directories of clusters, participant lists of innovation prizes) is waiting to be searched, analysed and used.

Innosuisse intends to become active in this area together with suitable partner organisations, to create a virtual “Swiss Innovation Platform” with an interactive marketplace for science-based innovation and thus to make an important contribution to an optimally functioning innovation ecosystem at national level. Aside from its general objectives of facilitating the matching of competences, increasing the visibility of thematic focal points and ensuring a better overview and access for customers to infrastructure and funding opportunities, Innosuisse also wants to raise the profile of its funding opportunities and the networking and participation opportunities in the projects it supports.

The platform should use state-of-the-art technology, integrate the most important partners of the Swiss innovation ecosystem and be set up and operated in a sustainable manner. The data will be generated through a combination of data mining, information provided by key partner organisations and user-based content. The project will be started and tested with a small, specific target group and a limited scope, but must be designed for scalability from the outset. The range of services offered should be based on the market and interests of national importance.

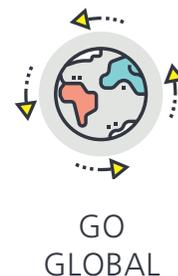


GO
GLOBAL

Promoting international cooperation

Financial requirement
2021–2024
CHF

99m



Access to international expertise, skills, partners and markets is important for Swiss companies to secure their role in existing and emerging value chains. The majority of innovative Swiss companies are export-oriented. SMEs often operate in the B2B business and position themselves through highly specialised and quality “niche” products. New innovation trends and market opportunities tend to be international in nature, and market access for Swiss SMEs is mostly via international value chains. The European Union shares this view, which is why innovation promotion will be given even greater weight in the EU’s forthcoming ninth innovation framework programme, Horizon Europe. Switzerland’s future status in this initiative has important implications for the direction of Innosuisse’s international cooperation. If necessary, there should be the possibility of taking compensatory measures to intensify multilateral cooperation where possible and to ensure that Swiss innovation players are subject to very similar conditions as their European competitors.

Within the scope of its area of responsibility, Innosuisse helps Swiss companies to access relevant support instruments, global value chains and competences not available in Switzerland. The benefit of international innovation partnerships lies not only in the attractive financing opportunities, but, above all, in the fact that Swiss companies can work and innovate together with the best international partners.

Bilateral and multilateral cooperation

EUREKA is a European research initiative for application-oriented research and development that is independent of the EU Commission. The partner countries directly finance the respective project costs of their countries themselves. As a founding member, Switzerland has been an active participant since 1985 and can therefore carry out bilateral projects with member countries and certain countries outside Europe (Israel, Canada, Russia, South Korea, South Africa, Chile) via well-established instruments such as GlobalStars and Eurostars.

In order to be able to also work with innovative and/or emerging countries outside the EUREKA network (e.g. USA, India, China), Innosuisse will establish additional and targeted bilateral programmes with strategically selected partner countries. In view of the effort involved in the efficient establishment of such bilateral programmes, the target partner countries will be selected according to the needs of the Swiss innovators, the future potential of the partner country and the political framework conditions.

Within the framework of EUREKA, Switzerland has already successfully cooperated with the promotion agencies and ministries for innovation of the more than 40 member countries in the past. In accordance with the strategic orientation of the innovation funding agencies linked under EUREKA, and complementary to the EU’s framework programmes for research and innovation, EUREKA promotes market-oriented research and development of SMEs in particular. EUREKA is the largest innovation initiative, second only to the EU’s framework programme for research and innovation, and acts as a bridge between funding opportunities at national and EU level.

In accordance with the European Constitution, the EU and European countries finance so-called “partnership instruments” jointly. The main feature of these partnership

Financial
requirement
2021–2024
CHF
95m

instruments is their centralised evaluation, which is based on the innovation content, social added value and market access, in the sense of intra/international value **creation**. Switzerland participates in EUREKA's Eurostars programme (research-intensive SMEs), Active and Assisted Living (new technologies for an ageing society), ECSEL (micro- and nanoelectronics) and various thematic ERA-NETs.

Swiss companies and universities are very successful and attractive partners in all these programmes. The partner countries continuously adapt the framework and conditions of these programmes to the needs of the target groups. Innosuisse, which took over responsibility for these activities in January 2019, intends to continue and further strengthen its successful participation and help shape it as an important partner. This should offer even more attractive cooperation opportunities for Swiss SMEs. Innosuisse also ensures that the framework conditions for companies are as optimal as possible: reliable partner organisations, simple and reliable funding processes (in coordination with well-established and comparable international processes) and funding conditions.

Financial
requirement
2021–2024
CHF
4m

Securing international access and networking

European countries are and remain the most important sales markets and innovation partners for Swiss companies, despite their global orientation. The direct financing currently possible of innovation projects of Swiss companies by Horizon 2020 represents an important corrective to the lack of national funding pools and is used successfully. As part of the SME Coach project, Innosuisse is currently supporting Swiss companies that have successfully acquired such project funds. Innosuisse is willing and able to assume this or a similar task also in the 2021–2024 dispatch period.

Ensuring participation in the Enterprise Europe Network (EEN) will continue to be an important focus of Innosuisse's international cooperation in the future. EEN is the world's largest support network for SMEs (600 partner organisations in more than 60 countries) and supports ambitious SMEs in their international innovation and growth projects. Specifically, EEN supports SMEs in the search for suitable business partners and the establishment of technology partnerships and informs them about market opportunities, relevant European legislation and EU projects and financing opportunities. EEN will remain an important element in Innosuisse's international cooperation, regardless of Switzerland's future status in the European framework programme.

Service provision and financial requirement

Service provision

Basic services

At the organisational level, Innosuisse regularly reviews its structures, processes and working tools and adapts them to new challenges if necessary. Requirements and needs are constantly increasing, especially with regard to the collaboration with the bodies of Innosuisse made up of part-time members who also occupy other roles outside of Innosuisse, as well as the evaluation of applications, control, data management and communication.

The evaluation by the Innovation Council of applications, supported by experts and the Secretariat, is an essential part of Innosuisse's services. Based on its experiences in the first years of its activity, Innosuisse will look for possibilities to further improve the evaluation process and to relieve the burden on the Innovation Council, for example by using collaborative tools with the experts and the Secretariat. The system inherent to Innosuisse of part-time commitment by those involved while pursuing other professional avenues outside of Innosuisse can only work if they can rely on highly trained, proactive and independent experts in the Secretariat. All tasks which don't absolutely require the involvement of these part-time members or their specific, innovative and scientific expertise must be able to be carried out by an efficient, professional Secretariat. This includes adequate communication and explanation of the funding decisions made by the part-time bodies. In order to master all these challenges, great importance will be attached to personnel development in the 2021–2024 dispatch period.

Today, the evaluation process and lifetime management of the contributions granted are largely digital. Handling the promotional business in an efficient manner requires a modern, easily configurable, powerful and

expandable IT system without media disruptions. Innosuisse has already made considerable efforts in this regard during the previous dispatch period and is now in a position to provide both the applicants and the evaluation committees with a stable and largely ergonomic system for processing applications and projects. Nevertheless, further optimisation is necessary. The aim for the 2021–2024 dispatch period is for old technologies to be replaced with customer-oriented, cost-efficient and future-oriented solutions.

Accountability and impact analysis

In the 2021–2024 dispatch period, Innosuisse will continue to expand and improve how it renders account of its funding activities to its owners and the public. In addition to standard evaluations, Innosuisse aims to make it possible to carry out special evaluations at any time without unnecessary additional effort with a view to increasing transparency about how it meets its targets, thereby fostering greater trust and acceptance.

Innosuisse will also establish a systematic, methodologically flawless impact assessment of its funding measures. In doing so, Innosuisse aims to establish an approach of gearing its activities to their impact, which, in order to achieve meaningful results, will already be applied in the planning stage as well as during the implementation and overseeing of funding measures. This should create a circular, impact-oriented approach that ultimately results in the use of resources being continually improved and rendered more efficient.

The rendering of account and evaluation of measures' impact must be based on well-structured, reliable and interlinked data in order for statements to be relevant. For this reason, data management will require special attention. In addition, both internal and external human resources will have to be made available in order to continuously achieve meaningful results. External re-

sources will be used in particular to carry out and evaluate ex-post interviews with recipients of funding.

Productivity measurement

Innosuisse stands for lean and efficient promotion and therefore pays attention to good productivity. Productivity should be measured against benchmarks where possible. Given the number and variety of different situations, though, this must be done with the proper care. Account should also be taken of the fact that although Innosuisse acts as a federal promotion agency, this promotion is not only provided in the form of direct financial subsidies. In many cases, Innosuisse offers advisory and support services which require relatively little financial resources but are comparatively expensive to provide.

Innosuisse will continuously carry out productivity measurements in the 2021–2024 dispatch period and will exercise the necessary discretion in its conception and interpretation of the results.

Direct support by the Secretariat

Costs generated in the Secretariat are generally related to the provision of services and therefore fall under the operating expenses. Not so in certain transfer areas. Since the integration of Enterprise Europe Network Advisors (EEN Advisors), the Secretariat of Innosuisse has had employees who provide direct support services to third parties, in this case SMEs, in the form of advice. Such services are not categorised as operating expenses but represent genuine support services.

The same applies to those internal or external expenses that are necessary for the implementation of information events. These events, offered as part of the dissemination of information, i.e. a funding instrument, are also of direct benefit to the addressees and thus do not constitute operating expenses.

Financial requirement

In order to implement its promotion plans, Innosuisse requires additional funds compared with the 2017–2020 dispatch period. Its funding requirements are 33% higher than set out by the federal decree on the financing of the activities of the Commission for Technology and Innovation (CTI) in 2017–2020. Correctly taking into account the additional international tasks assumed in the previous period and to be continued in the 2021–2024 dispatch period as well as the digitalisation impulse programme carried out with additional funds in 2019 and 2020 in order to draw a comparison with the actual support provided, this results in an increase of 23.5%. The annual growth rates based on the provisional financial figures for 2020 are very moderate at 5.2%, 3.0%, 3.9% and 0.3%.

The required increase in funding is necessary in order to set the desired course in public innovation funding and to successfully master the major challenges facing the economy and society in areas such as digital transformation, protection of livelihoods and demographic development.

With the flagship projects and the innovation projects of start-ups from universities, the promotion of innovation projects is being expanded in a targeted manner, which further increases the efficiency of the promotion activities. In addition, the regular, purely bottom-up innovation projects will continue to be promoted to the same extent. In order to be able to effectively exploit the hidden potential in this area, especially among SMEs, it is also important not only to optimise the classic KTT promotion measures in terms of content, but also to significantly strengthen them financially, even at a low level.

A moderate expansion is also planned in the promotion of science-based entrepreneurship. One particular focus area will be the promotion of individuals. Suitable talent is to be attracted to entrepreneurship and science-based innovation and supported in implementing their plans, either with proven start-up coaching, through training or further education, or by facilitating a placement to bridge the gap between science and business.

It should be noted that, particularly in the case of multi-year innovation project funding and start-up coaching, a considerable proportion of the available financial resources is already tied up in grants from previous years. In innovation project funding, this represents around 50% of the available funds in a budget year given a constant budget.

The reported financial requirement also includes the amount required to pay the statutory overhead contributions. The maximum overhead share will be determined by parliament. A contribution of 15% is expected for innovation projects, including flagship projects and projects by start-ups from universities.

It should be noted that the financial requirements reported for the individual funding instruments have been determined to the best of Innosuisse's knowledge and belief on the basis of the current information available. Of course, Innosuisse will be very interested in being able to make the necessary shifts between the individual instruments as needs change so as to promote innovation effectively.

The share of operating expenses is developing moderately. Innosuisse strives to operate cost-efficiently while delivering high service quality and to keep the share of operating expenses in the total budget well below 10% – and, with a share of 8.7%, is currently doing so very successfully. A growth rate of 8% compared to 2020

will be required in the first year of the new dispatch period to achieve the realignment of the promotion offering within the given time frame and with the quality specified. In the following years, however, expenditure will remain practically stable and even fall slightly as a percentage of the overall budget.

Overview of financial requirement

in CHF m	2020	2021	2022	2023	2024	2021–2024
Innovation projects and programmes	217	219	228	233	233	913
Regular projects	140	142	141	142	142	567
Innovation cheques	3	3	3	3	3	12
Projects of start-ups from university research institutions	–	3	5	6	6	20
Flagship projects	–	30	35	35	35	135
Overhead contributions	20	26	27	28	28	109
Digitalisation impulse programme	10	–	–	–	–	–
SCCER	31	–	–	–	–	–
BRIDGE (joint programme with SNSF)	13	15	17	19	19	70
Entrepreneurship and start-ups	11	14	14	16	16	60
Awareness and training measures	–	5	5	5	5	20
Coaching and accompanying measures	–	6	6	7	7	26
Promotion of highly skilled innovators (2020: support for next-generation innovators)	–	3	3	4	4	14
Knowledge and technology transfer (KTT) and the dissemination of information	11	18	18	21	21	78
Specialised thematic events	–	2	2	2	2	8
National Thematic Networks (NTN)	–	8	8	10	10	36
Innovation mentoring	–	4	4	5	5	18
Dissemination of information	–	4	4	4	4	16
International cooperation	23	24	24	25	26	99
Securing international access and networking	1	1	1	1	1	4
Bilateral and multilateral programmes	22	23	23	24	25	95
Total innovation promotion	262	275	284	295	296	1,150
Total operating expenses	25 (8.7%)	27 (8.9%)	27 (8.7%)	28 (8.7%)	28 (8.6%)	110 (8.7%)
Total financial requirement	287	302	311	323	324	1,260

Endnotes

- 1 <https://www.eda.admin.ch/agenda2030/de/home/berichterstattung/nationale-berichterstattung.html>
- 2 Article 19 (5) of the Federal Research and Innovation Promotion Act (RIPA; SR 420.1)
- 3 Struktur der Schweizer KMU 2015 (Structure of Swiss SMEs 2015), Federal Statistical Office FSO, Neuchâtel 2017
- 4 The Swiss Medical Technology Industry (SMTI) Sector Study, Swiss Medtech/Helbling Group
- 5 REGSS – Review of Ecosystem Gaps for Swiss Startups, Bubenzer P. et al., Haute Ecole de Gestion, Fribourg, June 2018
- 6 Global Entrepreneurship Monitor, Global Report 2017/2018
- 7 Spigel, B. 2017. The Relational Organization of Entrepreneurial Ecosystems. *Entrepreneurship: Theory and Practice*, 41(1): 49–72
- 8 Meier, C., Allaman, O., Bochatay, J.-L., Diener-Kimmich, L., Hilfiker, J.-M., et al. 2018. Monitoring report 2017 – Cantonal partners and platinn, Fribourg
- 9 TED Talks and TEDx Talks can serve as models for this “Lead & Multiply” effect: <https://www.ted.com/about/our-organization>.

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