The Impact of Switzerland's Participation in the EU Framework Programmes for Research and Innovation

2026 impact study

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Abkürzungsverzeichnis

DEP	Digital Europe Programme
Eawag	Swiss Federal Institute of Aquatic Science and Technology
EC	European Commission
EIC	European Innovation Council
EIT	European Institute of Innovation and Technology
Empa	Swiss Federal Laboratories for Materials Science and Technology
EPFL	Swiss Federal Institute of Technology Lausanne
ERA	European Research Area
ERC	European Research Council
ETH Domain	ETH Zurich, EPFL, Eawag, WSL, Empa, PSI
ETH Zurich	Swiss Federal Institute of Technology Zurich
EU	European Union
EU4health	EU health programme
EUPA	EU Programmes Agreement; Agreement between the Swiss Confederation, of the one part, and the European Union and the European Atomic Energy Community, of the other part, on the participation of the Swiss Confederation in Union Programmes (AS 2025 873) [1]
Euratom	European Atomic Energy Community
Euratom - Programme	Euratom Research and Training Programme
FET	Future and Emerging Technologies
FP	EU framework programme for research and innovation
H2020	Horizon 2020
HEU	Horizon Europe
ITER	International Thermonuclear Experimental Reactor
JRC	Joint Research Centre of the European Commission
KOF	Swiss Economic Institute at ETH Zurich
MSCA	Marie Skłodowska-Curie Actions
NGEU	European Union recovery fund (NextGenerationEU)
PSI	Paul Scherrer Institute
R&D	Research and development
R&I	Research and innovation
SDGs	United Nations Sustainable Development Goals
SERI	State Secretariat for Education, Research and Innovation
SMEs	Small and medium-sized enterprises
SNSF	Swiss National Science Foundation
WSL	Swiss Federal Institute for Forest, Snow and Landscape Research

[1] https://www.fedlex.admin.ch/eli/cc/2025/873/en

Summary

On behalf of the Swiss Parliament, the State Secretariat for Education, Research and Innovation (SERI) carried out an impact study on Switzerland's participation in the EU framework programmes for research and innovation (referred to in this report as the EU framework programmes or FPs). The Federal Chancellery included the study in the 2025 list of key effectiveness reviews relating to the Federal Council's objectives. The aim of the study is to examine the impact of this participation on research promotion, knowledge and skills generation, scientific cooperation networks, the economy and employment, and wider society.

The main data source was an October 2025 online survey of Swiss stakeholders involved in funded Horizon 2020 projects, as well as a control group of stakeholders whose project applications were unsuccessful and whose projects did not receive funding. Including this control group allows for a more nuanced assessment of the impacts of participation in the FPs. The study also draws on data from eCORDA (the data portal for the FPs) and findings from two series of interviews with researchers, higher education institutions and companies.

The results of the impact study suggest that the EU framework programmes have made substantial contributions to the performance and international integration of the Swiss research and innovation system. This nevertheless does not allow for a comparison with other funding approaches or for the observed effects to be attributed exclusively to these programmes. The key findings can be summarised as follows:

1. The EU framework programmes strengthen Switzerland's competitiveness as a centre of excellence for research and innovation. They promote international knowledge exchange, broaden scientific perspectives and make a significant contribution to the generation of new knowledge. They enhance the visibility and networking of Swiss stakeholders within the European Research Area.

2. International partnerships provide access to critical infrastructure and complementary expertise. Collaboration opens up infrastructure, test environments and specialist expertise that are not always available in Switzerland. This plugs structural gaps and boosts Switzerland's long-term performance.

3. The EU framework programmes create added value beyond financial support. They enable the development of long-term partnerships, stable networks and access to new markets. These collaborations are a key factor in scientific progress, innovation and international integration.

4. EU funding is a key driver of innovation, particularly for start-ups. The funding enables feasibility studies, data collection and entry into international markets. Without this support, many innovations, including new technologies, would not have been implemented, or would have taken longer.

5. Continuous participation in the EU framework programmes is crucial to sustaining these benefits in the long term. Steady involvement safeguards expertise, visibility and innovation capacity. Interruptions undermine competitiveness and make positioning more difficult in strategically important future sectors.

1 EU framework programmes for research and innovation

The EU's multi-annual framework programmes for research and innovation (FPs) aim to promote research excellence and international cooperation within the European Union (EU) and beyond. They provide incentives for cross-border research collaborations, as well as for cooperation between public institutions and private sector actors such as industry, SMEs and non-profit organisations. Through international cooperation, the FPs thus enable projects that would be difficult to replicate at national level. The international competition also ensures that the projects receiving funding are of a high standard.

Since their introduction in the 1980s, the FPs have become the EU's key instrument for systematically promoting international mobility, scientific cooperation and technological and societal innovation. Thanks to their substantial budgets, expanded scope and international reach, the FPs are now the world's largest and most significant instruments for international cooperation in research and innovation (R&I). The first two EU framework programmes (1984–91) primarily supported research in the early stages, prior to market entry. From the third FP (1990–94) onwards, the focus shifted to technological challenges and multidisciplinarity. The fourth programme (1994–98) established research as an EU objective for the first time. The fifth (1998–2002) saw the introduction of larger collaborative projects – that is, joint projects involving several international partners from the research sector and private industry. At the same time, the concept of the European Research Area (ERA) was taking shape. Programmes six and seven (2002–13) continued this strategy, while the seventh FP also placed a new emphasis on innovation. [2] The subsequent programmes, Horizon 2020 (2014–20) and Horizon Europe (2021–27), are the focus of this report and are therefore described in greater detail.

1.1 Horizon 2020 and Horizon Europe 2021–27

The budget for Horizon 2020 (2014–20) was EUR 82 billion. With the establishment of the European Research Council (ERC), the focus of funding shifted towards supporting fundamental research, with a slight move away from thematic priorities. At the same time, support for innovation under Horizon 2020 was strengthened by the inauguration of the European Institute of Innovation and Technology (EIT), and innovation pilot projects were launched. These Future and Emerging Technologies (FET) flagships are regarded as the precursors to the European Innovation Council (EIC). The programme instruments were divided into three main pillars (Figure 1.1.):

1. Excellent Science
2. Industrial Leadership
3. Societal Challenges

Horizon 2020 also included additional programme areas that were not part of the pillar structure. The European Commission's Joint Research Centre (JRC) provided scientific support for EU policymaking, while the two objectives 'Spreading Excellence' and 'Science for Society' were designed to encourage the participation of countries with lower R&I performance and to forge closer links between science and society.

[2] For a comprehensive overview of the development of the EU framework programmes and Switzerland's participation, see the publications 'Swiss participation in the European Union's research and innovation programmes and initiatives – Facts and figures': available at: www.sbfi.admin.ch < International < International cooperation in R&I < EU programmes for research and innovation < Facts, figures and impact ('Facts and figures 2023').

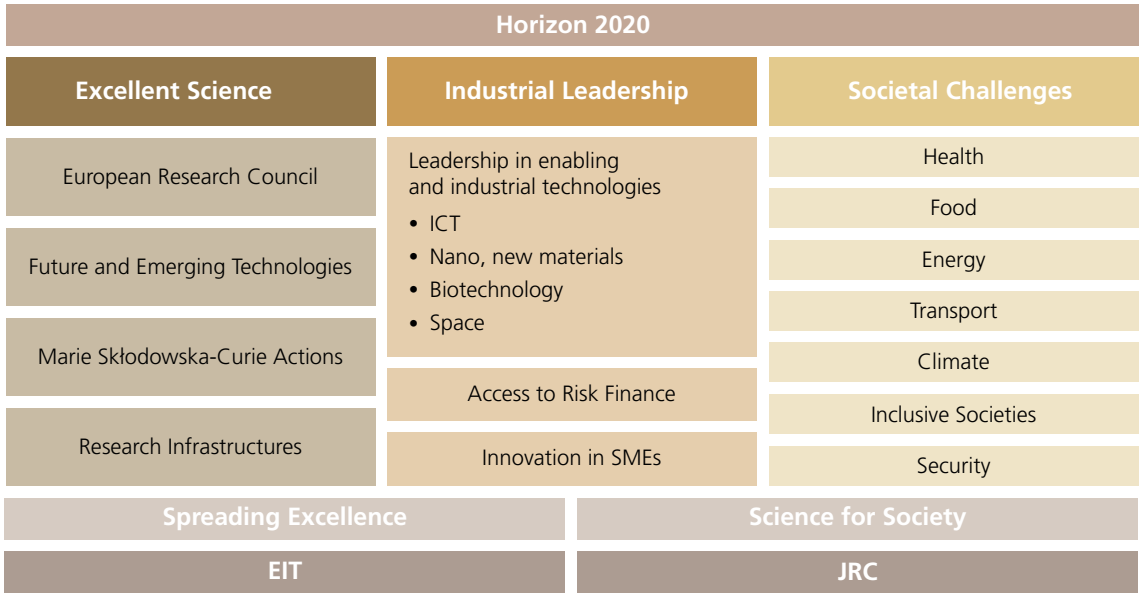


Fig. 1.1: Structure of Horizon 2020 with its three main pillars and their respective thematic clusters, as well as the cross-cutting programme areas.

Sources: EC and SERI

The ninth and current EU framework programme, Horizon Europe (2021–27), is now the world's largest programme of its kind in the field of research and innovation cooperation, with a budget of around EUR 95 billion. Like Horizon 2020, Horizon Europe is divided into three pillars. The 'Excellent Science' pillar is primarily funded by the ERC and the Marie Skłodowska-Curie Actions (MSCA). The second pillar, 'Global Challenges and European Industrial Competitiveness', builds on the 'Societal Challenges' and 'Industrial Leadership' pillars of Horizon 2020. It is divided into six thematic clusters. This part of the programme aims to develop knowledge and solutions for implementing the United Nations Sustainable Development Goals (SDGs). This pillar now also includes the JRC. The third pillar, 'Innovative Europe', brings together the instruments designed to strengthen knowledge-based innovation. The programme areas 'Widening Participation' (aimed at strengthening R&I capacities in Widening countries [3]) and 'Reforming and Enhancing the European R&I System' (designed to promote the ERA, in which scientific knowledge can circulate freely across borders) were given greater visibility as cross-cutting elements (Figure 1.2.).

Fig. 1.2: Structure of Horizon Europe with its three main pillars, thematic clusters and cross-cutting programme areas.

Sources: EC and SERI

[3] EU member states with comparatively low levels of research and innovation performance.

1.2 Switzerland's participation in the EU framework programmes

FP calls for proposals are generally open to individuals and legal entities in EU member states and non-EU countries ('third countries'). Participation is subject to specific rules governing aspects such as access to funding and the financial contribution of third countries. In this context, a distinction is made between different groups of countries: EU member states automatically participate in the FPs with all the associated rights and obligations and make financial contributions via the EU budget, whereas third countries may be formally involved through an association agreement and contribute financially to the EU via an annual mandatory contribution, in which case researchers and innovators in these countries receive funding directly from the EU. Researchers and innovators from third countries can also participate without formal association. As no mandatory contribution is paid to the EU in such cases, participants from these third countries do not receive EU funding. Furthermore, their opportunities for participation are limited: for example, not all calls are accessible to them, and they are unable to coordinate projects (the latter rule was introduced with Horizon Europe).

Switzerland has participated very successfully in the EU framework programmes since they were launched, albeit with varying status (Figure 1.3). From the first to the sixth FPs, it participated as a non-associated third country. From 2004, during the sixth FP, up to and including the seventh FP, it was an associated third country.

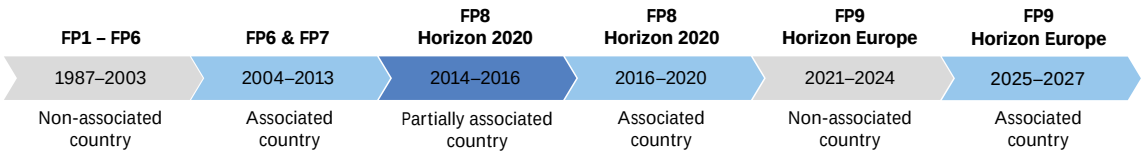


Fig. 1.3: Switzerland's status in the EU framework programmes (FPs).
Source: SERI

At the start of Horizon 2020, Switzerland was regarded as a non-associated third country following the adoption of the popular initiative on mass immigration and the subsequent decision not to sign the Croatia Protocol. However, thanks to the conclusion of a partial association agreement with the EU, it was able to participate retroactively in the first pillar, Scientific Excellence, as a partially associated third country from September 2014 until the end of 2016. The agreement was subsequently replaced by a full association agreement, under which Switzerland was once again able to participate in the entire FP as an associated third country for the remainder of the programme's duration until the end of 2020.

Switzerland had the status of a non-associated third country from the launch of the ninth FP, Horizon Europe, in 2021 until the end of 2024. Following the decision in May 2021 not to sign the institutional agreement between Switzerland and the EU, the EU linked market access to the cooperation agreements and classified Switzerland as a non-associated third country. Swiss participants were able to participate in the parts of the programme that were accessible to non-associated third countries – accounting for around two thirds of the calls – but they did not receive any funding from the EU. Under transitional measures introduced by the Confederation, the budget share for Swiss participation in accessible calls was funded directly, and national measures were offered for parts of the programme that were inaccessible.

In November 2025, Switzerland and the EU signed the EU Programmes Agreement (EU PA), thereby associating Switzerland to Horizon Europe and other programmes with retroactive effect from 1 January 2025.

1.3 Switzerland's participation in figures

Participation in FPs by researchers and innovators in Switzerland has grown steadily over the course of the programme generations. Figure 1.4 shows, on the left, the average annual number of Swiss project participations per framework programme and, on the right, the funding received. With each FP, both the number of project participations and the funding have increased, in line with the growing FP budget. While average participation in the third FP stood at 100 projects and funding at CHF 25.4 million per year, this had risen to 710 projects and CHF 434.6 million per year by the eighth FP, Horizon 2020.

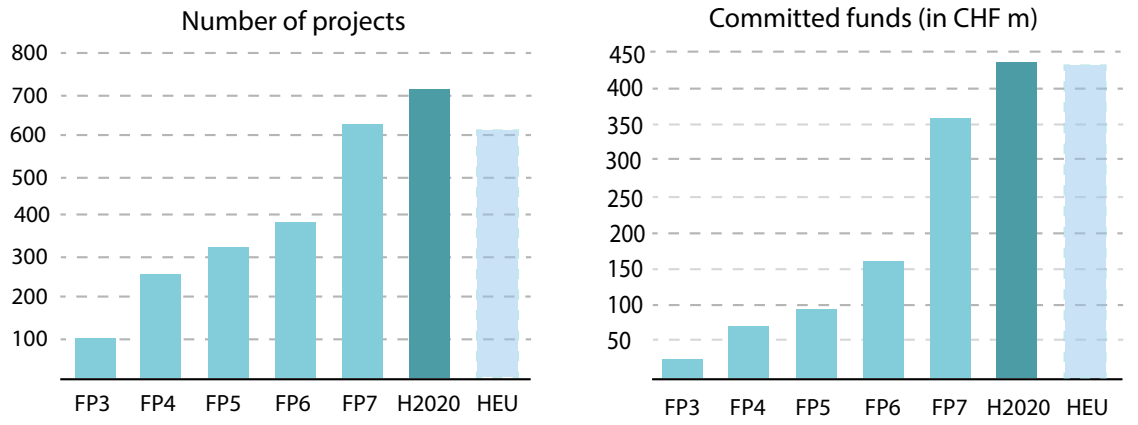


Fig. 1.4: The average yearly number of Swiss project participations and average yearly committed funding across the various FP generations.

Left panel: The average yearly number of Swiss participations in each EU framework programme, including Euratom indirect actions. Note that the jump between FP6 and FP7 corresponds to the doubling of the FP's budget between those two programme generations, and likewise for the steep increase between FP3 and FP4. The data on Horizon Europe (HEU) is still incomplete and covers only the accessible calls (around two thirds). It is therefore only partially comparable to the other FPs (see explanations in the text).

Right panel: The average yearly funding committed to Swiss participants in each FP generation, including Euratom indirect actions.

Sources: EC and SERI

The figures for Horizon Europe cover the years 2021–24 and are only partially comparable to the predecessor programmes indicated, as Switzerland was not associated to the programme between 2021 and 2024 and was excluded from around a third of the calls, including those relating to ERC grants. Furthermore, the data is not yet complete at the time of writing (13 January 2026) (see section 1.5).

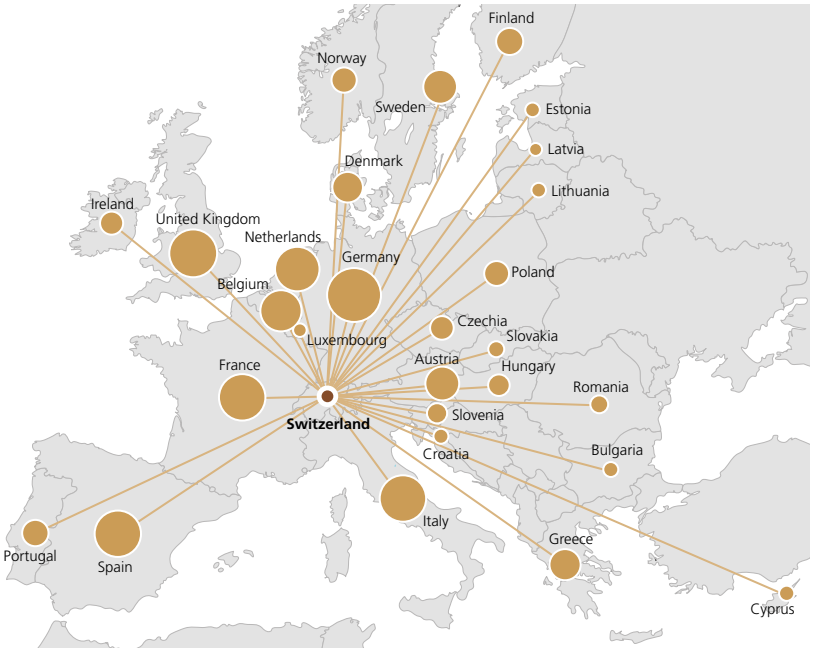
1.4 Horizon 2020

Researchers and innovators in Switzerland were very successful throughout Horizon 2020, with a total of 4,967 project participations and around CHF 3 billion in funding received. This meant that Switzerland ranked eighth out of all participating countries and had the most project participations of any associated third country. Furthermore, Switzerland had an overall success rate of 17.0% across all proposals, the highest of any country and well above the average success rate of 14.4%.[4]

In terms of the number of coordination roles, Switzerland ranked 16th among the participating countries, placing it in the middle of the field with 277 coordination roles in Horizon 2020 collaborative projects. This is partly a reflection of the country's size. However, collaborative projects submitted by coordinators from Switzerland were very successful: with a success rate of 16.2% for the coordination of collaborative projects, Switzerland ranked 5th overall among the countries from which project proposals were submitted.

Mono-beneficiary grants promote excellence among individual researchers and innovators. Of Switzerland's 4,967 participations during the Horizon 2020 programme period, a total of 1,141 involved mono-beneficiary projects, which represents an above-average proportion compared with other countries. Here, too, Switzerland had the highest success rate of any participating country, at 16.7%.

[4] The success rate compares the number of approved proposals with the number of eligible proposals submitted, and thus serves as a measure of the quality of the submissions.



4 967 project participations, of which
1 141 individual projects (30%)
277 coordinations (5.6%)
3.043 committed funds, in CHF bn
17.0% success rate for Swiss project applications

Fig. 1.5: Swiss participation in Horizon 2020 and cooperation with 136 countries.
Sources: EC and SERI

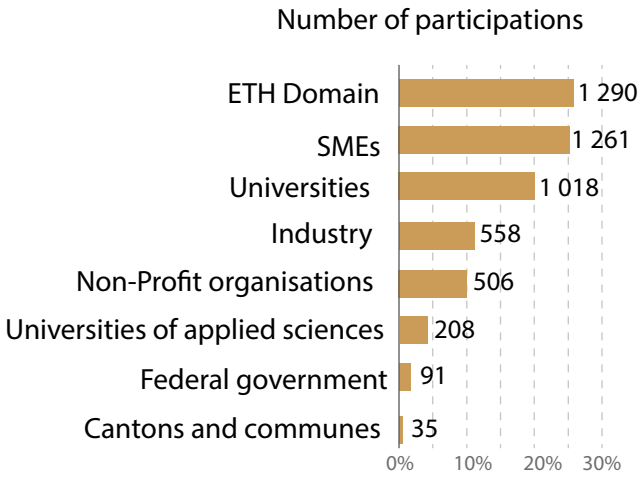


Fig. 1.6: Number of participations in Horizon 2020 by institution type.
Source: SERI

Researchers and innovators from various institutions participate in the programmes, although some parts are specifically targeted at certain types of institution.

The higher education sector accounts for just over half (50.7%) of Swiss project participations (ETH Domain: 1,290; universities: 1,018; universities of applied sciences: 208), with the ETH Domain also accounting for the largest share of participations across all institution types. The private sector makes up 36.6%, with SMEs having the second-largest overall share (1,261 participations), almost matching the ETH Domain.

1.5 Horizon Europe (situation as at 13 January 2026)

As noted in section 1.3, the data on Switzerland's participation in Horizon Europe to date is incomplete. Figure 1.4 only includes data from the years 2021–24 and therefore shows the participation as a non-associated third country. Furthermore, the data for this period is incomplete (as at 13 January 2026) as some applications for federal funding for participation have been considerably delayed in reaching SERI.

As shown in Figure 1.4, during this period there were an average of 610 project participations per year by actors based in Switzerland, with average annual funding of CHF 431 million. These figures are not fully comparable to previous programmes as Switzerland only had access to around two thirds of calls during the period when it was not associated.

Nevertheless, the figures show that participants from Switzerland successfully took part in the accessible parts of the programme even during the period of non-association, and that the Confederation's transitional measures were effective. [5] A more detailed analysis and overview of Switzerland's participation in Horizon Europe will be provided in the forthcoming edition of the SERI report 'Swiss participation in the European Union's research and innovation programmes and initiatives – Facts and figures', due to be published in the first half of 2027.

1.6 Methodology

This study focuses on the question of whether and how the participation of Swiss researchers, innovators and organisations in the Horizon 2020 programme has affected their subsequent performance and activities. To answer this question, the indicators derived from the impact model described in section 1.7 were analysed both qualitatively and quantitatively, using three complementary approaches: a standardised survey, an econometric method for measuring causal effects, and structured expert interviews with selected organisations. In addition, the impact study draws on two recently published reports that address aspects of Swiss participation in EU programs.

The BSS study "Individual Funding under the EU Framework Programs for Research and Innovation – Impact of Swiss Participation" from 2025 examines the qualitative impacts of participating in individual projects. To this end, existing publications and statistics from Horizon 2020 were consulted, and the results were illustrated with case studies.

A study on the economic consequences of the termination of the First Bilateral Agreements was published in 2025 on behalf of the State Secretariat for Economic Affairs (SECO). This is an update of a 2015 Ecoplan study, with the discontinuation of EU programs now also being quantified.

SERI commissioned the KOF Swiss Economic Institute at ETH Zurich to collect data via a survey of FP participants, and to conduct an econometric data analysis and networking analysis. The KOF has published a technical report on this work titled "Switzerland and the EU Framework Programs for Research and Innovation: Impact of Participation." SERI provided the indicators and the external data sources, designed the survey to measure the indicators in close consultation with the KOF, contributed case studies and compiled the results in this report.

It should also be noted that this analysis focuses on the impact of FP participation on the participants themselves. This includes both participants who actually received funding and those who wanted to take part in the EU-programmes but did not receive funding. A comparative assessment of different funding systems is outside the scope of this study. Consequently, it does not include a control group receiving solely national funding. This would be difficult to implement due to the differences in the funding instruments. It should therefore be borne in mind that the EU framework programmes complement national funding and, in particular through their international focus and the associated opportunities for cooperation and networking, offer specific conditions that may differ from those of national funding schemes. Furthermore, given their scale, the EU framework programmes provide opportunities to implement projects in larger partnerships and thus with broader participation, without this implying any conclusions about the effectiveness of national funding instruments.

[5] See 'Horizon Europe: 2023 winners and losers revealed', available at: https://sciencebusiness.net/news/horizon-europe/horizon-europe-2023-winners-and-losers-revealed.

Methodological approaches

To assess the impact of programme participation as comprehensively as possible, the study combines three approaches. A survey was carried out to gauge participants' views and experiences, which were then analysed quantitatively. It should be noted that these results are based on the participants' subjective assessments. Data from external sources on the actual performance and activities of researchers and companies was also used. This was analysed using econometric methods. Finally, indepth expert interviews with selected organisations provide qualitative insights that contextualise and complement the quantitative findings.

Timeframe for assessment

The study focuses on the completed Horizon 2020 programme and project proposals submitted during the period of full association from 2017 to 2020. It takes at least three years after a project has been completed for the effects of programme participation to become apparent and to be measured in a meaningful way. The three-year period provides sufficient time for the project results to translate into measurable impacts in terms of publications, networks, funding, career development and economic performance. It is therefore still too early to assess the impact of the current Horizon Europe programme, in which Switzerland participated as a non-associated third country between 2021 and 2024. Consequently, the study touches only briefly on the period of non-association.

Survey

The survey was sent out online to a total of 5,825 researchers (at academic institutions) and 1,640 companies. The survey targeted individuals and organisations in Switzerland that had submitted at least one proposal under Horizon 2020, including both applicants whose project proposals received funding and those whose proposals did not.

A total of 641 researchers and 156 companies responded to the survey, equating to response rates of 11.0% and 9.5% respectively. After adjusting for undeliverable invitations, the overall response rate was 13.4%. For a voluntary survey in which participants are being questioned for the first time, this is relatively high. Of the 641 researchers, 424 received funding and 217 did not; of the 156 companies, 100 received funding and 56 did not. This means that, among both researchers and companies, the ratio of those receiving funding to those not receiving funding is approximately 2 to 1.Whilst the voluntary nature of the survey is likely to improve the quality and accuracy of the responses, it is also possible that those most likely to participate are researchers and companies for whom the framework programmes are of particular importance. Researchers and companies were able to skip questions when responding to the survey, which is why the number of responses shown in selected figures differs from the number of survey participants.

The questionnaire comprised just under 200 questions and subquestions. It was divided into four categories: one for researchers and one for companies, further broken down into respondents with an approved project and those with a rejected project. This breakdown allows for a direct comparison between the groups. The questions covered the various areas of impact examined in the following chapters of this study:

- Research promotion and funding sources
- Reasons for participation and feasibility at national level
- Leverage effect of the funding on additional resources
- Generation of knowledge and skills, including publications
- Conference attendance
- Skills development
- Talent development and reputational effects
- Scientific cooperation networks and knowledge transfer
- Economic impacts such as employment
- Turnover
- Business start-ups and spin-offs
- Marketable products and patents
- Impact on society, including outreach activities and influence on policy.

Econometric approach

The survey results describe the situation of funded and non-funded researchers and companies, but do not allow for any causal conclusions to be drawn. Recipients of funding perform better across many of the performance indicators examined here (e.g. number of PhDs, patents, etc.). However, it may be that higher-calibre applicants were more likely to receive funding anyway. In this case, the differences observed would not be attributable to the funding itself.

To investigate causality, the study employs the well-established method of regression discontinuity design (RD design; see Technical Report, Chapter 2). All project proposals submitted under Horizon 2020 were assessed by independent experts and ranked. Projects above a certain threshold received funding; those below did not. Applicants just above and just below this threshold show little difference in their performance – the slight difference in ranking is essentially random. The only systematic difference is that some received funding and others did not. By comparing these two groups, we can determine the actual impact of the funding. The effects measured in this way are causal, but apply only locally: they describe the impact of funding on applicants who are close to the funding threshold.

The RD design assumes that there is no interference between individuals – in other words, that funding for one researcher affects only their own results (publications/citations) and not those of other researchers. In reality, interference is highly likely to exist as a result of networking among researchers. For this reason, a complex networking analysis was carried out, the methodological details of which can be found in the Technical Report published alongside this study.

Data sources

In addition to the survey data, the study draws on several other data sources. The data on participation in Horizon 2020 projects is taken from the European Commission's eCORDA database. This contains information on submitted proposals and their evaluation by independent experts, including the classification of projects, as well as details of the funded projects. For the years of partial association (2014–16) and for participation in Horizon Europe, the eCORDA data was supplemented by SERI's internal database Profund. For company employment data (RDD Companies), the structural business statistics (STATENT) published by the Federal Statistical Office were used. The publication and citation data for researchers (RDD Researchers) comes from the OpenAlex digital catalogue.

Expert interviews

To supplement the quantitative findings, structured expert interviews were conducted with six organisations with a great amount of Horizon 2020 participations. The organisations surveyed were a technology-focused SME, a university hospital, an international technology company, a university of applied sciences, ETH Zurich and EPFL. The interviewees thus covered a broad spectrum, ranging from the private sector to applied and fundamental research.

The interviews, which lasted around 30 minutes, were conducted using a standardised questionnaire that had been sent to the organisations in advance. The questions concerned reasons for participating, the strategic importance of the EU-programmes, their impact on visibility and reputation, and experiences during the period of non-association. The findings from these interviews are documented in this study.

1.7 Impact model

Following the introductory overview of the scope of Switzerland's participation provided in the previous sections, the following sections examine the impact of its participation in the FPs. The long-term goal of this participation is to strengthen Switzerland's position as a leading centre for research and innovation.

The method for assessing the impact of Switzerland's participation in the FPs was designed based on an impact model. This identifies the key metrics ('indicators') that can be used to draw conclusions about the effectiveness of the participation.

These indicators, in turn, can be measured using existing data or data to be collected. The methodology used for this purpose is described in section 1.6.

Generally speaking, impact models serve as a basis for policymaking and for assessing whether policy measures are achieving their objectives. They are, first and foremost, structured descriptions of the changes that a programme, measure or initiative is intended to bring about in a given context. To this end, they are designed to provide a simplified, schematic overview of how policy measures lead to specific activities, what effects – intended or unintended – result from them, and which indicators can be used to measure these effects. This highlights the links between the resources and activities employed (inputs), the direct results (outputs) and the wider effects (outcomes and impacts).

Impact models are based on highly simplified assumptions regarding the interactions between their components (which are depicted as linear–causal), meaning that, depending on the focus, there may be various appropriate modelling approaches for a given field of study.

The impact model on which this impact study is based (Figure 1.7) describes, in general terms, Switzerland's participation in the EU framework programmes for research and innovation. It identifies the actors and target groups involved and illustrates their interactions in a diagram. The relevant indicators for assessing the impact of Switzerland's FP participation can thus be identified based on this overview.

The impact model describing Switzerland's participation in the FPs must be viewed within a complex political and institutional context, the full implications of which cannot be fully captured by the model. A key contextual factor is Switzerland's participation status. As a non-associated third country, Switzerland has no influence over the substance or structure of the FPs. Conversely, as an associated third country, it has a say when funding priorities, budgets and instruments are discussed at EU level.

1.7.1 Components of the impact model used

Input

The starting point is the Federal Council's stated policy objective of securing Switzerland's excellence in education, research and innovation in the long term. To this end, the Confederation provides the necessary legal and financial framework, particularly with regard to the national promotion of education, research and innovation (ERI Dispatch), but also for the involvement of Swiss actors in international projects and programmes (funding dispatches concerning Switzerland's participation in EU-programmes). In this context, the Federal Administration is tasked with facilitating and securing Swiss research and innovation stakeholders› access to EU programmes through negotiations with the EU. The EU establishes the legal framework and sets out the conditions for third countries' participation in the relevant FPs.

Implementation/activities

The FPs are implemented through (open) bottom-up and (thematic) top-down instruments for research and innovation, which are designed – primarily through calls for proposals – to produce specific research or development outcomes, but also to strengthen the European R&I system in general. Various Swiss entities perform specific tasks linked to Switzerland's FP participation:

- SERI represents Switzerland in the FPs. It coordinates national participation and ensures that relevant stakeholders are informed about funding opportunities.
- To this end, SERI mandates:
  - Euresearch to provide advice and support to researchers in Switzerland;
  - SwissCore to help ERI stakeholders forge connections in Brussels.
- In addition, SERI keeps Parliament and the public informed about Switzerland's participation in the EU-programmes.
- SERI represents Switzerland in the relevant EU bodies and promotes exchange and networking on ERI policy issues at European level.

Output

These coordinated activities help shape the decisions of the FP administration and lead to concrete outputs in the form of FP work programmes, which offer important funding opportunities for the Swiss R&I community.

SERI decides on potential federal measures relating to the European Research Area, working closely on this with the relevant Swiss entities:

- Located in Brussels, SwissCore is the Swiss information and liaison office for European policies and programmes in research, innovation and education, and is jointly funded by the Confederation, the Swiss National Science Foundation (SNSF) and Innosuisse. It serves as an information and networking platform, monitors developments and decision-making processes within the FP bodies, and supports Swiss actors in their dealings with the European institutions.
- Euresearch is a Swiss non-profit organisation mandated by SERI and funded by the Confederation. It provides information and advice to researchers and innovators in Switzerland on opportunities to participate in and secure funding under the current framework programmes, and supports them throughout the application process.
- National funding bodies such as the SNSF and Innosuisse, as well as various federal agencies, decide on their participation in European FP partnerships.

Outcome (short term)

In the short term, there are immediate changes in the target groups' level of awareness and behaviour:

- Researchers and innovators in Switzerland are made aware of opportunities to participate in the FPs through targeted information and advisory services.
- They know how to apply and receive support with the application process. As a result, the number of project applications submitted and approved is high.
- The organisations participating in the FPs invest in additional staff during project implementation in order to expand their research and innovation capacities and thus ensure the successful delivery of the project. This phase marks the transition from information to active engagement.

(medium term)

The deeper effects of participation become apparent in the medium term:

- Researchers and innovators produce internationally recognised research findings and publish in prestigious journals. Their international networks are built up and strengthened by means of new partnerships and mobility projects.
- Individuals and institutions participating in FP projects acquire new skills and expertise, for example through the use of innovative technologies and the exchange of knowledge.
- The FP projects may also lead to advances such as new prototypes, patents and technologies, bringing them closer to practical application and, where appropriate, market entry.
- The private sector in particular uses its own funds for research and development.
- Outreach activities help to raise the profile and bolster the impact of research and innovation projects.

- Participation in the EU-programmes helps to build and strengthen the reputation of researchers and innovators.

(longer term)

In the long term, the effects extend beyond individual projects:

- Researchers and innovators use these expanded international networks to launch new projects.
- Research funding organisations such as the SNSF and Innosuisse, as well as federal offices participating in FPs, are better connected internationally and can leverage the synergies and complementarities offered by the FPs for their strategic planning.
- Research findings from FP projects are put to further use, for example as a basis for new projects or to develop marketable products. These products generate revenue and give rise to new, innovation-driven businesses, including start-ups and spin-offs.
- Society gains access to new insights and technologies, and policymakers can incorporate research findings into their work.
- Researchers and innovators secure and consolidate their leading roles in their respective fields and sectors, which in the long term helps to strengthen the research and innovation system as a whole.

Impact

In the long term, participation in FPs helps to achieve overarching objectives:

- Researchers and innovators in Switzerland contribute to high-quality research.
- Switzerland remains an attractive location for cutting-edge research and innovation.
- New products and services from innovative companies drive economic growth, and findings from FP projects help to address societal challenges.
- International cooperation in research and innovation is boosted, and Switzerland establishes itself as a reliable partner in the global research landscape.
- Research and innovation make a long-term contribution to addressing societal challenges and safeguarding the country's innovation capacity.

Other factors: risks and opportunities

One factor that poses risks for Switzerland and is not directly taken into account in the impact model stems from the geopolitical situation, in which the EU is increasingly pursuing the goal of strengthening its strategic autonomy – that is, reducing its dependence on third countries in key areas such as technology, energy and research. This development could result in third countries such as Switzerland being excluded from participating in certain programme areas deemed to be strategic, or having their participation restricted. Other risks include potential cuts to the FP budget or a reduction in federal funding for FP participation in favour of other priorities.

At the same time, participation in the EU framework programmes opens up significant opportunities. Increases in the EU's FP budgets generally enable researchers and innovators in Switzerland to access additional funding. EU funding instruments that do not exist in this form in Switzerland are particularly attractive. They complement existing national funding schemes or provide fresh impetus for research and innovation.

Input	Implementation/Activities	Output
Concept, Required Resources	Operational implementation, measures, processes	Products, Offers, Services
Federal Council Goals Switzerland remains a leader in Education, Research, and Innovation. **Federal administration (SERI)** - Legal base (FIFG, FIPBV, SuG) - Financing Message for Swiss participation in FP - Negotiation mandate for Swiss participation in FP (with FDFA) **European Union** Establishes the legal framework of each FP generation and determines the conditions for third countries to participate in the FPs.	**EU** Implementation of FP through bottom-up and top-down instruments for R&I directed towards producing content but also strengthening the R&I system (ERA, widening). **SERI** - Financial contribution to the FP - Ministerial participation in the FP (programme committees, ERA Forum, etc.) - Information dissemination regarding the FP (Parliament, Society, ERI-Stakeholders) - Mandate Swiss presence in Brussels (Swisscore) - Mandate advisory services for researchers and innovators (Euresearch)	FP work programmes are relevant for the Swiss R&I community **SERI** - Decide federal policy measures in relation to ERA **Swisscore** - Promotion of Swiss R&I actors to EU R&I community - Inform Swiss R&I actors on EU R&I policy developments **Euresearch** - Inform the Swiss R&I actors on FP participation possibilities - Provide adequate support to Swiss R&I actors in the grant application process **R&I Funders (SNSF, Innosuisse, federal admin., etc.)** - Decide on their participation in co-funded, co-programmed and institutionalized partnerships

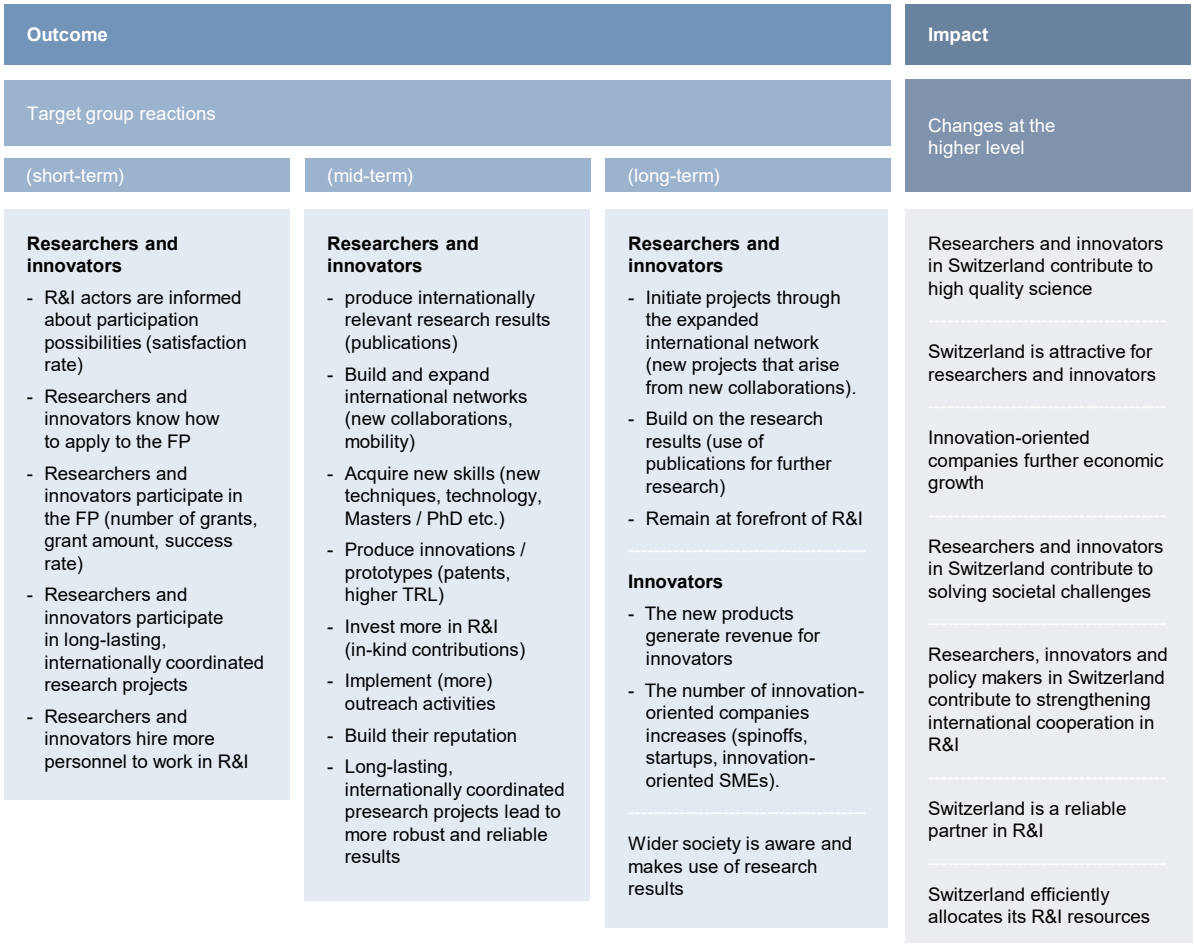


Fig. 1.7 Impact model of Switzerland's participation in the EU framework programmes for research and innovation. Source: SERI

2 Promotion of research and innovation

The framework conditions for research and innovation in Switzerland are considered to be very good. General conditions include political stability, a high standard of living, modern infrastructure and a favourable fiscal environment. Markets are competitive and well connected internationally. Academic freedom, a high-quality and flexible education system, proven R&I funding instruments and clear rules on the protection of intellectual property are among the specific framework conditions for R&I.

The main driver of Swiss innovation is the private sector. Around two thirds of all research and development (R&D) activities in Switzerland are funded and carried out by large companies, as well as small and medium-sized enterprises. These firms focus primarily on applied research and often collaborate with universities of applied sciences.[6] The higher education landscape comprises universities (including the federal institutes of technology), universities of applied sciences and universities of teacher education. They make contributions to teaching, research, technology transfer and services. Universities focus on fundamental research, whereas universities of applied sciences tend to conduct research with a practical emphasis. This lays the foundations for future applications and innovations. A number of independent, federally funded research institutes also contribute scientific added value, as does the Federal Administration through federal policy research.

Responsibility for public R&I funding lies largely with the Confederation, in particular with the Federal Department of Economic Affairs, Education and Research (EAER) and the State Secretariat for Education, Research and Innovation (SERI). [7] The Confederation accounts for around three quarters of public R&I expenditure, contributing CHF 4.7 billion per year (2022), while the cantons provide around a quarter. The Federal Research and Innovation Promotion Act (RIPA) governs the tasks and organisation of funding, both national and international. The Federal Act on the Funding and Coordination of the Higher Education Sector, or Higher Education Act (HEdA), ensures the quality and competitiveness of the higher education sector. As the bodies responsible for universities, universities of applied sciences and universities of teacher education, cantonal governments play a key role in encouraging R&I. They also support start-ups/spin-offs and regional networks, doing so either on their own or in conjunction with other cantons. In addition, cities and communes foster innovation by creating technology and innovation parks, for instance.

The Confederation provides R&I funding primarily through the ETH Domain and two main funding bodies: the Swiss National Science Foundation (SNSF) and the Swiss Innovation Agency (Innosuisse). The latter review and select projects submitted to them in competitive calls for proposals. The SNSF is the most important Swiss institution responsible for funding scientific research. It focuses particularly on supporting early-career researchers. For its part, Innosuisse is the federal funding agency responsible for science-based innovation. It encourages the transfer of knowledge between public research institutes and industry and, under certain conditions, also supports science-based start-ups.

Through the Confederation's New Regional Policy (NRP), the State Secretariat for Economic Affairs (SECO) seeks to improve the competitiveness of Swiss regions by supporting local entrepreneurial initiatives and innovation. The cantons also play a role in fostering innovation and economic development, partly thanks to federal subsidies paid to them within the framework of the NRP. Finally, a number of foundations also work to support research and innovation.

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[6] From 'Research and Innovation in Switzerland – 2022 Interim Report' f-i-bericht-2022_e.pdf

[7] BFI-Finanzbericht 2025 (de, fr), p. 11, Figure 4: Anteile von Bund, Kantonen und Gemeinden an den BFI-Ausgaben, 2022

2.1 Funding sources for researchers and innovators in Switzerland

For the researchers surveyed, the SNSF is the most important source of funding (54% rated it as 'very important', 23% as 'important'; see Figure 2.1), followed by Horizon 2020 (43% rated this funding source as 'very important', 30% as 'important'). For the companies surveyed, Horizon 2020 was the most significant source of funding for research and innovation projects (34% rated it as 'very important', 28% as 'important'), ranking ahead of own funds and Innosuisse. This illustrates the complementarity of FP funding opportunities. Innovation funding in Switzerland has traditionally been organised on a bottom-up basis, and Innosuisse has only very limited scope for providing direct funding to companies.

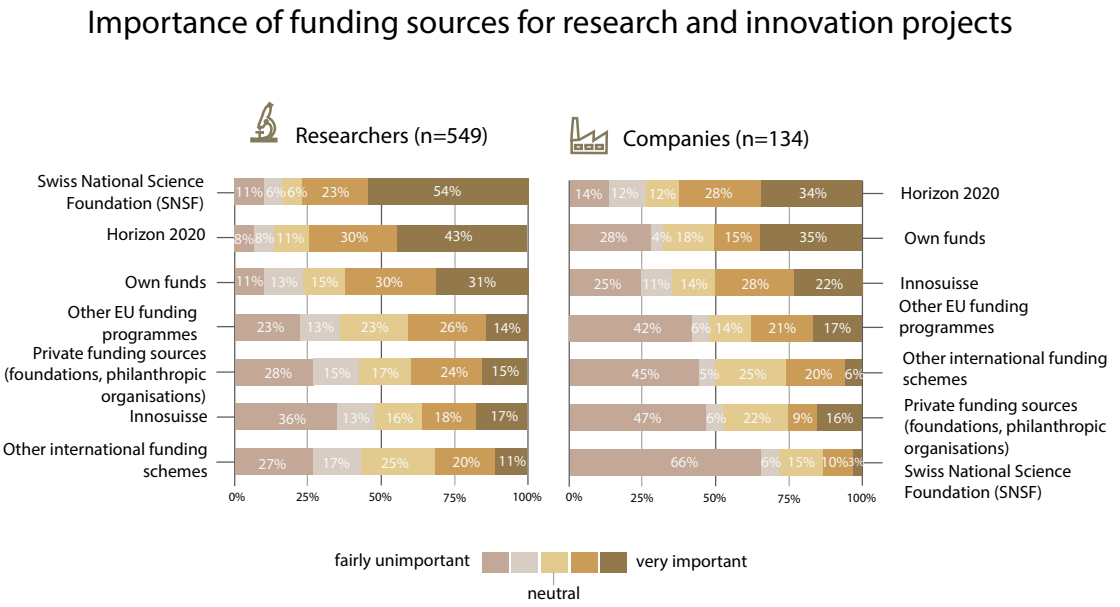


Abb. 2.1 Classification of funding sources according to their importance for funded companies and researchers
Source: SERI (KOF survey).

In this context, the 2025 BSS study also identifies a competitive effect. The greater the competition for limited funding, the higher the quality of the funded research and innovation projects. By participating in EU programs, Switzerland can capitalize on the fact that competition for funding from EU programs is significantly greater than in the case of comparable programs in Switzerland. And intensified competition is likely to lead to better research and innovation, which in turn strengthens innovation capacity, competitiveness, and the country›s attractiveness as a business location.[8]

2.2 Flow of information

To participate in the FPs, researchers and innovators must be sufficiently informed about the opportunities for doing so. In addition to SERI, Euresearch – acting on behalf of SERI – provides information and support to researchers and innovators in Switzerland wishing to participate in the EU framework programmes.

The survey shows that the FPs generally enjoy a high level of awareness among researchers and companies, with 73% of the researchers surveyed stating that most of their colleagues are familiar with them. For companies, the corresponding figure is 46%. Among both researchers and companies, those who received funding rate the level of awareness higher than those who did not.

In total, 83% of respondents agree that they were adequately informed about the opportunities to participate. The proportion is lower among companies than among researchers, but remains high: 14% of companies say that they were very well informed and 60% well informed, compared with 30% and 56% respectively for researchers.

8 BSS (2025). Mono-beneficiary grants of EU Framework Programmes for Research and Innovation: impact of Swiss participation (in German)

When assessing both awareness levels and information on opportunities to participate, it should be noted that the survey only included people who had applied for at least one EU project. The actual level of awareness is therefore likely to be lower.

2.3 Reasons for participation and feasibility at national level

For both researchers and companies, access to funding is the main reason for participating in the FPs (Figure 2.2). If the necessary funds are not available, the project is abandoned in the vast majority of cases (83%). Besides access to funding, both the researchers and the companies surveyed cite content-related and strategic reasons as key factors in their participation. While companies tend to focus more on market, product and competition factors, researchers emphasise the importance of academic excellence, reputation and career prospects. By contrast, the lack of national funding opportunities plays a relatively minor role.

EU funding supports academic careers and promotes research in Switzerland

Daniela Domeisen and Andrea Erzinger share their experiences:

"My 2019 ERC Starting Grant provided the stability I needed for my research."

Daniela Domeisen is an associate professor at the University of Lausanne and an assistant professor at ETH Zurich. In her project, she investigated the main factors that lead to heatwaves.

"There are hardly any alternative funding options for international research initiatives of this kind."

Andrea Erzinger is the director of the Interfaculty Centre for Educational Research at the University of Bern. Her project is about reducing educational inequalities in Europe through pioneering policy measures. She focuses on the interface between policy and practice and compares the education systems of different countries in this regard.

For researchers, major drivers for participating in the FPs are improving scientific/academic performance (42% consider this very important) and enhancing international reputation (38%). Strengthening competitiveness in the scientific context is also highly valued (41% consider it very important). Academic publications (32%) and personal career prospects (37%) are key motivators. The development of new solutions or products also plays a role for researchers, although it is a less prominent factor than for companies. Mobility and the lack of national funding schemes are generally considered less important, although the latter is nevertheless very relevant to just under a quarter of respondents.

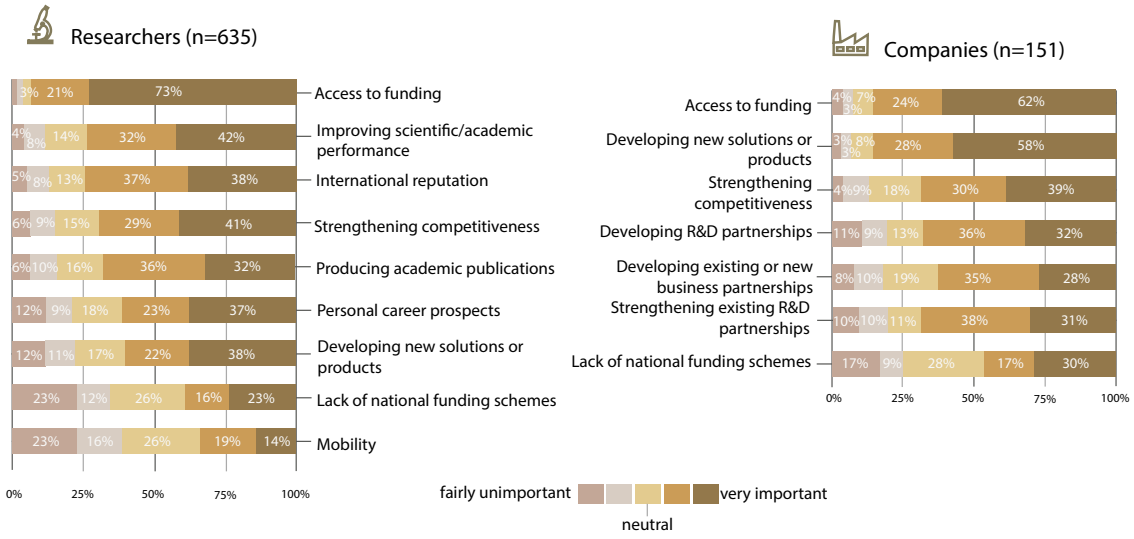
For companies, aside from financial resources, the development of new solutions or products is the most important reason for taking part, with 58% considering it very important. Boosting competitiveness is also cited as a key factor (39% say it is very important). Around 32% consider the establishment of new R&D cooperation networks and the strengthening of existing cooperations to be very important. Developing existing or new business partnerships is significant, but slightly less so (28% rate it as very important). Around 30% say that the lack of national funding opportunities was a very important reason for participating in Horizon 2020.

Overall, the results show that Horizon 2020 offered different but complementary incentives for companies and researchers.

A large proportion of respondents believe that their project would not have happened without Horizon 2020 funding. 17% think that it would probably or certainly have gone ahead anyway. Conversely, 34% say that the project would probably not have come to fruition, and half of those surveyed believe it definitely would not have been implemented (Figure 2.3). This suggests that the projects were heavily reliant on funding from the EU programme.

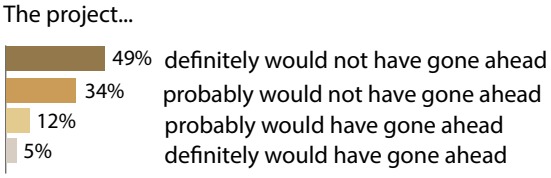
The majority of funding recipients stated that their project could not have been carried out at national level, as no alternative funding could be found. A majority of unsuccessful applicants stated that their project had not been taken forward, by far the most common reason being a lack of funding (83% considered this to be important or very important). More than half of those surveyed (61%) believe that they would not have been able to deliver their project to the same standard in terms of quality and content if it had been financed solely by national funds, mainly due to a lack of partnerships. This highlights the importance of international cooperation in certain areas of research and innovation.

Reasons for participating in Horizon 2020

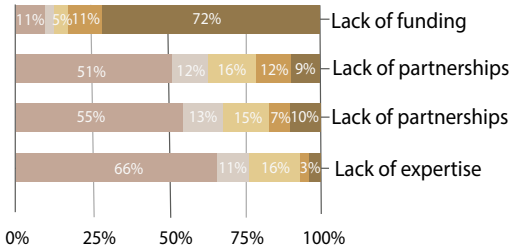


Horizon 2020 complements national funding

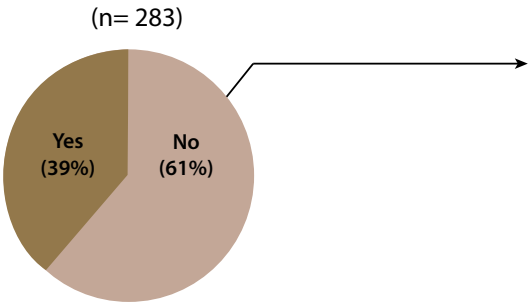
What would have happened to the project without Horizon 2020 funding? (n = 283)



Reasons why the rejected project was abandoned (n = 152)



Could the project have been carried out to the same standard and with the same content if it had been funded solely by national funds?



Obstacles to implementation (n = 172)

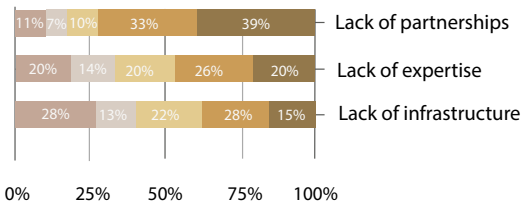


Fig. 2.2 First row: Reasons for participating in Horizon 2020, broken down according to companies and researchers. Second row: Situation without Horizon 2020 funding (left) and reasons for abandoning the project (right). Here, the results for researchers and companies are combined. Third row: Possibility of implementing the project with national funding, for researchers and companies.

Source: SERI (KOF survey)

2.4 Leverage effect

The BSS study 2025 describes the leverage effect as follows: the way in which securing EU funding, such as ERC, MSCA and EIC grants, helps to mobilise additional public and private funding.[9] Researchers, start-ups and SMEs that receive such funding demonstrate their high scientific standards and innovation capacity. This increases their chances of securing further national and international funding or attracts private investment, e.g. through own funds, into R&I projects. For start-ups in particular, an EIC grant acts as a mark of quality that inspires confidence among investors. National funding bodies also respond positively to EU funding by being more likely to participate in projects or provide additional funding. Part of this effect could also be explained by the fact that funded projects (regardless of the funding source) are of a high standard and therefore tend to attract further funding.

Empirical studies from the US and EU show that every dollar or euro of funding for applied research can, on average, trigger an additional 10–15% in national funding.[10] In Switzerland, too, researchers report that an ERC grant makes it much easier to access further projects and funding. In this context, EU funding is not a substitute for national funding, but rather a supplement to it.

The KOF-survey shows that EU funding has facilitated researchers› access to additional public research funding more often than it has for companies. While 42% of funded companies stated that EU funding had contributed to additional public funding, 58% said that this was not the case. Among researchers, the picture is exactly the opposite: 58% confirmed that such an effect existed, compared with 42% who did not.

For researchers, the SNSF is clearly the most important source of additional funding (65%), followed by private funding programmes (31%) and other EU programmes (30%). National innovation funding through Innosuisse (25%) and other international programmes (23%) also plays a role, albeit to a lesser extent. For companies, the situation is reversed, with EU programmes by far the most important source of additional funding, accounting for 72%. Innosuisse also plays a significant role for companies (38%), while other international funding programmes (21%) and private funding sources such as foundations or philanthropic funds (14%) are mentioned much less frequently.

Overall, the findings highlight that researchers perceive H2020 participation as an effective lever for accessing additional public funding sources, whereas companies report a less pronounced corelation. The latter could be due to the fact that, once an innovation reaches a certain stage, the focus shifts from securing grant funding to raising investment capital. Companies view participation in Horizon 2020 projects primarily as a gateway to other EU funding instruments, while researchers see it mainly as a way to facilitate access to national funding, particularly from the SNSF.

[9] BSS (2025). Mono-beneficiary grants of EU Framework Programmes for Research and Innovation: Impact of Swiss Participation.

[10] European Commission: Directorate-General for Research and Innovation, A new horizon for Europe – Impact assessment of the 9th EU framework programme for research and innovation, Publications Office, 2018, https://data.europa.eu/doi/10.2777/194210

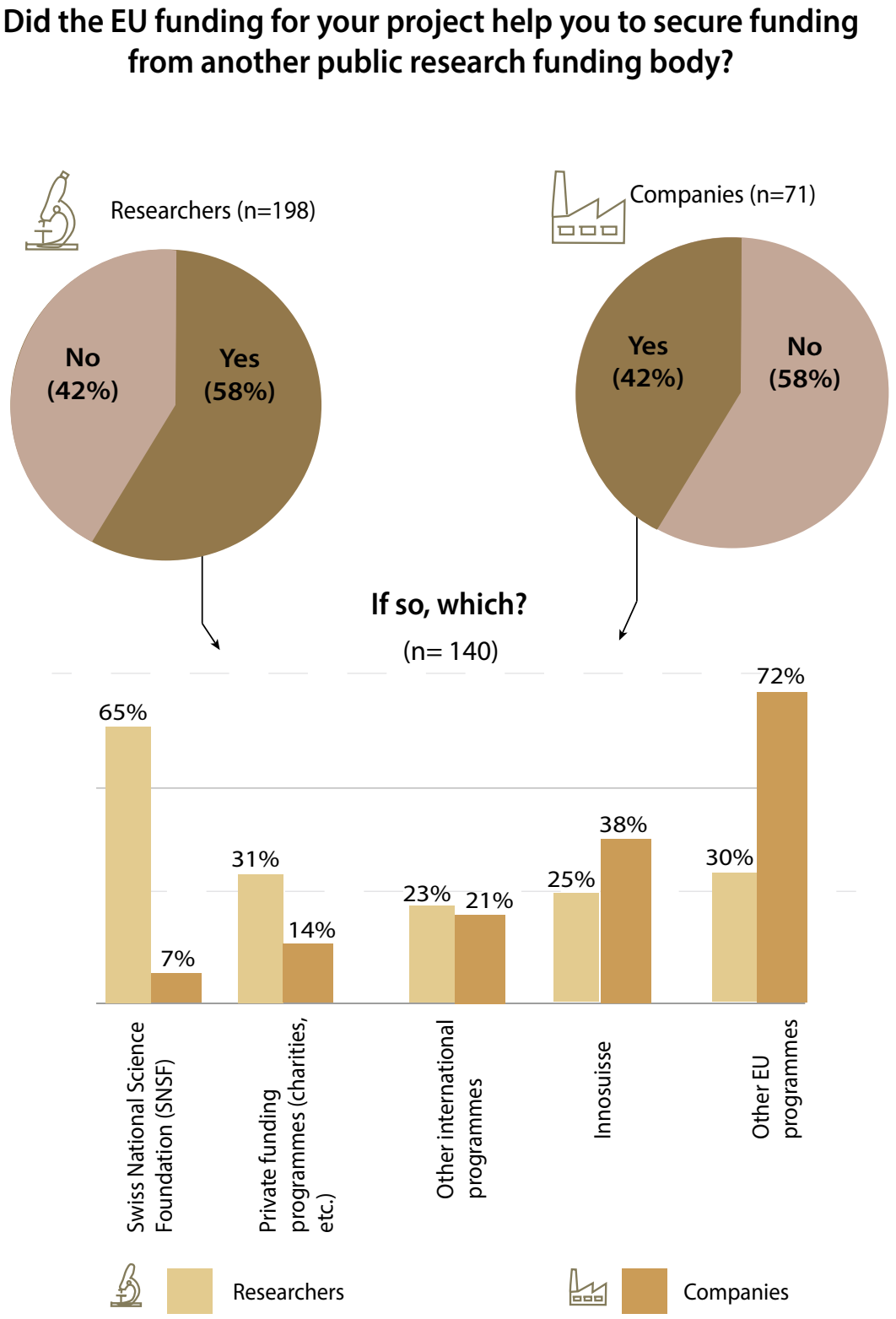


Fig. 2.3 Leverage effect of EU funding, broken down according to companies and researchers.
Source: SERI (KOF survey))

EU funding as a springboard and key to success for Swiss start-ups

Daniela Marino and Jonathan Bartoli share their experiences:

"For many Swiss start-ups, the EU's framework programmes are the starting point. The EU grants provided us with crucial funding in addition to national sources, which enabled us to finance clinical development and our pioneer automation scale-up program."

Daniela Marino is the CEO of TechBio start-up CUTISS, which develops personalised skin tissue therapies.

"Horizon 2020 funding was crucial in enabling us to develop our technology from the experimental stage into a certified and market-ready product. It allowed us to take technological risks, accelerate our market entry and consolidate our credibility within the industry."

Jonathan Bartoli is Head of Grants at Multiwave. He is responsible for the grant management strategy of medical R&D projects.

3 Knowledge and skills generation

The primary objectives of scientific research and innovation are to:

- generate new insights as well as contributions to practical problem-solving (research);
- develop new products, procedures, processes and services for the economy and society (innovation).

With these objectives in mind, the following chapter uses five indicators (publications, conference attendance, skills, academic degrees and reputational effect) to examine the differences that researchers and companies in Switzerland have experienced as a result of participating or not participating in Horizon 2020. For example, it looks at how many academic degrees (PhDs or Master's degrees) were awarded to researchers funded by and not funded by Horizon 2020 projects throughout the programme's duration (2014–20).

The findings in this chapter show that Horizon 2020 funding significantly boosts both scientific output and applied commercialization. Funded projects tend to generate more publications and citations, achieve greater visibility through outreach activities, and result in more concrete applications such as services, products, and technological expertise. At the same time, they support early-career researchers through additional doctoral degrees and generate a reputational effect for researchers and companies. The key perceived added value lies in the acquisition of up-to-date knowledge, complemented by better international networking, new problem-solving approaches, and increased visibility. While researchers benefit more from scientific excellence and career advancement, companies focus on innovation, product development, and market orientation.

3.1 Academic publications, citations and outreach activities

New research findings are published so that they can reach the scientific community and the general public. Among other things, publications ensure that knowledge does not remain isolated, but can be discussed, utilised and expanded upon by others. Citations play a key role in this. They refer to previous work and ensure that the origins of ideas and methods can be traced. Citations are therefore also an indicator of academic impact, as frequently cited works often have a greater influence on a field of research. An RDD analysis (see section 1.6) of publications and citations shows that funding for researchers under Horizon 2020 has had a positive effect, leading to more publications and citations than would otherwise be the case (Figure 3.1). This effect relates exclusively to funding from FPs and does not allow any conclusions to be drawn regarding the possible impact of national funding. It should also be noted that, the results are fairly not statistically significant at the 95% level. However, this does not mean that there is no positive impact, as the RD plot clearly suggests such an effect. For details of the methodology used in the analysis, please refer to Chapter 2 of the Technical Report.

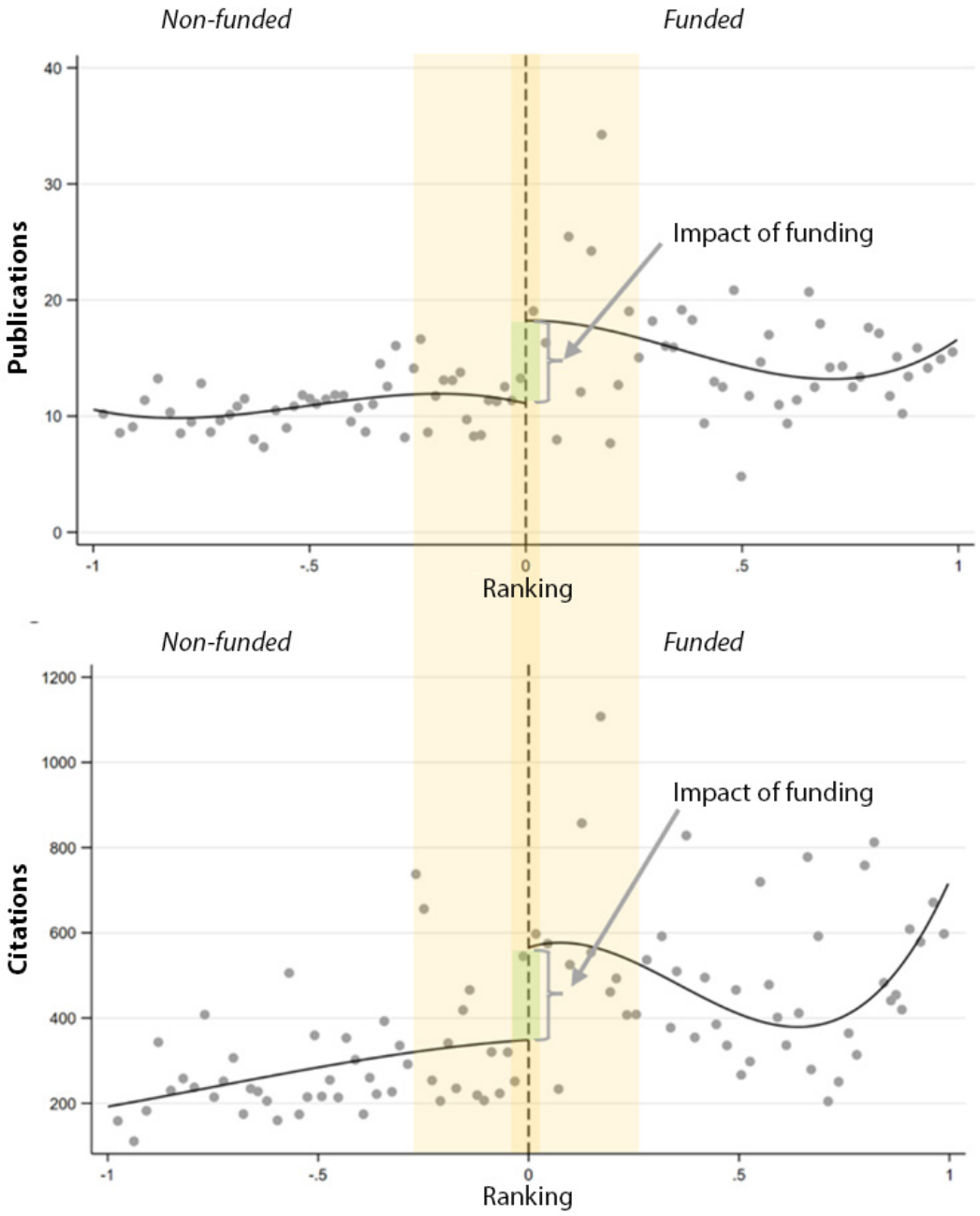


Fig. 3.1 RD plot showing the effect of funding on researchers' publications (top) and citations (bottom). The Y-axis shows the number of publications or citations, while the X-axis indicates the researchers' ranking (-1 to 0 = non-funded; 0 to 1 = funded). The dotted line represents the boundary between researchers who did not receive funding (on the left) and those who did (on the right). The impact of the funding is measured among researchers of a similar rank who are close to the '0' threshold (light yellow area). In this case, one can assume that the researchers are of roughly equal calibre (only just missing out on or only just qualifying for funding) and that the funding is the sole determining factor. It is clear from both the publications and citations that the funding has had a positive effect (the green area shows a jump in the number of publications and citations).

Source: SERI (KOF survey)

When it comes to outreach activities (e.g. presentations, interviews, media contributions), there are clear differences between funded and non-funded actors (Figure 3.1). It is evident that, among both companies and researchers, those receiving funding engage in presentations (lectures/posters), media reports and media interviews more frequently on average than those not receiving funding.

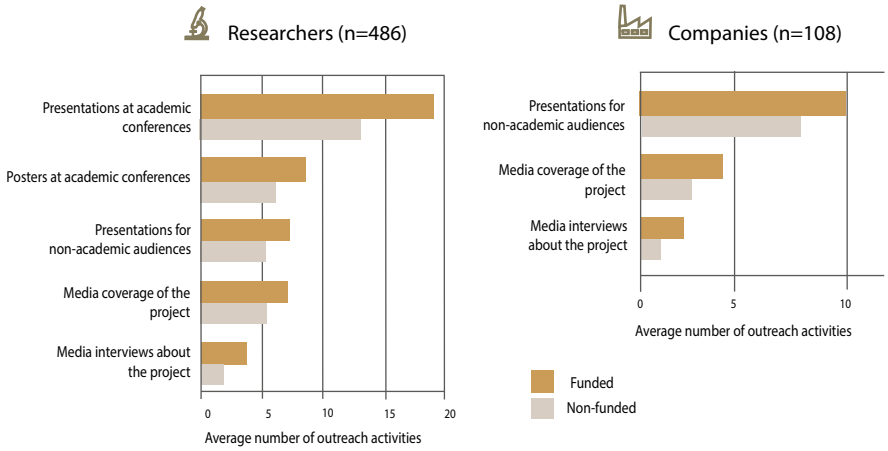


Fig. 3.2 Outreach activities between 2017 and 2024, broken down according to researchers (left) and companies (right) whose projects were accepted or rejected. Recipients of funding clearly demonstrate a higher level of outreach activity than non-recipients.

Source: SERI (KOF survey)

Beyond the scientific community…

David Bresch shares his experiences:

"Projects exploring the interactions between climate and society have helped to raise awareness of these issues beyond the scientific community."

ETH Zurich Professor David Bresch's research focuses on the interactions between climate and society, with a focus on climate risks and their visibility in public debate. In his view, the prominence of these issues is now reflected in their presence in European policy debates, highlighting the ability of research to provide the necessary basis for policymaking.

3.2 Skills

By participating in FP projects, companies and researchers acquire key technological skills in emerging fields of research. These skills translate into practical applications such as new services, commercialised products and training courses. On average, funded projects lead to more practical applications than rejected projects, among both researchers and companies (Figure 3.3).

Among researchers, the absolute figures are higher overall than for companies, particularly when it comes to educational content (2.8 vs 2.6) and new technological skills (2.3 vs 1.2). There are also clear differences in terms of policyrelevant expertise (2.0 vs 1.2), new services (1.0 vs 0.5) and commercialised products (0.6 vs 0.2), with funded projects performing better in each case. While the gap for educational content is relatively small, the differences in technological skills and policy-related advice are more pronounced.

Among companies, however, the greatest differences relate to educational content (1.6 vs 0.4), policy-related advice (1.4 vs 0.2) and new services (1.3 vs 0.6). Funded projects also significantly outperform rejected projects when it comes to new technological skills in emerging fields of research (1.6 vs 0.9) and commercialised products (1.2 vs 0.6). Overall, this suggests that funding for companies is particularly effective in promoting knowledge dissemination, advisory services and service-oriented innovation.

The results indicate that funding substantially increases both the academic and applied use of project results.

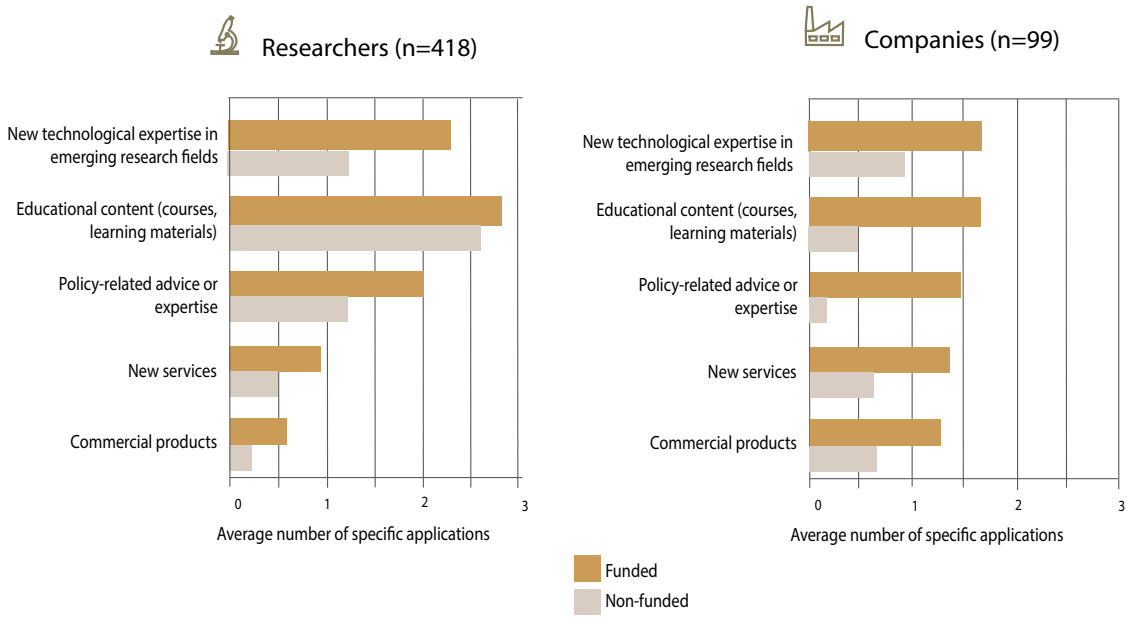


Fig. 3.3 Practical applications arising from R&I projects. The data is broken down according to researchers (left) and companies (right) whose projects were accepted or rejected.
Source: SERI (KOF survey)

3.3 Academic degrees/talent development

Funded projects are associated with a higher number of PhDs than non-funded ones. On average, six PhDs (median: five) have been awarded for funded projects, compared with four PhDs (median: two) for non-funded projects. This effect can perhaps be explained by the fact that the funding provides additional resources, which make it possible to employ PhD students. Whether the source of the funding (EU or national) is relevant cannot be determined. However, the funding does help to support early-career researchers.

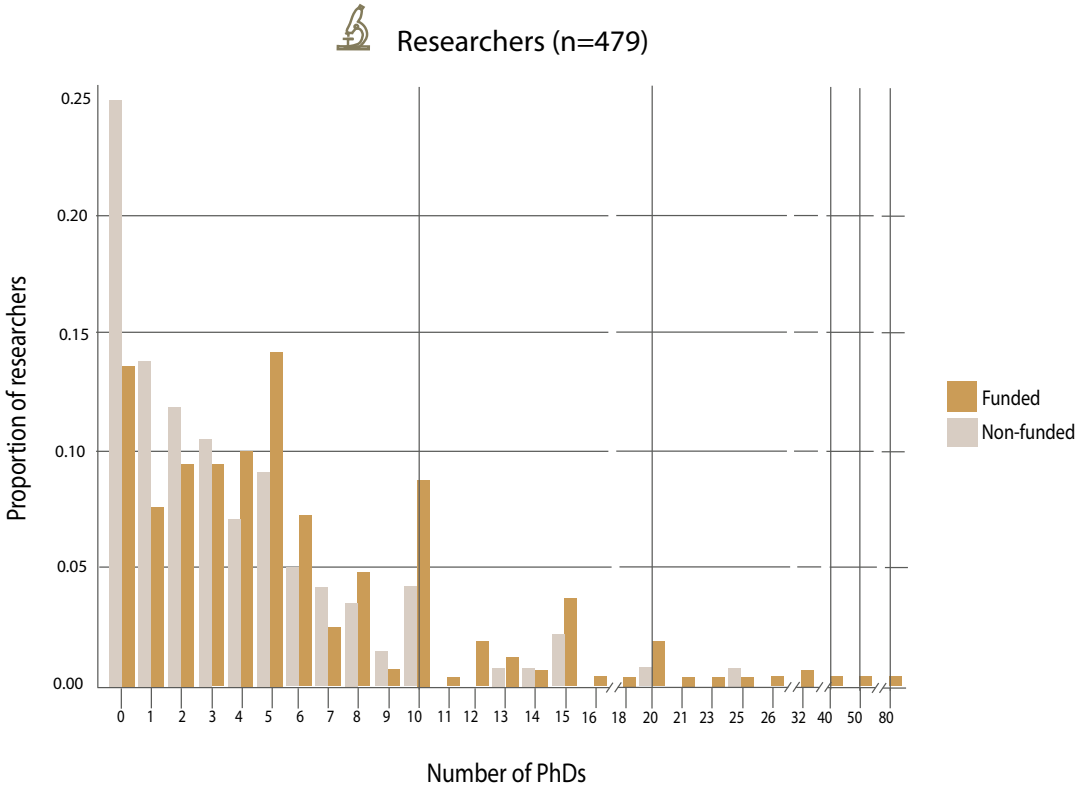


Fig. 3.4 Number of PhDs completed between 2017 and 2024. Reports indicate that funded researchers have, on average, produced more PhDs than groups without Horizon 2020 funding.
Source: SERI (KOF survey)

3.4 Reputational effect

The BSS Study 2025 describes the reputational effect as a gain in prestige that researchers and companies experience by receiving EU funding.[11] The EU-programmes are regarded as highly prestigious internationally. For researchers, this means better career prospects, greater visibility and access to new networks. For companies, receiving FP funding sends a signal to investors, customers and existing and potential employees that the company is innovative and trustworthy.

The KOF-survey also reveals respondents' views on the direct personal benefits of participating in an H2020 project. Both companies and researchers state that a key benefit lies in acquiring state-of-the-art knowledge, with 80% reporting a significant to very significant increase in knowledge (Figure 3.5).

For companies, new approaches to problem-solving (rated by 58% as highly to very highly relevant) and the international success of their own methods and ideas (63%) are significant innovation and visibility benefits of project participation. In addition, 64% believe that it has a major impact on the development of new or improved products. A majority also report easier access to the international research community, with 58% giving this a high to very high rating. However, career development plays a secondary role for businesses.

[11] BSS (2025). Mono-beneficiary grants of EU Framework Programmes for Research and Innovation: Impact of Swiss Participation.

For researchers, new approaches to problem-solving (79%) and the international visibility of their own work (79%) are important, as well as gaining new knowledge. Some 68% rate access to the international research community as highly or very highly relevant. Career development is also important to many, with 60% giving it a high or very high rating. By contrast, the development of new or improved products is of lesser importance, which points to a stronger focus on scientific expertise and international networking.

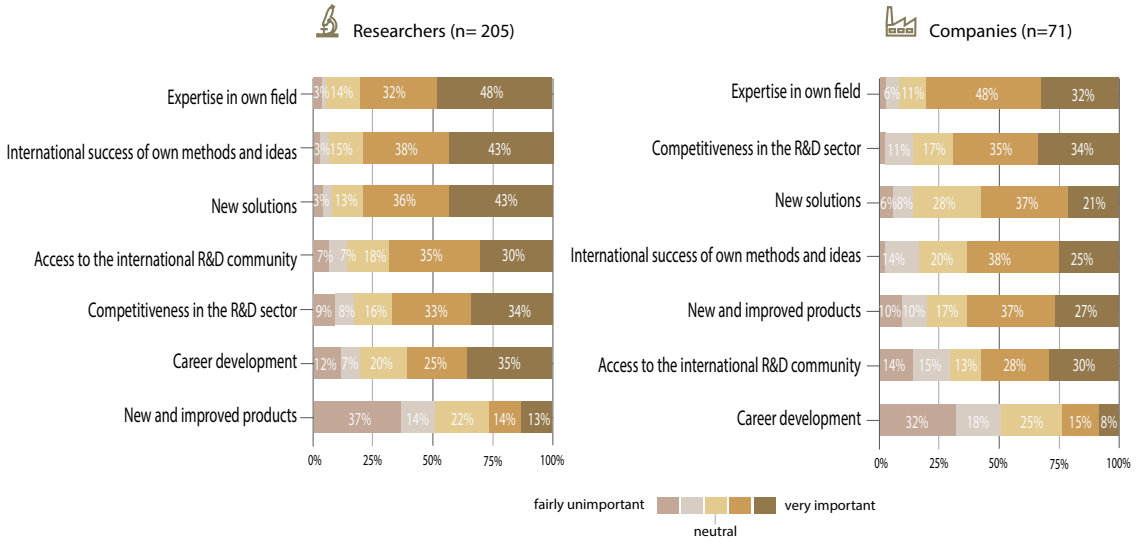


Fig. 3.5 Benefits of participating in Horizon 2020 in terms of personal added value, as reported by funded researchers and companies.

Source: SERI (KOF survey)

Participation in European projects is a key driver of our reputation and future collaborations.

Georg Lutz shares his experiences:

"In my experience, being visible within consortia builds trust and means that you're seen as a reliable and go-to partner for new projects."

Georg Lutz is Director of FORS, the Swiss Centre of Expertise in the Social Sciences. FORS's involvement in EU projects includes work on secure environments to enable the responsible sharing and use of sensitive data.

4 Scientific cooperation networks

FPs play a vital role in making the European Research Area (ERA) a reality. The ERA's aim is to continuously improve the framework for the open exchange of researchers and the free circulation of scientific knowledge and technologies.

By facilitating joint transnational projects within international consortia, the FPs promote cross-border cooperation and the mobility of researchers. Research groups from various EU member states, associated countries and third countries (e.g. the US) take part in collaborative projects. In this way, the programmes strengthen the structural interconnection of national research and innovation systems and help to reduce fragmentation within the ERA.

The following chapter examines the impact of the FPs on the formation of scientific networks and on the integration of researchers from Switzerland into these networks. For researchers, the opportunity to build international networks is a key reason for participating in the FPs (Figure 2.2). The results suggest that the FPs not only help to forge new collaborations, but also foster long-term and sustainable research networks. Furthermore, they strengthen cooperation between academia and industry

4.1 Networking effect

Networking is important because, on the one hand, it promotes the personal career development or business growth of grant recipients. On the other hand, networking strengthens the exchange and diffusion of knowledge. The BSS Study 2025 identifies networking effects, noting that EU programs contribute to networking among funded researchers, SMEs, and startups. It should be noted that this applies to individual grants and collaborative grants, for which this effect may be more evident, as multiple partners work directly with one another within the framework of a project.

A comprehensive network analysis, done by the KOF, has shown that the positive impact of Horizon 2020 funding on the publications and citations (see section 3.1) of funded researchers also extends to their co-authors who did not receive funding. Many of the researchers who did not receive funding through Horizon 2020 have co-authors who did. In some cases, they have more funded co-authors than the funded researchers themselves. If this funding generates spillover effects – for example, through signals of quality or through an increase in joint publications and greater visibility – then co-authors who have not received funding also benefit. Networking is therefore worth-while, which is why consortia are often formed. Consortia are generally a good way to share expertise and foster international collaboration in research and innovation. It is not uncommon for this to lead to scientific cooperation between companies and researchers (see section 4.2). For many companies, this facilitates activities such as the development of new solutions or products, the formation of new business partnerships, and the strengthening of collaboration in research and development. These are all factors that companies cite as central reasons for participating in the EU framework programmes (see Figure 2.2). For researchers, collaborations with international partners offer greater visibility and a stronger presence within the EU and beyond, thereby opening up new opportunities for further networking. Even if the proposal is rejected, the partnerships that have been established are, in most cases, maintained (>50%).

12% of respondents say that they had already formed a research consortium prior to the submission phase. For most companies and researchers who submitted a proposal, no consortium (36%) or a partial consortium (37%) existed before the proposal was prepared. Most consortia are therefore only formed when the EU project is being designed. Following the completion of a funded project, 81% of the collaborations continue (54% definitely, 27% very likely); in the case of rejected proposals, the figure is still 62% (35% definitely, 27% very likely). As a result, 12% of respondents formed new partnerships at national level and 62% did so internationally.

These findings suggest that collaborations emerge during the proposal preparation and project design phases and, in some cases, continue beyond the actual project context, even if a project is not awarded funding. This does not contradict the observation that many projects cannot be carried out, or cannot be carried out in the intended form, without the necessary funding, as collaboration can also take the form of follow-up activities, adapted projects or resubmitted proposals.

4.2 Partnerships between academia and the private sector

As well as fostering international links, collaborative projects also play a key role in forging connections within Switzerland. Of the 2,608 collaborative projects during Horizon 2020 with Swiss participation, 30% have at least two Swiss partners in the consortium. Interaction between Swiss industry partners and academia is also furthered, with 13% of projects involving collaboration between at least one Swiss company and one Swiss higher education institution.

New success through networking.

Esther Amstad shares her experience:

"As part of a collaborative project in the field of food security, we worked with a cheese manufacturer to develop capsules that reduce the use of additives in cheese production. Without the opportunity to work so closely with the industry, this would not have been possible."

Ester Amstad is a professor at EPFL and conducts research in the field of materials science. After completing a postdoctoral fellowship at Harvard University, where she developed microfluidic methods for the production of functional micro- and nanomaterials, she now heads the Soft Materials Laboratory (SMAL) at EPFL's Institute of Materials Science (IMX).

5 Economy and employment

The funding opportunities for research and innovation under the FPs are diverse and, taken together, form a comprehensive and complex funding system with specific objectives which, in the case of H2020, are primarily aimed at strengthening innovation capacity rather than direct commercialisation. Consequently, general statements about the impact on the economy and employment often do not provide any insight into the specific benefits for the institutions and individuals receiving funding.

In general, it can be said that the main aim of the funding is to develop technologies towards market readiness. Positive effects on employment and turnover can be observed – but whether these are directly attributable to FP funding is less easy to prove than progress in development and innovation, where funded participants outperform their non-funded counterparts. Both businesses and public-sector partners in Switzerland's industrial landscape therefore benefit from the strengthening of their capacity for innovation and technical expertise. This helps Switzerland to secure and build on its leading international position as a hub for innovation in a highly competitive environment.

A study conducted by Ecoplan 2025 on behalf of SECO analyzes the long-term effects of the termination of the Bilateral Agreements I on Swiss GDP and confirms the significant benefits of these agreements. The loss of projects under the EU programs reduces the efficiency and attractiveness of Swiss R&I, leading to a decline in quality. Assuming the same level of financial resources, it is estimated that in 2045, GDP would be 0.18% lower in the absence of association than it would be with association to the EU programs.

Ecoplan (2025). "Economic impact of discontinuation of first package of bilateral agreements." Economic Policy Papers No. 56. State Secretariat for Economic Affairs SECO, Bern, Switzerland

5.1 Participation by companies

Around a third (37%) of the recorded Swiss participations in Horizon 2020 projects were by private companies, of which 1,261 were SMEs and 558 were industrial firms. In terms of thematic focus, private companies tended to participate in calls in STEM-related fields (engineering, technology and natural sciences), in line with their main areas of activity (Figure 5.1).

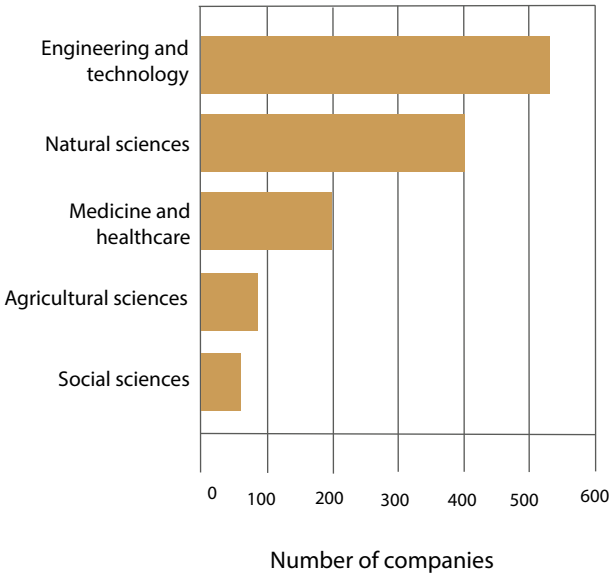


Fig. 5.1 Number of participations by Swiss private sector players according to the thematic focus of the calls for proposals.
Source: eCORDA

5.2 Impact on turnover

There is no statistical evidence of a direct impact on the long-term total turnover of funded companies (Figure 5.2). However, this is not the objective of H2020 funding, which is mainly geared towards pre-commercial research and innovation activities, mostly at medium technology readiness levels (TRLs) (see TRL infobox).[12] By contrast, the impact of project funding on the proportion of turnover generated by innovative or new-to-market products is clearly evident; this proportion is higher among companies with funded projects than among those whose projects did not receive funding (Figure 5.3). This is because funded projects drive the further development of technologies towards market readiness (Figure 5.4). The average turnover growth for companies with funded projects is around 58% (median: 33%), compared with 65% (median: 36%) for those whose projects did not receive funding. Given the wide dispersion of the values averaged across all company sizes, these differences do not suggest that funding causes a decline in turnover, but rather that funding for pre-commercial R&I has no direct causal impact on a company's total turnover.

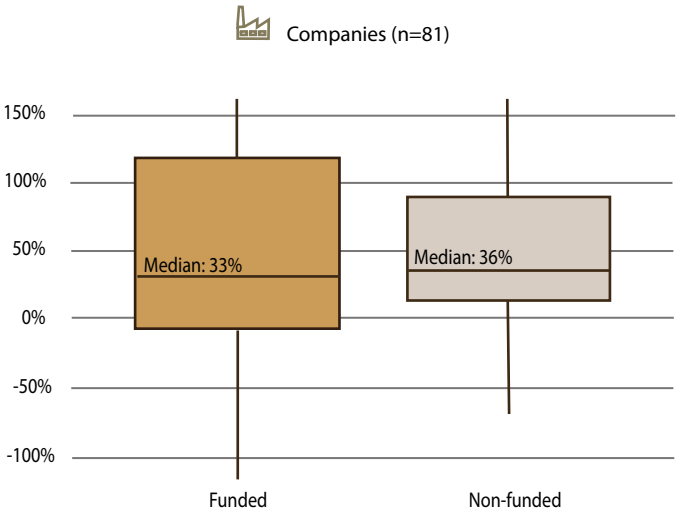


Fig. 5.2 Growth in total turnover at companies with rejected (left) or accepted (right) projects.
Source: SERI (KOF survey)

[12] Activities aimed at promoting market access were at the prototype stage under H2020 and, when they were formally introduced under HEU, were not accessible to Swiss participants due to Switzerland's non-association.

Technology readiness levels (TRLs)[1]

Where a topic description refers to a TRL, the following definitions apply, unless otherwise specified:

TRL 1 – basic principles observed

TRL 2 – technology concept formulated

TRL 3 – experimental proof of concept

TRL 4 – technology validated in lab

TRL 5 – technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)

TRL 6 – technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)

TRL 7 – system prototype demonstration in operational environment

TRL 8 – system complete and qualified

TRL 9 – actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)

[1] As set out in Annex G of the General Annexes to the H2020 Work Programme

Unexpected impetus for innovation: how EU project proposals have spurred new developments.

Karl Gutbrod shares his experiences:

"Participating in framework programmes accelerates technological development and helps drive the creation of new products and boost turnover, both through direct support and by providing indirect impetus."

Karl Gutbrod is a senior executive at meteoblue AG. He has experience in the development and marketing of meteorology-related digital technologies.

By contrast, the impact of project funding on the share of revenue generated by innovative or market-new products is clearly evident; this share is higher among companies with funded projects than among those whose projects did not receive funding (Fig. 5.3). This is because funded projects drive the further development of technologies toward market readiness (Fig. 5.4).

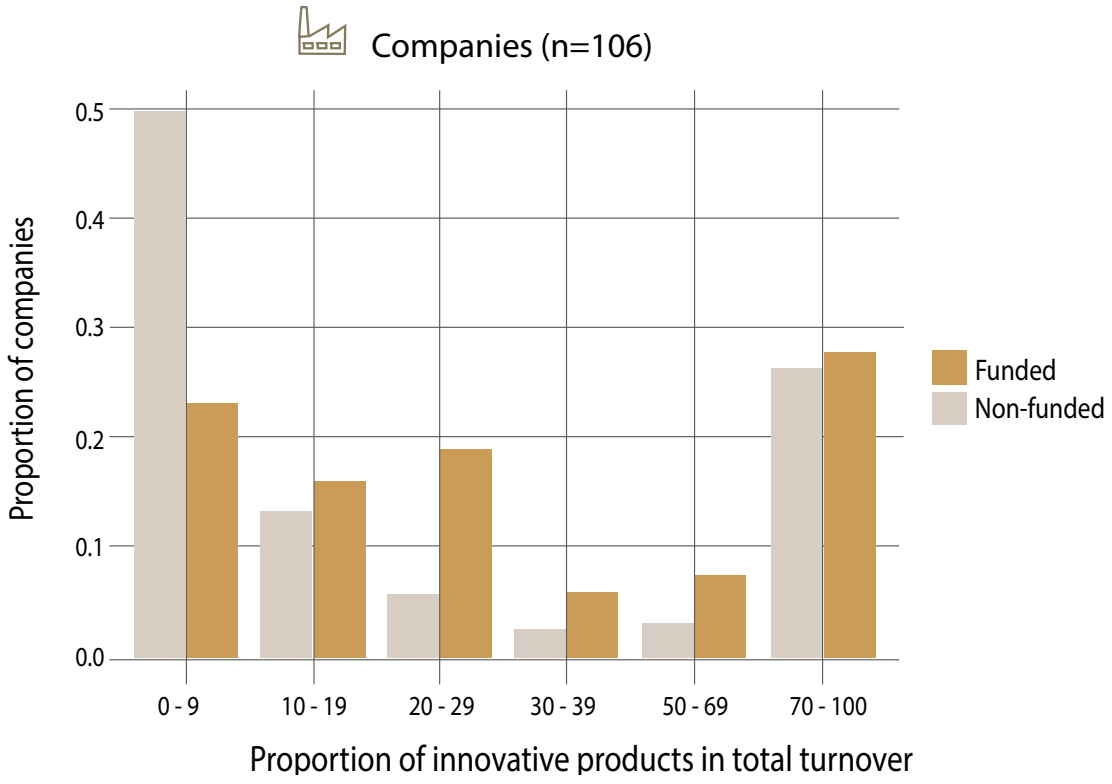


Fig 5.3 Proportion of total turnover generated by innovative products at companies with non-funded (beige) and funded projects (brown).

Source: SERI (KOF survey)

The figures below the bar chart show the percentage of new-to-market products within total turnover. The height of the bars represents the relative proportion of companies that reported the respective share of new-to-market products within their total turn-over. Companies with funded projects tend to generate a higher proportion of their turn-over from products new to the market (on average 38% for companies with funded projects and 29% for those whose projects did not receive funding; the median figures are 20% and 8.5% respectively). However, it should be noted that, due to the small number of data points and the wide range of the measured variables, it is only possible to identify a general trend.

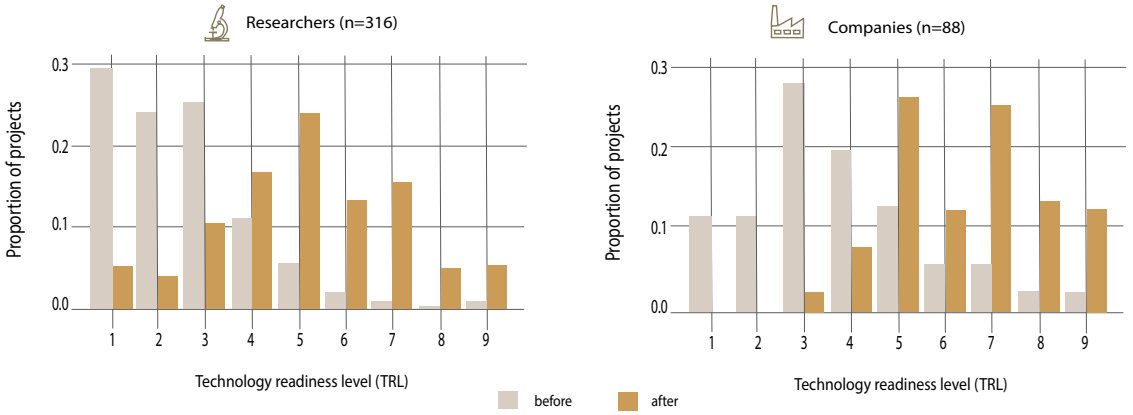


Fig. 5.4 Technology readiness level (TRL). TRL (see infobox) of technologies before and after being worked on as part of a funded project (1: underlying natural process observed, 4: technology validated in lab, 9: start of production of market-ready product).

Source: SERI (KOF survey)

The average revenue growth for companies with funded projects is approximately 58% (median 33%), and for those with unfunded projects, 65% (median 36%). Given the wide variation in the values averaged across all company sizes, these differences do not indicate that funding causes a decline in revenue, but rather that funding for pre-commercial R&I has no direct causal impact on a company's total revenue.

Companies with funded projects tend to generate their revenue more frequently from products new to the market (on average 38% for companies with funded projects and 29% for companies with unfunded projects; when considering the median, the figures are 20% versus 8.5%). However, it should be noted that due to the small number of data points and the range of metrics, only a general trend can be identified here.

5.3 New jobs

Between 2014 and 2024, employment rose by an average of 43% in companies with funded projects, and by an average of 33% in companies without project funding (Figure 5.5). However, as can be seen from the figure, the dispersion is too great for the results to be considered statistically significant.

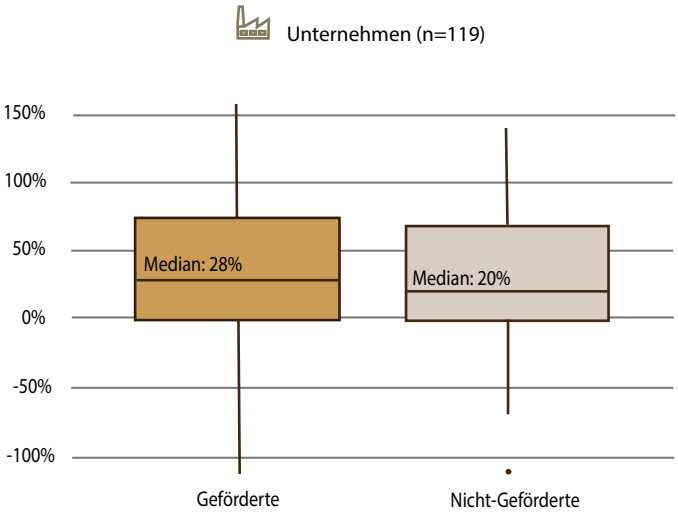


Fig 5.5 Employment growth between 2017 and 2024 in companies receiving (right) and not receiving (left) project funding under Horizon 2020. On average, employment growth is 10 percentage points higher where project funding was received (43% compared with 33%; median: 28% and 20% respectively).

Source: SERI (KOF survey)

However, the causal link between project funding and employment growth can be statistically demonstrated by comparing employment levels in companies with and without project funding using a regression discontinuity design (RDD).[13]

In fact, the RDD analysis reveals a jump in employment levels between firms that did not receive project funding and those that did, precisely at the funding threshold (Figure 5.6). It should be noted that the results are not statistically significant at the 95% level due to the small number of observations.

[13] The statistical implementation of this idea and the corresponding data analysis are explained in more detail in Chapter 2 of the KOF Technical Report 'Schweiz und EU-Rahmenprogramme für Forschung und Innovation: Auswirkungen der Teilnahme'.

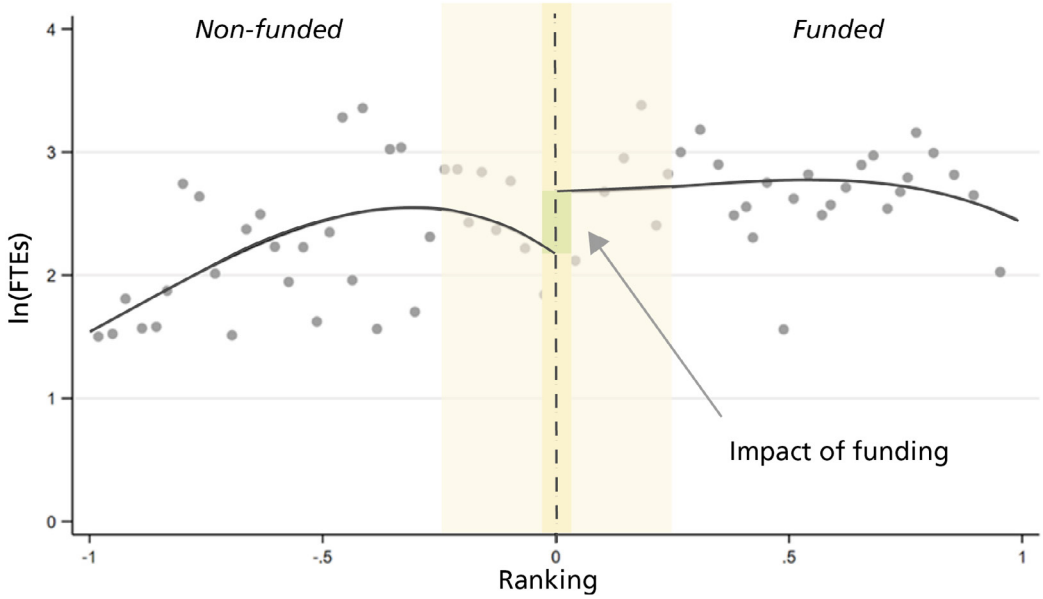


Fig. 5.6 RD plot showing company employment figures as a function of the distance between the scores awarded to their submitted project proposals and the funding threshold, which is marked here as '0'. Projects above the funding threshold received funding (to the right of the dotted line); those below did not. The Y-axis shows the number of jobs (on a logarithmic scale), while the X-axis indicates the companies' ranking (-1 to 0 = non-funded; 0 to 1 = funded). The grey dots represent grouped means, each of which comprises several observations. At the threshold, there is a clear jump in average employment (green area). It should be noted that the causal impact of the funding is statistically proven only for companies close to the funding threshold (yellow area). Companies with significantly poorer or better project proposals are no longer comparable in terms of the impact of funding (or non-funding), even though companies with well-rated projects tend to have higher employment levels.

Source: SERI (KOF survey)

5.4 New businesses

The survey shows that 20% of those who did not receive funding, and 30% of those who did, founded start-ups or spin-offs between 2017 and 2024. Funded researchers display a higher level of start-up activity overall: the mean for this group is 0.53, compared with 0.43 for those whose proposals were rejected, whilst the median in both groups is 0, which highlights the strong preponderance of those who did not start a business at all. Meanwhile, the proportion of people who started one or two businesses is noticeably higher among those who received funding. Instances of three or more starts-ups/spin-offs occur only sporadically in both groups. Overall, this suggests that funding is associated with a slight increase in entrepreneurial activity.

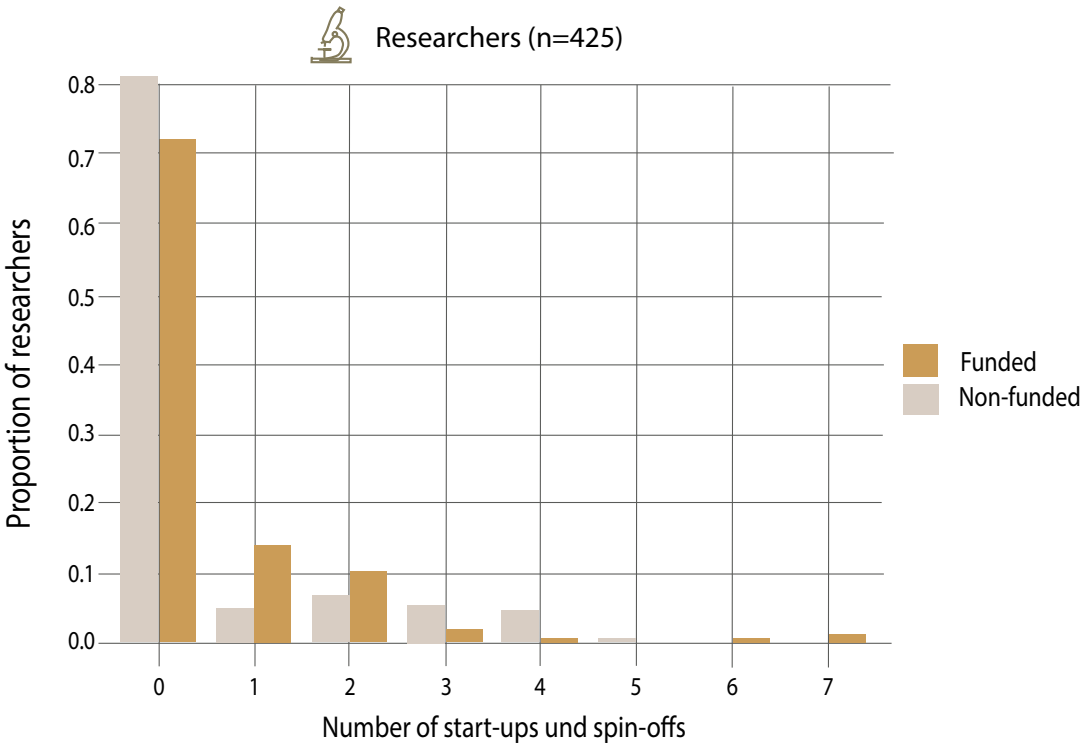


Fig. 5.7 : Number of start-ups and spin-offs founded by researchers between 2017 and 2024.
Source: SERI (KOF survey)

5.5 Patents

The survey reveals that funding recipients, both researchers and companies, hold more patents than non-recipients. Figure 5.7 shows a distribution among researchers that is heavily skewed to the right, suggesting that very few of them have actually produced patents. Nevertheless, the proportion of researchers holding patents is higher among those receiving funding (around 38%) than among those not receiving funding (around 20%). High numbers of patents (four or more) are generally rare among researchers, unlike in companies; however, they are predominantly found in the group receiving funding, with a few outliers boasting up to 20 patents. Most companies have produced at least one patent, and some of the funded ones have as many as 50.

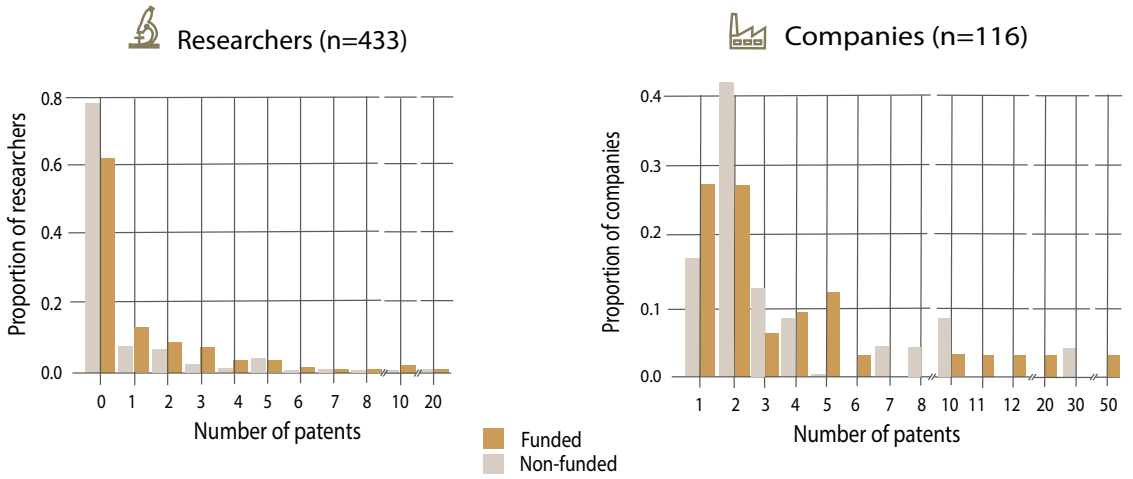


Fig. 5.8 Number of patents generated between 2017 and 2024. The data is broken down into funded and non-funded researchers (left) and companies (right). Recipients of funding produce more patents than non-recipients.

Source: SERI (KOF survey)

6 Society

This chapter examines the extent to which projects and companies have an impact beyond their actual research and development activities. The focus is on three key dimensions: the strategic integration of environmental, social and governance (ESG) goals within companies, the dissemination of project findings to a non-academic audience, and the tangible influence on policy processes and decision-making structures. The chapter therefore investigates whether and how projects generate social, economic and political impact.

The results paint a mixed picture. Thus far, ESG goals have been systematically integrated only in part and vary significantly depending on the dimension. That said, it is evident that approved/funded projects achieve greater visibility in public communications and make a substantial contribution to the development of policy-relevant expertise. The clear added value of funded projects is particularly evident in interactive forms of policy transfer.

6.1 Social impact

The survey shows that a significant proportion of companies have addressed ESG goals, [14] although differences can be seen between the three dimensions.

With regard to the environmental dimension (e.g. CO_2 emissions, biodiversity, energy efficiency), 35% of the companies surveyed state that they actively addressed relevant ESG goals during the 2017–24 period, compared with 53% that say they did not. This shows that a relative majority of companies have not pursued any explicit environmental goals, while just over a third have implemented or strategically embedded such measures. Overall, the findings suggest that environmental ESG objectives have not yet been fully integrated across the board.

In the social dimension (e.g. occupational health and safety, diversity, humanitarian engagement), 26% of companies report pursuing relevant ESG goals between 2017 and 2024. Conversely, 56% did not address any social ESG goals. This means that social objectives are even less firmly established than environmental ones: around a quarter of companies are actively engaged in this area, while a clear majority report that they have not taken any such measures.

In the governance dimension (e.g. prevention of corruption, remuneration structures, data protection), 14% of companies state that they pursued relevant ESG goals between 2017 and 2024, while 72% say they did not. In other words, governance receives the least active consideration out of the three ESG domains. A clear majority of companies did not address any specific governance objectives during this period, suggesting that strategic integration of this dimension is relatively weak.

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[14] ESG, standing for 'environmental, social and (corporate) governance', refers to criteria and guidelines established by the United Nations and financial institutions to ensure that environmental, sustainability and social issues are taken into account within corporate management, public bodies, governments and public authorities. (Source: wirtschaftslexikon.gabler.de)

(n=663)

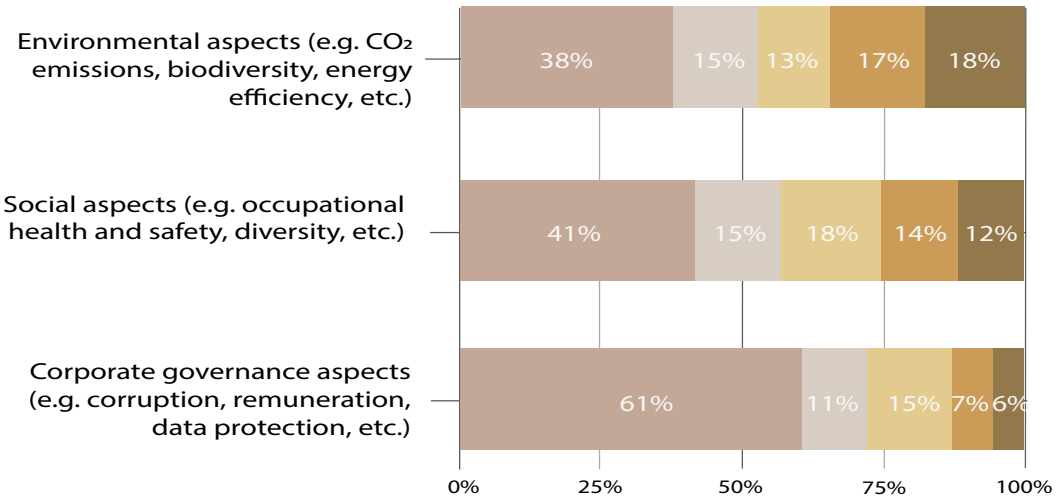


Fig. 6.1 Implementation of environmental, social and governance (ESG) goals by the researchers and companies surveyed.
Source: SERI (KOF survey)

EU programs provide solutions to societal challenges: Evidence-based measures to combat discrimination.

Katharina Fellhofer shares her experience:

"Research shows that gender bias is more common among inexperienced investors — but also that targeted measures can effectively counteract it."

Katharina Fellnhofer is a researcher and entrepreneur. As part of an MSCA Postdoctoral Fellowship at ETH Zurich and Harvard University, she studied gender equality in the business world and identified evidence-based approaches to reducing discrimination through training and structured decision-making processes.

Knowledge and solutions with a direct social impact

Alain Gaume shares his experiences:

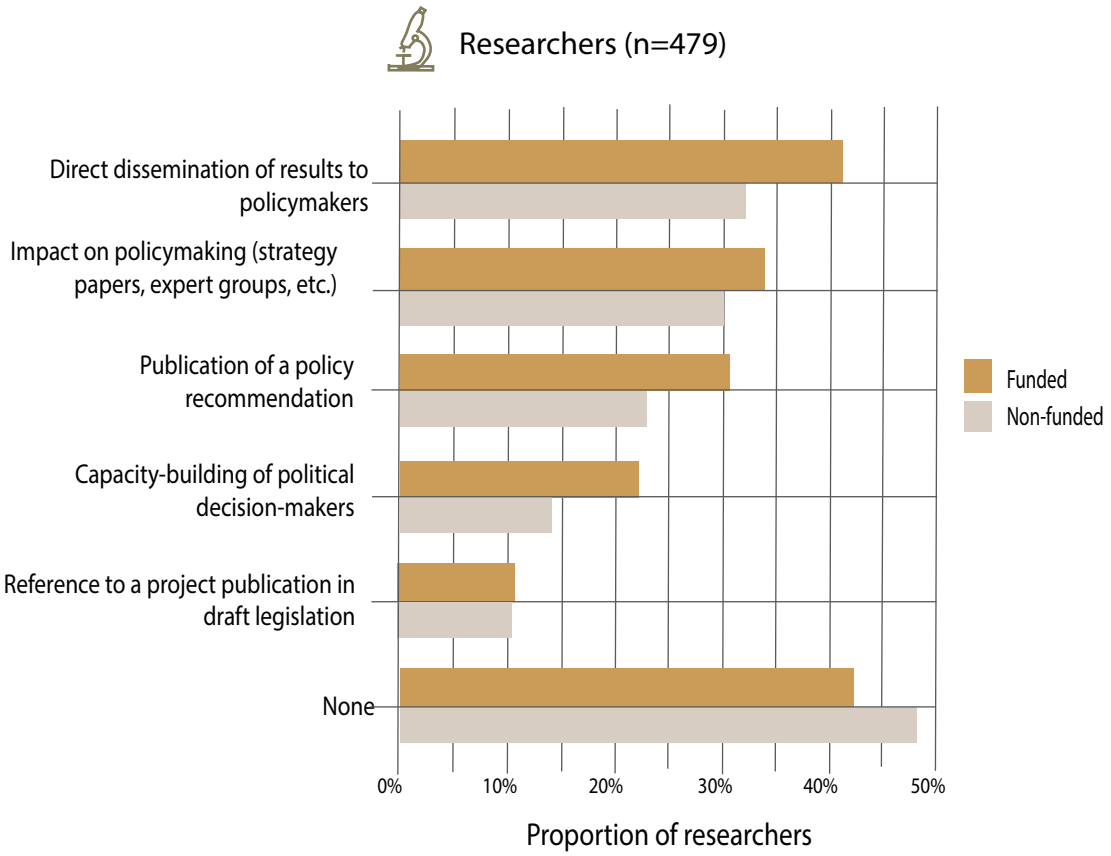
"Participating in the EU's framework programmes generates knowledge and solutions with a direct social impact. The research projects address specific challenges and involve the public in the development and implementation of solutions."

Alain Gaume is a researcher at Agroscope and coordinator of the IPM Popillia project on the Japanese beetle. He focuses on the impact of pests in agriculture and the development of solutions to mitigate this impact.

6.2 Impact of research projects on the development and implementation of policy measures

The survey clearly shows that funded projects contribute more significantly to the generation of policy-relevant expertise than non-funded ones – in both the business sector and academia, although the proportion is higher overall among researchers (Figure 6.2). For companies with an approved project, the average output of 1.4 is significantly higher than that of companies not receiving funding (0.2), suggesting that funded projects make a substantial contribution to policy advice and support for evidence-based decision-making. There is also a clear difference among researchers, with approved projects scoring 2.0, compared with 1.2 for rejected projects.

Direct dissemination of research findings to policymakers (e.g. through workshops) is undertaken by 41% of funded researchers and 32% of non-funded researchers. Funded researchers are also more likely to report that they influence policymaking – for example, by contributing to strategy documents or participating in expert panels (40% compared with 30%). When it comes to capacity building among policymakers, the recipients of funding also have the edge (22% compared with 14%). By contrast, there are no differences in the publication of guideline recommendations (31% in both cases) or in the citation of scientific publications in legislative texts (11% in both cases). Overall, the results suggest that funded researchers achieve greater impact, particularly when it comes to interactive and process-oriented forms of policy transfer.



Fif. 6.2 Impact of R&I projects on policy.
Source: SERI (KOF survey)

Strategic exclusions jeopardise Switzerland's position in key technologies

Philipp Treutlein shares his experiences:

"In my experience, as soon as we lost access to EU programmes for an extended period, we became less involved in joint international research and innovation work. Trends like that can take hold quickly."

Philipp Treutlein is a professor at the University of Basel and a specialist in quantum optics. He stresses that Switzerland's exclusion from European programmes prevents it from accessing promising projects, consortia and technologies. He warns that, without this cooperation, Switzerland will lose ground and risks being permanently sidelined in the field of quantum technologies.

7 Key findings from expert interviews

Significant insights regarding Switzerland's participation in the EU framework programmes for research and innovation were gathered during six expert interviews with representatives from the private sector, higher education institutions, clinical research and applied science. The interviewees are representatives of institutions that have carried out numerous Horizon 2020 projects.In terms of content, the interviews paint a coherent picture: despite differing institutional perspectives, there was broad agreement on key points concerning the benefits and strategic importance of the EU framework programmes.

A central theme running through all the interviews was the added value of international cooperation. Representatives from the worlds of fundamental and higher education research agreed that many scientific issues can now only be addressed within international consortia. The EU framework programmes provide a unique framework for this, combining critical mass, thematic breadth and long-term vision. National funding instruments could not fully replace this combination.

In applied research and industry, too, international networking was highlighted as a key advantage. It was pointed out that, thanks to EU projects, universities of applied sciences are directly integrated into European value chains. This opens up opportunities for companies to develop innovations through to market readiness, in collaboration with partners from different countries. Particularly for technology-oriented SMEs, access to specialist partners and infrastructure is crucial to remaining competitive.

Several interviewees also underscored the special role played by the EU framework programmes in supporting high-risk and long-term innovation projects. It has been noted that the programmes are specifically designed to facilitate the transition from research to application, while accepting risks that are often difficult to assess at national level. This willingness paves the way for technological breakthroughs and ensures early engagement with European technology and standardisation processes.

Another focal topic was clinical and health-related research. Multinational studies, harmonised regulations and access to large data spaces are crucial for medical research. The EU framework programmes not only provide funding for this purpose, but also a structural and regulatory framework that could not be replicated at national level.

In addition to the substantive benefits, the interviewees also frequently referred to the reputation-building impact of the EU framework programmes. Representatives from both the academic and industrial sectors stressed that participation in EU programmes serves as a mark of quality, boosting international visibility and facilitating access to further partnerships and follow-up funding.

However, there was a somewhat critical perspective on the administrative burden associated with applying for and implementing EU projects. Everyone agreed that the administrative work involved was substantial, particularly for smaller organisations. At the same time, there was a consensus that the strategic benefits justified this effort in most cases. Several interviewees stated that these exacting requirements also helped to professionalise their project management and collaborations.

A major cross-cutting issue in the interviews was the period of Switzerland's non-association to Horizon Europe (2021–24). This was described as manageable thanks to national transitional measures. Even so, some key limitations were highlighted, in particular the exclusion from coordination roles and a weakening of international networking. In this context, some interviewees reported a loss of visibility, influence and status within European consortia. There was agreement that national funding instruments cannot replace full association, and that a prolonged period of non-association would entail significant risks for research, innovation and Switzerland's international standing.

Taken as a whole, the expert interviews make clear that, in the view of all those questioned, the EU framework programmes for research and innovation are much more than just a funding instrument. They are seen as a strategic platform for excellence, innovation, international networking and influence. All the interviewees regard Switzerland's steady, reliable and long-term participation as key to the future development of science, the economy and society at large.

Annex 1
Insights – Photo credits

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Alain Gaume ..... Agroscope