

Profile

2016–2017

Profile

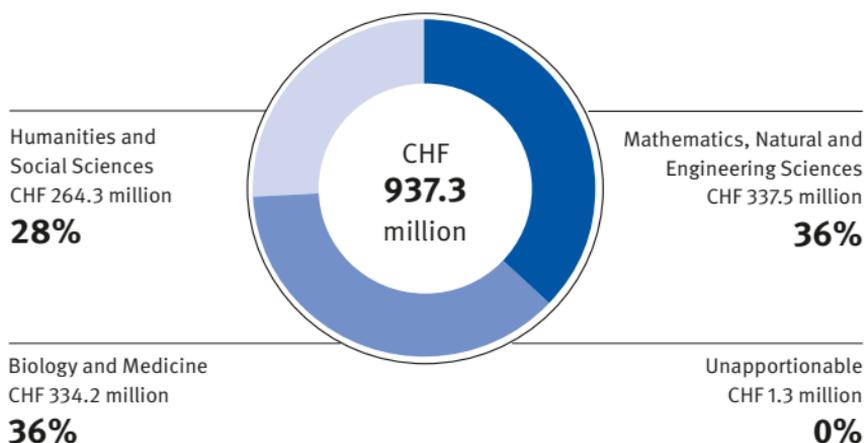
2016–2017

We invest in researchers and their ideas

On behalf of the Swiss government, the SNSF supports basic scientific research in Switzerland in all academic disciplines. In close collaboration with higher education institutions and other partners, the SNSF strives to create optimal conditions for the advancement and international integration of Swiss research. It pays particular attention to the promotion of young researchers.

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“The data is a valuable back-up to scientific findings.”

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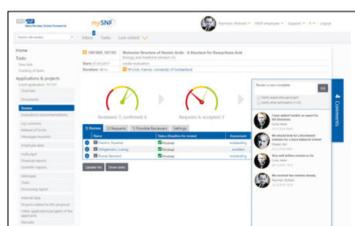
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The annual report “Profile 2016–2017” not only looks back – it also presents faces and personalities, as well as issues and points of view, in an attempt to shed light on the present and foster debate about the future.

Transparency, quality and visibility



“If Switzerland is to maintain its leading position in international research, we need to support young researchers and create the conditions they need to be successful.”

“I advise you to look for a chance to break away, to find a subject you can make your own. (...) Therein you have the best chance to become a leader and, as time passes, to gain growing freedom to set your own course.” This is the renowned biologist Edward O. Wilson’s advice in his recently published **Letters to a Young Scientist**.

Excellence, originality and independence – these are the *sine qua non* of research projects that aim to expand the frontiers of knowledge, offer young researchers promising career opportunities and produce results that are beneficial to society. With this in mind, the SNSF has started modifying its career funding schemes, a process that it plans to complete in the coming years (see page 7). This will involve changes to existing funding schemes, the creation of new ones and the discontinuation of those that have achieved their goal.

If Switzerland is to maintain its leading position in international research, we need to support young researchers and create the conditions they need to be successful. This will also contribute to innovation and economic growth in the country.

But the SNSF has also set clear requirements for both young and established researchers in an attempt to enhance the transparency, quality and visibility of scientific research.

Transparency: data collected in SNSF-funded research projects are being made publicly accessible. The principle of Open Research Data is a mini-revolution because many researchers do not publish their project data. But the SNSF and many other funders believe that public access to data is vital in making research results more reproducible and opening up new perspectives for science. After all,

the data also belong to the taxpayer, who made it possible to collect them in the first place. As of October 2017, researchers supported by the SNSF will normally be required to submit a data management plan with their application. All relevant data generated in a project – or at least those used in publications – should be available to other scientists and to the public at large (see page 12).

Quality: today’s frenetic publication activity must make way for a more qualitative approach – on the part of both researchers and evaluators. The SNSF is fully committed to the principles embodied in the San Francisco Declaration on Research Assessment (DORA). Applying these principles involves taking account of the value and impact of all research output. We are doing all we can to change mind-sets in this area.

Visibility: the times in which the public and the powers that be blindly trusted scientists and believed in basic research are over (was there ever such a time?). What good are scientific breakthroughs if their importance goes unnoticed or their very existence is contested? With its Scientific Image Competition and Agora funding scheme, the SNSF is encouraging researchers to pass on their passion for science by showcasing the results of their research.

We are all aware that transparency, quality and visibility will not make scientific research flawless or irreproachable. But they hold the key for the young researchers addressed by Edward O. Wilson, who want to make their mark by relentlessly pursuing their own research topic and, with a little luck, achieving results that will make a real difference.



Gabriele Gendotti



Matthias Egger



Angelika Kalt

From left to right:

Matthias Egger, President of the National Research Council of the SNSF (since January 2017)

Angelika Kalt, Director of the Administrative Offices of the SNSF (since April 2016)

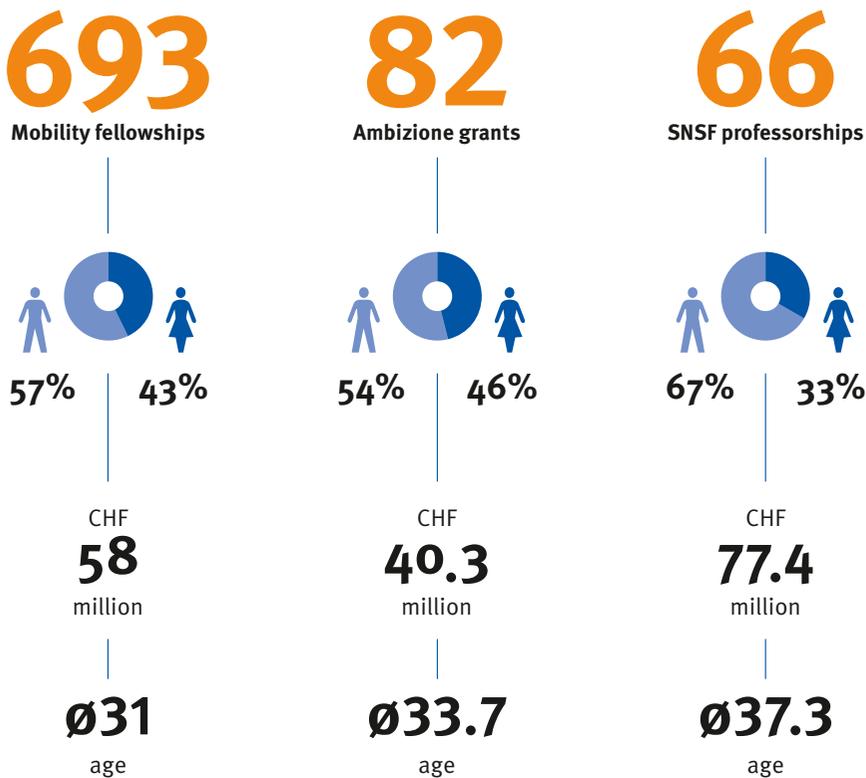
Gabriele Gendotti, President of the Foundation Council of the SNSF

Promoting early independence

Switzerland needs more highly qualified young researchers if it is to remain competitive in global science. By modifying its career funding schemes, the SNSF is aiming to create more appealing and clearer career prospects for young researchers in academia.

Funding by scheme 2016

Three career schemes compared



In 2016, the SNSF used almost a quarter of its budget to promote the careers of promising young researchers in Switzerland. It invested 207 million Swiss francs in approximately 1,100 fellowships and grants that cover the salaries of young applicants and, in part, also their research or project costs. In addition, 76% of the approximately 10,000 people working in research projects funded by the SNSF are 35 or under – here too, promoting young scientists is a priority.

A change is needed

“These figures show how strongly the SNSF feels about educating highly qualified young scientists and keeping them within the Swiss science system,” says Matthias Egger, President of the National Research Council. But simply maintaining the status quo will not be enough: “We have to make academic careers more appealing in this country, so that Swiss research can continue to compete internationally at the highest level. We need young researchers who are critical and question existing knowledge or develop it in novel ways – such research leads to innovation and is therefore crucial to Switzerland’s economic prosperity and affluence.” Egger, a public health expert from the University of Bern, is convinced that Switzerland needs to present good arguments and offer favourable conditions if it is to hold its own in the increasingly fierce global competition for the most talented scientists. “As the leading funder of basic research in Switzerland, the SNSF is expected to make a major contribution to this goal,” says Egger, for whom this challenge is just as much personal as it is national.

The SNSF promotes early independence

In 2016, the SNSF started modifying its career funding schemes step by step and bringing them more closely into line with project funding, so that all phases of an academic career are covered. With these innovations, the SNSF aims to strengthen the competitiveness of Swiss research and to support the planned changes to academic career structures in Switzerland, which are set out in the Federal Council's report "Massnahmen zur Förderung des wissenschaftlichen Nachwuchses in der Schweiz" (Measures to promote young researchers in Switzerland). The SNSF is looking to position its career schemes more clearly and effectively. In future, they will be geared more specifically to the promotion of academic careers, scientific excellence and the early independence of up-and-coming young researchers. For Beatrice Beck Schimmer, president of the Specialised Committee for career funding, the final point is crucial: "We will give young researchers who have the potential for an academic career the opportunity to make their mark with their own research project".

Setting a course for the future

To implement all the innovations envisaged in its multi-year programme 2017–2020 and carry out its daily business, the SNSF had requested federal funding of approximately 4.5 billion francs. In summer and autumn 2016, the Swiss parliament discussed the Federal Dispatch on the Promotion of Education, Science and Innovation. Ultimately, it allocated a total budget of 4.1 billion francs to the SNSF. Although the SNSF had to shelve some of its innovation projects because of insufficient funding, it followed through on measures to reposition its career schemes in the 2017–2020 funding period. This shows that the SNSF remains fully committed to promoting young scientists and facilitating their scientific independence.

Ambizione and SNSF professorships: more competition

The SNSF is continuing the Ambizione funding scheme for young researchers who wish to conduct a project of their own at a Swiss higher education institution. As of 2017, the scheme will also be open to all those who have a non-professorial research position with good career prospects. Ambizione grants can therefore be requested with or without a salary. "This is aimed at generating direct competition for research funds between all young researchers at the same career level, regardless of whether they already hold a position," says the head of the SNSF's Careers division, Marcel Kullin. The same applies to SNSF professorships. As of 2018, they will be replaced by a new scheme that will include the existing SNSF professorships and be open to newly appointed assistant professors.

"We need young researchers who question existing knowledge and develop it in novel ways – this is how innovation comes about."

Matthias Egger,
President of the National Research Council



"Promising young researchers should be given a chance to excel early on with a research project of their own."

Beatrice Beck Schimmer,
President of the Specialised Committee Careers of the National Research Council



PRIMA – Promoting Women in Academia

Optimum support for women researchers

Since 1991, the SNSF has significantly improved the career prospects of 616 women researchers by awarding them Marie Heim-Vögtlin grants (MHV). But the gender equality measures introduced by the SNSF during the same period have led to many special features of the MHV scheme being integrated into schemes that are open to all researchers. These include, for example, replacement of the biological age with the academic age, the option to work part-time, contributions towards childcare costs, or consideration of the applicant's background during evaluation. "The MHV grant has had a brilliant run, but parts of it have become redundant," says Susan Gasser, president of the Gender Equality Commission of the SNSF. "The research funds that come with it are also rather limited and the funding period lasts only two years."

As part of its innovations for 2017, the SNSF is therefore replacing MHV with a more generously funded and flexible scheme for women researchers at postdoctoral level: PRIMA (Promoting Women in Academia). The new scheme focuses more strongly on the researcher's potential for an academic career. PRIMA will offer the best female researchers optimum support and prepare them for an independent academic post. Susan Gasser highlights the scheme's ambitious main goal: "We hope that PRIMA will help to increase the low number of female professors at Swiss higher education institutions." The new scheme will create more flexible conditions for talented women scientists, thus giving them better chances of overcoming the institutional barriers that still persist.

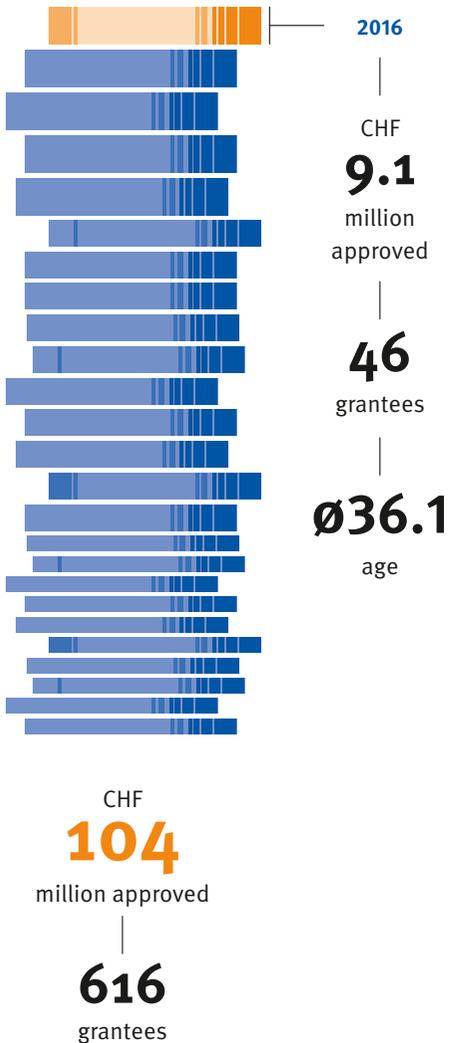
Mobility funding for an early stay abroad

Thanks to international mobility and networking, researchers are able to work and exchange knowledge with the best in their field. Mobility is therefore essential for a successful career in research and science. "Our mobility funding sets in fairly early to create better options for international networking and reduce grantees' dependence on their home institution," says Beatrice Beck Schimmer about this second main pillar of the innovation project. In 2018, the SNSF plans to introduce a new funding scheme, Postdoc.Mobility, to replace the existing Advanced Postdoc.Mobility fellowships. Postdoc.Mobility will enable researchers in all disciplines supported by the SNSF to make a research stay abroad in order to improve their scientific

Marie Heim-Vögtlin grants

25 years of support for women researchers

1991–2016



“Young researchers on the same step of the career ladder should be in direct competition with each other.”

Marcel Kullin,
Head of the SNSF's Career division

profile and become more self-reliant. To ensure that their stay abroad takes place early in their career, young researchers must submit their application for a research stay no later than three years after obtaining their doctorate.

After the discontinuation of Early Postdoc.Mobility fellowships, Postdoc.Mobility will be continued as the only mobility funding scheme at postdoc level as of 2021. "This simplifies the range of mobility funding schemes offered by the SNSF and makes things clearer for young scientists," says Marcel Kullin.

Gender equality measures

The SNSF continues to promote gender equality and equal opportunities through supplementary measures such as a child care allowance or a temporary reduction in working hours at postdoc level. As one of its innovations, the SNSF plans to launch an attractive and flexible new scheme for women postdocs in 2017: PRIMA (see article on page 7). In the year under review, 40 per cent of the young researchers supported by the SNSF's career funding schemes were women.

“The world needs HSS now more than ever”

Historian and Research Council member Madeleine Herren-Oesch believes there is a danger that society and politicians are moving away from evidence-based action. To counter this risk, she advocates strengthening the humanities and social sciences (HSS) and creating an overall research policy for Switzerland.

Ms Herren-Oesch, the EU sets aside a lot of money for research funding. Doesn't this provide an interesting funding source for researchers in the humanities and social sciences?

For a long time, EU research funding favoured technological subjects, and while HSS took over the task of assessing the sociopolitical impact of technology, they did not define the key questions or shape how research was designed. The weak position of the HSS at European level is a result of this and is therefore a structural problem.

Does EU research funding recognise this?

I hope so. The realisation that HSS is not the problem, but in fact offers solutions for social problems, is gradually gaining ground. The refugee problem, Brexit and the US election made 2016 a year when policy- and evidence-based decision-making drifted apart alarmingly. Interdisciplinary HSS research can analyse this process, help people to understand the need for an educated and globally integrated Europe, and critically reflect on how diversity is handled.

What is the SNSF's role in this?

Its scope for action is determined by Switzerland's relationship with the EU. That is why Switzerland as a centre for research should not just concentrate on EU research programmes, particularly since Europe's global integration is becoming more of a challenge. My dream is for Switzerland to establish itself as a global academic hub. This would support research as a valuable public asset and help society to develop a global appreciation of the problems.

The SNSF is urging scholars working in the humanities and social sciences in Switzerland to apply for more funding from the European Research Council...

... This is an important message! And in order to support this, women whose applications are rejected by the ERC in the second round may submit their projects to the SNSF under simplified conditions. Applying to the ERC involves a lot of time-consuming administrative work, but ERC grants are important and are supported by the SNSF. I am confident that there are better times ahead for HSS. The 21st century world needs HSS more than ever.

A historian with many interests

Madeleine Herren-Oesch is a professor of modern and contemporary history, director of the Institute for European Global Studies, Basel (a research institute of the University of Basel), and a member of the Research Council (Humanities and Social Sciences division) of the SNSF. She has a particular interest in the global history of Europe, European expansion and integration, transnational movements, and the methodology and theories of historiography.



“We need more enjoyment and less of the treadmill”

At the beginning of 2017, Matthias Egger took over from Martin Vetterli as president of the SNSF. They both agree that the SNSF must continue to pursue the Open Science policy, and that young academics need better career prospects.

Mr Vetterli, how do you personally assess your time with the SNSF?

Martin Vetterli (MV): I don't regret a single minute. I had a wonderful, fascinating time at the SNSF. First, I got to know about the whole spectrum of research, including philosophy and the sociology of scientific knowledge. Second, I realised that although Bern is often regarded as slow to do anything, it can act very quickly when necessary. When the SNSF conjured the Temporary Backup Schemes out of nowhere as soon as the popular initiative against mass immigration was accepted in 2014, Brussels couldn't believe what it was seeing. No one there had expected it.

But the SNSF was not always fast enough for you.

MV: Indeed. In my view, we took a rather sedate approach to pushing ahead with Open Access, but the SNSF is of course not the only player in the field of Open Science...

Matthias Egger (ME): ... In this respect, the SNSF needs to finish what Martin Vetterli has started. Within a few years, all publications supported by the SNSF should be publicly accessible, as well as all data funded by tax revenues.

Mr Egger, what motivated you to take on the job of president of the National Research Council?

ME: First of all, I'd like to say that I am looking forward to my new role and I feel grateful to be appointed. I believe that my commitment to the value, integrity and openness of science enables me to bring a vision to the table that will help the SNSF to forge ahead.

MV: ... I am very glad that Matthias was appointed. Although we come from different disciplines, we think alike.

Switzerland's relationship with the EU is not without its difficulties. What would happen if Switzerland as a research centre were to lose its links with Europe?

ME: It would be a catastrophe.

MV: It's like climate change: you may not perceive it immediately, but over the longer term we'll all be feeling the heat. The adverse effects are obvious. The first question asked by researchers from abroad when they are interested in Swiss universities is: "What is Switzerland's relationship with Europe, and do we have access to ERC funding?" Switzerland's position as an open, international and competitive research location remains under attack. The implementation of the mass immigration initiative, as approved by parliament at the end of last year, will allow us to participate in Horizon 2020 for some time to come, which I hope will calm things down somewhat.

ME: What happened in Switzerland is also happening in the United Kingdom with Brexit. Places become less attractive as a centre for research, and it becomes difficult to recruit and retain good people.

Mr Vetterli, you have repeatedly spoken of the crisis in science, with particular reference to the non-replicability of experiments and the number of publications...

MV: I have not criticised science. I'm just saying that we have to reinvent how we do science.

ME: I share that view. Publication practices are strongly influenced by results: negative results are important too, but are often not published. And quantity takes priority over quality.

What does the SNSF need to do?

ME: The SNSF has signed the Declaration on Research Assessment (DORA), which contains a range of recommendations for improving the ways in which scientific output data is evaluated. This is a step in the right direction. My job now is to implement these guidelines and establish what they actually mean in practice. It is not going to be easy.

Matthias Egger

Matthias Egger has been President of the National Research Council since the beginning of 2017. He is a professor of epidemiology and public health; from 2002 to 2016 he was Director of the Institute of Social and Preventive Medicine at the University of Bern. He has been a member of the National Research Council since 2009 and is therefore very knowledgeable about Swiss research policy. Egger spent a considerable portion of his career in the United Kingdom at University College, London and the University of Bristol.



Matthias Egger (at left) and Martin Vetterli in conversation.

What obstacles are you expecting?

ME: We will have to find a consensus. Biomedicine and the social sciences, for example, need to agree on the criteria that ought to be used to measure excellence in the future.

MV: I see more and more brilliant young people who no longer wish to play the “game” of science. When I was young, I worshipped at the altar of science, and thought that science was the best thing anybody could do. Today, many young people are sceptical about the way science works. If we lose these people – the ones who can think critically – and we are just left with those who play the game, and don’t ask the deeper questions, it will be a disaster.

ME: Instead of demanding a huge list of publications, the SNSF should ask: Which are your five best publications?

MV: We need to return to quality, which seems an obvious thing to say, but it means a change in culture.

What does this mean in terms of nurturing young researchers?

MV: Nurturing young researchers is the biggest challenge. The SNSF has shown the way with the Ambizione grants, but their impact has not been great enough. The universities have a responsibility in this respect, and need to do more. Young researchers need better working condi-

tions. If you ask full professors about this, they will tell you everything’s fine. Perhaps you have heard this anecdote? At Versailles on 14 July 1789, Louis XVI wrote in his diary under Events: “Nothing.”

So what should the universities be doing to prevent young researchers from storming the ivory towers?

MV: They must reform the professorship system and bring in more tenure-track positions. We need fresh ideas from below.

ME: I stepped down as a professor of the Institute of Social and Preventive Medicine, which I headed for fourteen years, in order to make way for someone younger and give them their chance. More broadly, though, I would like to set up a system of evidence-based, scientific research funding in the SNSF. We have little data about the people who have received funding. We need a longitudinal study in order to gain a better understanding of why promising people drop out. This kind of data would also enable us to present better arguments to the politicians, and formulate better solutions.

So monitoring would help encourage the right people to take up a scientific career?

ME: Yes, I hope so. We need to change the conditions and make research more attractive. We need more enjoyment and

less of the treadmill. And I’m glad to have Martin Vetterli, who thinks the same way, as a partner at EPFL.

Martin Vetterli

Martin Vetterli was president of the National Research Council from 2013 to the end of 2016. He is an electrical engineer who worked at Columbia University in New York and the University of California in Berkeley before being appointed to the Federal Institute of Technology, Lausanne (EPFL) in 1995. From 2011 to 2012, he was Dean of the School of Computer and Communication Sciences at EPFL, where he still leads a research team. Vetterli took over from Patrick Aebischer as President of EPFL at the start of 2017. He is regarded as a pioneer of Open Science.



Research data belong to everyone

The SNSF wants to make scientific publications as well as the data on which they are based available to all. As of October 2017, it will start financially supporting open access to research data.

The Open Science movement demands that research work be transparent and accessible to everyone – scientists as well as members of the general public. “The SNSF supports this idea not least because these research data are funded by the taxpayer and ultimately belong to the public,” says Matthias Egger, President of the National Research Council. “They are a valuable back-up to scientific findings because they make it possible to replicate the research results.” According to Egger, open access offers another advantage as well: “In the future, researchers will increasingly be able to use IT programs to draw new conclusions from old data.”

Data unlimited

The SNSF will soon require researchers to archive data generated during their research work in non-commercial, digital databases that subscribe to the FAIR principles. FAIR stands for Findable, Accessible, Interoperable and Reusable. Such

repositories allow anyone interested in the data to reuse it, provided there are no legal, ethical or copyright constraints that stand in the way of disclosure.

Introduction in October 2017

These principles will apply to applicants, but also to the SNSF, as of the October 2017 grant round for project funding. “We expect everyone to consider the question of access to their research data in advance and to submit a corresponding data management plan,” says Aysim Yilmaz, head of

the Biology and Medicine division and the person responsible for Open Science at the SNSF Administrative Offices. The SNSF has consciously avoided setting any requirements for the plan, hoping that the scientific disciplines will define their own standards “bottom up”. “However, the data management plan must be plausible, considering that the SNSF will be paying up to 10,000 Swiss francs each time to enable researchers to process their data for the repositories,” Yilmaz adds.

Open data at publication

All important research data should be publicly accessible. As a minimum requirement, the SNSF expects all publication-related data to be made available.

FAIR
Findable
Accessible
Interoperable
Reusable



Science communication

Over 80 Agora projects in five years

The SNSF has supported a total of 81 science communication projects through Agora since 2011. By 2016, the scheme had already been going strong for five years. To celebrate the anniversary, Frank Burnet, president of the Agora Commission at the time, presented the funding scheme in a video clip in which he focused on three communication projects: the “cOld Ice” training project on glaciers for laypeople conducted by Leandra Reitmaier-Naef; Francesco Mondada’s instructive and enjoyable “Robotics in schools” project; and “Numb3d by numb3ers” by Antonietta Mira, an interactive exhibition about working with numbers. By awarding Agora grants of between 5,000 and 200,000 francs, the SNSF aims to promote the spread of knowledge in society as well as the exchange of ideas and opinions on scientific research.

Innovations in project funding

Fewer proposals, asking for higher amounts

The SNSF modified its project funding scheme in 2016. Responding to the first call after the changes in autumn 2016, researchers submitted 842 project proposals and requested a total amount of 512 million francs to finance their projects. This corresponds to a decline in submissions of 22% year-on-year; at the same time, the total amount of requested funding increased by over 6%. This shows that the amount of money requested per project has risen substantially. This is largely a result of the maximum project duration being extended from three to four years. Over 60% of the submitted projects will last for more than three years.

Bilateral research collaboration

27 projects with China, Japan and South Africa

In the context of the Swiss government’s bilateral programmes, the SNSF last year launched calls for joint research projects with China (11 projects approved), Japan (4 projects) and South Africa (12 projects). The bilateral programmes enable researchers in Switzerland to collaborate on a project with their counterparts in a partner country. The projects generally last for three or four years and are jointly evaluated by the SNSF and the partner organisation, if possible. They focus on the following research areas:

- China: environmental sciences, engineering, material sciences
- Japan: social sciences, humanities, biology and medicine
- South Africa: ensure healthy lives and promote well-being – from new tools to systems understanding



PROMYS – Promotion of Young Scientists in Eastern Europe

From democracy to genomics

Genomic analyses of fish, new chemical concepts or questions about democracy in Europe – in 2016, seven projects launched by young researchers in Eastern Europe were funded with a total budget of 4.3 million francs under an initiative known as PROMYS (Promotion of Young Scientists in Eastern Europe). With this initiative, the SNSF is investing in long-term cooperation with promising young researchers in Eastern Europe and, at the same time, helping to stem the “brain drain” in these countries. All scientists taking part in PROMYS have studied or worked in Switzerland for at least two years and subsequently continued their careers in a new EU member state in Eastern Europe.

Highlights and daily business – the specialised committees at work

The specialised committees of the National Research Council carry out work that is of high importance to research conducted in Switzerland: they promote the interdisciplinarity and internationality of research and support the careers of young researchers.



What were the main tasks of the Specialised Committee International Cooperation last year? The committee's president, Urs Baltensperger, pauses only briefly to think: most of the work had been "hard and unspectacular", but the committee had been well supported by the Administrative Offices throughout. The three specialised committees of the SNSF carry out key tasks on behalf of the Research Council, the most important being the evaluation of proposals in their respective areas of competence: interdisciplinary research, international cooperation, and careers. In this evaluation work, they are supported by panels composed of national and international experts. Within these three areas, they also develop funding strategies for the SNSF and draft Research Council statements on science policy matters. The members of the specialised committees are elected from among the one hundred or so scientists comprising the Research Council.

Europe, but not only

In addition to its daily work, each specialised committee is aware of the specific challenges it has to deal with. "For the Specialised Committee International Cooperation, the highlight of 2016 was the agreement on research policy between Switzerland and

"Together with our partners, we aim to promote collaboration between groups that include the best researchers from both countries."

Urs Baltensperger, Paul Scherrer Institute, President of the Specialised Committee International Cooperation

the EU. It is a great relief that we are once more a fully associated member of the European research community," says Urs Baltensperger, who is Professor of Atmospheric Chemistry at the Paul Scherrer Institute. But cooperation with Europe is only one aspect of the committee's work.

On behalf of the State Secretariat for Education, Research and Innovation, the Specialised Committee International Cooperation works alongside research funding

organisations in Argentina, China, Japan, the state of Rio de Janeiro in Brazil and South Korea. In addition, the SNSF has initiated cooperation with other research funders, e.g. the National Science Foundation in the United States. "Together with our partners, we aim to promote collaboration between groups that include the best researchers from both countries," says Urs Baltensperger. Setting up such collaborative projects was highly time-consuming. The parties involved had to agree on all the specifics, starting with the choice of a *lingua franca*. Even if the two sides did not invest the same amount of funds – Switzerland assumes a far larger share than the emerging countries – care was taken to ensure approximately the same level of scientific participation for both.

Swapping lenses

For the Specialised Committee Interdisciplinary Research, implementation of the redesigned Sinergia scheme was the main highlight. "The funding scheme is being geared 100% to interdisciplinarity," says Rita Franceschini, president of the Specialised Committee. A linguist from Switzerland and professor at the Free University of Bozen-Bolzano in South Tirol, she is optimistic about the innovations: "We are hoping that researchers will apply the lens of another researcher from another disci-



“We want to give researchers who are able to think outside the box the freedoms they need to succeed.”

Rita Franceschini, Free University of Bozen-Bolzano (I), President of the Specialised Committee Interdisciplinary Research

pline to their own topic, and that these exchanges will lead to groundbreaking research. We want to give scientists who think outside the box the freedoms that they need.” Since introducing the changes to the funding scheme, the SNSF has received approximately 160 Sinergia projects involving two or more groups engaged in collaborative and interdisciplinary research. Looking to the future, Rita Franceschini is hoping that more applicants will show a willingness to take risks and more women will be successful with their applications.

PRIMA instead of MHV

The SNSF is now recalibrating its funding scheme for women researchers. For 25 years, Marie Heim-Vögtlin (MHV) grants helped women who had interrupted their research career for family reasons – mainly childcare duties – to make a comeback in academia. The MHV grants are now set to be replaced by the new PRIMA funding scheme (see article on page 7). “PRIMA will enable outstanding female talents to do research at the highest level. We will be able to offer them a generously funded grant for up to five years, so that they can successfully negotiate the demanding phase leading up to a professorship,” says Markus Fischer, member of the Specialised Committee Careers and professor of plant ecology at the University of Bern. “Our goal is to finally

increase the number of female professors in Switzerland, which is still too low.” But Markus Fischer stresses that along with important strategic discussions and the creation of this new funding scheme, the daily business of the Specialised Committee Careers consists mainly in monitoring the quality of the evaluation process.



“The aim behind PRIMA is to increase the number of female professors in Switzerland, which is still too low.”

Markus Fischer, University of Bern, member of the Specialised Committee Careers

Panels of the SNSF

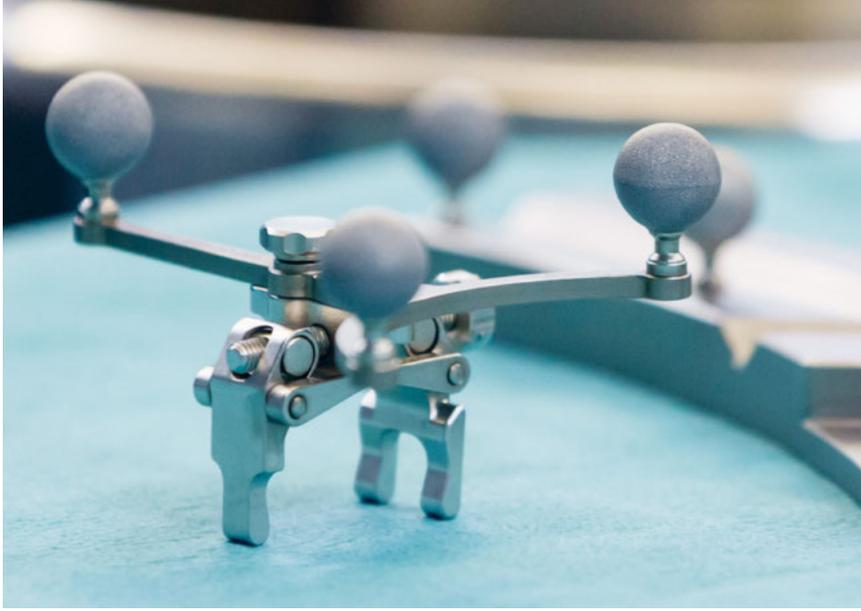
Over 1,200 members

The approximately 100-strong National Research Council carries out its evaluation work supported by around 90 further evaluation bodies consisting of a total of over 1,200 members. 29% thereof are women, and 30% are from institutions abroad.

The three project funding divisions of the SNSF comprise nine review panels for the evaluation of applications in specific research areas. For instance, there is a panel for arts, art studies, design and architecture in the Humanities and Social Sciences division, and one for longitudinal studies in clinical research in the Biology and Medicine division.

Applications in the various schemes of the Careers division are evaluated by more than 34 evaluation commissions, including the Research Commissions of the higher education institutions.

In the Programmes division, the NRP steering committees function as panels for evaluating project proposals for NRPs, along with any experts invited to sit on the panels on an ad hoc basis. For the NCCRs, the division also appoints international panels for selection and scientific supervision. Panels are formed in numerous other areas as well, such as international cooperation (SCOPES, r4d, etc.) or science communication (Agora).



BRIDGE – the SNSF and CTI funding programme

Assessing and implementing innovation potential

Aiming to enhance the innovation potential of scientific research, the SNSF and the CTI jointly launched the BRIDGE funding programme in 2016. BRIDGE strengthens cooperation between science, the private sector and society and comprises two distinct funding lines. The first line – Proof of Concept – promotes young researchers who wish to develop an innovative application based on their own research results. Projects generally last for 12 months and can be submitted by scientists from all research fields. A total of 102 projects were submitted in response to the first call in October 2016. As a second funding line, Discovery is aimed at experienced researchers seeking interactions between basic and applied research in order to assess and realise the innovation potential of research results. However, only technological innovations with a strong societal or economic impact will be funded. A Discovery call for projects that last a maximum of four years was launched in December 2016.

Scientific Image Competition

The hidden beauty of science

Research can produce extraordinary images that reveal unseen worlds, display astonishing tools or document unique human stories. To encourage researchers to come forward and share these images with the public, the SNSF has launched an annual competition for scientific images and videos. They not only show current objects of study, but also different scientific locations and tools, as well as the men and women who do the actual research work. The initiative has been a success: 239 researchers from all parts of Switzerland have made nearly 500 entries to the competition. An international jury will pick the winning entries, which will then be awarded at a ceremony to be held at the Biel/Bienne Festival of Photography between 5 and 28 May 2017.



“Bloc froid pour éprouvettes”, prizewinning image in the category “Places and instruments of research”, sent in by Madlaina Boillat, doctoral student at the University of Geneva.



BioLink initiative

Integration of biobanks for research purposes

To improve the quality and accessibility of biobank data and help set up a biobank network in Switzerland for the long term, the SNSF launched the BioLink initiative in 2016. It is aimed at researchers who wish to use IT systems to interconnect their biobanks for research purposes. The harmonisation of these systems will make it easier for researchers to consolidate their data and answer specific scientific questions. BioLink is open to all scientific disciplines. The SNSF is funding three projects with a total of 2.5 million Swiss francs. A second call is planned for 2018.



**Robert Riener,
Cybathlon founder**

Robert Riener is a special kind of mechanical engineer: he develops unique therapeutic robots and exoskeletons that make everyday life easier for people who are paralysed. Riener, who grew up in Munich, is Full Professor and Director of Sensory-Motor Systems at the Department of Health Sciences and Technology, ETH Zurich. He is also a professor at the Spinal Cord Injury Centre of Balgrist University Hospital, Zurich, and deputy director of the NCCR in Robotics. In 2016, with the support of the SNSF, Riener organised the first Cybathlon, a highly regarded competition for people with motor disabilities.

“I reply: do whatever you want!”

An open society that does not erect any barriers between people with and people without physical disabilities: that is the goal which inspires mechanical engineer Robert Riener’s research.

After completing my mechanical engineering studies in Munich and Maryland, I did not find a university post at first. That was in the early 1990s. I nearly went into industry, like most of my colleagues, since I had two good job offers. But then things worked out with my research.

Now I’m really glad I pursued an academic career. As a professor I have much greater scope for getting closer to my goal: developing robots that make everyday life easier for people with paraplegia who are confined to wheelchairs. It would be great if one day physical disabilities are not regarded as a deficiency but rather as one human characteristic among many. At the moment my team and I are working on technical clothing that supports paralysed people, enabling

them to walk and stand. These exoskeletons are not yet as powerful as we would like, and they run out of battery too quickly. We are setting up a company that will bring the first products to market in about three years.

I always wanted to be a researcher. My father was a car mechanic. Ever since I was little, I have been fascinated by machines and motors. My father helped me build Lego robots, and books of technical inventions engrossed me. I also drew organs and skeletons. Even at primary school, I was thinking about robotics, medicine and research, and I have never lost my enthusiasm for these subjects. Nobody wanted me to go to grammar school, but I managed it.

I don’t like it when one of my undergraduates or doctoral students asks me what

they should do next. I reply: Do whatever you want! The important thing is to keep sight of your overall goal, make use of the resources provided by the laboratory and work as part of the team. Each person needs to find their own path. I still don’t know where mine is leading.

“Nobody wanted me to go to grammar school, but I managed it.”

Robert Riener

The pitfalls of multilingualism

In the humanities and social sciences, collaborating with a sizeable group is easier said than done. A Sinergia project on “Academic Knowledge” took up this challenge and overcame it.



It is nothing unusual for scientists to cooperate with each other in large groups – we only have to think of CERN, for example, with its hundreds of researchers working towards a common goal. This type of cooperation is less frequent – and more difficult – in the humanities and social sciences. Cultural scholars tend to select one particular subject and investigate it thoroughly using a particular methodology. They then publish their results in a monograph.

25 researchers from 5 universities

There are exceptions, of course, such as the research project on “The social construction of academic knowledge since 1830”, which has been funded under the SNSF’s Sinergia programme since 2013 and is now nearing completion. About 25 social scientists and humanities scholars from five universities (the Universities of Zurich and Geneva, and the teacher-training colleges in Zurich, north-western Switzerland and Ticino) are collaborating on this project in three languages. Does that actually work? “It is a big

challenge,” says education historian Lucien Criblez from the University of Zurich, who is running the project, “but the overall outcome is positive.”

Translation problems...

The biggest challenge is language: as a means of comprehension, as a tool for analysis – and as an object of investigation. The group meets every six months, with each person speaking their own language. However, since not all the researchers understand every language, things are constantly having to be translated. For a project that looks at the history of syllabuses and teaching content in the German-, French- and Italian-speaking regions of Switzerland, using English as a *lingua franca* would not make much sense, because it would only create even more translation problems: “The integral importance of language to the research topic needs to be taken seriously,” says Lucien Criblez. One example he mentions is that of “Heimatkunde”, the study of local history and geography that has long been taught in the German-speaking part

“Despite the challenges of diversity, collaboration is nevertheless worthwhile.”

Lucien Criblez, education historian

of Switzerland only. In fact, there isn’t even an equivalent French word for the name of this subject. Paraphrasing the German term in French is therefore the recommended course of action. Translating it into English would make things unnecessarily complicated.

A rewarding collaboration

Collaboration is also made more complicated at times by the differing administrative and research cultures of the teacher-training colleges on the one hand and the universities on the other. In retrospect, Lucien Criblez would set up the project in a less complex, leaner way, and for a longer period. Despite the challenges presented by diversity, he feels that collaboration is nevertheless worthwhile. He points out that the researchers realised their findings could not be interpreted in isolation from the cultural and linguistic context. For example, the project has shown that the teaching of literature is valued differently in French-speaking and German-speaking Switzerland, and that Ticino is the only canton in which political education is taught as a subject. Until well into the 20th century, Ticino obtained its teaching materials from Italy, since it was not able to produce its own.

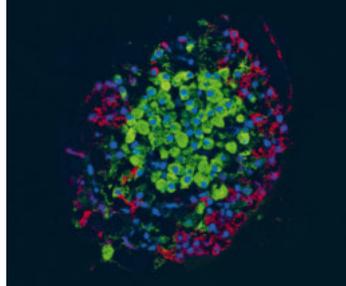
The forthcoming publication of the research results will be no simple matter. Contrary to current practice, the volume is scheduled to appear in two versions, German and French – thus necessitating expensive translation once again.



Sabine Huebner

The ancient world is close to her heart

Sabine Huebner is passionate about the life of ordinary people in the ancient world. The publications of the Associate Professor of Ancient History at the University of Basel deal with “ordinary people”, rather than senators, commanders, emperors and kings. Since artisans, shepherds and farmers are rarely mentioned in ancient literature, papyri from the Egyptian desert are an important source. They provide insights – some of them very personal – into everyday life in ancient times. When editing the long-forgotten Basel Papyrus Collection, she stumbled on a letter that is probably the oldest evidence of Christians in Egypt. In it, two brothers discuss the best fish sauce and news of local politics, while offering an insight into the social milieu and the living faith of the first Christians.



Regenerating the pancreas

An unexpected transformation

Certain diabetic patients do not have insulin-producing cells (beta cells) in their pancreas. All over the world, scientists are searching for suitable stem cells to act as a substitute. “We were looking for a different approach and wanted to investigate the ability of the pancreas to regenerate in living mice,” says Pedro Herrera, a professor at the University of Geneva. In order to do this, they genetically modified mice so that their beta cells could be destroyed almost at the touch of a button. Insulin therapy kept the animals alive. To the researchers’ surprise, other pancreatic cells (alpha cells) spontaneously transformed themselves into beta cells. “The pancreas regenerated within a few weeks of all the beta cells being destroyed, and all the mice were cured,” says Herrera. The pharmaceutical industry is already showing an interest in this discovery.

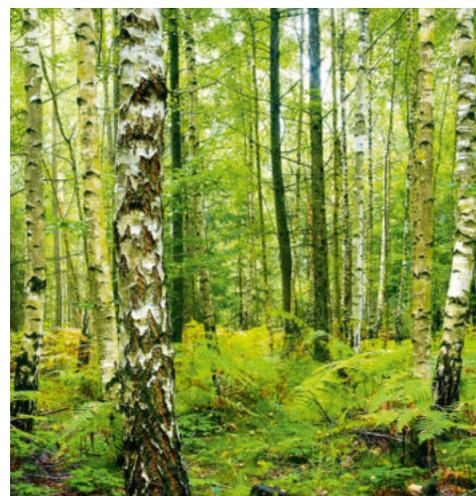
“The pancreas regenerated within a few weeks of all the beta cells being destroyed”

Pedro Herrera, University of Geneva

Life-cycle assessment of wood

Capitalising on Switzerland’s forests

Wood has a largely positive environmental impact and should be exploited to a greater extent, both as fuel and material, according to a study conducted by Stefanie Hellweg, a professor at the Institute of Environmental Engineering at ETH Zurich. This broad-based analysis of the environmental impact of Switzerland’s forests examines the entire value chain, from felling trees through to recycling and burning wood. “The forests should be exploited more,” stresses Stefanie Hellweg. “Timber stocks are increasing and their benefit to the climate is not being maximised. Wood is one of the very rare renewable materials.” The study was carried out under the National Research Programme “Resource Wood” (NRP 66), which is establishing basic scientific knowledge and practical methods for increasing the availability of wood as a resource and expanding its use.



“The forests should be exploited more”

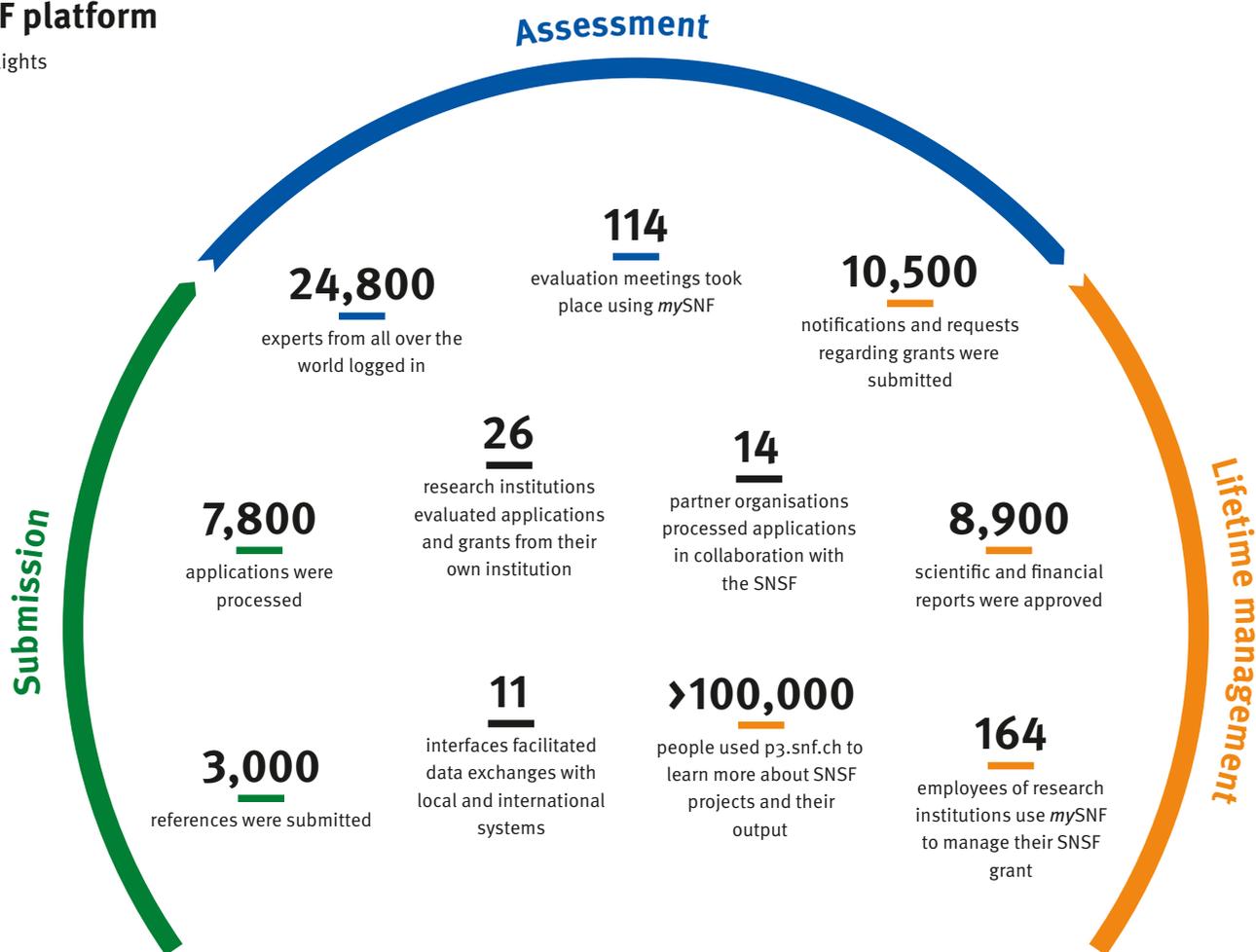
Stefanie Hellweg, ETH Zurich

mySNF – ten years old and at the heart of all processes

From application submission and evaluation to project management – the *mySNF* web portal today guides researchers and reviewers through all funding-related processes. But it's been a long journey getting to this point.

mySNF platform

2016 highlights



In 2011, the SNSF entered the realm of paperless processing once and for all by introducing fully electronic processing and monitoring of applications and approved projects via the *mySNF* platform: the laborious process of completing forms and other tasks on paper was now a thing of the past. From the moment the system was introduced, researchers were able to jettison their paperwork, including trips to the post office, and efficiently manage and complete their SNSF proposals and projects.

From punch card to online system

“But the road from a paper-based management system to an integrated online system with various process control and information functions was long and winding,” says Mario Andenmatten, head of the IT Business Services division. From its beginnings in the 1950s until 1972, the typewriter ruled supreme at the SNSF, as it did everywhere else. According to Andenmatten, 1972 was the year that heralded in the digital age: “The introduction of a punch card system made it possible for the SNSF to store and

process data in a structured manner.” But it had to wait another ten years (until 1982) for the first real data management system to arrive, and until 1991 for a more powerful computer system for data management.

Progress: at a leisurely pace at first...

By continually developing its management systems – initially at ten-year intervals – the SNSF had been able to steadily increase the number of “paperless” dossiers by the turn of the millennium. “But paper continued to hold sway for a while yet,” says Benjamin

Rindlisbacher, head of the Data and Systems division, looking back. For example, applications handed in on paper had to be typed into the existing administration systems, which was very costly and time-consuming. And for many aspects of the evaluation process, documents still had to be sent in by mail or fax, and compliance with deadlines was based on the date stamp. "What is more, updating and analysing information was a long-winded process," says Rindlisbacher.

... then suddenly gathering momentum

But from the turn of the millennium, digitalisation began to gather pace at the SNSF as well. Between 2002 and 2012, the organisation saw a quick-fire development of its management system. Among the milestones were the introduction of a new electronic application management system (2002), the launch of the *mySNF* web platform for researchers (2007) and reviewers (2008) and the establishment of the new P3 research database (2012). Today, P3 contains publicly accessible information on approximately 65,000 funded projects and on the over 90,000 researchers involved in them, thus making the funding activities of the SNSF fully transparent. Since 2016, the database has been connected to the opendata.swiss portal, where data collected by various authorities is available free of charge.

***mySNF* covers almost all processes**

Initially, *mySNF* was solely a platform on which researchers could submit their applications, but from 2008 onwards, the SNSF started extending it step by step. "Today, *mySNF* covers practically all research funding processes, from application submission to evaluation and lifetime management, and that makes it quite unique," Rindlisbacher adds. With the number of applications rising steadily, the SNSF's workload didn't

necessarily shrink, but the work became less arduous: "Today, more resources flow into the quality side. With the advent of digitalisation, entering and managing application and project data became a lot more reliable and efficient." The central idea was to enter data once and then use them repeatedly. What is more, *mySNF* is now the main tool for organising evaluation processes and for conducting the time-consuming search for international reviewers. In 2016, around 26,500 requests to review a total of 3,000 applications were dispatched, resulting in 9,600 external reviews being provided to the SNSF.

Pressures and advantages

mySNF was introduced mainly to lighten the administrative workload of researchers filing applications or conducting projects. And the reviewers, too, benefited from an integrated system in which they could efficiently manage the entire evaluation process. Nevertheless, *mySNF* is also exposed to the pressures of mounting digitalisation: ever-larger amounts of data run counter to the universal desire for less administration. And the stringent data protection requirements, though fully justified, limit the extent to which the available data can be used for analytical purposes or management support. It is in everyone's interest to find the right balance here – today and in the future.

What the future will bring ...

"The continual technological advancement of the ten-year-old *mySNF* web portal is and will continue to be a central issue," says Andenmatten. It would also be necessary to provide greater support for fast-growing trends such as mobile working. The processes facilitated by *mySNF* are continually being optimised and developed. For example, the SNSF is increasingly feeding

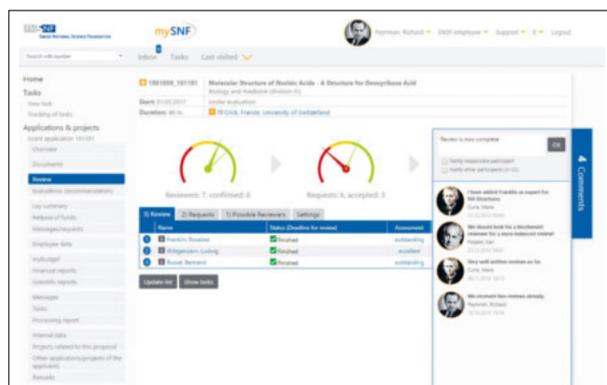
"Thanks to *mySNF*, I can stay updated and take care of my applications, reviews and projects simply and efficiently online."

Carlo R. Largiadèr, Vice Director of the Department of Clinical Chemistry at Bern University Hospital

data provided by partner organisations and research institutions into its web platform. "The future will be all about interconnecting data and services across borders – which is why we are forging ahead with the integration of ORCID, a global non-profit information platform for researchers," Benjamin Rindlisbacher adds. He is convinced that *mySNF* development will follow the path from an administration system to an information system, from a tool to a process control system, and from a local system to an online service network. But the goal will remain the same: "to reduce the administrative workload for researchers with the help of new methods and technologies, optimise processes, and raise quality standards within research funding!"

"Our central idea is: enter data once, then use it repeatedly!"

Benjamin Rindlisbacher, SNSF



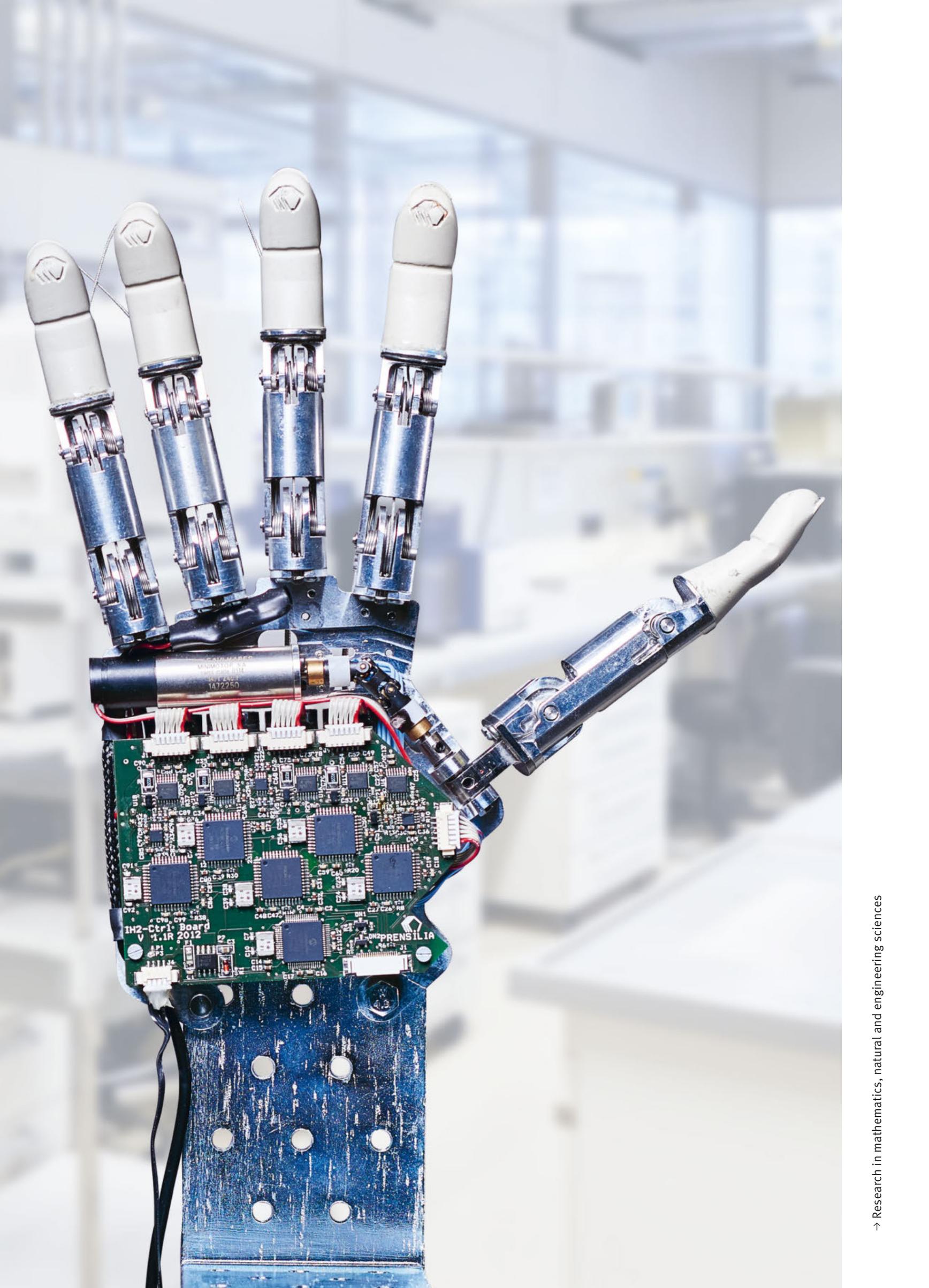


→ Understanding the immune system of plants

Plants produce their own natural insecticides. Matthias Erb analysed their development, behaviour and effect on pests. In collaboration with researchers at the universities of Bern and Neuchâtel as well as partners in Germany, the US and the UK, he discovered that certain substances in corn act both as poisons and signals/regulators of the plant's defences. The work of Matthias Erb contributes to a better understanding of the immune system of plants.

→ p3.snf.ch/project-155781





→ Prosthetic limbs make the right gestures

People who have lost a limb can have trouble coming to terms with their prosthetic hand and often prefer to wear only the “aesthetic” variety. Silvestro Micera and his group at EPFL want to help these people regain their sense of touch. Their prosthesis transforms sensory information into electrical stimuli that are transmitted to the nerve cells via implanted electrodes. This natural sensitivity, Silvestro Micera hopes, will make it easier for such people to accept their artificial hand.

→ p3.snf.ch/project-470032



Highlights 2016

A selection of events that shaped the activities of the SNSF in 2016



29 January

New director

The Executive Committee of the SNSF elects **Angelika Kalt** as the new director of the Administrative Offices. On 1 April 2016, she succeeds Daniel Höchli, who steps down after eleven years at the helm to become the director of Curaviva Schweiz. Angelika Kalt was full professor of petrology and geodynamics at the University of Neuchâtel for eight years. In 2008, she joined the SNSF as deputy director.

1 February

Stem cells

Stem cells can both cause and cure diseases. Diabetes, heart disease, cartilage replacement, wound healing, brain tumours, Parkinson's – twelve research groups involved in the **National Research Programme "Stem Cells and Regenerative Medicine" (NRP 63)** finish five years of research into how stem cells can be a factor in such diseases, or how they could be used to treat them more effectively in the future. NRP 63, now concluded, has issued a brochure summarising its main research results.

26 April

Focus on innovation

The SNSF presents its **innovations in research funding** at Swiss higher education institutions. Its "Tour de Suisse" starts on 26 April at ETH Zurich and ends on 20 June at the University of Geneva. Most of the attention is focused on the changes introduced in project funding, the scheme that helps researchers from all disciplines finance independent projects.

January
February
April

21 June

Gender dimension

The SNSF holds the **international conference "Gender and Excellence: Challenges in Research Funding II"** as a follow-up to a conference on the same topic held in October 2014. The conference in Bern focuses on a potential gender bias in the perception and evaluation of excellence, and on the inclusion of the gender dimension in specific research areas. Much has been done to improve the gender balance in science in the last few decades – but the challenges remain formidable.

21 June

Spirited MHV Prize

Zoë Lehmann Imfeld receives the **Marie Heim-Vögtlin Prize 2016** worth 25,000 francs at the SNSF's Bern headquarters. The prize is awarded in recognition of her research into ghosts and the Gothic element in Victorian literature. The 36-year-old specialist in English literature and theology is a researcher at the University of Bern. In her highly original dissertation, she undertakes a theological reading of the ghost story in late 19th century English literature. The MHV Prize is awarded to an MHV grantee for the exceptional quality of her research work and progress in her career.



June



28 June

New deputy director

The Executive Committee of the Foundation Council has appointed **François Baumgartner** as deputy director of the Administrative Offices. He starts in his new role on 1 September 2016. In recent years he has worked at the Federal Statistical Office as interim director and head of the Health and Social Affairs division. He has a PhD in geophysics, a degree in education studies and a master's degree in public administration.

23 September

New president

The Foundation Council of the SNSF elects **Matthias Egger**, an internationally renowned epidemiologist, as President of the Research Council for the 2017–2020 period of office. The 59-year-old professor and public health specialist from Bern succeeds Martin Vetterli, who becomes President of EPFL. Matthias Egger has been head of the Institute for Social and Preventive Medicine (ISPM) of the University of Bern for the past 14 years.



“I am delighted to be able to step up my efforts to help the SNSF achieve its goals.”

Matthias Egger

June
September

17 October

Building bridges

The SNSF and the CTI launch their joint **funding programme BRIDGE** with a call for the first funding option, known as “Proof of Concept”. BRIDGE strengthens cooperation between science, the private sector and society. It supports young researchers who want to develop an innovative application based on their own research results.



15/16 November

Looking to the future

At its annual **“Séance de réflexion”** in Interlaken, the **National Research Council** looks ahead to “2050: A Science Odyssey”. Can we predict how knowledge will be produced and disseminated in 2050? Imaginative answers to this question are myriad, but only one approach rings true: the SNSF must anticipate research trends early and continually reappraise its role as a funder in a rapidly changing environment. Held over two half-days, the “Séance de réflexion” offered a glimpse of the challenges brought to light by the question how science will be conducted, funded and communicated in the future.

October
November

28 November

Decolonisation

One of the great experts on the decolonisation of Africa receives the **National Latsis Prize 2016**: the German historian and SNSF professor **Alexander Keese** is awarded the prize in recognition of his research into ethnicity, forced labour and political transition in West and Central Africa. His highly original research is not conducted from a eurocentric perspective. “I am interested in the social situation of the local people,” says the 39-year-old prizewinner. The National Latsis Prize is awarded each year by the SNSF on behalf of the International Latsis Foundation.



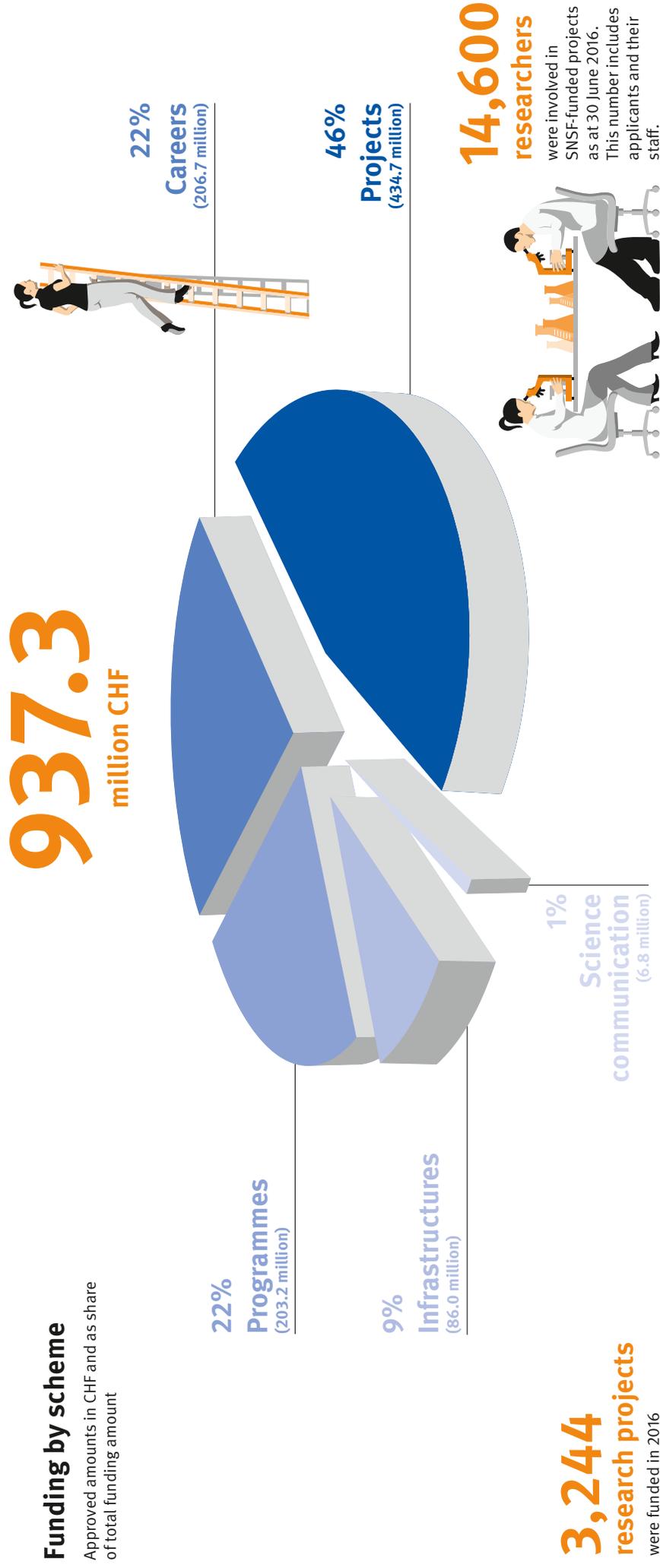
“Europeans used the fight against slavery to justify their interventions in Africa. But they were also the ones who forced the locals to work in their projects.”

Alexander Keese

November

2016 – research funding in figures

In 2016, the Swiss National Science Foundation awarded grants worth a total of CHF 937.3 million, 6.8 per cent more than in the previous year.

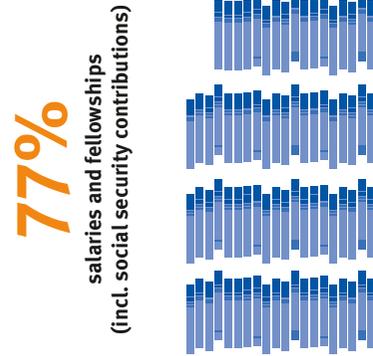


Funding by scheme

Approved amounts in CHF and as share of total funding amount

Use of funds

Grants worth CHF 937.3 million were approved, in percentage terms



International collaboration

25% US partners

64% European partners



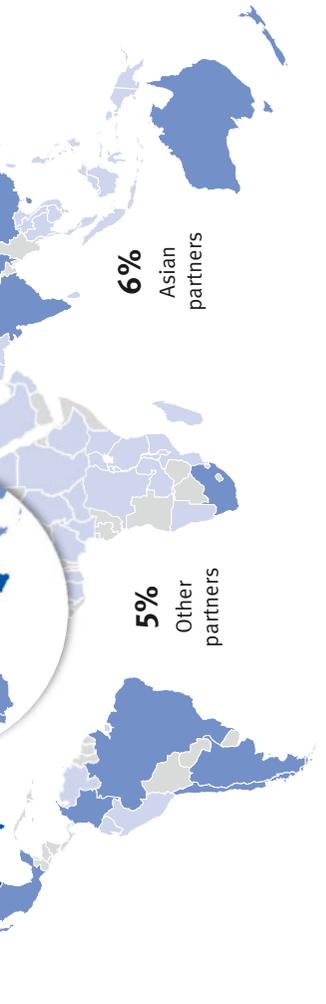
Project employees



76%
are 35 years old or
younger



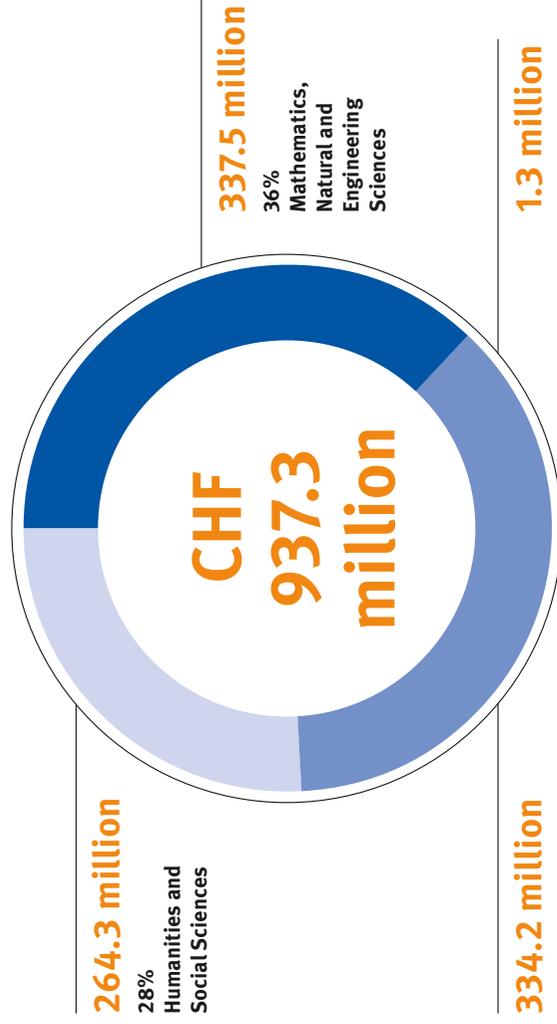
55% **45%**



1–10 10–100 100–600

Funding by research area

Approved grants in CHF million and as share of total funding amount (interdisciplinary projects have been distributed across the three science areas)



Percentage of approved funding by gender

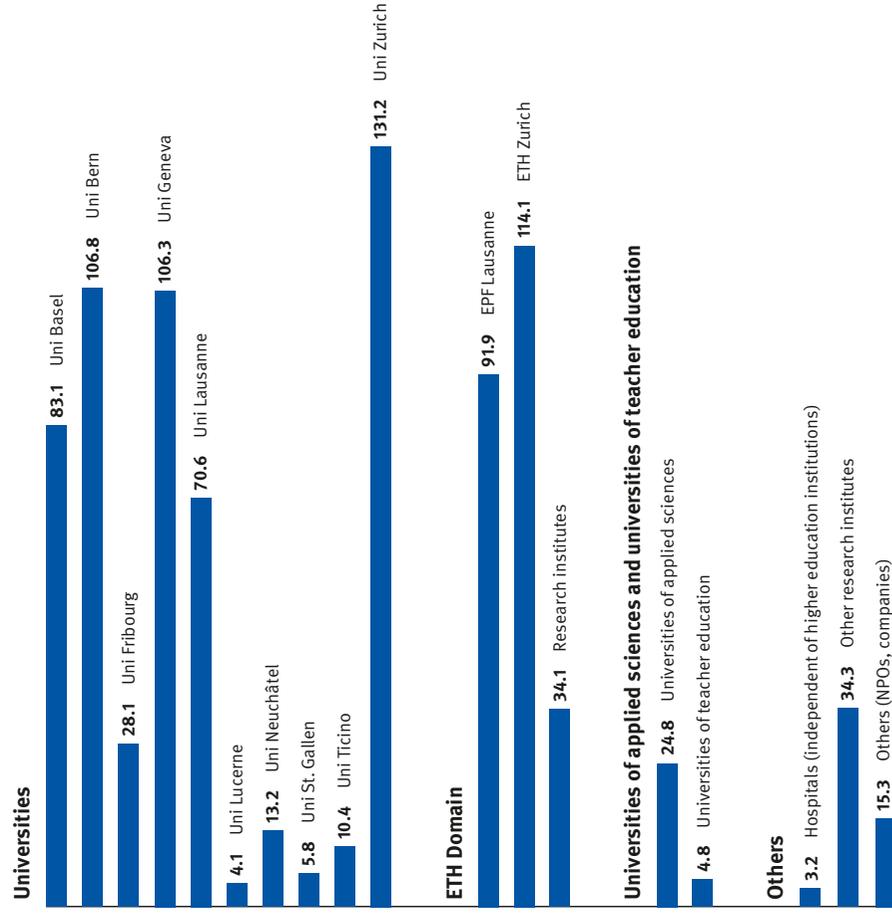
Women submit far fewer applications than men



77% **23%**

Funding awarded to researchers by institution

Approved amounts in CHF million (without fellowships abroad)



In addition, CHF 99.1 million were transferred to higher education institutions as overhead to cover indirect costs.

Some of the total amounts may contain rounding differences. The figures of the research funding statistics are not comparable with the figures of the financial statement (p. 30–33).

Further statistics: www.snsf.ch/statistics

Financial statement 2016

As projected, the financial statement 2016 shows an income surplus. For the time being, this additional income is to be allocated to the reserves, which will subsequently be used to compensate for the temporary reduction in federal contributions for the 2017–2020 funding period and to guarantee the continuation of research funding.

The growth in federal funding for 2016 strongly influenced the positive results, even though the SNSF was already affected by a credit stop. The lower research funding expenditure compared to 2015 can be attributed to lower costs in programmes and infrastructure, while the reduction in overhead costs is linked to the

overhead payments for projects conducted under the ERC Temporary Backup Schemes in the previous year. The higher costs for scientific evaluation are mainly a result of more expenditure on the Research Council, the NRP steering committees and the NCCR review panels.

Income statement

in CHF 1,000	2016	2015	Change in %
Federal contributions	997,537	956,730	4.3
Further contributions	23,416	22,709	3.1
Donations/bequests	816	3,090	-73.6
Research funding expenditure	-854,708	-871,242	-1.9
Expenditure to cover indirect research costs (overhead)	-96,447	-107,033	-9.9
Scientific evaluation and governance	-11,128	-9,286	19.8
Public relations	-1,592	-1,965	-19.0
Administration expenses and depreciation	-35,203	-33,019	6.6
Other operating income	444	398	11.6
Other operating expenses	-358	-309	15.9
Operating result	22,777	-39,927	›100
Financial income	1,464	1,856	-21.1
Financial expenditure	-155	-516	-70.0
Financial result	1,309	1,340	-2.3
Investments in restricted funds	-291,390	-334,089	-12.8
Withdrawals from restricted funds	302,425	317,254	-4.7
Income from restricted funds	11,035	-16,835	›100
Ordinary income	35,121	-55,422	›100
Non-operating income	111	18	516.7
Annual result	35,232	-55,404	›100

All figures stated in this report have been individually rounded.

Balance sheet

Assets

in CHF 1,000	31.12.2016	Share in %	31.12.2015	Share in %
Current assets				
Cash and cash equivalents	708,223	83	651,005	80
Accounts receivable	38,189	4	46,672	6
Other short-term receivables	48	0	53	0
Prepaid expenses	2,137	0	998	0
Total current assets	748,597	88	698,728	86
Fixed assets				
Tangible assets	12,883	2	13,346	2
Financial assets	91,010	11	96,572	12
Intangible assets	946	0	967	0
Total fixed assets	104,839	12	110,885	14
Total assets	853,436	100	809,613	100

Liabilities

in CHF 1,000	31.12.2016	Share in %	31.12.2015	Share in %
Short-term liabilities				
Liabilities from approved grants	266,011	31	246,963	31
Accounts payable	1,191	0	909	0
Other short-term liabilities	664	0	473	0
Deferred income	2,459	0	2,172	0
Short-term provisions	5,000	1	–	–
Restricted funds	68,974	8	39,623	5
Total short-term liabilities	344,299	40	290,140	36
Long-term liabilities				
Long-term provisions	6,000	1	11,000	1
Restricted funds	281,184	33	321,752	40
Total long-term liabilities	287,184	34	332,752	41
Total liabilities	631,483	74	622,892	77
Equity				
Foundation capital	1,330	0	1,330	0
General funds	397	0	387	0
General reserves	220,226	26	185,004	23
Total equity	221,953	26	186,721	23
Total liabilities	853,436	100	809,613	100

Additional information on the financial statement

Restricted funds

in CHF 1,000	as at 1.1.2016	Incoming resources	Outgoing resources	Transfer	as at 31.12.2016
SCOPES fund	6,101	35	4,708	–	1,428
r4d fund	59,844	5,143	14,755	–	50,232
NRP fund	36,319	28,318	20,240	–	44,397
NCCR fund	365	73,899	74,264	–	–
Fund for special programmes in biology and medicine	24,791	23,388	19,537	–	28,642
Fund for Horizon 2020 backup measures	63,030	–	16,140	–	46,890
Fund for ERC transfer grants	21,900	–	1,971	–	19,929
Energy research fund	27,308	12,000	8,502	–	30,806
Other funds	26,863	145,712	141,536	–180	30,859
Funds from earmarked donations/bequests/agreements	94,857	2,895	772	–	96,980
Total restricted funds	361,378	291,390	302,425	–180	350,163

Grants approved for future accounting years as at 31 December 2016

in CHF 1,000	2017	2018	2019	2020	2021	Total
Total	613,557	287,086	93,845	28,211	341	1,023,040

According to the federal budget for 2017, contributions to the SNSF will amount to CHF 839.4 million.

Federal contributions

in CHF 1,000	2016	2015
Basic contribution	772,885	733,462
National Centres of Competence in Research	72,000	66,000
National Research Programmes	28,000	28,000
SystemsX	12,000	12,775
Nano-Tera	4,156	4,000
Funding mandate from the Confederation	18,500	17,900
SDC contributions	1,258	–
Overhead	88,000	94,000
SwissCore	568	593
Various federal contributions	170	–
Total	997,537	956,730

Research funding expenditure

in CHF 1,000	2016	2015
Projects	423,933	423,809
Careers	180,149	176,785
Programmes		
National Centres of Competence in Research	71,764	74,990
National Research Programmes	18,906	24,715
Other programmes	85,384	87,522
International Co-operation	21,256	20,058
Total programmes	197,310	207,285
Infrastructures	30,281	39,459
Science communication	5,861	5,692
Programmes of third parties	42,909	42,311
Repayments	-17,072	-14,329
Grants approved but unused	-8,664	-9,769
Total	854,707	871,243

Administration expenses and depreciation

in CHF 1,000	2016	2015
Personnel expenses	28,948	27,337
Depreciation of tangible assets	680	611
Depreciation of intangible assets	858	821
Others	4,716	4,249
Total	35,202	33,018

Transactions with related parties

Related persons and organisations comprise whosoever may, either directly or indirectly, significantly influence the financial or operational decisions of the Swiss National Science Foundation. The following transactions with related parties have taken place:

- Approval of research grants for members of the Foundation Council: CHF 2,484,000 (2015: CHF 2,070,000)
- Approval of research grants for members of the Research Council: CHF 22,655,000 (2015: 25,442,000)

Performance of risk assessment

In fiscal year 2016, the Swiss National Science Foundation carried out a comprehensive risk assessment authorised by the Executive Committee of the Foundation Council.

According to the completed risk assessment and in light of measures put in place for monitoring and mitigating risks, no risks were identified in the past fiscal year that could lead to a lasting or substantial impairment of the financial situation of the Swiss National Science Foundation. The assessment of the SNSF found no significant risk for the foreseeable future that would necessitate an adjustment in the book values of the Foundation's assets and liabilities.

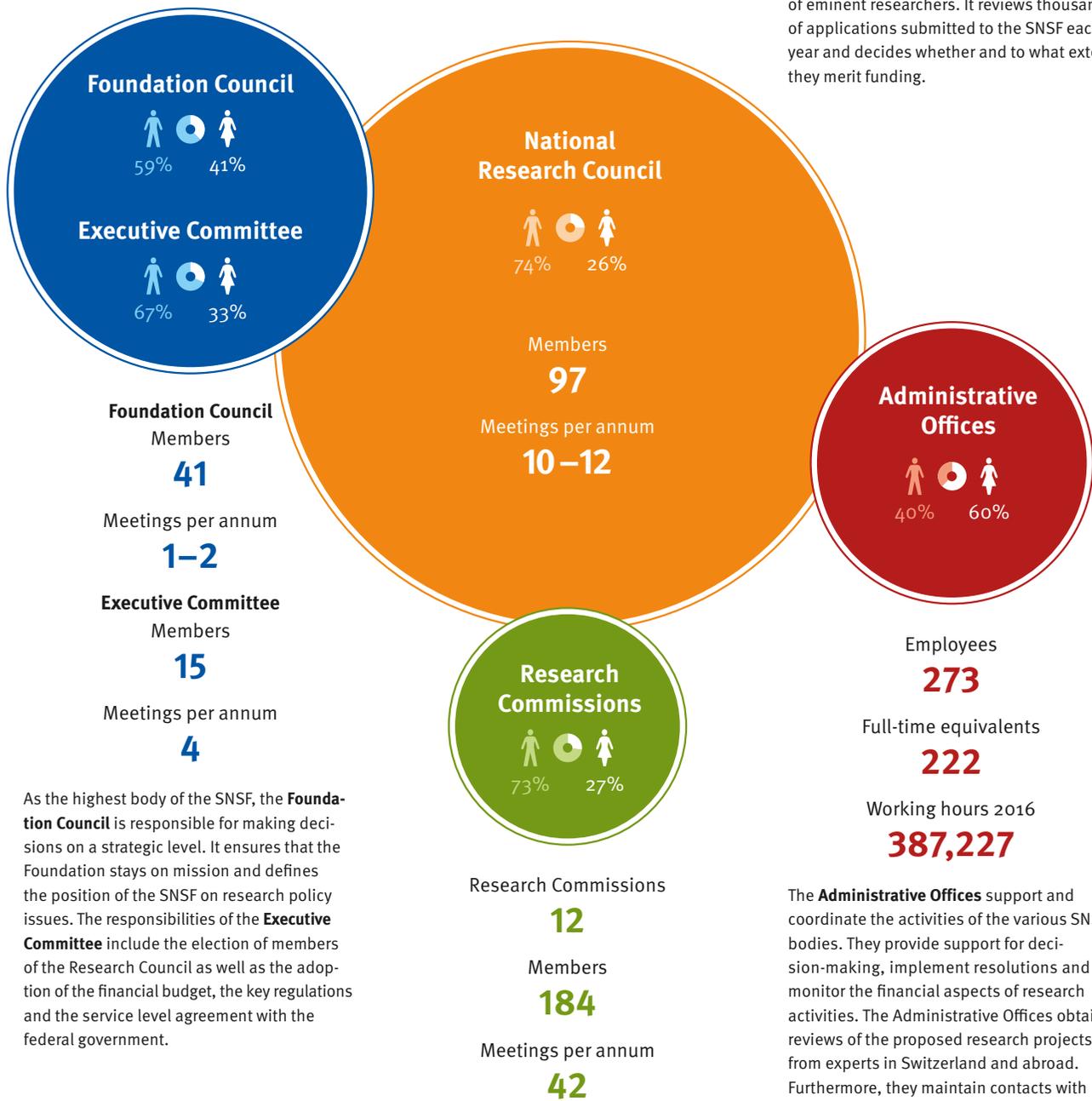
Approval of financial statements

On the recommendation of the Swiss Federal Audit Office, the external auditor that examined the statements, the Foundation Council approved the financial statement 2016 at its meeting of 31 March 2017.

Bodies of the Swiss National Science Foundation

The bodies of the SNSF work at different levels towards a common goal: scientific evaluation and financing of the projects submitted by researchers.

The **National Research Council** is composed of eminent researchers. It reviews thousands of applications submitted to the SNSF each year and decides whether and to what extent they merit funding.



As the highest body of the SNSF, the **Foundation Council** is responsible for making decisions on a strategic level. It ensures that the Foundation stays on mission and defines the position of the SNSF on research policy issues. The responsibilities of the **Executive Committee** include the election of members of the Research Council as well as the adoption of the financial budget, the key regulations and the service level agreement with the federal government.

The university-based **Research Commissions of the SNSF** act as a link between the university and the SNSF. They are primarily responsible for awarding mobility fellowships.

The **Administrative Offices** support and coordinate the activities of the various SNSF bodies. They provide support for decision-making, implement resolutions and monitor the financial aspects of research activities. The Administrative Offices obtain reviews of the proposed research projects from experts in Switzerland and abroad. Furthermore, they maintain contacts with bodies responsible for national and international research policies.

The Administrative Offices of the SNSF: ensuring that everything goes as smoothly as possible

26,500

requests for external reviews

On behalf of the Swiss government, the SNSF supports basic scientific research in Switzerland through a range of schemes and measures. Its core task is to peer review and finance research proposals submitted by researchers. As part of this remit, the Administrative Offices of the SNSF efficiently support the other SNSF bodies and coordinate their activities:

- the Foundation Council in making decisions on strategy and personnel matters,
- the approximately 100-member strong National Research Council in evaluating several thousands of applications each year,
- around 90 other evaluation bodies with a total membership of 1,200 in their evaluation activities,
- the SNSF Research Commissions at work in the universities.

The Administrative Offices prepare the ground for decisions by the aforementioned bodies and they implement the corresponding resolutions. They are responsible for the settlement and monitoring of the financial aspects of the SNSF's funding activities. 273 people work at the Administrative Offices – in percentage terms this corresponds to 222 full-time equivalents. The main organisational units are the Executive Management, Central Services, Staff Services, Strategic Planning and Research Funding.

A principal task of the Administrative Offices is to obtain and analyse national and international expert reviews of the submitted proposals.

Last year alone, the Research Funding divisions transmitted approximately 26,500 requests via the *mySNF* web platform in which they asked experts to review some 3,000 proposals. 9,600 external reviews were eventually submitted.

The Administrative Offices maintain contacts with research policy makers and partner organisations around the globe and represent the SNSF in important committees. In the context of the SNSF's funding activities and policies, they consult with national partners such as SERI, CTI, SDC, swiss-universities and Euresearch and are in touch with Science Europe as well as funding agencies the world over. They are also in close contact with SwissCore, the Swiss information and liaison office for European research, innovation and education in Brussels. SwissCore is jointly funded by the SNSF, the SERI and the CTI.

Last but not least, the Administrative Offices's remit includes communicating effectively with the Swiss public. It publishes the research magazine "Horizons", issues press releases, organises press conferences and produces the SNSF's annual report "Profile".

7,800

submitted proposals

Foundation Council

President

Gabriele Gendotti, former member of cantonal government

Vice President

Prof Felicitas Paus

Representatives of scientific organisations

Cantonal Universities → **Basel:** Prof Edwin Ch. Constable. **Bern:** Prof Christian Leumann (until 31.7.2016), Prof Daniel Candinas (from 1.8.2016). **Fribourg:** Prof Thomas Hunkeler. **Geneva:** Prof Jean-Luc Veuthey. **Lausanne:** Prof Franciska Krings. **Lucerne:** Prof Martin Baumann. **Neuchâtel:** Prof Simona Pekarek Doehler. **St. Gallen:** Prof Kuno Schedler. **Ticino:** Prof Bertil Cottier. **Zurich:** Prof Thomas Hengartner.

Swiss Federal Institutes of Technology → **Lausanne:** Prof Sabine Süssstrunk. **Zurich:** Prof Sabine Werner.

Universities of applied sciences/universities of teacher education → Prof Erwin Beck (PHSG), Prof Maria Caiata (SUPSI), Prof Barbara Fontanellaz (FHS-SG), Prof Markus Hodel (HSLU), Prof Thomas D. Meier (ZHdK), Prof Falko Schlottig (FHNW), Dr Luciana Vaccaro (HES-SO), Prof Guillaume Vanhulst (HEP-VD).

Academies → **Swiss Academies of Arts and Sciences:** Prof Maurice Campagna (from 24.3.2016). **SAHS:** Prof Claudine Burton-Jeangros. **SAMS:** Prof Peter Meier-Abt. **SCNAT:** Prof Felicitas Paus, Prof Marcel Tanner. **SATW:** Dr dipl. Ing. Monica Duca Widmer, Prof Ulrich W. Suter (until 23.3.2016).

Government appointed members

Judith Bucher (VPOD), Gabriele Gendotti (former member of cantonal government Ticino), Dr Gregor Haefliger (SERI), Prof Dr h.c. Barbara Haering, Prof Martina Hirayama (Director ZHAW), Dr René Imhof (F. Hoffmann-La Roche Ltd), Dr dipl.-Phys. Ulrich Jakob Looser (economiesuisse), Anne-Catherine Lyon (Swiss Conference of Cantonal Ministers of Education (EDK), former member of cantonal government VD).

Co-opted members

Prof Denis Duboule (University of Geneva and EPF Lausanne), Nadine Felix (Stiftung Mercator Schweiz), Prof Susan Gasser (Director of Friedrich Miescher Institute), Prof Marc-André Gonin (BFH Biel, swissuniversities), Prof Janet Hering (Director of Swiss Federal Institute of Aquatic Science and Technology), Prof Fritz Schiesser (President ETH Board), Dr Nenad Stojanovic (Actionuni).

Executive Committee

Gabriele Gendotti (former member of cantonal government, President); Prof Felicitas Paus (Vice President); Prof Erwin Beck, Prof Daniel Candinas (from 23.9.2016), Prof Edwin Constable, Prof Denis Duboule, Dr Gregor Haefliger, Prof Thomas Hengartner, Prof Franciska Krings, Prof Christian Leumann (until 31.7.2016), Dr dipl.-Phys. Ulrich Jakob Looser, Prof Kuno Schedler, Prof Sabine Süssstrunk, Dr Luciana Vaccaro, Prof Jean-Luc Veuthey, Prof Sabine Werner.

Internal Audit

ERM Solutions Ltd, Wil St. Gallen.

Compliance Committee

Prof Howard Riezman (President from 1.1.2016), Prof em. Klaus Müller, Prof Monika Roth, Dr Dorothea Sturn.

National Research Council

President

Prof Martin Vetterli

Presiding Board → Prof Martin Vetterli. **President Division I:** Prof Paul Schubert. **President Division II:** Prof Harald Brune. **President Division III:** Prof Urs Frey (until 31.3.2016), Prof Dominique Soldati-Favre (from 1.4.2016). **President Division IV:** Prof Katharina M. Fromm (Deputy to the President of the NRC). **President Specialised Committee Careers:** Prof Beatrice Beck Schimmer. **President Specialised Committee International Cooperation:** Prof Urs Baltensperger. **President Specialised Committee Interdisciplinary Research:** Prof Rita Franceschini.

Division I: Humanities and Social Sciences → Prof Paul Schubert (President); Prof Katharina Maag Merki (Vice President); Prof Peter Auer (from 1.4.2016), Prof Claudio Bolzman, Prof Corina Caduff, Prof Roberto Caldara, Prof Franz Caspar, Prof Christiana Fountoulakis, Prof Rita Franceschini, Prof Dario Gamboni, Prof Marc Gruber, Prof Annelies Häcki Buhofer (until 31.3.2016), Prof Madeleine Herren-Oesch, Prof Jon Mathieu, Prof Ioannis Papadopoulos, Prof Jörg Rössel, Prof Sabine Schneider, Prof Silvia Schroer, Prof Peter Schulz (until 31.8.2016), Prof Paul Söderlind, Prof Ola Söderström, Prof Georg von Krogh, Prof Eric Widmer, Prof Markus Wild, Prof Friedrich Wilkening (until 31.3.2016).

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Division III: Biology and Medicine → Prof Urs Frey (President until 31.3.2016, member until 30.9.2016); Prof Dominique Soldati-Favre (President from 1.4.2016, Vice President until 31.3.2016); Prof Hugues Abriel (Vice President from 1.4.2016); Prof Markus Affolter, Prof Stylianos Antonarakis (ad hoc until 31.3.2016), Prof Beatrice Beck Schimmer, Prof Chris Boesch, Prof Sebastian Bonhoeffer, Prof Dominique De Quervain, Prof Michael Detmar, Prof Marc Yves Donath, Prof Matthias Egger, Prof Markus Fischer, Prof Cem Gabay, Prof Stephan Grzesiek (until 30.9.2016), Prof Huldrych Fritz Günthard, Prof Michael N. Hall (until 31.3.2016), Prof Markus Hermann Heim, Prof Petra Hüppi, Prof Beat Keller, Prof Laurent Keller, Prof Claudia Kühni (from 1.10.2016), Prof Kaspar Locher (from 1.10.2016), Prof Christian Lüscher, Prof Andreas Lüthi, Prof Adrian Franz Ochsenbein (from 1.4.2016), Prof Matthias Peter (from 1.4.2016), Prof Anita Rauch, Prof Walter Reith, Prof Markus Stoffel, Prof George Thalman (until 31.3.2016), Prof Bernard Thorens, Prof Didier Trono, Prof Hanns Ulrich Zeilhofer, Prof Rolf Zeller.

Division IV: Programmes → Prof Katharina M. Fromm (President); Prof Frédéric Varone (Vice President); Prof Regina Elisabeth Aebi-Müller, Prof Kay W. Axhausen, Prof Claudia Binder, Prof Susanna Burghartz, Prof Fabrizio Butera, Prof Christoph Dehio, Prof Friedrich Eisenbrand, Prof Anna Fontcuberta i Morral, Prof Alexander Grob, Prof Stefanie Hellweg, Prof Michael O. Hottiger, Prof Isabelle Mansuy, Prof Katharina Michaelowa, Prof Philipp Rudolf von Rohr, Prof Frank Scheffold, Prof Jürg Ulrich Steiger, Prof Dirk van der Marel.

Specialised Committee Careers → Prof Beatrice Beck Schimmer (President); Prof Michal Borkovec (Vice President); Prof Eva Bayer-Flückiger, Prof Susanna Burghartz, Prof Markus Fischer, Prof Michael O. Hottiger, Prof Petra Hüppi, Prof Fritz Schlunegger, Prof Sabine Schneider, Prof Peter J. Schulz (until 31.8.2016).

Specialised Committee International Cooperation → Prof Urs Baltensperger (President); Dr Marco Wieland (Vice President until 30.9.2016), vacant (Vice President from 1.10.2016); Prof Kay W. Axhausen, Prof Markus Heim (until 31.3.2016), Prof Jon Mathieu, Prof Katharina Michaelowa, Prof Dominique Soldati-Favre, Prof Jürg Ulrich Steiger, Prof Eric Widmer (from 1.2.2016).

Specialised Committee Interdisciplinary Research → Prof Rita Franceschini (President); Prof Walter Reith (Vice President); Prof Lucio Baccaro, Prof David Andrew Barry, Prof Matthias Egger, Prof Antonio Ereditato, Prof Alexander Grob, Prof Jana Koehler, Prof Andreas Lüthi, Prof Sylvain Malfroy, Prof Simone Munsch, Prof Ian Sanders, Prof Ola Söderström, Prof Francesco Stellacci, Prof Dirk van der Marel, Prof Christoph Zollikofer.

Commission on Gender Equality in Research Funding → Prof Dr Susan M. Gasser (President); Prof Dr Thomas Hinz, Prof Dr Nicky Le Feuvre, Gary Loke, Dr iur. h.c. Patricia Schulz, Prof Dr Anna Wahl, Maya Widmer (until 30.9.2016).

Commission on Research Integrity → Prof Dr iur. Dr h.c. Kurt Seelmann (President); Prof Dr iur. Matthias Mahlmann (Vice President until 30.9.2016), vacant (Vice President from 1.10.2016); Prof David Andrew Barry (from 1.10.2016), Prof Beatrice Beck Schimmer (until 30.4.2016), Dr Marco Bieri (from 1.7.2016), Prof Corina Caduff (from 1.10.2016), Dr Martin Christen, Prof Katharina M. Fromm, Marie Guyaz del Aguila (until 31.1.2016), Prof Michael Hall (until 31.3.2016), Prof Michael O. Hottiger (from 1.5.2016), Dr Patricia Jungo, Dr Liz Kohl, Dr Marjory Hunt, Claudia Lautenschütz (from 11.8.2016), Prof Arjen K. Lenstra (until 30.9.2016), Dr Véronique Planchamp, Prof Ian Sanders, Elisabeth Schenker, Prof Dominique Soldati-Favre, Beatrice Tobler-Miescher (until 10.8.2016), Prof Didier Trono (from 1.4.2016), Dr Martin von Arx, Gilles Wasser (from 1.2.2016).

Further information → www.snsf.ch/nrc

Research Commissions

Presidents of the Research Commissions at Swiss institutions of higher education → **Basel:** Prof Primo Schär (until 30.6.2016), Prof Andreas Papassotiropoulos (from 1.7.2016). **Bern:** Prof René Bloch. **Fribourg:** Prof Martin Wallmeier. **Geneva:** Prof Pierre Barrouillet. **Lausanne:** Prof Martin Preisig. **Lucerne:** Prof Martin Baumann. **Neuchâtel:** Prof Pascal Felber. **St. Gallen:** Prof Michael Lechner. **Ticino:** Prof Rico Maggi. **Zurich:** Prof Christoph Hock. **EPF Lausanne:** Prof Benoît Deveaud-Plédran (until 31.3.2016), Prof Kay Severin (from 1.4.2016). **ETH Zurich:** Prof Uwe Sauer.

Administrative Offices

Executive Management → Director: Dr Daniel Höchli (until 31.3.2016), Dr Angelika Kalt (from 1.4.2016). Deputy Director: Dr Angelika Kalt (until 31.3.2016), Dr François Baumgartner (from 15.8.2016). Vice Director: Rosemarie Pécaut.

Heads of Staff Services → **Executive Staff/Legal Department:** Inge Blatter. **Communication:** Christophe Giovannini.

Heads of Strategy Services → **Strategy Support:** Dr Katrin Milzow. **Data and Systems in Research Funding:** Benjamin Rindlisbacher.

Heads of Research Funding divisions → **Division I, Humanities and Social Sciences:** Dr Ingrid Kissling-Näf. **Division II, Mathematics, Natural and Engineering Sciences:** Dr Tristan Maillard. **Division III, Biology and Medicine:** Dr Ayşim Yılmaz. **Division IV, Programmes:** Dr Dimitri Sudan. **Careers division:** Dr Marcel Kullin. **Interdisciplinary and International Co-operation division/SwissCore:** Dr Jean-Luc Barras. **Equal opportunities in Research Funding:** Maya Widmer (until 30.9.2016).

Heads of Central Services → Director: Rosemarie Pécaut. **Human Resources:** Karim Errassas. **Finance:** Markus König. **IT Infrastructure Services:** René Liechti. **IT Business Services:** Mario Andenmatten. **Logistics:** Jesper Ott.

Status as at 31.12.2016

Abbreviations and glossary

Actionuni

Organisation representing young researchers as well as associations of non-professorial teaching staff of the universities and the ETHs both nationally and internationally

BRIDGE

Joint funding programme of SNSF and CTI to promote the innovation potential of research in Switzerland

CTI

Commission for Technology and Innovation of the federal government of Switzerland (as of 1.1.2018: Innosuisse)

DORA declaration

Declaration on Research Assessment – consideration of entire research output during the evaluation of a proposal

economiesuisse

Association of Swiss companies: largest umbrella organisation representing Swiss businesses

EDK

Swiss Conference of Cantonal Ministers of Education

ERC

European Research Council

ETHZ / EPFL

Swiss Federal Institutes of Technology (Zurich and Lausanne)

Euresearch

Swiss network that provides, on behalf of the SERI, targeted information, hands-on advice and transnational partnering related to European research and innovation programmes

FHNW

University of Applied Sciences Northwestern Switzerland

FHS-SG

University of Applied Sciences, St. Gallen

FMI

Friedrich Miescher Institute for Biomedical Research, Basel

HEP-VD

University of Teacher Education Canton of Vaud, Lausanne

HES-SO

University of Applied Sciences and Art Western Switzerland

HSLU

Lucerne University of Applied Sciences and Art

Horizon 2020

EU framework programme for research and innovation 2014–2020

MHV

Marie Heim-Vögtlin grants (SNSF funding for women until 2016)

NCCR

National Centre of Competence in Research, Switzerland

NRP

National Research Programme, Switzerland

Overhead

Contribution to indirect costs of SNSF-funded projects

PHSG

University of teacher education St. Gallen

r4d programme

Swiss Programme for Research on Global Issues for Development

SAHS

Swiss Academy of Humanities and Social Sciences

SAMS

Swiss Academy of Medical Sciences

SATW

Swiss Academy of Engineering Sciences

Science Europe

Umbrella organisation of national research organisations in European countries

SCNAT

Swiss Academy of Sciences

SCOPEs

Scientific cooperation between Eastern Europe and Switzerland

SDC

Swiss Agency for Development and Cooperation

SERI

State Secretariat for Education, Research and Innovation

SUPSI

University of Applied Sciences and Art of Southern Switzerland

SwissCore

Contact Office for European Research, Innovation and Education: SNSF office in Brussels, co-financed by SERI and CTI

swissuniversities

Works to strengthen and enhance collaboration among Swiss higher education institutions and promotes a common voice on educational issues in Switzerland

Tenure track

Assistant professorship, with the option of turning it into a permanent post based on merit

VPOD

Association of Swiss Civil Servants

ZHAW

Zurich University of Applied Sciences, Winterthur

ZHdK

Zurich University of the Arts

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Further information

The Profile online

→ www.snsf.ch/profile

General information

→ www.snsf.ch



→ <https://www.facebook.com/snf.fns.snsf.ch>



→ http://www.twitter.com/snsf_ch



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→ <http://www.linkedin.com/company/snsf>



→ <https://www.xing.com/companies/swissnationalsciencefoundation>

Research magazine Horizons

→ www.snsf.ch/horizons

Research database P³

(approved grants since 1975)

→ [www.snsf.ch/p3 >en](http://www.snsf.ch/p3/en)





Our ambition

We invest in researchers and their ideas. We promote and disseminate research, creating knowledge that is valuable to society, the economy and politics.

→ A woman researcher in a male prison

How do people who are indefinitely incarcerated cope? How do they come to terms with their often life-long detention? Ethnologist Irene Marti, a doctoral student at the University of Neuchâtel, put this question to 28 long-term prison inmates. Her research approach involved taking part in their daily life. This enabled her to see them primarily as people, not criminals, a precondition for gaining profound insights into their lives. She hopes that her work will contribute to debates surrounding the procedures of indefinite incarceration in the future.

Research in the humanities and social sciences

→ p3.snf.ch/project-159182