

Profile

2017–2018



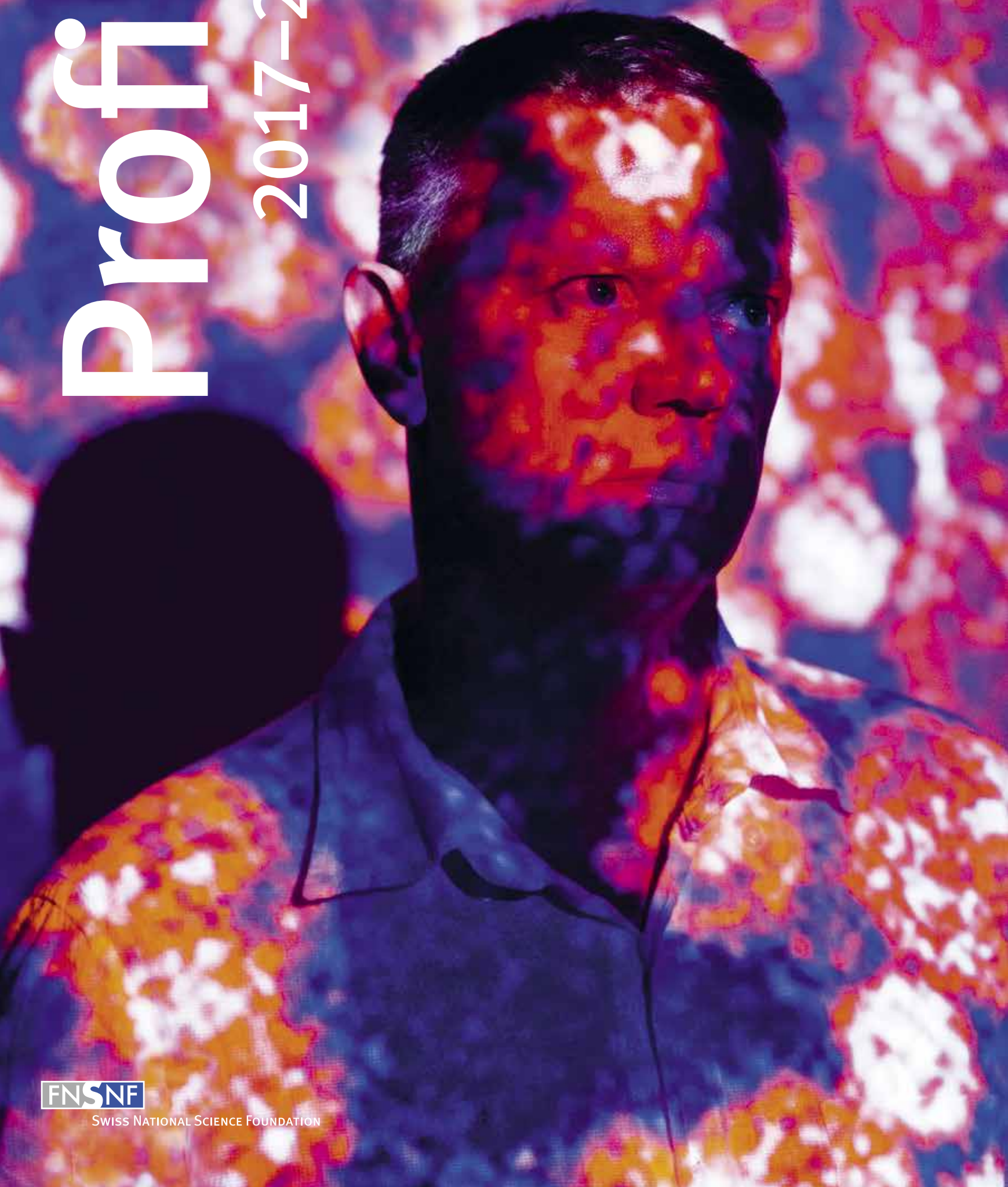
Profile

2017–2018

**The virologist Stefan Kunz
with projected Lassa viruses,
the pathogens that cause
Lassa fever (see reverse side).**

Profile

2017–2018



Passion for research

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Benefits of basic research: Innovation driven by pioneering scientists

“It all started because we approached a fundamental scientific question from an unusual angle.”

Tej Tadi, electrical engineer and neuroscientist, founder and CEO of MindMaze.

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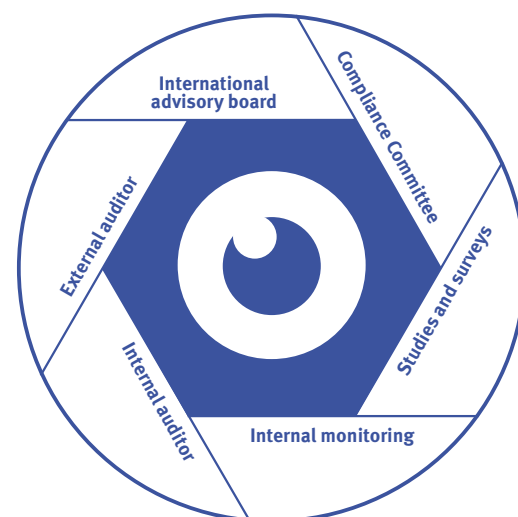
A casting call for the best research projects

“Our decisions are based solely on the quality of the project and the researchers’ qualifications.”

Matthias Egger, President of the National Research Council of the SNSF

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All eyes on quality



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Science communication: Generate more interest – build a strong image

“You have to show scientists as people who are passionate about their work.”

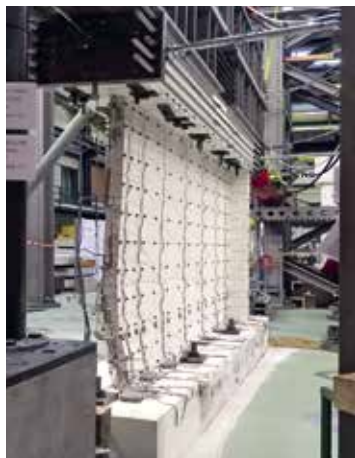
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“Our research becomes more visible, is cited more frequently, and has a bigger impact.”

Katrin Beyer, earthquake researcher,
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In addition to the review of the past year, the “Profile 2017–2018” of the SNSF presents outlooks and points of view, personalities and opinions. Our aim is to highlight developments in research funding and foster debate.

Unique, thanks to competition



“One clear goal: to secure the future of truly original and competitive research.”

The singer and multi-instrumentalist Prince once told an interviewer that he never felt he was competing with anyone. He considered himself unique, and he intended to remain so. Competition was for the others! An assertion that only an outstanding personality like Prince could afford to make. But it was also misleading: before achieving stardom, Prince developed his personality and musical skills by meeting and pitting himself against many other singers, bands and styles of his hometown, Minneapolis. Only after winning the respect of his peers did he go on to take the American music industry by storm and become a global megastar. But from an early age, he also worked tirelessly and fought for his independence in order to create music that was both powerful and original.

In the world of research, the most talented researchers also work tirelessly at their “home base” first, developing their ideas by talking to colleagues and mentors and submitting to the judgement of their peers, before taking off internationally. Such competition marks a crucial stage in the careers of young researchers. However, contrary to the rough and tumble of the music industry, it needs to be as fair and objective as possible, without favouritism, judgemental bias, partisan interests or any alleged “demand” of the market. Excellence and originality must be the key criteria for promoting outstanding young researchers.

This is where the SNSF steps in, as an evaluator with clear and transparent procedures, access to international experts and a Research Council composed of excellent scientists. The latter – in keeping with the metaphor of the music industry – conduct a casting session with each application (see article on page 6). The projects and careers of the young people who want to dedicate themselves to research are examined carefully, conscientiously

and with respect in order to identify and support the most promising talents. And who knows, one or the other may even go on to achieve a level of excellence that would make them unique too. The above-average success rate of Swiss applicants for European research funding is a clear indicator of their high quality – and many of them had previously been grantees of the SNSF.

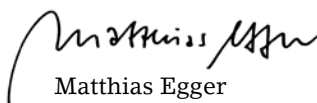
Because science is always in motion, the methods used to evaluate it must also be constantly... re-evaluated. Despite the considerable progress achieved in recent decades, there is still room for improvement: subconscious biases that can influence funding decisions must be reduced as far as possible. The SNSF is constantly working to tackle this concern by reinforcing its provisions on conflicts of interest and, in particular, by implementing the principles laid down in the DORA Declaration. This requires taking into account the value and consequences of all research results, instead of using bibliometrics as a substitute for a qualitative assessment.

Finally, by strengthening its Open Access and Open Research Data policies, the SNSF wants to give the scientific community and the public at large access to the fruits of high-quality research funded by taxpayers. Not only is such knowledge sharing the key to scientific progress – now more than ever it is a driver of innovation and therefore essential to this country’s prosperity.

All of these measures and procedures have one clear goal: to secure the future of truly original and competitive research. Switzerland may be – like Prince – unique in many respects, but that doesn’t diminish the fact that it needs to compete both scientifically and economically with the rest of the world.



Gabriele Gendotti



Matthias Egger



Angelika Kalt

From left to right:

Gabriele Gendotti, President
of the Foundation Council
of the SNSF

Angelika Kalt, Director
of the Administrative Offices
of the SNSF

Matthias Egger, President
of the National Research Council
of the SNSF

A casting call for the best research projects

Thousands of researchers submit applications to the SNSF each year. All of them want to convince the evaluators that they are worthy of financial support. But it's not an easy task.

6,041
submitted applications

23,761
requests for external reviews

8,802
external reviews

2,971
approved projects

2017 figures

Candidates who answer a casting call or audition for an orchestra attempt to outdo their rivals with their technique, musicality and artistic interpretation. Those who want money from the SNSF, with their research project and their scientific track record. "Our decisions are based solely on the quality of the project and the researchers' qualifications," says Matthias Egger, President of the SNSF Research Council.

The decision-making process

Project selection starts with researchers submitting their project proposals on the online platform *mySNF*. The SNSF Administrative Offices check whether the submitted project proposals meet the formal requirements. Subsequently, each application is peer-reviewed by at least two external experts. Based on the reviews, two members of the Research Council assess the proposals and make a written recommendation. The Research Council compares all applications and decides which projects deserve to be funded. This selection process usually takes six months.

Young researchers who apply for career funding are additionally invited for an interview at the SNSF. The figure on page 7 illustrates this expanded process, taking the Ambizione funding scheme as an example.

Strengths of the SNSF procedure

"To select the best projects, our evaluation procedure must also be the best it can be," says Matthias Egger. This is how the SNSF endeavours to achieve this:

Clear criteria

The SNSF evaluates the applications on the basis of clearly defined criteria that are also commonly used internationally. Why is the project relevant for science and – in the case of use-inspired research – for the economy and society? How original and topical is it? Have the applicants proposed suitable methods? Is the project financially feasible in view of the given funding period? What scientific achievements do the applicants already have under their belt? The evaluation provides detailed answers to these questions.

- Comparability of reviews
- International standards

Competitors from the whole of Switzerland

All researchers in Switzerland are eligible to submit applications. Projects proposed by higher education institutions, government research centres and private research institutes all compete for the same funds. The competition is prolonged and intense.

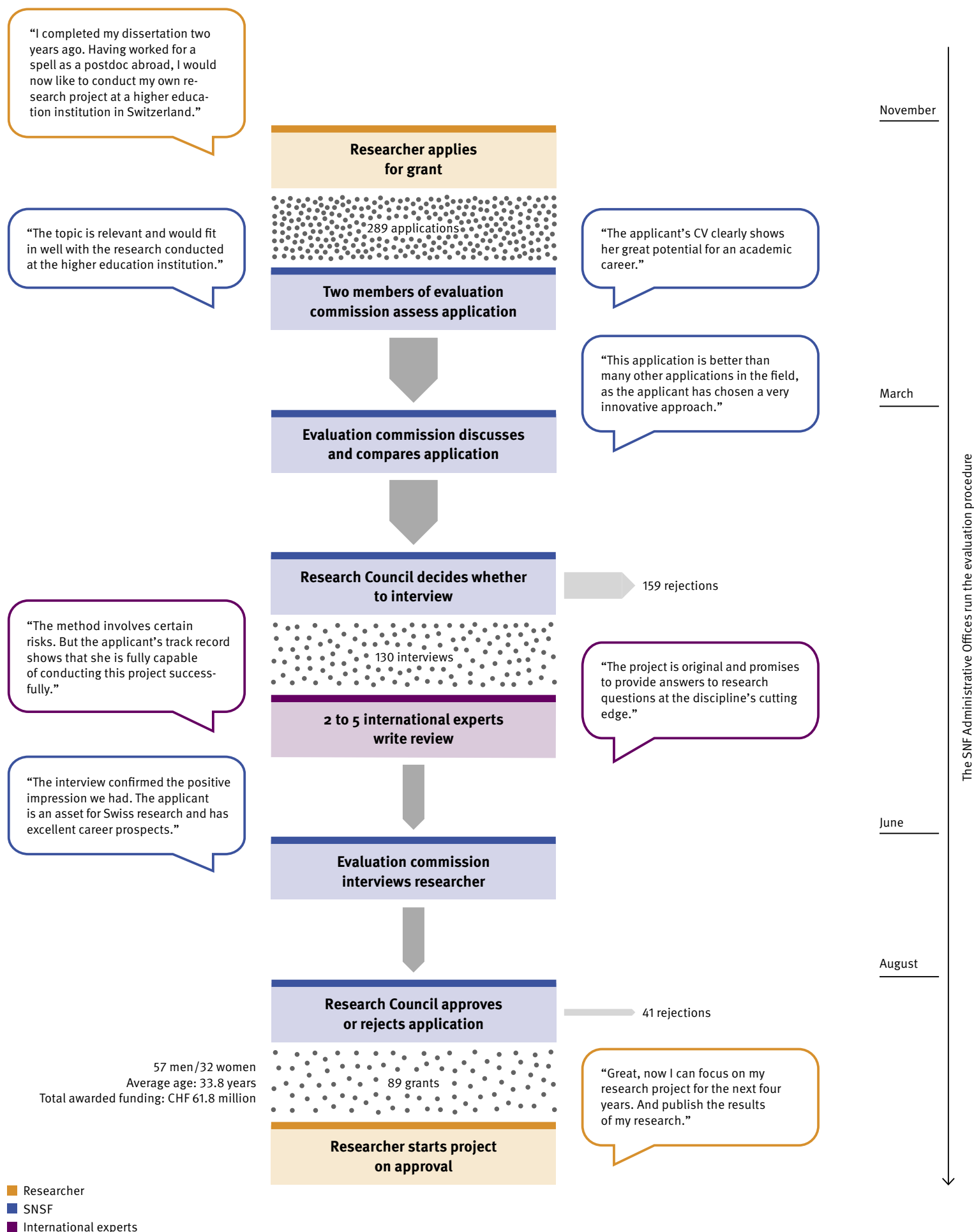
- Equal opportunities for government funding
- Quality assurance

"To select the best projects, our evaluation procedure must also be the best it can be."

Matthias Egger,
President of the National Research Council
of the SNSF

This is how the SNSF selects young researchers

Ambizione funding scheme 2017



International reviews

The SNSF obtains the majority of reviews from experts abroad (see figure). On the one hand, because it wants its evaluation procedure to be international. On the other hand, because in Switzerland researchers working in the same field often know each other and their impartiality might therefore be at risk.

- Pool of international experts
- Input for Swiss research from all over the world

Decisions made by researchers

The Research Council is composed of 100 researchers, all of whom are employed at higher education institutions and research centres. They evaluate research proposals for the SNSF in a part-time capacity. This also applies to the 700 researchers that make up the various evaluation commissions supporting the Research Council. Hence applications submitted by researchers are also assessed by researchers, and not by the SNSF Administrative Offices, corporate representatives or politicians.

- Scientific expertise
- Credible decisions

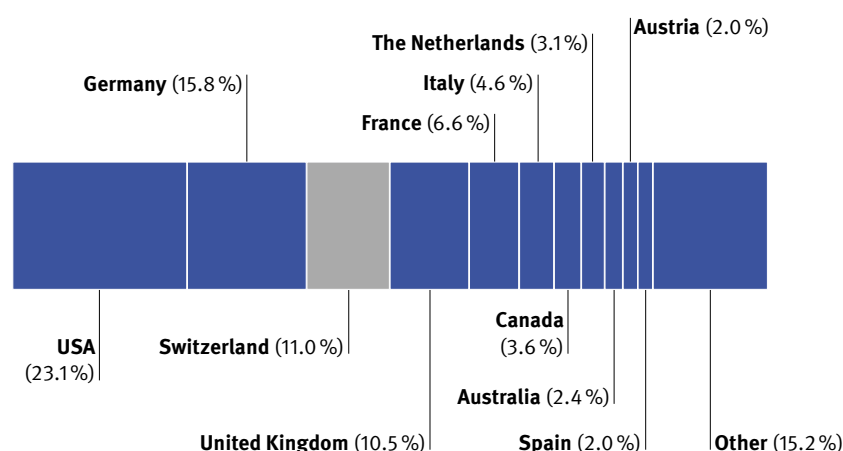
Maximum benefit

"All the approved applications have convinced evaluators of their high scientific quality," says Matthias Egger. "This ensures that government money generates maximum benefits for science, the economy and society."

Only one participant in a casting call or in orchestra audition actually wins. Thanks to the selection process conducted by the SNSF, around 3,000 new research projects were funded in 2017. They will enable Swiss research to maintain its leading position in the international science world.

"We adapt our funding schemes as early as possible, so that we will be fit to support excellent research also in ten years' time."

Angelika Kalt,
SNSF Director



The external experts who wrote 8,802 reviews for the SNSF in 2017 came from these countries.

Everything great? Well, not quite...

In spite of its excellent evaluation procedure, the SNSF faces a number of challenges, just as any other funding agency. "We are constantly developing the procedure based on the insights gained from scientific evaluation research," says director Angelika Kalt.

The SNSF is implementing DORA – the Declaration on Research Assessment – step by step. This international declaration aims to broaden the criteria used to assess scientific quality. The number of citations in certain journals should no longer be the key criterion.

The SNSF wants to support research projects that can be completed successfully. How can it also fund projects that involve certain risks, but have the potential to obtain exceptional results? One answer to this question is: with Sinergia, the SNSF funding scheme for research projects with breakthrough potential.

The SNSF would like to receive more applications from universities of applied sciences and universities of teacher education. To improve this situation, the SNSF is bringing its funding schemes more closely into line with the particularities of their research and has intensified its communication with these universities (see page 11).

It isn't always easy to find a sufficient number of external reviewers. In 2017, the SNSF Administrative Offices had to contact 23,761 persons to obtain 8,802 reviews.

Women should not be at a disadvantage in the race for government funding. For this reason, the SNSF regularly analyses the success rates of women and men. It also strives to steadily increase the share of women in the Research Council and the evaluation commissions.

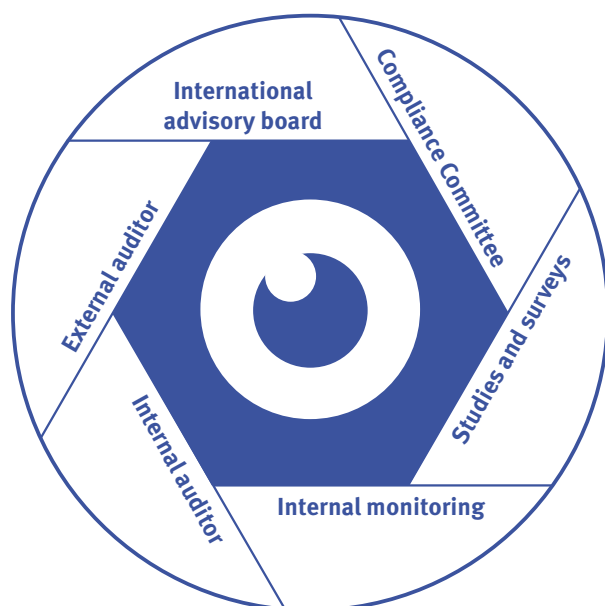
Researchers receive funding for a maximum of five years. What happens then? Does career funding have a long-term impact? The SNSF is tracking the careers of young researchers, in particular, so that it can adapt its evaluation procedure and funding schemes if necessary.

Last but not least: how does the SNSF ensure that its selection procedure is really as good as it can be (see page 9)?

"We adapt our funding schemes as early as possible, so that we will be fit to support excellent research also in ten years' time," says Angelika Kalt.

All eyes on quality

Is the evaluation procedure fair and transparent?
Do the Administrative Offices work efficiently?
The SNSF has introduced a host of measures to assess the quality of its funding activities.



The *Compliance Committee*, appointed by the SNSF Foundation Council, does random checks to ensure compliance with the relevant laws and regulations. One of its tasks has been to examine whether the SNSF communicates transparently, understandably and in the same manner with all of its applicants. For example, many researchers approach the SNSF with questions before submitting their application. The Administrative Offices are allowed to provide formal information, but no advice on scientific matters as this might give them an unfair advantage over other applicants. It can be difficult to draw a clear line between information and advice. Nonetheless, the Compliance Committee has commended the Administrative Offices in this respect. At the same time, it has recommended making employees more aware of this issue and putting informal rules down in writing. The committee is also examining processes to ensure that projects are always selected in accordance with the rules. "The SNSF makes every effort to protect the rights of researchers and provide high-quality fund-

ing services," says the president of the committee, Franciska Krings. "And as a researcher, I am happy to play a part in this."

Studies and surveys

The SNSF has commissioned *studies and surveys* to analyse certain aspects of its funding activities. In 2016, a Norwegian institute examined the evaluation procedure for National Centres of Competence in Research (NCCRs). The study praised the procedure, describing it as efficient and fit for purpose, but also made a number of recommendations. One of the recommended measures was to have each application assessed by at least three experts. The SNSF implemented the recommendations for the 5th series of NCCRs, for which it launched a call in October 2017.

Monitoring and revision

The SNSF conducts a detailed *internal monitoring* of its decisions on an ongoing basis. For instance, it probed whether Research Council decisions show a preference for certain universities. No such tendencies were detected.

The *internal audit* takes a close look at the efficiency and effectiveness of processes. An example: how efficient are the SNSF Administrative Offices in checking whether applications meet the formal requirements? The Swiss Federal Audit Office (SFAO) checks the annual financial statements of the SNSF. Although the SNSF is a foundation under private law, it is funded by the Swiss federal government and therefore falls under the remit of the SFAO as *external auditor*.

International advisory board

In 2018, the SNSF will appoint an *international advisory board* composed of experts from the world of science and research funding, non-profit organisations and private companies. Their task will be to pinpoint any weaknesses in the SNSF's funding activities and make proposals for strategic development.



"The SNSF makes every effort to protect the rights of researchers and provide high-quality funding services."

Franciska Krings,
University of Lausanne,
President of the Compliance
Committee of the SNSF



Career funding 1: Eccellenza

Better prospects for young talents

To successfully pursue an academic career, researchers generally need to work with their own team. But many academics do not have the necessary resources. For many years, the SNSF awarded SNSF professorships. In 2017, in consultation with the higher education institutions, it created the “Eccellenza” funding scheme to replace the SNSF professorships. With the SNSF Eccellenza Professorial Fellowships, it is continuing its support for talented young researchers who are bringing themselves into position for a professorship. And with the new SNSF Eccellenza Grants it now also supports researchers who already have a tenure track assistant professorship.

“Eccellenza enables us to expand our support for researchers pursuing an academic career,” says Marcel Kullin, head of the Careers division of the SNSF. “This increases the chances of keeping outstanding young researchers in academia and thereby strengthening Swiss research.” Scientists with an Eccellenza award will receive up to 1.5 million francs for a project spanning several years, which they can conduct together with their team. The SNSF plans to award approximately 45 grants in 2018.

Career funding 3: PRIMA

The stepping stone to a professorship

In autumn 2017, the SNSF launched the first call for PRIMA grants. The PRIMA funding scheme is open to excellent women scientists who have a doctorate or three years’ research experience and who aspire to become professors.

PRIMA grantees can set up their own team and conduct a research project lasting several years at a Swiss higher education institution. In so doing, they can enhance their scientific profile and attain the independence they need to pursue their careers successfully. The funding they receive from the SNSF finances their own salaries as well as the salaries of their team and covers additional project costs. If they are appointed as professors at a higher education institution, they can take the funding with them. The SNSF plans to award up to 12 grants worth a total of 15 million francs each year.



Career funding 2: Flexibility Grant

More flexibility for researchers with children

Looking after small children and doing postdoctoral research at the same time is a difficult balancing act. To take some of the pressure off such postdocs, the SNSF has been offering them a 120% Support Grant since 2013. The grant covers external child care costs and pays for a support person to help with the research work.

At the beginning of 2018, the SNSF expanded this funding option, renaming it the Flexibility Grant. Now doctoral students can also benefit from such grants. So can parents whose children are at primary school. The maximum total amount per person per year has been increased to CHF 30,000. “The grant makes it much easier to combine job and family,” says Simona Isler, Gender Equality Representative of the SNSF. “It gives researchers with children a fair chance of holding their own in academic competition.”

Customised funding

A set of measures for UASs and UTEs

The SNSF aims to offer the universities of applied sciences (UASs) and the universities of teacher education (UTEs) more funding opportunities. For this reason, it now approves positions for doctoral students matriculated at a university abroad if there are no suitable partners in Switzerland for the relevant research field of the UAS or UTE. Under the Eccellenza funding scheme for assistant professors, grantees are able to use their grant to finance part of their salary. By doing so, they gain more research time.

Further measures under discussion include a time-limited funding scheme exclusively for researchers from UASs and UTEs. Moreover, the SNSF is intensifying its communication with these institutions: it is including them in its regular tour of Swiss academic institutions (known as the "Tour de Suisse") and will launch a dedicated web page for them in 2018.



Swiss science award Marcel Benoist

SNSF as evaluator

For almost 100 years now, the Swiss science prize "Marcel Benoist" has symbolised the extent to which the Swiss economy and Swiss society rely on knowledge gained through research. In accordance with the wishes of the donator, the prize is awarded to established researchers whose work is of significance for humankind. In 2017, the climate researcher Thomas Stocker was presented with the prize by Federal Councillor Johann Schneider-Ammann.

As of 2018, the SNSF will be evaluating candidates on behalf of the Marcel Benoist Foundation and the federal government. Thanks to an open nomination process, proposals from the research community can be accepted. An evaluation committee assesses the proposals according to excellence criteria and selects a winner. The committee includes two people from public life who are non-scientists. In addition to its evaluation duties, the SNSF will also carry out the relevant communication activities and organise the award ceremony in Bern.

Great honour for Lausanne scientist

Nobel Prize for a revolutionary method

Jacques Dubochet, professor emeritus of Lausanne University, was awarded the Nobel Prize for chemistry in 2017, together with Joachim Frank and Richard Henderson. The three researchers played a key role in the development of biological cryo-electron microscopy, which is used to study samples that have been cooled down to below -150 degrees Celsius. The SNSF Research Councillor Kaspar Locher from ETH Zurich describes it as a revolutionary method thanks to which "we can now display cell structures and macromolecules with unbelievable precision".

Between 1989 and 2007, Jacques Dubochet received financial support from the SNSF for ten projects in total. By that time, he had already developed cryo-electron-microscopy while working at the European Molecular Biology Laboratory in Heidelberg.



Generate more interest – build a strong image

How can science communication reach people with little or no interest in science? Professor Mike S. Schäfer on the challenges and opportunities of today's media landscape.



Mike S. Schäfer is a professor at the Department of Communication and Media Research (IKMZ) of the University of Zurich, a position he has held since 2013.

Until quite recently, the most common way of reaching the public was through science journalism. So what has changed?

There have been three key developments in my view. First, there is less science journalism than there used to be because many media outlets are cutting costs. Second, higher education institutions, companies and political actors are increasing

their PR activities on scientific topics. And the third factor is digitalisation: scientists, but also other actors, can directly enter into a dialogue with the public online.

According to your “science barometer” for Switzerland, about half of the population show an interest in science. How can science be made more palatable for the other half?

Not by plying them with more and more information. In academia, science communication is still mainly regarded as a vehicle for transferring knowledge – the aim is to pass on facts and explain results. Because that's how we as scientists approach things. This is how the media has traditionally communicated science. However, research has shown that this type of reporting is only consumed by those members of the public who already have an affinity with science.

What alternatives are there?

If you want greater outreach, you have to use the communication channels of choice of your target audience. That could be entertainment programmes, the tabloid press or fictional formats. Or online channels, as already mentioned. And there you may well have to use different content: you have to show scientists as people who are passionate about their work, you have to build a story around their findings, etc. In this way, you can reach out to a lot more readers and viewers.

Though you don't usually transfer knowledge through such communication, if you do it well, you can generate more interest in science and burnish its image – with all segments of the population.

With its Agora funding scheme, the SNSF aims to foster dialogue between science and society. You recently assumed the presidency of Agora, what are your first impressions?

I think it is always positive and important for a national organisation like the SNSF to voice its commitment to science communication. A few higher education institutions use their communication activities also to pursue their own interests. The SNSF could help to foster a big picture view. But many researchers have still never heard of the possibility of obtaining a grant for public communication measures through Agora.

Agora: dialogue between science and society

It takes time to put together research results in such a way that laypeople can follow what you are saying and engage in the debate. With its Agora funding scheme, the SNSF finances projects that do just that. This could mean staging exhibitions, giving multimedia presentations or conducting experiments in a lab. Agora projects create opportunities for encounters and for listening to others, and, by doing so, encourage more dialogue between science and society.



Open access instead of paywalls

Based on a decision by the National Research Council in 2017, all publications produced in SNSF-funded projects will be available in digital format without any charges as of 2020. Science, the economy and society at large stand to benefit.

It isn't just the research that's expensive, its findings are also far from free. University libraries pay hundreds of thousands of francs per year to prestigious publishers for their scientific journals. All in all, the Swiss higher education institutions paid 70 million francs for such licences in 2017. This paywall hampers the spread and application of new knowledge. Despite the fact that a significant share of scientific publications are government-funded, it is the private publishing companies that reap the commercial benefits. For the SNSF, an absurd state of affairs to say the least. "Research results funded with public money belong to the public," says Matthias Egger, the President of the National Research

Council. All SNSF projects are therefore obliged to offer open access (OA) to the scientific articles and books produced in the scope of the project.

From 50 % to 100 %

Only 50 % of publications currently meet the open access requirements of free, unrestricted availability in digital form. But, based on a decision by the National Research Council, the SNSF wants to change this to 100 % of publications by 2020. Matthias Egger sees many advantages: "The researchers themselves stand to benefit the most from open access: their results will gain greater visibility. And they will be able to access their colleagues' work without any restrictions. It will be a step forward for science." What is more, thanks to open access, the private sector and society at large will be able to rapidly retrieve and utilise a wealth of scientific knowledge.

Gold and green road

How do researchers meet the open access requirements? Either they publish their results in OA journals or OA books that are immediately freely accessible. This is the gold road.

Or they publish their results in a journal with a paywall first, then place them in a public database after six months. Books are subject to an embargo period of 12 months. This is the green road.

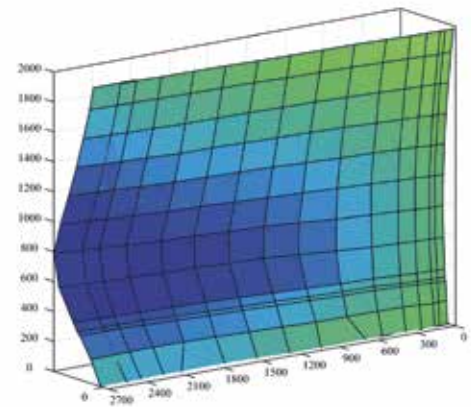
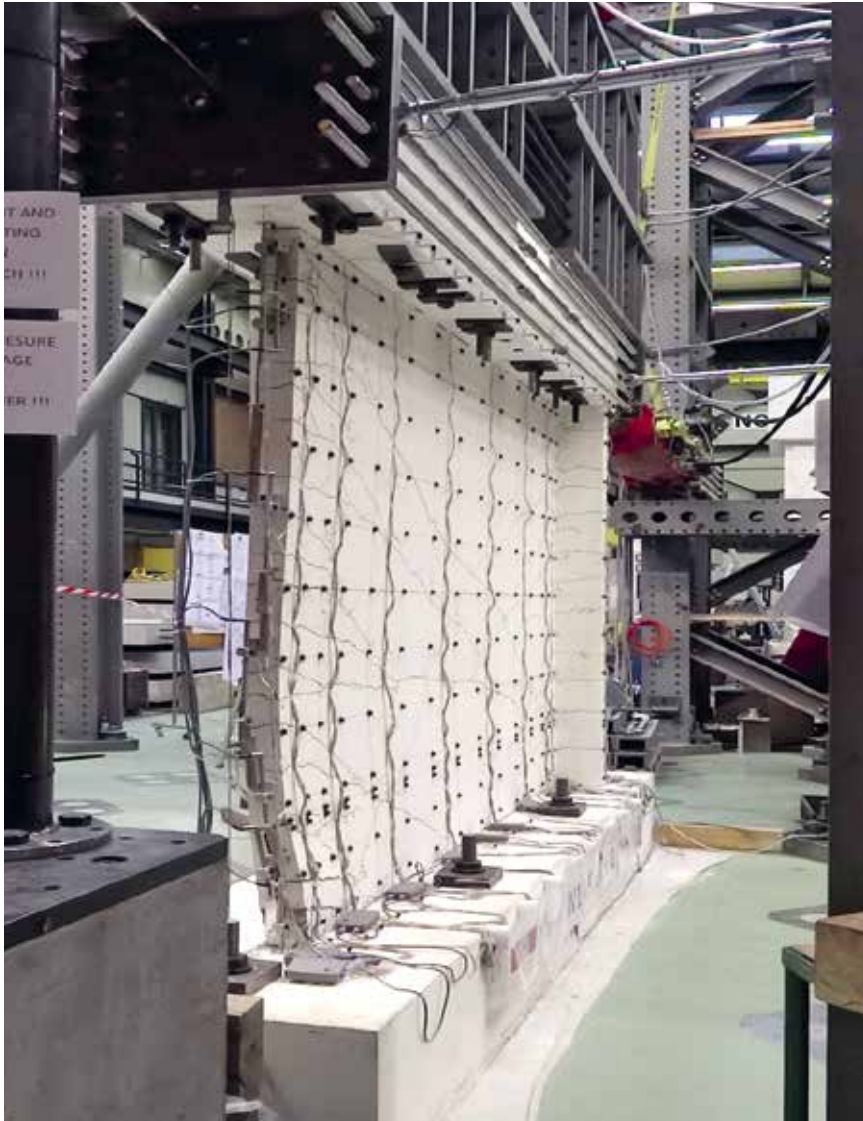
In the case of gold-road publications, the authors often contribute to the production costs. The SNSF has already been covering the costs of OA articles for some time. Since April 2018, it has also covered the costs of OA books and will start doing this also for book chapters as of October 2018. As of this date, applicants will also be able to apply for SNSF support via the online platform *mySNF*.

The Swiss standard as of 2024

The SNSF's new open access policy goes hand in hand with the national strategy pursued by the Swiss higher education institutions. In 2017, they decided that all publicly funded publications must be freely accessible by 2024. Open access will soon be the standard mode of publication, in Switzerland and the world over.

"Research findings funded with public money belong to the public."

Matthias Egger, President
of the National Research Council of the SNSF



Photograph of a warped wall made of reinforced concrete and a diagram based on the points of measurement. Katrin Beyer deposits the experimental data in public archives.

Open data, of course

Researchers who receive money from the SNSF now also need to make their research data available. How this requirement can be met is exemplified by Katrin Beyer and Florian Altermatt. They have been part of an open data culture for years.

Can the reinforced concrete withstand the displacement forces that pressure it? In a large laboratory at EPF Lausanne, Katrin Beyer and her team are investigating how the walls of buildings get warped during earthquakes. Each series of experiments generates several hundred gigabytes of data: photographs, videos, measurement data, reports.

Progress accelerated

Since starting the experiments in 2010, Katrin Beyer, professor for earthquake engineering, has published a multitude of such data. "In our field, we collaborate closely with other universities. Therefore it makes sense to allow open access to the data, particularly if they were generated in costly and time-consuming experiments." Working together, research teams will be able to improve earthquake protection more rapidly.



"Our research becomes more visible, is cited more frequently, and has a bigger impact."

Katrin Beyer, earthquake researcher, EPF Lausanne

And for Beyer, there is another reason why publishing the data seems the right thing to do: "Our research is funded by the tax payer. So the data belong to the public."

Data management from day one of the project

Her view is shared by Florian Altermatt, SNSF professor for community ecology at the University of Zurich and team leader at the Swiss federal research facility Eawag in Dübendorf. Altermatt already started storing his research data in public archives ten years ago. His research interests include biodiversity patterns in rivers and measuring such biodiversity based on environmental DNA (eDNA).

His team are under clear instructions: from day one of the project, all research data must be continually managed and edited. This ensures that all members of the team have access to them – even ten years after the project, when the undergraduate or doctoral student is no longer around. "Publishing the existing data is the logical next step; it doesn't cost much and can be done in next to no time," says Florian Altermatt.

Katrin Beyer's team also edit the data so that they can be used by internal researchers who were not involved in the experiment. Thanks to this systematic data management, publishing is easy and cheap. According to Beyer, it probably doesn't account for more than 1% of the project costs. "And we also have the benefit of an external backup."

Visible and understandable

In general, Katrin Beyer's experience of freely accessible data has been very positive: "Our research is made more visible, cited more frequently and has a bigger impact." Florian Altermatt also considers higher visibility to be an advantage. "According to our records, our datasets are accessed between 20 and 80 times."

Both of them appreciate the fact that open data lends their research greater credibility. In the words of Florian Altermatt: "Other researchers are able to follow my measurements and examine the results. So I don't need to worry."

Protecting young researchers

And the limits of openness? Neither Beyer nor Altermatt use data that are considered sensitive for legal or ethical reasons. For such data, the open access commitment does not apply. For Altermatt it is vital that young researchers only make their data available, once they have published their master thesis or dissertation. "Otherwise someone else could overtake my team member and,



"According to the records, our datasets are accessed between 20 and 80 times."

Florian Altermatt, biologist,
University of Zurich
and Eawag Dübendorf

if worst comes to worst, damage their career." He also acknowledges the risk of sub-optimal data analyses by third parties resulting in claims that are not backed up by the data.

Katrin Beyer mentions the problem of ever-increasing amounts of data. "We are currently making high-resolution images of the concrete walls; this generates several terabytes with each series of experiments. It is not possible to store so much data in the archives we have used until now." Databases with a larger memory are therefore needed.

But after all is said and done, both researchers still firmly support an open data culture. They are in no doubt that it is an integral part of science today. This is precisely what the SNSF hopes to achieve with the new requirement.

Open Research Data

Successful start

Since October 2017, applicants for project funding have had to include a data management plan in their application. What information do data management plans provide?

Ayşim Yılmaz: In the data management plan, applicants describe how they administer, secure and publish their project data.

How do you feel about the results achieved so far?

We are very satisfied with the way things are going. The majority of applicants have submitted a plan, in most cases one that has been thought through in order to meet requirements.

A successful start in other words.

Yes, even though there have understandably been some questions regarding implementation: how do I manage my data? How much time will it take me? In which archive should I make the data available?

And have you been able to answer all the questions so far?

No. For example, the next few years will show which archives are recommendable for individual disciplines. This is a question that is best answered by the researchers themselves. The SNSF and the researchers will share their experiences, so we can think of it as a joint learning curve.

Have you heard any critical voices?

Some researchers only see the additional work, but not the advantages. In a few cases, the principle of open data as such has been criticised. These people fear that it might have a damaging effect on their research. But on the whole, the feedback has been positive. Most researchers felt that the requirement made sense and that the SNSF was right in forging ahead in this area.

What financial support do the researchers receive for data management?

We pay up to 10,000 francs per project, or even more on request. This amount fully covers the costs of editing and archiving the data.

Ayşim Yılmaz is responsible for open research data at the SNSF. She is head of the Biology and Medicine division.

Innovation driven by pioneering scientists

Researchers who venture into the unknown out of sheer curiosity provide the basis for our knowledge society. However, the benefits of this basic research are often invisible or only become apparent much later. Three examples of SNSF projects show how impactful and tangible they can be.

The SNSF invests hundreds of millions of francs per year in basic research. This entails experiments and investigations that are driven by curiosity and for which no immediate social purpose can be planned – but which are nevertheless of inestimable value. Angelika Kalt, Director of the SNSF: “Researchers who are able to pursue their thirst for knowledge are constantly breaking new ground. They provide the basis for innovation and new technologies – and hence for our knowledge society.” Some findings only have an impact after many years. Others lead quickly and directly to concrete applications. “But they always start off the same way: with an intelligent question and dedicated researchers who try to answer it,” says Angelika Kalt.

From a trick of the senses to a treatment

An impressive example of this is the SNSF project of neurologist Olaf Blanke at EPF Lausanne. Based on his work on out-of-body experiences, from 2005 onwards he investigated which sensory signals control the perception of one's own body. In order to discover the brain regions involved, Blanke and his team created a novel experimental set-up: they showed test subjects on a device attached to their heads a projection of their own body, thus creating a conflict between the place where one sees oneself and the place where one feels. It turned out that the test subjects experienced the virtual body and its position in space as their own. Tej Tadi, who worked as an electrical engineer for the project, immediately saw the

medical possibilities. “The deception activated certain regions of the brain,” he explains. “So we were able to trigger real responses through virtual reality.” This insight inspired Tej Tadi to found the company MindMaze. It developed a virtual reality-based technology for the neuromotor rehabilitation of stroke and accident patients. In 2017, the US Food and Drug Administration (FDA) approved the technology; since then, it has been used in hospitals in several countries, including Switzerland. And it gave MindMaze a market value of over 1 billion francs.

The company currently has offices in Lausanne, Zurich and San Francisco. It is working on new man-machine interfaces which are expected to transform medicine as well as the computer games and transport industries. “A lot of work has gone into MindMaze's success,” Tej Tadi says, “but it all started because we approached a fundamental scientific question from an unusual angle.”

Different question – new possibilities

Veronika Brandstätter, professor of psychology at the University of Zurich, also broke new ground with her SNSF project. While motivational psychology concentrated for a long time on what supports people in pursuing their goals, Veronika Brandstätter asked: “What happens when people start to let go of goals they had once set?” She investigated this process using a combination of laboratory experiments and field studies. Her team then observed people who had doubts about a goal – for example, a degree.



“It all started because we approached a fundamental scientific question from an unusual angle.”

Tej Tadi, electrical engineer and neuroscientist, founder and CEO of MindMaze



“The results were so clear, they set me thinking about a practical application.”

Veronika Brandstätter,
psychologist, University of Zurich

They compared their thoughts with those of people with the same goal for whom everything was going as planned. “We found out that, once their doubts reach a certain level, people become very much concerned with cost-benefit considerations – and are then no longer in a frame of mind that is conducive to action,” says Veronika Brandstätter. This pattern was confirmed, for example, in a survey of marathon runners who described how they make up their minds on whether to give up or continue over the last ten kilometres. It was also shown that doubts have an adverse effect on performance in the long term.

“So clear were the results, they set me thinking about a practical application,” says Veronika Brandstätter. “Often it actually makes sense to give up a goal – particularly when one realises that it is practically unattainable.” Brandstätter’s work has meanwhile become an integral part of the Zurich resource model of Krause and Storch, one of the most successful self-management methods there is. It is used in teacher training, coaching for managers and youth work, among other fields.

Chasing a breakthrough

The work of Michael Grätzel, professor of physical chemistry at EPF Lausanne and an SNSF grant holder, is also seen as highly influential. Towards the end of the seventies, he investigated how light energy can be converted into electrical energy. In the early nineties, the Grätzel cell was developed after years of basic research: a solar cell that uses natural dyes for energy generation, following the model of plant photosynthesis. This principle offers great advantages over conventional silicon solar cells: the manufacturing costs are lower and the materials used are more environmentally friendly. However, Grätzel cells are still less effective in full sunlight – they work better in hazy conditions or with artificial light sources. Yet a market has emerged for them, not least because of their aesthetic appeal.

“The real revolution in the solar sector has not yet taken place,” says Grätzel, “but the dye solar cell has fuelled a whole research field. A lot will happen on the application side in the next few years.” Grätzel’s work became the starting point for the current development boom in solar energy, which is based on the principle of the Grätzel cell. In the meantime, however, light is no longer captured through dyes, but by means of the organic-inorganic semiconductors known as perovskites. Their effectiveness in laboratory conditions is already on a par with that of silicon cells. And at the forefront of developments we again find Michael Grätzel. “That’s how it goes sometimes in research,” he laughs, “thirty years ago, I worked on the basics without any pressure, today I am chasing the big breakthrough simultaneously with thousands of others.”



“The real revolution in the solar sector has not yet taken place, but the dye solar cell has fuelled a whole research field.”

Michael Grätzel, chemist,
EPF Lausanne

Snow research, for example here on the Weissfluhjoch in Davos, relies on precipitation, wind, temperature and radiation measurements. Hendrik Huwald and Franziska Gerber, both members of Michael Lehning's team, examine the snow cover with a laser scanner (below left). Snow samples are also an important data source. They are CT-scanned and the structure is then replicated using a 3D printer (bottom left).



→ From snow to ice

“One of the unknowns in climate research concerns changes in the polar ice. In our project, we are analysing the impact of the snow cover on the sea ice and ice sheets in the Antarctic region. The measurement data comes from our international research partners, and we also collect some data ourselves. Based on the analyses, we can generate snow accumulation and ice formation models. Eventually, this should make it possible to calculate the overall ice mass also for the future.”

Michael Lehning, snow researcher, EPF Lausanne and Institute for Forest, Snow and Landscape Research (WSL)

→ p3.snf.ch/project-160667







Study of three Swiss towns: many new flats are being built in Bulle, Canton of Fribourg. Businesses mainly provide for regional needs, the majority of people in work are commuters. Belp in the Canton of Bern is a typical small town with an industry sector that is mostly low-tech (below at left). Thun, on the other hand, is home to a number of high-tech enterprises. Susanne Szenkuti, Michael Gassner and Florian Kühne from Thun's planning office are making use of results obtained in Heike Mayer's research project (below at right).

→ Size isn't everything

"Small and medium-sized towns are often seen as the poor relations of metropolitan areas. However, since 2001, towns in the EU15 countries have been experiencing stronger economic growth than big cities. In Switzerland, too, the economic and political importance of small and medium-sized towns is likely to increase further. We are studying the roles, particularities and potentials of such towns. The results will provide a basis for future funding and development."

Heike Mayer, economic geographer, University of Bern

→ p3.snf.ch/project-159324





Highlights 2017

A selection of events that shaped the year under review



4 April

Welfare and coercion

The SNSF launches a call for the **National Research Programme 76 “Welfare and Coercion – Past, Present and Future”**. Over a five-year period, the programme will study coercive measures and how they affect those targeted by them as well as their impact on society as a whole. The research findings are expected to contribute to a better understanding of the characteristics, mechanisms and effects of Swiss welfare policy and practices. NRP 76 will complement the work of the Independent Expert Commission (UEK), set up by the Federal Council to examine and document the history of administrative detention until 1981.

26 April

Funding pros

At Swiss higher education institutions, dedicated grant offices offer researchers advice on funding options. The SNSF holds a **grant office event** in Bern to inform these specialised units about new measures, answer their questions and give them an opportunity to share their experiences.

April

27 June

SNSF on Instagram

The SNSF makes an exciting Instagram debut: it posts the best images from its photo competition, which took place for the first time. These pictures taken by researchers reveal the hidden beauty of science. With this Instagram launch, the SNSF can now be found on four leading social media sites.



27 June

Summit meeting

There is never any shortage of topics when the SNSF top echelon meet the **vice rectors** for research of the Swiss higher education institutions. Current topics include the new open access policy, the data management plan, Ambizione grants, the planning of national research infrastructures and the promotion of assistant professorships. The meetings are held regularly in order to strengthen cooperation and ensure that the SNSF's funding portfolio is closely geared to the needs of the higher education institutions.

June



14 July

Safeguarding integrity

The Presiding Board of the SNSF Research Council appoints **Nadja Capus** as the new President of the **SNSF Commission for Scientific Integrity**. Since 2013, the commission has examined suspected scientific misconduct cases in the scope of research proposals submitted to the SNSF and in SNSF-funded research. Nadja Capus is professor of criminal law and criminal procedure at the University of Neuchâtel. She succeeds Kurt Seelmann, professor emeritus of criminal law and philosophy of law at the University of Basel.

27 September

For advanced researchers

What funding options does the SNSF offer for postdocs and more advanced researchers? At the annual **Advanced Researchers' Day** in Bern, they are informed in detail about all career and project funding schemes offered by the SNSF. After the presentations, SNSF specialists give them one-to-one advice on how best to write and submit an application for their project.



7 November

Tour of Swiss academia

In the past, the SNSF visited each university every five or six years on the annual Research Day. Now it has decided to shorten the intervals to two years and to include universities of applied sciences and universities of teacher education in its itinerary. It goes on its first academic **Tour de Suisse** according to the new schedule in November. At nine higher education institutions – in Lugano, Manno, Basel, Lausanne, Renens, Zurich and Geneva – it presents its funding schemes for projects, careers, programmes, international cooperation and science communication.



16 November

Star of combinatorics

Mathilde Bouvel, a scientist at the Mathematics Institute of the University of Zurich, is awarded the **Marie Heim-Vögtlin Prize in 2017**. In over ten years of research she has made a key contribution to combinatorics. Her studies on permutations, in particular, have been highly acclaimed. Her objective is to find out in how many ways a series of numbers can be arranged, for example the 22,000 genes of the human genome. Each year, the SNSF bestows the Prize on a recipient of the Marie Heim-Vögtlin grant for women researchers.



29 November

Unique catalysis

Catalysis involves the triggering and acceleration of chemical processes by means of a catalyst. The chemist **Xile Hu** combined three different catalysis processes in a unique way. For this achievement he is awarded the **National Latsis Prize 2017**. "I am always trying to include something new or unforeseen in my research, even though it may not be immediately understood", says the 39-year-old professor from EPF Lausanne. Xile Hu has carried out pioneering studies on molecular synthesis and the production of solar fuels. The National Latsis Prize is awarded annually by the SNSF on behalf of the International Latsis Foundation.

"Today, catalysis is more important than ever – particularly when it comes to solving our energy problems."

Xile Hu, chemist, EPF Lausanne

12 December

Research online

The Swiss research magazine **Horizons** launches its own website: www.horizons-mag.ch. Articles from Horizons can now also be read on mobile phones. Horizons provides news from the world of science and discusses research policy issues of global importance – in English, German and French. The magazine is published by the Swiss National Science Foundation in collaboration with the Swiss Academies of Arts and Sciences. Printed versions will continue to be published quarterly in German and French.

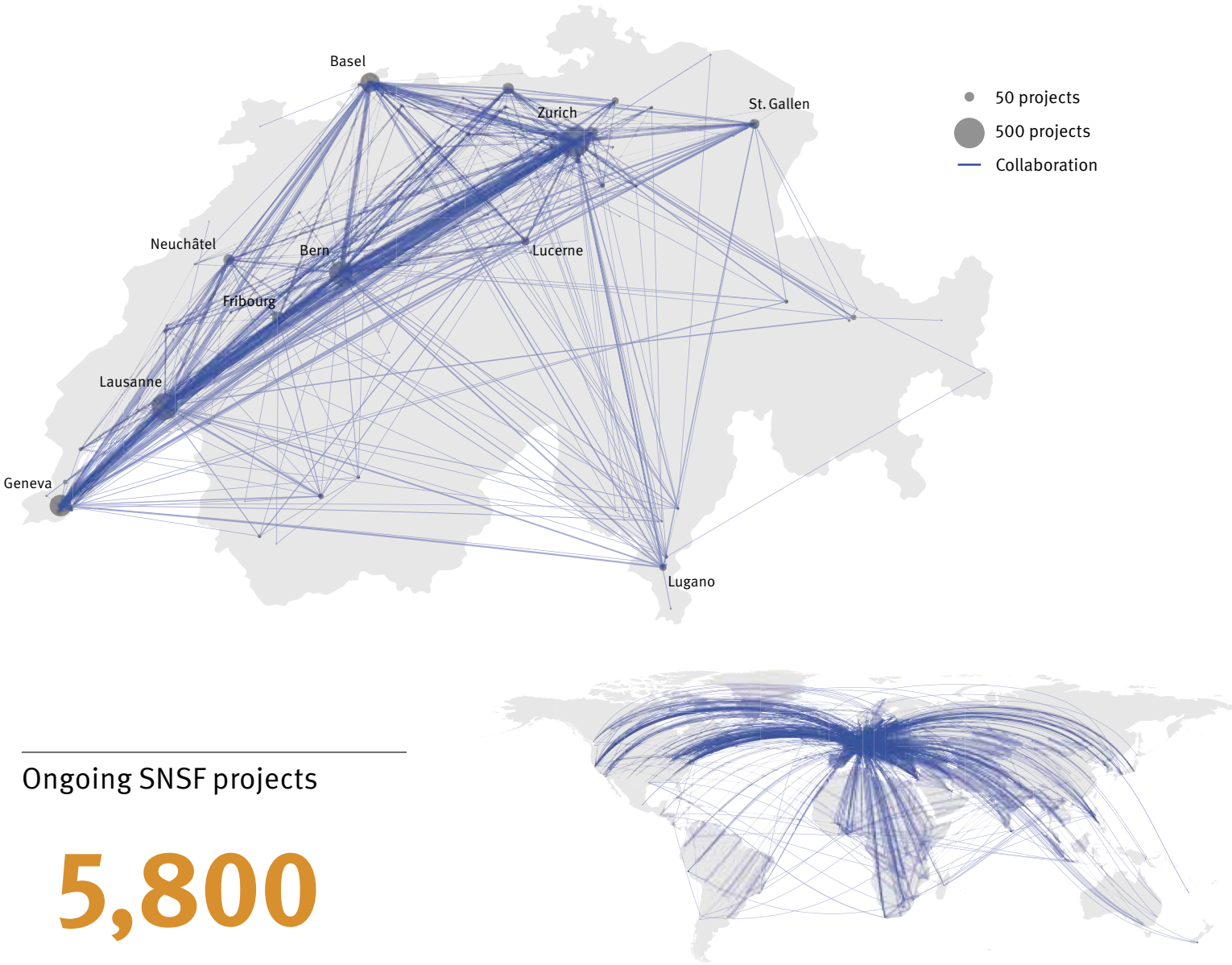
July
September

November

November
December

Ongoing SNSF projects

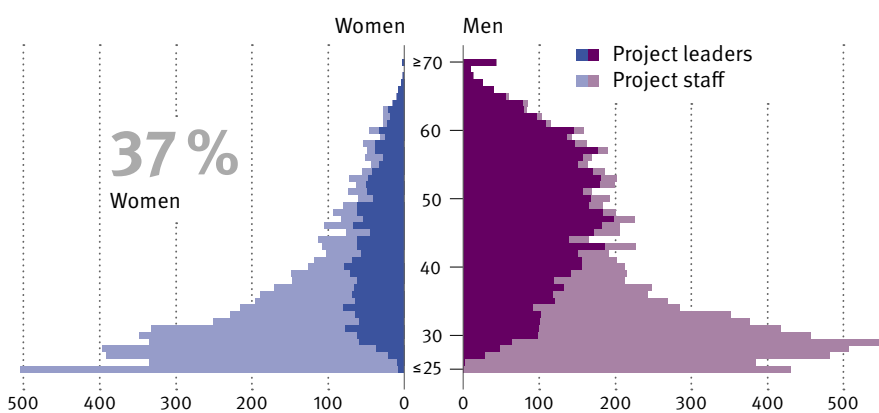
Collaboration at Swiss and international level



Ongoing SNSF projects

5,800

Researchers in projects according to age and gender



Researchers in projects

16,000

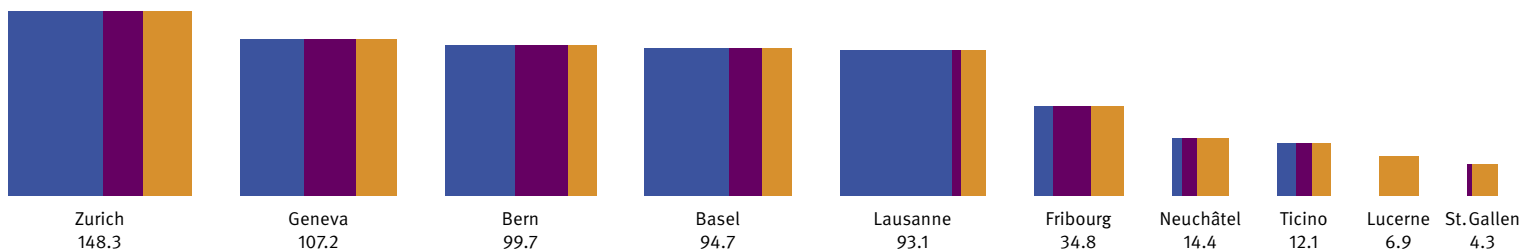
As at: 31 December 2017

Funding approved in 2017

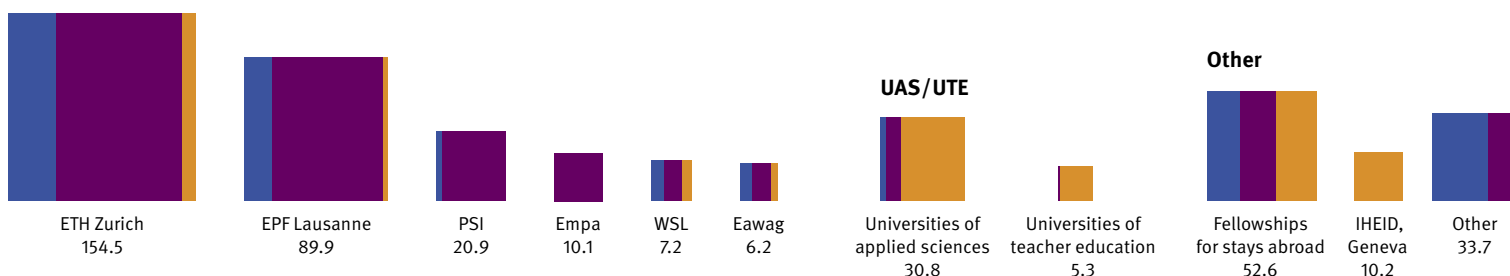
By institution and discipline

in CHF million

Universities (incl. university hospitals)



ETH Domain



39 %

Biology and medicine

38 %

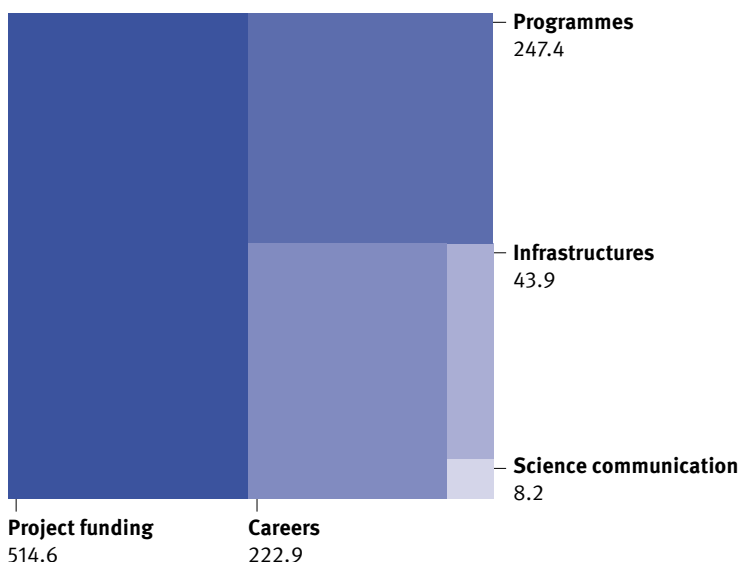
Mathematics, natural and engineering sciences

23 %

Humanities and social sciences

By funding category

in CHF million



Approved funds

in CHF million

1,037

Approved applications

2,971

Submitted applications: 6,041

Financial statement 2017

The report year ended with a surplus in expenditure, which will be offset by reserves. Thanks to these reserves, the SNSF is able to seamlessly maintain its research funding activities and absorb fluctuations in federal funding.

The marked increase in further contributions is attributable to the BRIDGE programme, which is co-funded by the CTI (recently renamed “Innosuisse”). After the signing of the agreement between the SNSF and the CTI, the entire co-financing was accounted for gross via the income statement for 2017. Even though the SNSF has approved more financial resources

for research projects, research funding expenditure was near constant year-on-year. The reason is that the researchers will use a large part of the funding only in the future, and this has led to the expenditure being split. At the same time, the approved contributions to be accounted for over the next few years are correspondingly higher (see page 28).

Income statement

in CHF 1,000	2017	2016	Change in %
Federal contributions	942,017	997,537	-5.6
Further contributions	36,925	23,416	57.7
Donations/bequests	–	816	-100.0
Research funding expenditure	-857,476	-854,708	0.3
Expenditure to cover indirect research costs (overhead)	-99,113	-96,447	2.8
Scientific evaluation and governance	-10,329	-11,128	-7.2
Public relations	-1,930	-1,592	21.2
Administration expenses and depreciation	-37,759	-35,203	7.3
Other operating income	437	444	-1.6
Other operating expenses	-352	-358	-1.7
Operating result	-27,580	22,777	-221.1
Financial income	9,089	1,464	520.8
Financial expenditure	-237	-155	52.9
Financial result	8,852	1,309	576.2
Investments in restricted funds	-284,082	-291,390	-2.5
Withdrawals from restricted funds	285,866	302,425	-5.5
Income from restricted funds	1,784	11,035	-83.8
Ordinary income	-16,944	35,121	-148.2
Non-operating income	21	111	-81.1
Extraordinary income	-10	–	–
Annual result	-16,933	35,232	-148.1

All figures stated in this report have been individually rounded.

Balance sheet

Assets

in CHF 1,000	31.12.2017	Share in %	31.12.2016	Share in %
Current assets				
Cash and cash equivalents	653,940	78	708,223	83
Accounts receivable	60,531	7	38,189	4
Other short-term receivables	74	0	48	0
Prepaid expenses	1,792	0	2,137	0
Total current assets	716,337	86	748,597	88
Fixed assets				
Tangible assets	12,454	1	12,883	2
Financial assets	106,187	13	91,010	11
Intangible assets	910	0	946	0
Total fixed assets	119,551	14	104,839	12
Total assets	835,888	100	853,436	100

Liabilities

in CHF 1,000	31.12.2017	Share in %	31.12.2016	Share in %
Short-term liabilities				
Liabilities from approved grants	272,688	33	266,011	31
Accounts payable	1,047	0	1,191	0
Other short-term liabilities	125	0	664	0
Deferred income	2,707	0	2,459	0
Short-term provisions	6,000	1	5,000	1
Restricted funds	79,243	9	68,974	8
Total short-term liabilities	361,810	43	344,299	40
Long-term liabilities				
Long-term provisions	–	–	6,000	1
Restricted funds	269,056	32	281,184	33
Total long-term liabilities	269,056	32	287,184	34
Total liabilities	630,866	75	631,483	74
Equity				
Foundation capital	1,330	0	1,330	0
General funds	344	0	397	0
General reserves	203,348	24	220,226	26
Total equity	205,022	25	221,953	26
Total liabilities	835,888	100	853,436	100

Additional information on the financial statement

Restricted funds

in CHF 1,000	as at 1.1.2017	Incoming resources	Outgoing resources	Transfer	as at 31.12.2017
SCOPES fund	1,428	304	-1,098	-	634
r4d fund	50,232	3,682	-13,940	-	39,974
NRP fund	44,396	26,356	-28,912	-	41,840
NCCR fund	-	68,127	-63,913	-	4,214
Fund for special programmes in biology and medicine	28,642	11,592	-15,475	-	24,759
Fund for BRIDGE programme	-	39,540	-4,689	-	34,851
Fund for Horizon 2020 backup measures	46,891	-	-16,872	-	30,019
Fund for ERC transfer grants	19,929	-	-1,324	-7,200	11,405
Energy research fund	30,806	433	-10,159	-	21,080
Other funds	30,858	124,314	-121,378	-73	33,721
Funds from earmarked donations/bequests/agreements	96,976	9,734	-906	-	105,804
Total restricted funds	350,158	284,082	-278,666	-7,273	348,301

Grants approved for future accounting years as at 31 December 2017

in CHF 1,000	2018	2019	2020	2021	2022	Total
Total	583,128	323,239	179,978	26,519	89	1,112,953

According to the federal budget for 2018, contributions to the SNSF will amount to (without overhead) CHF 859.2 million. Federal contributions (without overhead) of CHF 1,971.8 million are envisaged under the applicable service level agreements for the years 2019/20.

Federal contributions

in CHF 1,000	2017	2016
Basic contribution	718,695	772,885
National Centres of Competence in Research	70,000	72,000
National Research Programmes	25,000	28,000
SystemsX	-	12,000
Nano-Tera	-	4,156
Additional tasks/Funding mandate	22,000	18,500
SDC contributions	4,000	1,258
Overhead	98,000	88,000
SwissCore	622	568
Various federal contributions	3,700	170
Total	942,017	997,537

Research funding expenditure

in CHF 1,000	2017	2016
Projects	429,673	423,933
Careers	196,474	180,149
Programmes		
National Centres of Competence in Research	61,413	71,764
National Research Programmes	28,123	18,906
Other programmes	82,276	85,384
International Co-operation	18,459	21,256
Total programmes	190,271	197,310
Infrastructures	43,440	30,281
Science communication	6,601	5,861
Programmes of third parties	13,033	42,909
Repayments	-15,709	-17,072
Grants approved but unused	-6,307	-8,664
Total	857,476	854,707

Administration expenses and depreciation

in CHF 1,000	2017	2016
Personnel expenses	31,013	28,948
IT expenses	1,981	1,621
Immovable property expenses	1,004	1,076
Depreciation of tangible assets	514	680
Depreciation of intangible assets	983	858
Other administration expenses/ external mandates/SwissCore	2,265	2,019
Total	37,760	35,202

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 2,112,000 (2016: CHF 2,484,000)
- Approval of research grants for members of the Research Council:
CHF 29,512,000 (2016: 22,655,000)

Performance of risk assessment

In fiscal year 2017, 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.

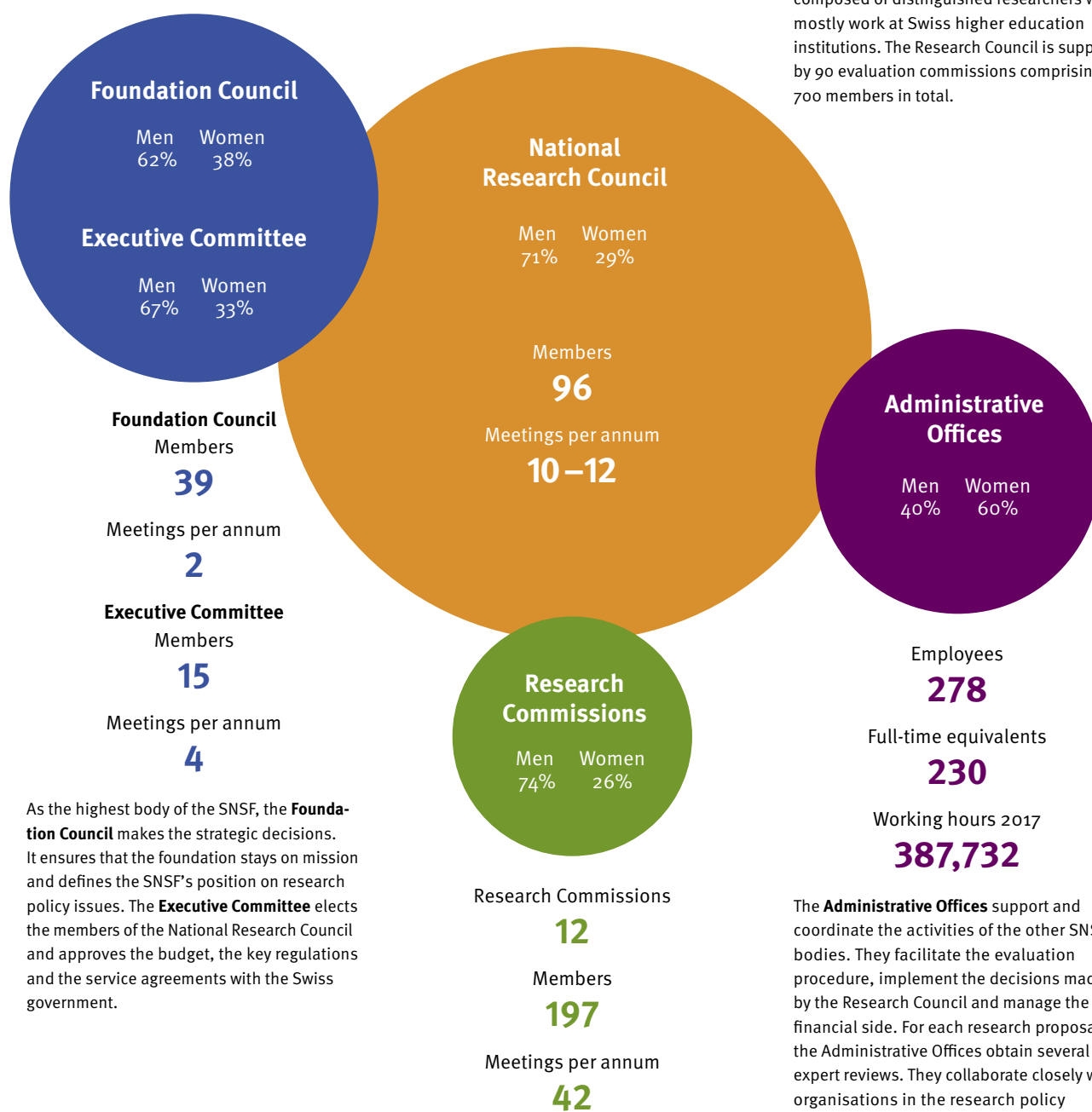
Approval of financial statements

On the recommendation of the Swiss Federal Audit Office, the external auditor that examined the statements, the Foundation Council approved the financial statement 2017 at its meeting of 23 March 2018.

Bodies of the SNSF

The Swiss National Science Foundation (SNSF) funds research in Switzerland on behalf of the Swiss government. The bodies of the SNSF are responsible for the scientific evaluation and funding of project proposals submitted by researchers.

The **National Research Council** evaluates several thousand applications each year and makes the relevant funding decisions. It is composed of distinguished researchers who mostly work at Swiss higher education institutions. The Research Council is supported by 90 evaluation commissions comprising 700 members in total.



The Administrative Offices in 2017

8,802

external reviews

158

evaluation meetings

In 2017, the Administrative Offices of the SNSF asked 23,761 external experts to review an application and referred to a total of 8,802 reviews for evaluation purposes. For 6,041 applications, it conducted the evaluation procedure single-handedly from start to finish. Most of this work was done on the *mySNF* online platform: researchers use it to submit their grant applications, experts to write their reviews, and the Research Council and evaluation commissions to assess the submitted applications.

In spite of *mySNF*, communicating in person is essential to the evaluation procedure. The Research Council and the evaluation commissions discuss applications during meetings held in Bern. And researchers applying for a career grant come to the SNSF for an interview, during which they present their research project. The Administrative Offices organise all meetings and interviews (2017: 400), take minutes and inform the applicants about the outcome of the evaluation.

Projects are funded for several years, during which time the Administrative Offices check the scientific and financial reports submitted by the researchers and process personnel changes in their projects, change requests and other messages. In 2017, the Administrative Offices processed around 18,000 reports and messages – most of them using *mySNF*.

Another important task is to develop research funding in close collaboration with the Research Council. In 2017, the Administrative Offices created new career funding schemes and introduced the open

data principle (see pages 10 and 14). Moreover, they liaise regularly with organisations involved in research funding and policymaking in Switzerland and abroad.

Effective communication also lies within the remit of the Administrative Offices. On the one hand, it informs the research community about calls for proposals and new funding schemes. On the other hand, it communicates with the political authorities and the public, explaining how the SNSF uses government funds and presenting the results of funded research projects.

In addition, the Administrative Offices maintain the P³ research database, which contains all ongoing and completed projects funded by the SNSF. In 2017, over 100,000 people consulted P³.

8,601

reports by researchers

9,373

administrative messages
from researchers

Foundation Council

President

Gabriele Gendotti, former member of cantonal government

Vice President

Prof Felicitas Pauss

Representatives of scientific organisations

Cantonal Universities → **Basel:** Prof Edwin Ch. Constable. **Bern:** Prof Daniel Candinas. **Fribourg:** Prof Thomas Hunkeler. **Geneva:** Prof Jean-Luc Veuthey. **Lausanne:** Prof Franciska Krings. **Lucerne:** Prof Martin Baumann. **Neuchâtel:** Prof Simona Pekarek Doeher. **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 (PH SG), 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. **SAHS:** Prof Claudine Burton-Jeangros. **SAMS:** Prof Peter Meier-Abt (until 30.9.2017), Prof Daniel Scheidegger (from 1.10.2017). **SATW:** Dr dipl.-Ing. Monica Duca Widmer. **SCNAT:** Prof Felicitas Pauss, Prof Marcel Tanner.

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) (until 30.6.2017), Prof Susan Gasser (Director of Friedrich Miescher Institute) (until 30.11.2017), Prof Marc-André Gonin (BFH Biel, swissuniversities), Prof Janet Hering (Director of Swiss Federal Institute of Aquatic Science and Technology Eawag), Dr Fritz Schiesser (President ETH Board), Dr Nenad Stojanovic (Actionuni).

Executive Committee

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

Internal Audit

T+R SA, Gümligen BE.

Compliance Committee

Prof Franciska Krings (President from 3.6.2017), Prof Howard Riezman (President until 2.6.2017, member from 3.6.2017); Prof em. Klaus Müller, Prof Monika Roth, Dr Dorothea Sturn.

National Research Council

President

Prof Matthias Egger

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Status as at 31.12.2017

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 > Innosuisse

Commission for Technology and Innovation of the federal government of Switzerland (renamed “Innosuisse – Swiss Innovation Agency” on 1.1.2018)

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

ETHZ / EPFL

Swiss Federal Institutes of Technology (Zurich and Lausanne)

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

mySNF

SNSF web platform for application submission, evaluation and grant management (www.mysnf.ch)

NCCR

National Centre of Competence in Research, Switzerland

NRP

National Research Programme, Switzerland

PH SG

University of teacher education, St. Gallen

SAHS

Swiss Academy of Humanities and Social Sciences

SAMS

Swiss Academy of Medical Sciences

SATW

Swiss Academy of Engineering Sciences

SCNAT

Swiss Academy of Sciences

SERI

State Secretariat for Education, Research and Innovation

SNSF

Swiss National Science Foundation

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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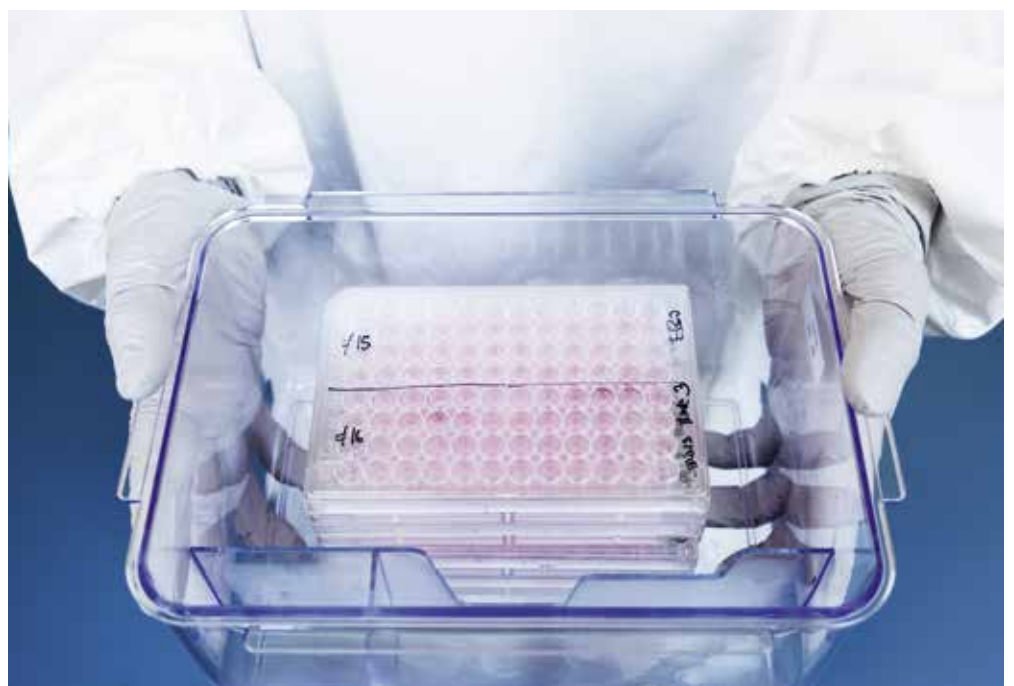
(approved grants since 1975)

→ www.snsf.ch/p3





Researchers who study viruses have to protect themselves. The team led by Stefan Kunz is conducting some of the studies in the laboratory of the Swiss Confederation in Spiez. It is the only Swiss laboratory that offers the highest level of biological protection, level 4. The objects of study include frozen virus samples (below at left) and the blood serum of people who survived the illness (below at right).





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ongoing SNSF research projects

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researchers involved in projects

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→ Understanding and
combating viruses

“It is easier for viruses to spread in a globalised world. The Lassa virus is widespread across West Africa. It causes high fever and bleeding, often leading to death. There is still no vaccine or treatment. Using modern biochemical and microscopic methods, we are now trying to establish how this virus infects human cells. The results will hopefully lead to the development of effective drugs.”

Stefan Kunz, virologist at the
University of Lausanne

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