

---

# The Mult-Year Programme 2008-2011

Research funding: SNSF faces the challenges

## Executive summary

The key to success for a scientific community lies in education and research. The quality of research facilities therefore becomes an increasingly important policy issue in highly-developed countries. Science and politics are required to develop common strategies in order to consolidate and enhance that quality.

Switzerland's basic research is highly regarded throughout the World. However, international competition has also intensified in the domain of research. Without strong motivation, optimal framework conditions and sufficient funding, Swiss research will be unable to maintain its position in the future.

The Pluriannual Programme for 2008-2011 is the Swiss National Science Foundation's endeavour to contribute to the optimal framework conditions for Swiss research. There is concern over the continuing high rejection rates for applications for independent basic research and the low level of funding for applications that are approved. The financial appropriations for 2004-2007 do allow for some improvements, for example, the introduction of a graduate programme. Gaps in project funding for independent research, however, could still not be filled.

In addition, the SNSF finds itself facing challenges for the coming years that are a consequence of accelerating changes in national and international education and research policy. These include the incorporation of the SNSF into the emerging university landscape in Switzerland. The SNSF is convinced that it will integrate best if it organises its instruments in a manner that enables it to respond speedily to the changed focus of researchers and the universities. Since the universities also increasingly require that their researchers obtain SNSF funding, the SNSF is meanwhile dependent on its own funding. Furthermore, its integration with the universities should be improved.

Maintaining Switzerland's leadership in research is an ongoing challenge. To achieve this aim requires annual quantitative growth of at least 10% in overall project support. This growth is vital for coping with rising demand and bringing funding per application up to a level where completion of a research project is not dependent on additional funds being allocated through the home institution. Growth is all the more important in that the effect of the investments made or not made in research shows up only in the longer term.

With regard to quality, the SNSF intends to widen its range of funding instruments with three new lines of action and thereby meet important requirements:

- *Sinergia* will make *bottom up initiated*, larger combined projects possible. These have a single-theme or interdisciplinary and multidisciplinary orientation and may cross national borders.
- *Eccellenza* underpins simplified long-term support for cutting-edge research. Recipients are given greater freedom to tackle research projects in new, highly promising areas.
- *Ambizione* is intended to offer better support to young researchers in the early stages of their career. The line of action creates incentives for qualified researchers from Switzerland to return after a period abroad and for the best young foreign talent to opt for a career in Switzerland.

In addition to these priorities, additional investment in research funding will be needed urgently for a substantial increase in the currently very low and unattractive salaries paid to doctoral students. This should ensure that collaborators receiving payment from SNSF have an income appropriate to local conditions. The SNSF wishes to expand somewhat the *DORE* promotion instrument for the development of health, societal and art research skills of the applied-science universities in the 2008-2011 funding period and extend it to all humanities and social science topics. After this period, the applied-science universities should however compete for general project support funding. In patient-oriented clinical research, funding for cohort studies has started; in the upcoming funding period, the SNSF also intends to promote projects that interpret the cohort data. Finally, it is expected that there will be a greater funding requirement to support research infrastructure.

Apart from the *Ambizione* line of action, the SNSF is working to consolidate the funding of individuals in the 2008-2011 funding cycle. It aims to maintain the number of funded professorships at the level of 180 reached in the current period. Scholarships for prospective and advanced researchers, the Marie Heim-Vögtlin programme (support for women who have had to factor gender-specific delays into their scientific careers) and the *Pro\*Doc* graduate programme should be continued with a slightly higher level of funding.

The SNSF is also planning for applied research consolidation in the coming years. Both the National Research Programmes (NRPs) and the National Centres of Competence in Research (NCCRs) should continue at their current level. This means that two to three new NRPs can be launched every two years. For the Centres, the funding for the first fourteen programmes that started in 2001 will expire in the next funding cycle. By then, it will become clear which Centres will have managed to establish themselves sustainably without direct SNSF funding. A new series of Centres should be approved with the resources released.

The SNSF is also facing significant challenges internationally. This is especially true with respect to the European Research Area created by the EU to improve the competitiveness of European research. To ensure its long-term success in this environment, Switzerland must participate fully in the EU's 7<sup>th</sup> Research Framework Programme. To maintain competitiveness requires a further concurrent boost to its own research facilities. If Switzerland is to pay higher contributions for participation in the EU programmes, under no circumstances must this be at the cost of Swiss research. In the next few years, the SNSF is focussing on three areas internationally: firstly, its new *Sinergia*, *Eccellenza* and *Ambizione* lines of action are intended as a targeted contribution to improving the position of Switzerland's research facilities in the European Research Area. Secondly, it intends to make more intensive use of the co-operation instruments of both the EU and the European Science Foundation. Thirdly, it intends to reinforce its own international co-operation programmes and bilateral co-operation with selected countries, specifically those in Asia.

The purpose of basic research is to acquire knowledge. Commercially useful breakthroughs often emerge in the long term, and their value cannot be assessed at the time the research is started. The SNSF's most important contribution to an innovative economy is in fact its promotion of an excellent body of young talent that brings its skills to independent research. In addition to this vital task, the SNSF will endeavour in the coming funding period to build better bridges between basic research

and innovation and, in conjunction with the CTI Innovation Promotion Agency, to develop further the channels for knowledge and technology transfer.

The SNSF has already chalked up some successes in the area of gender equality. Nevertheless, the proportion of female recipients of support is still low, at around 12% of project funding, and still requires additional efforts in the coming funding period. They include an in-depth analysis of the role of the sexes in science, continuous communication and awareness-building, targeted funding of *Gender Studies* projects, and consideration of *gender* aspects for all applications submitted.

To be able to implement the Pluriannual Programme, the SNSF needs Federal funding to grow by an average of 10% a year. Taking the planned budget for 2007 of 567 million francs as a baseline, the average requirement up to 2011 rises to 797 million francs. This does not include the formation of reserves, for which the SNSF, in line with the wishes of Parliament, should be given a legal foundation, and the possible introduction of an *overhead* paid to the universities from the promotion funds allocated by the SNSF.

Scientific research achieves its best results when it is able to combine quality and professionalism with curiosity and creativity. It is in this spirit that the SNSF wants to implement this Pluriannual Programme, so as to achieve best results in research support as well.

February 2006