

February 2016 – COM

Information dossier Innovations in SNSF research funding

1. Aim of the dossier

- To provide clear and unequivocal **facts, messages and background information** concerning the innovations in research funding
- Main points: **Section 3 - What do the innovations bring? – Measures and messages**; as well as section 4 with similarly structured **background information**

2. Why innovations? - point of departure and objectives

Project funding is the **mainstay** of the SNSF's funding activities - a well-functioning scheme for financing basic research in responsive mode. The SNSF intends to **continue this longstanding and successful funding scheme**, which has also been endorsed by the Swiss Science and Innovation Council (SWIR) in its recent report on the SNSF's funding strategy.

In 2012, the SNSF started to **examine** its project funding scheme and its links to other schemes. The aim was to develop measures to **optimise** the scheme both **from the perspective of the researchers** (clients) **and the evaluators** (Research Council with Administrative Offices, external reviewers).

Based on **internal analyses** (working group project funding 2012/13) and analysis of a **broad-based survey among researchers** in Switzerland (NIFU survey, 2013) the SNSF decided to implement a **series of measures** in order to bring project funding more closely into line with the requirements of a **changing science system**, and to increase its appeal and make it **more researcher-friendly**. In so doing, it hopes to make its **key funding scheme even stronger** than it was before.

The innovations planned by the SNSF are not limited to project funding; **changes in career funding** will be up next, with the SNSF's overall aim being to

- offer an even **more streamlined and flexible range of project and career funding schemes in line with the needs of researchers**;
- promote **diversity in research** and **early independence for young researchers**;
- work towards achieving **more research** and **less administration**
- guarantee that the limited financial resources at our disposal are used **effectively**.

3. What advantages will the innovations bring? - measures and messages

3.1 Research that is more generously and flexibly funded over a longer period

- Longer project duration (4 instead of 3 years) will make bring grants more closely into line with research projects, most of which are planned for a longer duration, as well as with doctoral theses, which generally take 4 years to complete
- Wider coverage of costs and more flexibility in the use of funds will make project financing more responsive to the needs of researchers

3.2 More diversity and clear scientific responsibilities (ownership)

- Greater diversity of research questions by allowing only one project or two projects in parallel per applicant
- The distinction between applicants and project partners creates clear scientific responsibilities for projects and clear merits

3.3 Smaller application, administration and evaluation workload

- More comprehensive grants will reduce administrative workload for researchers, evaluators and reviewers
- If the project duration is increased to 4 years, researchers will be able to do more research and will have to write fewer applications
- Excellence grants based on a simplified evaluation procedure will reduce the workloads of researchers and evaluators

3.4 Promoting early independence for young researchers

- Changes and innovations aimed at improving career and project funding (Ambizione) will help young researchers to become scientifically independent at an earlier stage in their careers
 - In future, young researchers with a non-professorial teaching position will also be able to apply for an Ambizione grant. This will create more competition during this career phase
 - Clear scientific responsibility for projects will encourage young researchers to submit their own projects and put a stop to professors applying on behalf of their doctoral students and postdocs
- ➔ The SNSF is convinced that early independence is the best way to increase the appeal of an academic career for promising young researchers

4. Background information on section 3 (similarly structured)

4.1 Research that is more generously and flexibly funded over a longer period

4.1.1 Increase in maximum project duration to 4 years

In the **NIFU survey** on the needs of researchers (2013), a majority said that they generally worked on a research project **for more than 3 years**. What is more, the **dissertation phase** generally lasts for 4 years. According to the NIFU report:

- Applicants are clearly in favour of increasing the grant running time from 3 to 4 years (81 per cent more attractive, 4 per cent less attractive). The respondents point to a number of expected advantages from increasing the possible running time of project grants, including better matches between grants and research topics and lines of research, and with the actual time required for PhDs.

4.1.2 More comprehensive grants that can be used more flexibly

Project funds can now be used more flexibly to cover the following fundable costs: personnel, materials, national and international collaborations, direct infrastructure costs, material of enduring value, computing time and cloud computing, conferences and workshops, open access publications, reduction of teaching duties, project partners. Career measures (now also including research time for clinicians) and gender equality measures can be requested for project staff with ease.

In the **NIFU survey** (2013), the researchers spoke out in favour of **more comprehensive grants**:

- Taken together the applicants are in favour of (...) the possibility to obtain more substantial project grants with additional restrictions on parallel grants, the possibility to include workshops, international short visits, science communication, networking, publications, etc. in their project funding (as well as the possibility to obtain smaller grants with reduced application requirements).

By **expanding fundable eligible costs and making them more flexible** in this way, the SNSF aims to give researchers better financing options for their projects **according to their specific needs**.

4.2 More diversity and clear scientific responsibilities (ownership)

4.2.1 Restriction to one project or a maximum of two parallel projects

By limiting the number of projects to one project or at the most two parallel projects per applicant, the SNSF aims to guarantee **diversity** through competition, and ensure that the limited resources for project funding are **used effectively**.

In accordance with the new regulations, the SNSF encourages researchers to focus **on one fully fledged project**. If they have a completely different research idea, they can submit a second project proposal or participate in another project. In this context, the SNSF does not distinguish between responsible applicants and co-applicants.

The decision to introduce this limit was influenced by the following insights:

- The **working group on project funding** stated in its report (2012/13) that applicants involved in more than one project did not always address clearly distinct topics, rather they often worked on several similar projects at the same time ("more of the same - little added value"). This did not contribute to research diversity and unnecessarily increases the workload borne by evaluators and the Administrative Offices. On the other hand, the working group saw a risk of researchers having to spend too much time on writing applications.
- The limit of one or a maximum of two parallel projects affects only a **minority of applicants** seeking project funding. This is borne out by the following figures **for ongoing projects in August 2015** (similar figures were obtained for the five previous years):

	Div I	Div II	Div III	Total
All applicants involved in more than 1 project:	21.7%	27.7%	14.3%	22.5%
Responsible applicants involved in more than 1 project	20.6%	21.2%	2.7%	14.5%
All applicants involved in more than 2 projects	6.7%	8%	3.1%	6.4%
Responsible applicants involved in more than 2 projects	4.9%	3.1%	0%	2.4%

As the SNSF would like researchers to focus on one fully fledged project, it follows they are able to submit **only one application for project funding per call**.

4.2.2 Distinction between applicants and project partners

The SNSF wants to see project **responsibility** to be clearly defined. We are therefore aiming to **reserve the role of applicant for people who are essential for completing the project**. The current situation at the SNSF is as follows (**ongoing grants in August 2015**):

	Div I	Div II	Div III	Total
Grants with 1 applicant	41.4%	28.7%	44.9%	37.9%
Grants with 2 applicants	41.4%	45.7%	30.8%	39.5%
Grants with 3 applicants	12.5%	17%	15.7%	15.3%
Grants with 4 applicants	3.5%	6.1%	6.3%	5.4%
Grants with 5 applicants	0.8%	1.7%	1.7%	1.4%
Grants with more than 5 applicants	0.4%	0.8%	0.6%	0.5%

The preferences of the researchers who took part in the **NIFU survey** (2013) were summarised as follows:

- (...) About half of the respondents are indifferent to the questions concerning the number of (co)applicants to be allowed, indicating that co-applicants are not relevant for their projects or that they find the issue too complex for clear-cut views. The only option obtaining more positive than negative replies is that co-applicants should be allowed, but that scientific responsibility should be clearly attributed to the main applicant. Notably, this option does not limit the number of co-applicants, only specifies the responsibility of

the main applicant, and seems the alternative most often perceived to retain the various roles co-applicants currently may have in SNSF Project funding.

With the limitation of the applicant role to essential people and the simultaneous creation of **project partners as a new category** (researchers who work on the project **without making a major contribution**) the contributions of different people to the project and the scientific merits of these contributions are clearly discernible.

4.3 Reduced application workload for administration and evaluation

One of the objectives set for the **modified project funding scheme** was to **reduce the workload** of everyone involved in the checking and evaluation of applications:

- With project grants covering a wider range of fundable costs, the SNSF hopes to keep the **workload** of applicants, evaluators and reviewers **within reasonable limits**.
- **A longer project duration** will lead to more research, a longer period of financial security and fewer applications to be planned and written.
- Making grants more comprehensive will lead to **less administration** because grantees will **rarely need to apply for additional funding separately**.
- **Fewer responsible people per project** will make the **verification of applicants** and their qualifications less time-consuming.
- Excellence grants for outstanding research work will be awarded by the Research Council by invitation based on a simplified procedure (usually without any external reviews); this will considerably reduce the time spent on administration and evaluation tasks.

According to the **NIFU report**, reducing the workload is one of the **needs mentioned by researchers**:

- The respondents point to a number of expected advantages from increasing the possible running time of project grants (...). All these alternatives would reduce the need for multiple grants for the same projects and hence reduce the required time for preparing applications and the workload in administrating grants. Likewise, an option to include activities such as workshops, international short visits, science communication, and publications, in Project funding would (...) reduce administrative costs (...).

4.4 Promoting early independence for young researchers

In addition to the changes made in the **project funding scheme**, the SNSF aims to promote **early independence** for young researchers by modifying its **career funding schemes**, in particular.

4.4.1 Project funding

By **distinguishing between applicants and project partners**, the SNSF aims to stop postdocs and doctoral students from devising projects which are then submitted as applications in a professor's name. Indirectly, this measure will help young researchers to become scientifically independent at an early stage in their careers. They will feel encouraged to submit applications in their own name.

4.4.2 Ambizione - coordinated with project funding and expanded

Ambizione grants enable young researchers to conduct, manage and **lead an independent project at a Swiss higher education institution**. The scheme thus plays a key role in promoting

early scientific independence. The SNSF aims to strengthen its efforts in this area by **modifying** Ambizione as follows:

- Opening the scheme to researchers who already have a non-professorial teaching position will increase competition at this level
- Extending the duration of grants from 3 to 4 years
- Coordinating the scheme more closely with project funding (eligibility windows): Ambizione up to 4 years after PhD - project funding starting at 4 years after PhD

Innovations in project funding: overview of the main changes

Introductory comment:

The Funding Regulations (FR) and the General Implementation Regulations (IR) provide the legal basis for the SNSF's funding activities. Regulations for individual funding schemes (blue-shaded areas) may contain specific provisions for the scheme that take precedence over the general provisions.

A number of rules now included in the revised regulations were already in force but regulated elsewhere, notably in the Research Act. They are now more easily accessible as part of the legal framework of the SNSF. In some cases, existing practices have been enshrined in a rule in order to increase transparency and legal certainty (hence the "Up to now" column has been left empty for some of the items).

	Up to now	As of January 2016*	Basis
General			
Funding Regulations	-	More specific in several points concerning the application, with the aim of avoiding ambiguity several points were shifted to lower level regulations in order to avoid frequent revisions of the Funding Regulations	-
Project funding	Project funding included in the Funding Regulations	Separate regulations for project funding (PF)	-
Grant conditions			
Maximum grant duration	3 years	4 years	PF Art. 2, para. 1
Minimum grant duration	None	1 year	PF Art. 2, para. 3
Extension of maximum grant duration	-	On request, an extension of max. 1 year may be granted in case of maternity, adoption, illness, accident, military service or other services	IR Art. 7.12
Formal follow-up possible (no external review necessary)	Yes	No	-
Continuation on same topic is possible	Yes	Yes	PF Art. 3
Excellence grants (follow-up proposal, simplified procedure, by invitation)	Only used in Div III for the best A proposals (bonus of excellence)	(3+3, 4+4) for the best 25% of applications (A, AB)	PF Art. 3
Maximum amount requested	None	None	-
Minimum amount requested	None	CHF 50,000	PF Art. 2, para. 4

Eligibility			
Employment	Proof of employment needed already by the submission deadline	Proof of employment during the funding period is necessary; exception: for temporary, tenured academic posts the SNSF accepts a period of employment that is shorter than the duration of the project	FR Art. 10, para. 2 IP Art. 1.1, para. 4
Non-commercial research centres outside academia	-	The fully revised Research and Innovation Promotion Act (RIPA) is taken into account	FR Art. 13, para. 1-4
Researchers with emeritus status	Eligible, the application must be deemed excellent, institution must provide co-financing	In principle, retired persons with emeritus status are not eligible, unless they are still employed $\geq 50\%$ FTE	FR Art. 10, para. 3
Minimum work-time percentage / Minimum extent of scientific activity	-	$\geq 50\%$ scientific research and teaching activities	FR Art. 10, para. 3
Scientific Qualification	Several years of independent research after PhD, holds a position at the time of application	4 years after dissertation or independent position. Persons with less research experience should use the revamped Ambizione funding scheme, which is due to be implemented at the beginning of 2017.	PF Art. 4
Equivalent to a doctorate	-	At least 3 years' research work as main source of income after graduating from a higher education institution	IR Art. 1.10, para. 2
Relevant date of doctorate	-	Date of viva voce or of the official acceptance of the thesis	IR Art. 1.10, para. 1

Extension of the eligibility period for the submission of applications	-	Eligibility period may be extended by at the most one year in case of maternity, paternity, adoption or parental leave; inability to work (illness/accident); Care duties; Services that benefit the general public, particularly military or civilian service; Continuing education, particularly internships, clinical work; Compulsory participation in a doctoral school before starting out on one's doctoral thesis.	IR Art. 1.11
Two or more applicants	Two or more applicants per application are allowed if each makes a major contribution	Two or more applicants are allowed if essential for meeting the research objectives and if each makes a major contribution	FR Art. 12 PF Art. 12
Researchers who make only a minor contribution to the SNSF project without being responsible for it	Informal collaborations	Project partners (newly introduced role) can benefit from the grant	FR Art. 11, para. 2 PF Art. 12, para. 4
Incompatibility of roles	-	Grantees of the SNSF cannot be employees in an SNSF project at the same time	IR Art. 1.13
COI	-	Any conflict of interests affecting an applicant must be reported	FR Art. 16
Scientific misconduct	-	Applicants must inform the SNSF about any pending proceedings or sanctions	FR Art. 15
Further funding	-	Applicants are obliged to inform the SNSF about all submitted, pending or approved proposals at the SNSF or at other organisations	FR Art. 18
Resubmission of proposals	-	Resubmitted proposals must be significantly better than the first submission	FR Art. 19

Restrictions	Ambizione grant holders excluded	Ambizione grant holders excluded, SNSF professors excluded for the first 2 years	PF Art. 7, para. 4 PF Art. 13
Evaluation process			
Direct rejection	The SNSF distinguishes between two processes/decisions: direct rejection or non-consideration	The "direct rejection" procedure is abolished; applications that are clearly below standard are not considered	FR Art. 22
External reviewers	Applicants are entitled to propose and reject specific external reviewers	Applicants can ask the SNSF not to consider certain individuals as external reviewers if there are good reasons for this	FR Art. 25, para. 5
Scientific evaluation	-	assessment criteria for external reviewers have been rephrased and brought into line with the forms for external reviewers; the content remains the same	FR. Art. 24
Eligible costs			
Eligible costs	Personnel costs incl. social security contributions, materials, material of enduring value, conferences and workshops (restrictive), open access publications, career measures and gender equality measures	Personnel costs incl. social security contributions, materials, material of enduring value, direct infrastructure costs, computing time and cloud computing, conferences and workshops, collaboration, project partners, subcontracting, open access publications, reduction of teaching duties (HSS)	FR. Art. 28 IR chapter 2
Employment of staff			

Staff categories	-Doctoral students -Employees with a doctorate; -Other employees; these include graduates who do not intend to do a doctorate; technicians; auxiliary staff; -Scientific staff at universities of applied sciences and universities of teacher education	-Doctoral students -Postdocs -Other employees. These include graduates who do not plan to do a doctorate; employees with a doctorate who do not wish to pursue an academic career (and are therefore not regarded as postdocs); technicians; auxiliary staff	IR Art. 7.2
Maximum period of employment funded by the SNSF	4 years for doctoral students; 6 years for postdocs	4 years for doctoral students; 5 years for postdocs	IR Art. 7.3, para. 1
Relevant start date for calculating the period of employment	For doctoral students, the day of registration for doctoral studies	For doctoral students the date of registration; for postdocs the date of the viva voce or official acceptance of the thesis	IR Art. 7.3, para. 2
Postponement of the start date for calculating the maximum period of employment	-	Postponement of max. 1 year for the following reasons: -Maternity, paternity, adoption or parental leave; -Inability to work due to illness or accident; -Care duties; -Services for the general public, particularly military or civilian service; -Continuing education, particularly internships, clinical work; -Compulsory participation in a doctoral school before starting work on the doctoral thesis	IR Art. 7.3, para. 3
Extension of the maximum period of employment (reasons for extension during an ongoing grant)	-	Extension of max. 1 year for the above-mentioned reasons	IR Art. 7.3, para. 4

Minimum requirements as regards work-time percentage of doctoral students and postdocs in research projects	For doctoral students a minimum work-time percentage of 60% FTE is compulsory: this "protected time" is to be devoted exclusively to the doctoral thesis	For doctoral students a minimum work-time percentage of 60% FTE is compulsory: this "protected time" is to be devoted exclusively to the doctoral thesis Postdocs must only be assigned a small share of tasks that do not help to enhance their scientific qualifications (max. 20%)	IR Art. 7.4
Career measures			
120%	For postdocs, supplementary grant	For postdocs and doctoral students** (only child care costs for the latter)	IR Annex 4
Mobility	For PhD students, supplementary grant	For postdocs** and doctoral students	IR Annex 5
Gender equality grant	For postdocs and doctoral students, eligible costs	For postdocs and doctoral students	IR Annex 7
Research time for clinicians	-	Yes	IR Annex 6

*Project funding will be governed by the old Funding Regulations (FR2007) and the old Implementation Regulations (IR2015) up to the call in October 2016

**Extension subject to funding decisions