



Sustainable Economy
National Research Programme

Second call for proposals



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What are National Research Programmes (NRPs)?

National Research Programmes comprise research projects that contribute to solving the key problems of today. Pursuant to Article 10 paragraph 2 of the Research and Innovation Promotion Act (RIPA) of 14 December 2012 (version of 1 February 2017), the Federal Council selects the main research topics for NRPs and transfers full responsibility for conducting them to the Swiss National Science Foundation.

The Federal Ordinance on the Federal Research and Innovation Promotion Act of 29 November 2013 (version of 1 January 2017, Article 3) describes the NRP funding scheme as follows:

¹ The National Research Programmes (NRPs) of the Swiss National Science Foundation (SNSF) are a means of generating and conducting coordinated research projects that pursue a common goal.

² Topics of research are generally appropriate for National Research Programmes if:

- a. Swiss research can make a significant contribution to the resolution of the problem;
- b. solutions require research contributions from multiple disciplines;
- c. research on the problem can be expected to produce research results that have practical applications within a five-year period.

³ In exceptional cases, an NRP may also be used for the targeted creation of additional research potential in Switzerland.

⁴ The following criteria are also taken into consideration in setting forth the topics of NRPs:

- a. the programmes can provide the scientific basis for decision-making by the government and administration;
- b. the programmes can be conducted with international collaboration.

Introduction

All human activity goes hand in hand with the use of goods and services derived from natural resources. The regeneration capacity of renewable resources is limited and non-renewable resources are becoming increasingly scarce. The National Research Programme “Sustainable Economy: resource-friendly, future-oriented, innovative” (NRP 73) aims to generate scientific knowledge about a sustainable economy that uses natural resources sparingly, creates welfare and increases the competitiveness of the Swiss economy. A sustainable economy considers the potential scarcity of non-renewable resources and the regeneration capacity of renewable ones.

The call for proposals in 2016¹ invited researchers to submit proposals that fit with one or more of the four modules “Expanding the knowledge base”, “Opportunities and risks”, “Measures and instruments” and “Enterprise application”. The Steering Committee selected 25 proposals for funding and the National Research Council approved these projects in August 2017 (Figure 1).

The second call aims to fill some gaps that exist in the view of the Steering Committee even though the 25 projects cover a wide range of topics. The National Research Council approved an amount of CHF 1.6 million to support between four and eight research projects.



Figure 1: Thematic areas of the NRP 73 research projects clustered according to the Sustainable Development Goals (SDGs)²

¹ http://www.nfp73.ch/SiteCollectionDocuments/nfp73_ausschreibung_en.pdf

² <http://www.nfp73.ch/en/projects/all-projects>

1. Purpose of the second call

Legal aspects of the transformation (smart and flexible regulation) and important aspects of sustainable consumption patterns are not sufficiently addressed by the funded projects. In addition, the Steering Committee considers the sustainability performance of the Swiss commodity trade hub as an important complementary research topic.

Along with excellent research, practical tools, suggestions for measures and leading practices should be developed, showcasing opportunities and risks and addressing implementation issues taking environmental, economic and social aspects into account.

Research proposals should complement ongoing national and international initiatives, e.g. those of the Federal Office for the Environment FOEN, the World Resources Forum WRF or the International Resource Panel UNEPIRP.

2. Themes and research topics of the 2nd call

2.1 Legal framework for the transformation

For the functioning of any society a legal framework is essential. Such a framework explicitly or implicitly sets behavioral incentives and imposes costs on deviation. Independent of the kind of incentives, the most innovative attempts towards a sustainable economy can be realized only, if embedded into a functioning and well-designed legal framework. Research topics include:

- Private and public law, e.g. smart regulation, command and control, enforceability (due to lack of time), role of sanctions;
- Market barriers and incentives, e.g. bringing existing clean technologies to the market, subsidies, pricing and nudging;
- Compatibility between Swiss and international law, e.g. EU or WTO, international environmental conventions, leading practices;
- Trade-offs between constitutional law, voluntary cooperation and standards, due diligence practices, international trade, distributional effects, WTO regulations and obligations from accepted global policies (e.g. SDG, Paris Agreement).

These topics depend on the analysis of the existing and the forward-thinking future legislation and practices of the courts, but also on national and international economics.

2.2 Sustainability of the commodity trade

Switzerland is one of the world's most important hubs of transit commodity trade. Although available data are often incomplete, it is estimated that Switzerland handles around two thirds of the international trade in base metals and coffee, half of the international trade with sugar and one third of the international trade with crude oil and cereals³. The sector has grown substantially since 2000 and transit trading surpassed the Swiss bank's financial services as the country's top service exporter. Its share of GDP (about 4%) is higher than tourism. Research topics include:

³ Swiss Academy of Sciences (2016) Switzerland and the Commodities. Trade Taking Stock and Looking Ahead. Swiss Academies Factsheets 11 (1).

- Economic, social and environmental impacts on Switzerland and on “host” countries, i.e. where extraction or manufacturing takes place;
- Accounting frameworks and reporting approaches integrating sustainability issues in commodity trading activities;
- Innovative management to integrate the risk of tax evasion and avoidance, and money laundering;
- Assessment of government interventions, e.g. effectiveness of voluntary codes of conduct and due diligence guidelines vs. binding regulations vs. other types of interventions.

2.3 Sustainable consumption patterns

Nutrition, housing, and mobility account for approximately 70% of the current environmental impacts of Switzerland's consumption. At the same time, basing on emissions, trade and life cycle assessment data from 1996 to 2011 over 70% of the total environmental impact of final domestic demand in Switzerland is generated abroad⁴. National and international sustainability of consumption is a central concern for the sustainability of the Swiss economy. The transformation towards sustainable consumption patterns is the result of complex combinations of different factors. Life cycle assessment can reveal whether these factors really imply environmental improvements. Research topics include:

- Demographic change, changes in life-styles and shaping of working life as drivers of changing consumption patterns;
- Digitalization and dematerialization, e.g. video conferences instead of business flights, eBooks, and decoupling of consumption from the use of natural resources;
- Sharing economy (decrease of environmental impacts by sharing, reusing and repairing), e.g. in the area of mobility, consumer electronics;
- Impacts of transparent, short and local supply chains on sustainable consumption;
- Pricing and taxation of goods and services including external costs and benefits as incentives for sustainable consumption patterns;
- Communication and information to the consumer as an enabling factor of sustainable consumption in the retailing system and online trading;
- Avoidance of rebound effects resulting from changes in consumption patterns, e.g. in the mobility sector.

3. Submission procedure

The total available budget for the second call is CHF 1.6 million. The projects are limited to a duration of no more than 36 months. The typical budget of a project ranges between CHF 200,000 and 400,000. The start of research is between 1 May 2019 and 1 July 2019 (see schedule under 3.4).

Researchers interested in applying should submit: (1) a letter of intent and (2) a research proposal.

Cross-border research projects are supported if the competence of researchers from abroad is essential for realising the project. As a rule, the share of financing requested for researchers abroad should not exceed 30% of the overall budget, and the person responsible for the project abroad

⁴ Development of Switzerland's worldwide environmental impact (Extended summary), 2014

may not be assigned the role of corresponding with the SNSF. For applicants from abroad, the norms and salary rates of the relevant country will be applied *mutatis mutandis*, with the SNSF maximum rates generally serving as the upper limit. Before submitting a proposal for a cross-border research project, please contact the programme manager of NRP 73.

Research projects from the second call must adhere to SNSF guidelines. The original call document of NRP 73 as well as the funding regulations and instructions for the submission on the *mySNF* portal, must be considered.

3.1 Letters of Intent

The letter of intent will be checked by the secretariat of the Programmes division for formal criteria such as completeness of application, adequate formal presentation and submission by the deadline. The letter of intent must be submitted on the official template containing the following information:

- Applicant's name and institution
- Title, mini-abstract (< 200 words), description of research theme, methods and project goals
- Duration
- Planned collaboration with research groups in Switzerland and abroad
- Estimate of required financial resources

The Steering Committee of NRP 73 expects letters of intent to be submitted in English via e-mail to nrp73@snf.ch. **The deadline for submission is 29 August 2018, 17:00 hrs.**

The letters of intent will be checked against the backdrop of the themes and research topics of the 2nd call as well as of the original call for proposals. If the research described in the letter of intent clearly does not conform, the authors will be so notified. The letters of intent also provide the necessary information for selecting international experts for the peer-review of the full proposal.

3.2 Online submission of full proposals on mySNF

Full proposals have to be submitted on the *mySNF* portal (www.mySNF.ch). All forms, rules of procedure and instructions for the submission of proposals can be found on *mySNF* under 'information/documents'. The research plan must be composed using the template provided on *mySNF*. Please also consider the directives for research plans. In order to access the two documents a new application must be created on *mySNF* choosing Programmes (national and international) > National Research Programmes (NRP) > NRP 73: Second Call. You can find the documents on the left-navigation at the bottom of the page under "Information/documents". For this, user-registration is needed. User accounts obtained in the past are valid and provide access to all the funding instruments of the SNSF. It is recommended to request new user accounts as early as possible, however, they need to be requested no later than five working days before the submission deadline from the homepage of the *mySNF* portal.

The Steering Committee of NRP 73 expects full proposals to be submitted in English. **The deadline for submission is 14 November 2018, 17:00 hrs.**

In addition to the data that has to be entered directly in *mySNF* the following documents must be uploaded:

- Research plan (as PDF file)
Applicants must use the document template provided on the *mySNF* portal. The project description must not exceed 20 pages (including tables, references etc.).
- Short CVs and publication lists of all applicants (as PDF files). The CVs must not exceed two pages each. Links to publication lists may be included.

Supplementary documents (support letters, confirmation of co-operation or co-financing, forms regarding international co-operations, etc.) can also be uploaded on *mySNF*.

3.2.1 Criteria for the selection of full proposals

The secretariat of the Programmes division will check for formal criteria such as completeness of application, adequate formal presentation and submission by the deadline. Applications that do not satisfy these formal criteria will not be processed further. Based on international peer-review followed by an assessment by the Steering Committee, research proposals will be submitted to the National Research Council for approval or rejection.

Proposed projects overlapping with ongoing NRP 73-research projects will not be funded. In contrast, proposed projects that cover research questions from more than one theme of the 2nd call, that complement modules from the original call, and/or that are synergistic with research projects of the original call are highly welcome and will have funding priority.

Full proposals will be reviewed on the basis of the following criteria:

- **Compliance with the themes and topics of the 2nd call and the goals of NRP 73:** proposals must reflect the themes and research topics outlined in the 2nd call for proposals and the programme's objectives described in the original call. Priority will be given to proposals covering several themes and topics of the 2nd call, and to proposals with complementarities to funded research projects. However, they must not have direct overlap.
- **Scientific quality:** proposals must fulfil international state-of-the-art criteria with respect to scientific quality as well as methodology.
- **Scientific originality:** proposals must contain an innovative component and be relevant as compared to completed or running research projects in the same field.
- **Inter- and transdisciplinarity:** projects with research questions addressed by different disciplines or that demand approaches that transcend the boundaries between science and practice must secure cooperation between the actors, adequate project management and the use of appropriate methodologies.
- **Application and implementation:** the potential for practical application and implementation of results is a key element of National Research Programmes. Projects of high practical relevance are therefore given priority.
- **Personnel and infrastructure:** applicants must have a sound scientific track record in the field of the submitted project. Adequate personnel resources and an adequate infrastructure must be secured for the project.

3.3 Schedule of the second call

The following schedule is set out:

Launch of 2nd call	19 June 2018
Deadline for submission of letters of intent	29 August 2018, 17:00 hrs
Deadline for submission of full proposals	14 November 2018, 17:00 hrs
Final decision on full proposals	March 2019
Start of research	1 May – 1 July 2019

3.4 Contacts

For general questions concerning the submission and evaluation procedure, please contact the Programme Manager Pascal Walther: nrp73@snf.ch or 031 308 22 22.

For questions concerning salaries and eligible costs, please contact the Head of Finances, Roman Sollberger: roman.sollberger@snf.ch or 031 308 22 22.

Technical questions / mySNF support:

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Tel. + 41 31 308 22 00 (Deutsch)

Tel. + 41 31 308 22 88 (English)

E-mail: mynsf.support@snf.ch

mySNF Homepage: www.mynsf.ch

3.5 Actors

Steering Committee

Professor emeritus Gunter Stephan, Department of Economics, University of Bern (president)

Professor Alison Anderson, School of Government, University of Plymouth

Professor Andrea Baranzini, Geneva School of Business Administration, University of Applied Sciences Western Switzerland

Dr Michael Obersteiner, International Institute for Applied System Analysis (IIASA), Austria

Professor emeritus Anne Petitpierre-Sauvain, Faculty of Law, University of Geneva

Professor Helga Weisz, Department of Transdisciplinary Concepts & Methods, Potsdam Institute for Climate Impact Research, and Faculty of Humanities and Social Sciences, Humboldt University Berlin

Professor Roberto Zoboli, Faculty of Political and Social Sciences, Catholic University of Milan

Delegate of the Programmes Division of the National Research Council

Professor Katharina Michaelowa, Institute of Political Science, University of Zurich

Programme Manager

Dr Pascal Walther, Swiss National Science Foundation, Berne

Head of Knowledge and Technology Transfer

Dr Barbara Dubach, engageability

Representatives of the Swiss Federal Administration

Dr Sibyl Anwander, Head of Economics and Innovation Division, Federal Office of the Environment (FOEN), Berne