2012 – Research funding in figures

In 2012, the Swiss National Science Foundation (SNSF) granted funding to the total value of CHF 755 million, 5.9% more than in 2011 (CHF 713 million). This financing was used to support over 3,500 research projects.

The statistics include all applications processed and approved during the financial year as well as contributions paid out in the area of National Centres of Competence in Research in 2012. Additional grants are not treated as separate applications but are included in the approved amounts. The gender statistics refer to the share of responsible applicants.

The data in the statistical part of the annual report are not comparable with the figures in the annual statement.
Full version of the statistics: www.snsf.ch › About us › Facts & figures › Statistics

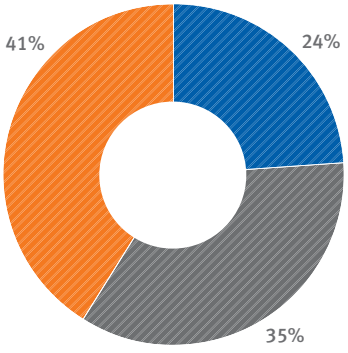
Content

1. Funding in overview

1.1 Funding by research area

Amounts in CHF million

Distribution of the approved amounts

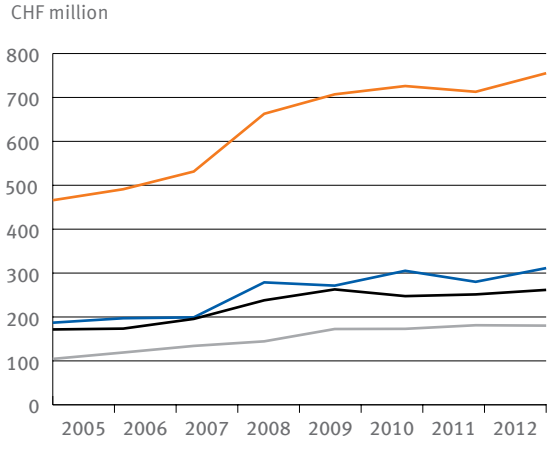


- Humanities and social sciences
- Mathematics, natural and engineering sciences
- Biology and medicine

	Amount	Women | Men
Humanities and social sciences	180.3	29% 71%
Mathematics, natural and engineering sciences	261.7	14% 86%
Biology and medicine	311.3	22% 78%
Unapportionable	1.9	
Total	**755.2**	21% 79%

The allocation to the research areas has changed only slightly year-on-year. The share of biology and medicine has risen by 2%.

Approved amounts since 2005



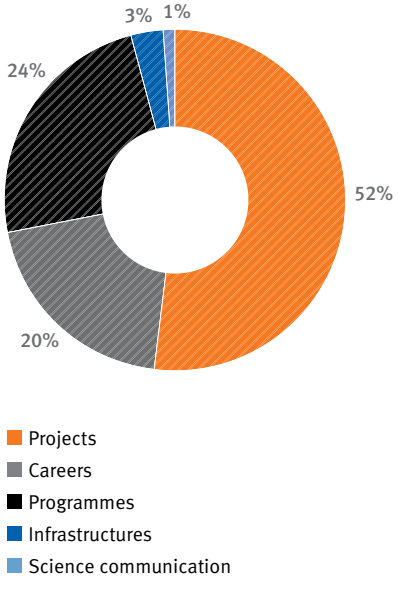
- Total
- Biology and medicine
- Mathematics, natural and engineering sciences
- Humanities and social sciences

The distribution of funds across the three research areas is based largely on demand.

1.2 Funding by scheme

Amounts in CHF million

Distribution of the approved amounts



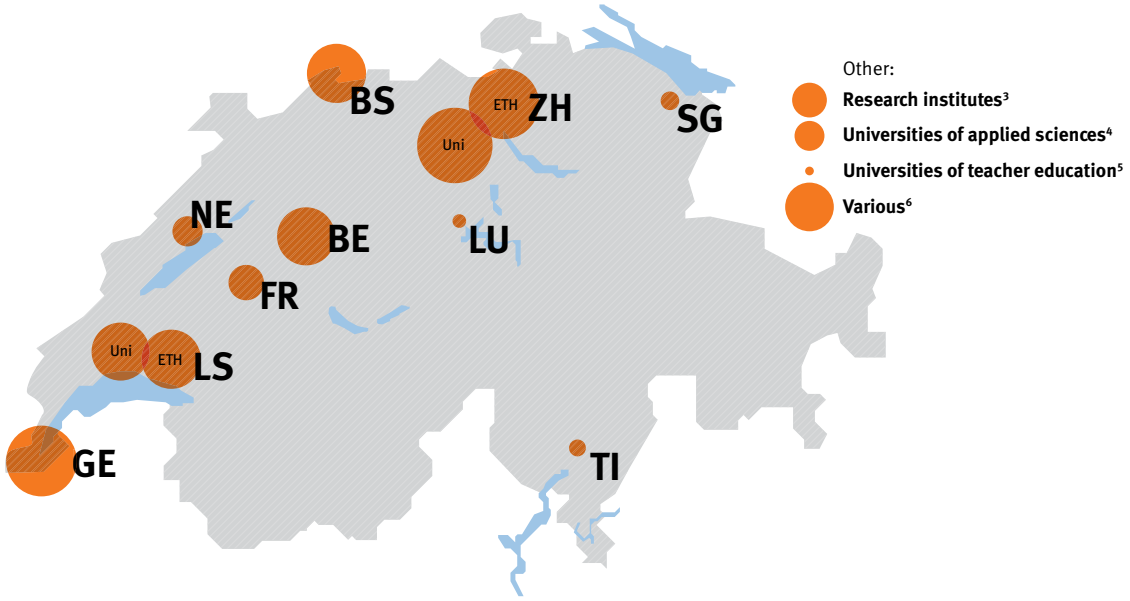
	Number	Amount
Projects	1206	391.4
Careers	1219	156.4
Programmes	600	180.0
Infrastructures	80	21.6
Science communication	395	5.8
Total	**3500**	**755.2**

In 2012, the SNSF allocated more than half of its funds to its main funding scheme, project funding. The amount of funding for science communication increased by 39% to CHF 5.8 million year-on-year due to the introduction of Agora.

1.3 Funding by institution and research area

Amounts in CHF million

Distribution of the approved amounts (incl. overhead)[1]



Institution	Humanities and social sciences	Mathem., natural and engineering sciences	Biology and medicine	Unassign-able	Total in CHF million	Total in %	Over-head[2]	Total incl. overhead
Universities	**143.1**	**109.4**	**235.3**		**487.8**	**65%**	**55.2**	**543.0**
Berne (BE)	21.2	14.4	30.5		66.1	9%	11.0	77.1
Basel (BS)	16.9	19.8	34.0		70.7	10%	8.4	79.1
Fribourg (FR)	10.8	7.6	6.8		25.2	3%	3.1	28.3
Geneva (GE)	22.5	36.6	45.8		104.9	14%	8.3	113.2
Lucerne (LU)	3.6	–	–		3.6	0%	0.6	4.2
Lausanne (LS)	16.5	7.4	45.7		69.6	9%	6.8	76.4
Neuchâtel (NE)	8.1	5.1	5.7		18.9	3%	1.7	20.6
St. Gallen (SG)	7.1	0.0	–		7.1	1%	0.7	7.8
Ticino (TI)	2.4	2.6	0.5		5.5	1%	1.0	6.5
Zurich (ZH)	34.0	15.9	66.3		116.2	15%	13.6	129.8
ETH Domain	**11.2**	**135.7**	**50.0**		**196.9**	**26%**	**22.8**	**219.7**
EPF Lausanne	2.1	52.7	16.4		71.2	9%	8.5	79.7
ETH Zurich	7.8	65.9	27.6		101.3	13%	11.3	112.6
Research institutes[3]	1.3	17.1	6.0		24.4	4%	3.0	27.4
Universities of applied sciences[4]	**10.9**	**3.9**	**2.7**		**17.5**	**2%**	**2.8**	**20.3**
Universities of teacher education[5]	**1.2**	**–**	**–**		**1.2**	**0%**	**0.3**	**1.5**
Various[6]	**13.9**	**12.7**	**23.3**	**1.9**	**51.8**	**7%**	**1.9**	**53.7**
Total	**180.3**	**261.7**	**311.3**	**1.9**	**755.2**	**100%**	**83.0**	**838.2**

[1] If no application was presented by the respective institution, this is denoted by a dash. Amounts lower than CHF 0.05 million are shown as zero.

[2] Entitlement to overhead in accordance with overhead regulations

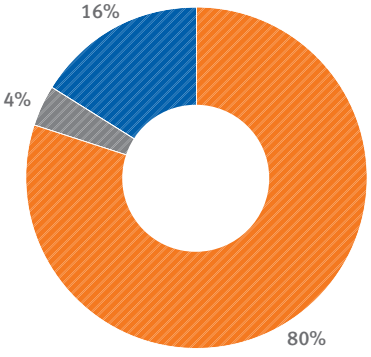
[3] Research institutes in the ETH Domain (EMPA, EAWAG, PSI, WSL)

[4] BFH, FHNW, FHO, HES-SO, HSLU, SUPSI, ZFH, Kalaidos. You will find the breakdown by institution in the web version.

[5] Without universities of teacher education of FHNW and ZFH

[6] Research centres, museums, libraries, individuals, companies, non-profit organisations and not assignable to an institution (e.g. fellowships for advanced researchers)

1.4 Use of approved amounts



Total amount: CHF 755.2 million

- Salaries and fellowships (incl. social security contributions)
- Materials of enduring value
- Research funds

As in previous years, the approved funds were used by the researchers mainly to cover personnel costs, whether for the financing of individual salaries/fellowships in the context of career funding or for the appointment of personnel in research projects. As of 2012, consumables as well as travel and field expenses are included in the new budget item "Research funds".

1.5 Personnel in research projects

Around 5,100 persons were employed in research projects in 2012. In addition, approx. 950 were supported in the context of career funding and 2,700 were employed through the National Research Programmes and Centres of Competence in Research.

	Total	Women | Men
Scientists[1]	36%	49% | 51%
Personnel at doctoral level	51%	45% | 55%
Technicians, support staff	13%	66% | 34%
Total	**100%**	49% | 51%

[1] Senior researchers and postdocs

Funding for research projects primarily benefits the promotion of young scientists in Switzerland. Thus 77% of the collaborators are 35 years old or younger (95% in the case of personnel at doctoral level, 55% for other scientists). The share of women increased both among scientists (+5%) and among doctoral students (+3%) year-on-year.

1.6 Success rates

Amounts in CHF million

	Success rate[1]			Number of applications submitted			Number of applications approved			Approved amount
	Total	Women	Men	Total	Women	Men	Total	Women	Men	
Projects	**54%**	**44%**	**57%**	**2221**	**451**	**1770**	**1206**	**200**	**1006**	**391.4**
Humanities and social sciences	46%	42%	48%	685	196	489	316	83	233	84.8
Mathematics, natural and engineering sciences	68%	69%	67%	744	81	663	503	56	447	135.7
Biology and medicine	50%	35%	54%	685	138	547	344	48	296	155.4
Interdisciplinary research	40%	36%	42%	107	36	71	43	13	30	15.5
Careers										
Fellowships (prospective)	62%	62%	62%	867	383	484	538	239	299	32.0
Fellowships (advanced)	53%	54%	52%	208	83	125	110	45	65	11.7
Marie Heim-Vögtlin grants (MHV)	30%	30%	–	123	123	–	37	37	–	7.8
Ambizione[2]	19%	21%	18%	289	99	190	56	21	35	34.1
SNSF professorships	21%	21%	21%	192	57	135	41	12	29	67.7
Programmes										
National Research Programmes[3]	26%	40%	25%	72	5	67	19	2	17	8.3
International programmes	54%	45%	56%	164	29	135	88	13	75	15.1
Sinergia	40%	32%	42%	91	22	69	36	7	29	46.2
Special programmes biology and medicine[4]	88%	100%	80%	8	3	5	7	3	4	19.1
ProDoc	34%	41%	31%	61	22	39	21	9	12	8.7
Infrastructures	**77%**	**50%**	**79%**	**104**	**8**	**96**	**80**	**4**	**76**	**21.6**
Science communication	**77%**	**79%**	**75%**	**516**	**188**	**328**	**395**	**148**	**247**	**5.8**

[1] Ratio of the number of applications approved to the number of applications submitted
[2] Incl. Ambizione-PROSPER and Ambizione-SCORE
[3] Number of approved/submitted pre-proposals NRP 68
[4] Extensions of long-term projects

The SNSF analyses the differences between the success rates of female and male applicants every year. For this purpose, it has introduced a gender equality monitoring system that examines the differences and attempts to identify the determining factors. If the differences are very pronounced, appropriate measures are taken.

Submitted applications by gender

	Women | Men
Fellowships (prospective)	44% 56%
Fellowships (advanced)	40% 60%
Marie Heim-Vögtlin grants (MHV)[1]	100%
Ambizione	34% 66%
SNSF professorships	30% 70%
Projects	20% 80%

[1] The proportion of female applicants is 100% as MHV is a programme for women scientists.

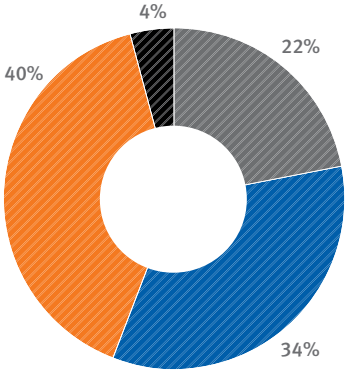
2. Projects

The SNSF supports research projects of high quality across all disciplines. The topics are selected by the researchers. Grants include contributions towards personnel costs, equipment, consumables and travel expenses.

2.1 Funding by research area

Amounts in CHF million

Distribution of the approved amounts



- Humanities and social sciences
- Mathematics, natural and engineering sciences
- Biology and medicine
- Interdisciplinary research

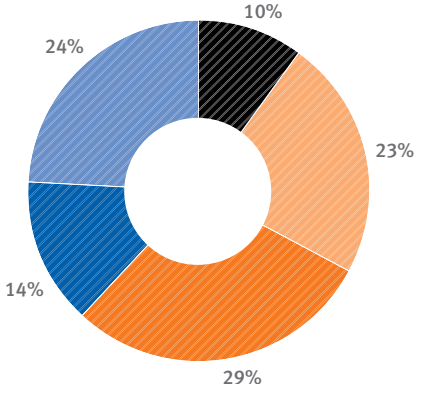
	Amount
Humanities and social sciences	84.8
Mathematics, natural and engineering sciences	135.7
Biology and medicine	155.4
Interdisciplinary research	15.5
Total	**391.4**

2.2 Funding by group of disciplines

Amounts in CHF million

Division I: Humanities and Social Sciences

Distribution of the approved amounts

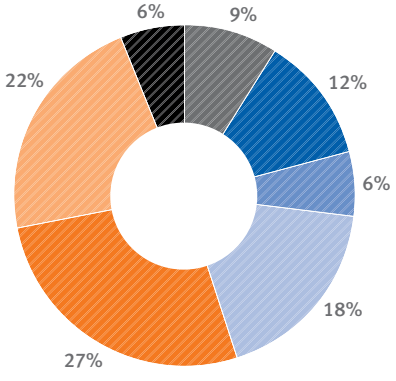


	Number	Amount
Philosophy, psychology, educational sciences and religious sciences	76	19.8
Legal and social sciences, economics	101	24.9
History	40	11.7
Archaeology, ethnology, art studies and social urban science	67	20.0
Linguistics and literature	32	8.4
Total	**316**	**84.8**

The integration of the DORE programme for universities of applied sciences into project funding led to shifts between the groups of disciplines. Economics and the legal and social sciences still receive the largest share of SNSF funding, namely 29%.

Division II: Mathematics, Natural and Engineering Sciences

Distribution of the approved amounts

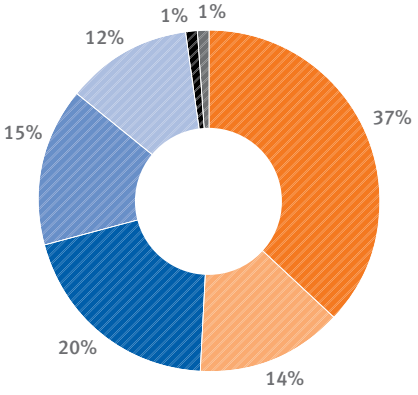


	Number	Amount
Mathematics	54	15.4
Astronomy, astrophysics and space sciences	19	8.8
Chemistry	78	23.8
Physics	100	36.5
Engineering sciences	145	30.5
Environmental sciences	49	8.5
Earth sciences	58	12.2
Total	**503**	**135.7**

After decreasing in the previous years, grants in mathematics witnessed a remarkable increase of 38% in 2012 compared to the previous year.

Division III: Biology and Medicine

Distribution of the approved amounts



	Number	Amount
Basic biological research	113	58.2
General biology	52	21.6
Basic medical research	70	31.8
Experimental medicine	48	22.8
Clinical medicine	51	17.9
Preventive medicine (epidemiology/early diagnosis/prevention)	6	1.8
Social medicine	4	1.3
Total	**344**	**155.4**

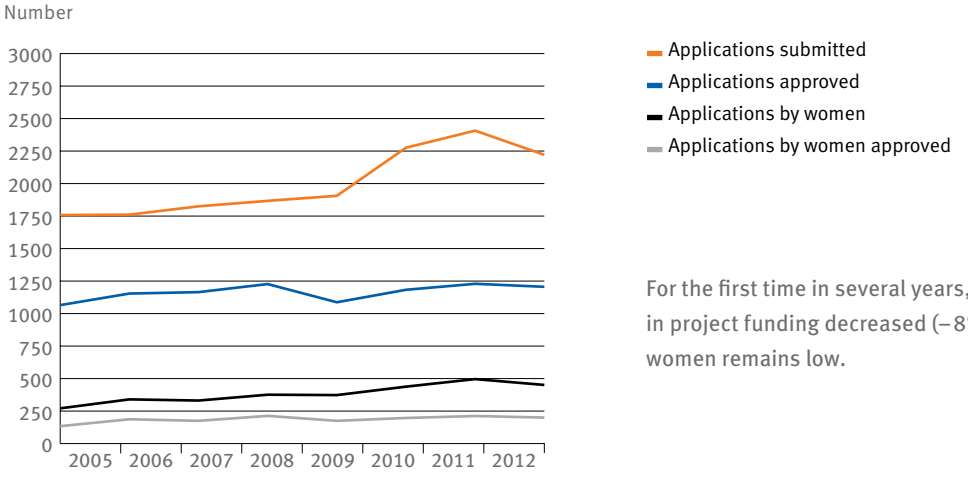
Half of the funds of Division III are allocated to biological research, the other half to medical research. As often in the past, the biological basic sciences received the largest share, in particular basic science projects in biochemistry, genetics and molecular and cell biology.

2.3 Grants, reductions and rejections

Amounts in CHF million

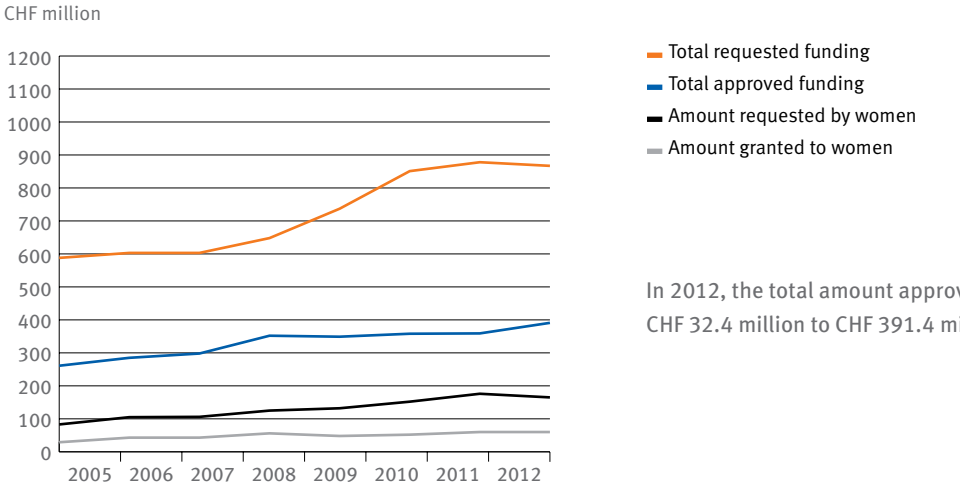
	Number	Amount	Grants | Reductions | Rejections, withdrawals
Humanities and social sciences			
Applications submitted	685		46% 54%
Requested amount		223.0	38% 7% 55%
Grants	316	84.8	
Reductions in approved applications	(227)	15.1	
Rejections, withdrawals	369	123.1	
Mathematics, natural and engineering sciences			
Applications submitted	744		68% 32%
Requested amount		280.1	49% 24% 27%
Grants	503	135.7	
Reductions in approved applications	(440)	67.6	
Rejections, withdrawals	241	76.8	
Biology and medicine			
Applications submitted	685		50% 50%
Requested amount		319.7	49% 11% 40%
Grants	344	155.4	
Reductions in approved applications	(234)	35.4	
Rejections, withdrawals	341	128.9	
Interdisciplinary research			
Applications submitted	107		40% 60%
Requested amount		44.1	35% 5% 60%
Grants	43	15.5	
Reductions in approved applications	(30)	2.1	
Rejections, withdrawals	64	26.5	
Total			
Applications submitted	2221		54% 46%
Requested amount		866.9	45% 14% 41%
Grants	1206	391.4	
Reductions in approved applications	(931)	120.2	
Rejections, withdrawals	1015	355.3	

2.4 Number of applications and grants since 2005



For the first time in several years, the number of applications in project funding decreased (–8%). The share of applications by women remains low.

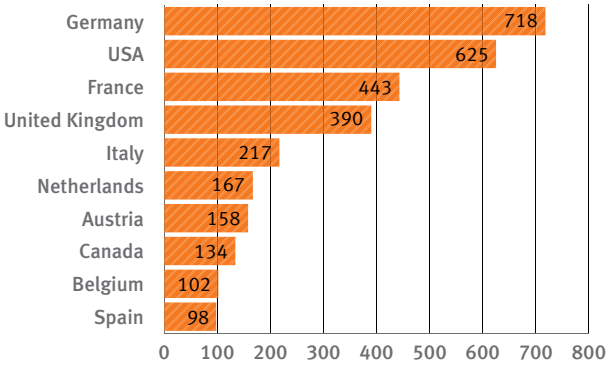
2.5 Requested and approved amounts since 2005



In 2012, the total amount approved in project funding rose by CHF 32.4 million to CHF 391.4 million (+9%).

2.6 International networking

Number of international collaborations



In total, 4057 instances of international collaboration have taken place in the context of projects supported by the SNSF. The table shows the ten countries collaborated with most frequently.

3. Careers

The SNSF has a wide range of funding options in place to promote the careers of young researchers.

3.1 Funding by scheme

Amounts in CHF million

	Number of applications submitted					Number of applications approved					
		New applications		Follow-up applications		New applications			Follow-up applications		Approved
	Total	Women	Men	Women	Men	Total	Women	Men	Women	Men	amount
Fellowships (prospective)	867	383	484	41	58	538	239	299	32	34	32.0
Fellowships (advanced)	208	83	125	14	18	110	45	65	8	14	11.7
Marie Heim-Vögtlin grants (MHV)	123	123	–	14	–	37	37	–	7	–	7.8
Ambizione[1]	289	99	190	11	28	56	21	35	10	28	34.1
SNSF professorships	192	57	135	10	11	41	12	29	8	11	67.7
MD-PhD fellowships	7	4	3	–	–	7	4	3	–	–	1.2
Graduate courses	5	0	5	–	–	5	0	5	–	–	0.1
Summer courses	162	86	76	–	–	156	82	74	–	–	0.4
International short visits	116	36	80	–	–	110	34	76	–	–	0.9
Research semesters[2]	7	1	6	–	–	7	1	6	–	–	0.4
Mobility grants for doctoral students[3]	(15)	(10)	(5)	–	–	(13)	(8)	(5)	–	–	0,1
Total	**1976**	**872**	**1104**	**90**	**115**	**1067**	**476**	**591**	**65**	**87**	**156.4**

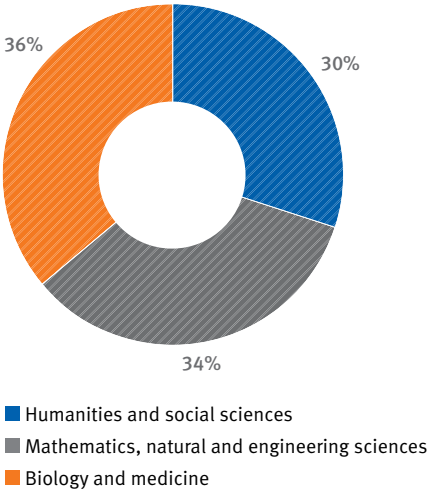
[1] incl. Ambizione-PROSPER and Ambizione-SCORE. Ambizione follow-ups include 4 SCORE grants (CHF 1 million)
[2] Research semesters for departing members of the Research Council
[3] Mobility grants are supplementary grants and are therefore not treated as separate applications. Hence they are not accounted for in the total number of applications, but are considered in the amount.

The upward trend in career funding applications continued in 2012. The increase in demand was particularly strong in the Marie Heim-Vögtlin programme (+18%) and in Ambizione (+25%). As a result, the success rate in Ambizione fell to 19%, the lowest level since the introduction of the funding scheme in 2008. The SNSF was able to award eight mobility grants, a funding scheme introduced in June 2012.

3.2 Funding by research area

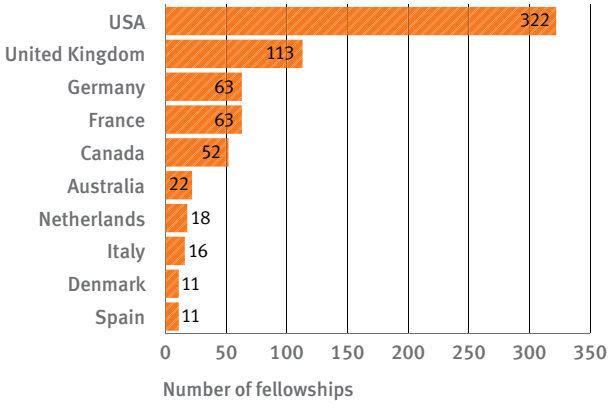
Amounts in CHF million

Distribution of the approved amounts



	Amount
Humanities and social sciences	47.0
Mathematics, natural and engineering sciences	52.7
Biology and medicine	56.7
Total	**156.4**

3.3 Fellowships by host country



With 736 fellowships for prospective and advanced researchers, the SNSF supported a total of 761 research stays abroad. The graph shows the ten most frequent host countries.

4. Programmes

Programmes are funding instruments with pre-defined thematic and conceptual/organisational parameters. They are either suggested by researchers or their home institutions, or established by political actors.

4.1 Funding by scheme

Amounts in CHF million

	Number	Amount
National Research Programmes (NRPs)	**88**	**26.3**
National Centres of Competence in Research (NCCRs)[1]	**360**	**64.6**
International programmes	**88**	**15.1**
SCOPES/ESTROM programme	37	0.3
Bulgarian-Swiss Research Programme (BSRP)	13	3.8
Romanian-Swiss Research Programme (RSRP)	26	8.9
Multilateral collaborations	12	2.1
Sinergia	**36**	**46.2**
Special Programme University Medicine	**7**	**19.1**
Doctoral programmes (ProDoc)	**21**	**8.7**
Total	**600**	**180.0**

[1] Sub-projects

4.2 National Research Programmes

Amounts in CHF million

The National Research Programmes (NRPs) study problems of societal, political and economic importance for Switzerland. The topics are prescribed by the Federal Council.

	Approved amount 2012[1]	Overall budget	Overall amount approved up to 2012[2]	Duration
Current NRPs	Total		Total	
NRP 59 Benefits and Risks of the Deliberate Release of Genetically Modified Plants	0.3	12.0	13.3	2007–2012
NRP 60 Gender Equality	0.1	8.0	6.7	2010–2013
NRP 61 Sustainable Water Management	0.8	12.0	10.5	2010–2013
NRP 62 Smart Materials	2.9	11.0	9.5	2010–2014
NRP 63 Stem Cells and Regenerative Medicine	–	10.0	5.6	2010–2014
NRP 64 Opportunities and Risks of Nanomaterials	2.0	12.0	9.2	2010–2015
NRP 65 New Urban Quality	–	5.0	3.5	2010–2013
NRP 66 Resource Wood	1.7	18.0	12.8	2012–2017
NRP 67 End of Life	10.1	15.0	10.5	2012–2018
NRP 68 Sustainable Use of Soil as a Resource	8.3	13.0	8.3	2013–2017
NRP 69 Healthy Nutrition and Sustainable Food Production	–	13.0	–	2013–2017
New NRPs				
NRP 70 Transforming Energy	–	37.0	–	2013–2018
NRP 71 Options for Controlling Final Energy Consumption	–	8.0	–	2013–2018
Total	**26.2**	**129.0**	**89.9**	

[1] Excluding grants for formally terminated programmes (CHF 0.1 million)

[2] These amounts do not take account of repayments, third-party funds, etc.

In 2012, the Federal Council mandated the SNSF to conduct two new NRPs. The topics are “Transforming Energy” (NRP 70) and “Options for Controlling Final Energy Consumption” (NRP 71). The relevant calls for proposals will be issued in 2013.

4.3 National Centres of Competence in Research

Amounts in CHF million

With the National Centres of Competence in Research the SNSF promotes long-term research networks in areas of strategic significance for the future of Swiss science, Swiss economy and Swiss society.

Series 2001	SNSF contribution 2012[1]	SNSF contribution for 12 years	Total budget for 12 years	Start	Home institution
Financial Valuation and Risk Management (FINRISK)	0.1	28.2	58.7	2001	University of Zurich
Computer Aided and Image Guided Medical Interventions (CO-ME)	1.8	42.7	114.4	2001	ETH Zurich
Frontiers in Genetics (Genetics)	1.0	43.0	145.5	2001	University of Geneva
Interactive Multimodal Information Management (IM2)	1.8	33.0	83.9	2002	Idiap, Martigny
Climate	0.4	26.6	134.1	2001	University of Bern
Materials with Novel Electronic Properties (MaNEP)	2.2	51.0	211.6	2001	University of Geneva
Mobile Information and Communication Systems (MICS)	1.0	37.5	104.4	2001	EPF Lausanne
Molecular Oncology	1.5	43.6	117.1	2001	EPF Lausanne
Nanoscale Science	2.4	50.2	183.2	2001	University of Basel
North–South	1.0	36.4	97.3	2001	University of Bern
Neural Plasticity and Repair (NEURO)	2.8	44.3	242.3	2001	University of Zurich
Quantum Photonics	2.0	45.3	122.8	2001	EPF Lausanne
Structural Biology – Molecular Life Sciences	0.8	36.7	114.7	2001	University of Zurich
Plant Survival	0.8	33.8	86.9	2001	University of Neuchâtel
Total	**19.6**	**552.3**	**1816.9**		

Series 2005	SNSF contribution 2012[1]	SNSF contribution for 8 years	Total budget for 8 years	Start	Home institution
Affective Sciences – Emotion in Individual Behaviour and Social Processes	3.6	21.3	53.3	2005	University of Geneva
Democracy – Challenges to Democracy in the 21st Century	2.2	14.9	29.8	2005	University of Zurich
Iconic Criticism – The Analysis of Image Processes	1.9	14.6	33.1	2005	University of Basel
Mediality – Historical Perspectives	1.5	11.7	22.1	2005	University of Zurich
International Trade Regulation – From Fragmentation to Coherence	2.3	20.8	27.5	2005	University of Bern
Total	**11.5**	**83.3**	**165.8**		

Series 2010	SNSF contribution 2012[1]	SNSF contribution for 4 years	Total budget for 4 years	Start	Home institution
Chemical Biology – Visualisation and Control of Biological Processes Using Chemistry	3.4	13.5	27.4	2010	University of Geneva EPF Lausanne
Kidney.CH – Kidney Control of Homeostasis	4.5	16.5	27.2	2010	University of Zurich
LIVES – Overcoming Vulnerability: Life Course Perspectives	4.5	14.6	31.9	2011	University of Lausanne University of Geneva
MUST – Molecular Ultrafast Sciences and Technology	4.4	17.8	39.9	2010	ETH Zurich University of Bern
QSIT – Quantum Science and Technology	4.7	17.3	55.5	2011	ETH Zurich University of Basel
Robotics – Intelligent Robots for Improving the Quality of Life	3.7	13.3	29.9	2010	EPF Lausanne
SYNAPSY – The Synaptic Bases of Mental Diseases	4.6	17.5	41.1	2010	EPF Lausanne University of Lausanne University of Geneva
TransCure – From Transport Physiology to Identification of Therapeutic Targets	3.7	14.1	28.3	2010	University of Bern
Total	**33.5**	**124.6**	**281.2**		
All NCCRs	**64.6**	**760.2**	**2263.9**		

[1] Also contains contributions for management, knowledge and technology transfer, promotion of young scientists, etc.

Within the scope of the fourth call for new NCCRs, the SNSF will evaluate the 23 applications in 2013 and submit a shortlist of recommended projects for final selection to the Department of Economic Affairs, Education and Research. Research work will start in 2014.

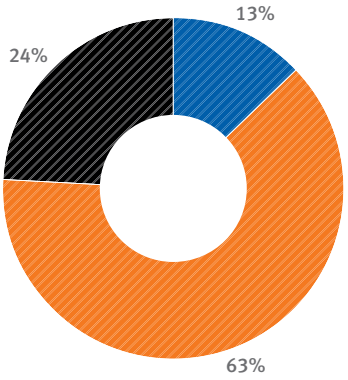
5. Infrastructures

In individual cases, the SNSF provides direct funding for research infrastructures that are indispensable for research projects. This is complemented by specific funding programmes.

5.1 Funding by scheme

Amounts in CHF million

Distribution of the approved amounts

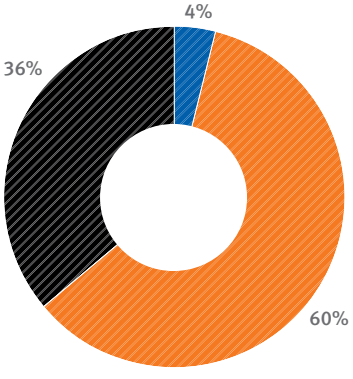


	Number	Amount
Research infrastructures	6	2.7
R'Equip	58	13.7
FORCE/FINES	16	5.2
Total	**80**	**21.6**

5.2 Funding by research area

Amounts in CHF million

Distribution of the approved amounts



	Amount
Humanities and social sciences	0.9
Mathematics, natural and engineering sciences	13.0
Biology and medicine	7.7
Total	**21.6**

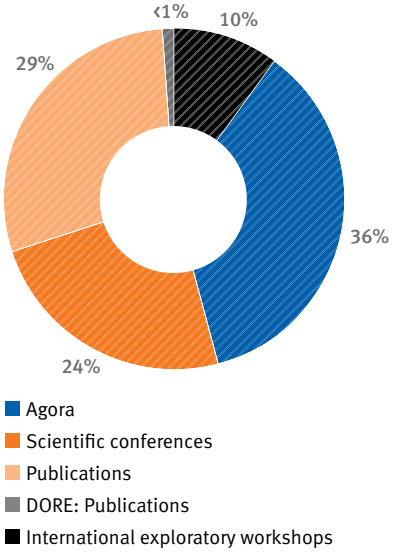
6. Science communication

The SNSF promotes communication between researchers as well as between science and society.

6.1 Funding by scheme

Amounts in CHF million

Distribution of the approved amounts



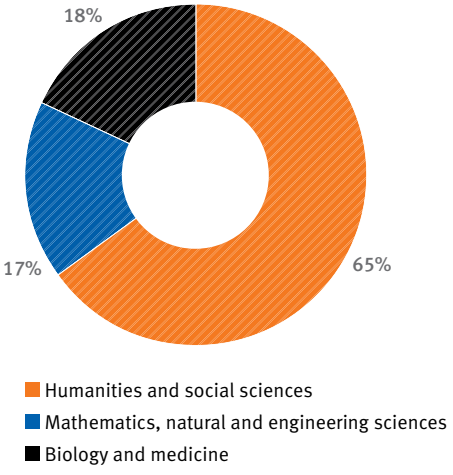
	Number	Amount[1]
Agora	17	2.1
Scientific conferences	196	1.4
Publications	138	1.7
DORE: Publications	1	0.0
International exploratory workshops	43	0.6
Total	**395**	**5.8**

[1] Amounts under CHF 0.05 million are shown as zero

6.2 Funding by research area

Amounts in CHF million

Distribution of the approved amounts



	Amount
Humanities and social sciences	3.7
Mathematics, natural and engineering sciences	1.0
Biology and medicine	1.1
Total	**5.8**