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2009 – Research Funding in numbers

In 2009 the Swiss National Science Foundation (SNSF) granted funding to the total value of 707 million Swiss francs, 6% more than in 2008 (663 million francs). This financing was used to support around 2,900 research undertakings.

The statistics include the applications handled and approved during the financial year and contributions paid out in 2009 in the area of National Centres of Competence in Research. Additional contributions are not treated as separate applications, but are contained in the approved amounts. The data in the statistical part of the annual report are not comparable with the figures in the annual statement.

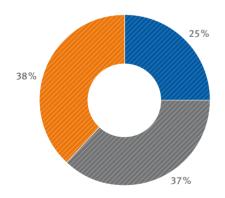
Full version of the statistics: www.snsf.ch > About us > Facts & Figures > Statistics

1. Funding in overview

1.1 Funding by science area

Amounts in millions CHF

Distribution of the approved amounts





■ Mathematics, Natural and Engineering Sciences

■ Biology and Medicine

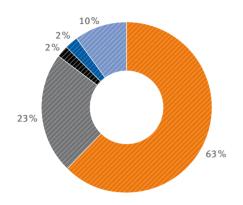
	Approved amount	Women Men
Humanities and Social Sciences	172.6	29% 71%
Mathematics, Natural and Engineering Sciences	262.8	11% 89%
Biology and Medicine	271.4	17% 83%
Unassignable	0.3	
Total	707.1	18% 82%

The distribution between the scientific areas has changed slightly in comparison with the previous year. Since in 2009 only very limited funds were available for the Special Programme University Medicine (SPUM) and the Patient-oriented Clinical Research (PaKliF) in comparison with 2008, the "Biology and Medicine" portion of the approved funds has been reduced by 4 per cent.

1.2 Funding by type of funding

Amounts in millions CHF

Distribution of the approved amounts



- Project Funding
- Individual Funding
- Scientific Conferences, Publication Grants, International Co-operation
- National Research Programmes (NRP)
- National Centres of Competence in Research (NCCR)

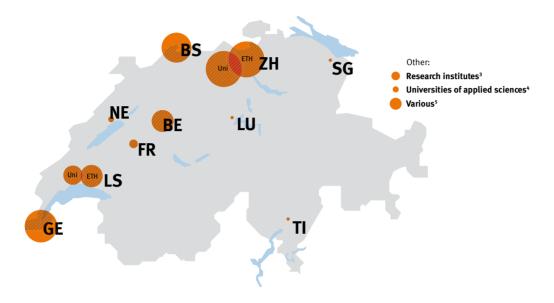
	Amount	Number
Investigator-driven Research	620.0	2,613
Project Funding	441.9	1,287
Individual Funding	161.4	783
Scientific Conferences	1.1	166
Publication Grants	2.3	155
International Co-operation	13.4	222
Targeted Research	87.1	256
National Research Programmes (NRP)	17.2	46
National Centres of Competence in Research (NCCR)	69.9	210
Total	707.1	2,869

As in previous years, Project Funding was at the centre of the SNSF's activity in 2009. The proportion of Targeted Research (12.3%) and Individual Funding (22.8%) of the overall approved amount increased slightly in comparison to 2008.

1.3 Funding by institution and science area

Amounts in millions CHF

Distribution of the approved amounts (incl. overhead)¹



Institution		Humanities and Social Sciences	Mathematics, Natural and Engineering Sciences	Biology and Medicine	Unassign- able	Total in mio. CHF	Total in %	Over- head ²	Total incl. overhead
Universities		130.5	119.8	204.5		454.8	64%	25.2	480.0
	Berne (BE)	18.5	23.5	24.3		66.3	9%	3.9	70.2
	Basel (BS)	21.5	21.2	40.4		83.1	12%	4.7	87.8
	Fribourg (FE)	8.0	8.8	9.0		25.8	4%	1.2	27.0
	Geneva (GE)	19.9	33.2	40.9		94.0	13%	5.3	99.3
	Lucerne (LU)	4.3	-	-		4.3	1%	0.3	4.6
	Lausanne (LS)	14.6	6.3	33.6		54.5	8%	3.0	57.5
	Neuchâtel (NE)	6.5	3.6	8.3		18.4	3%	0.9	19.3
	St. Gallen (SG)	5.3	0.2	0.0		5.5	1%	0.2	5.7
	Ticino (USI TI)	3.5	1.9	0.3		5.7	1%	0.3	6.0
	Zurich	28.4	21.1	47.7		97.2	14%	5.4	102.6
ETH Domain		8.9	129.9	48.4		187.2	27%	9.6	196.8
	ETH Lausanne (LS)	1.2	46.6	16.3		64.1	9%	3.3	67.4
	ETH Zurich (ZH)	6.8	64.1	27.9		98.8	14%	5.3	104.1
	Research institutes ³	0.9	19.2	4.2		24.3	4%	1.0	25.3
Universities of applied sciences ⁴		11.5	0.0	0.6		12.1	2%	0.9	13.0
Various ⁵		14.7	10.1	11.7		36.5	5 %	1.0	37.5
Unassignable ⁶		7.0	3.0	6.2	0.3	16.5	2%	0.0	16.5
Total		172.6	262.8	271.4	0.3	707.1	100%	36.7	743.8

 $^{^{\,1}\,\,}$ If no application was presented by the respective institution, this is denoted by a dash. Amounts less than 0.05 million CHF are indicated with a zero.

² Entitlement to overhead in accordance with overhead regulations

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

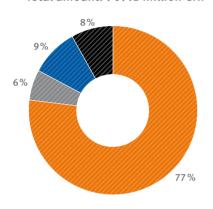
 $^{^{\}rm 4}~$ BFH, FHNW, FHO, HES-SO, HLU, SUPSI, ZFH, Kalaidos (incl. Universities of Teacher Education)

 $^{^{\,5}\,}$ Research centres, museums, libraries, individuals, companies, non-profitorganisations, etc.

 $^{^{6}\,\,}$ No institution and/or no discipline can be assigned (e.g. scholarships, annual contributions)

1.4 Use of the approved amounts

Total amount: 707.1 million CHF



As in previous years, the approved funds were used by the researchers mainly for the cost of personnel, whether for the financing of individual salaries/scholarships in the context of funding for individuals or for the appointment of personnel in research projects.

- Salaries and scholarships (incl. social security contributions)
- Materials of lasting value
- Consumables
- Other (travel and field expenses)

1.5 Personnel in research projects

Around 5,000 persons were employed in research projects in 2009. In addition, over 800 were supported in the context of Individual Funding and 1,400 were employed through the National Research Programmes and Centres of Competence in Research.

	Total Women Men
Scientists ¹	33% 44% 56%
Personnel at doctoral level	52% 61%
Technicians, support staff	15% 63% 37%
Total	100% 44% 56%

¹ Scientific personnel and Post-docs

Funding for research projects primarily benefits the promotion of young scientists in Switzerland. Thus 79 % of the collaborators are 35 years or younger (96 % in the case of personnel at doctoral level, 57 % for other scientists).

Amounts in millions CHF

	Success rate ¹		Number of applications	Approved amount		
	Total	Women	Men	submitted	approved	amount
Project Funding	58%	50%	60%	2,209	1,287	441.9
Individual Funding	57%	56%	57%	1,367	783	161.4
Scientific Conferences	95%	96%	95%	174	166	1.1
Publication Grants	86%	85%	86%	181	155	2.3
International Co-operation ²	39%	34%	40%	274	108	11.0
National Research Programmes ³	23%	21%	23%	207	48	-
National Centres of Competence in Research ⁴	-	-	-	_	_	_

 $^{^{\,1}\,}$ Ratio of the number applications approved to the number of applications submitted

Success rates vary according to the type of funding. Since 2008 the SNSF carries out an annual gender monitoring, which investigates the success rates of both sexes.

It should be noted, that the success rates of the Project and Individual Funding contain both new applications and applications for continuation.

 $^{^2 \ \ \, {\}sf Comprises \, SCOPES \, and \, Research \, Partnerships \, North-South}$

³ Relates only to the new series NRP 61, 62 and 63; 2-stage evaluation procedure

⁴ No new NCCR in 2009

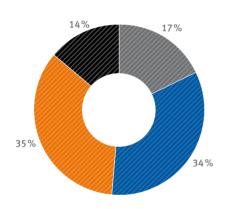
2. Project Funding

In this funding category, the SNSF supports qualitatively high grade research projects in all disciplines, whose themes are selected by the respective researchers themselves. The grants include contributions for personnel costs, equipment consumables and travel expenses.

2.1 Funding by science area¹

Amounts in millions CHF

Distribution of the approved amounts



	Amount
Division I: Humanities and Social Sciences	78.1
Division II: Mathematics, Natural and Engineering Sciences	150.8
Division III: Biology and Medicine	153.0
Interdisciplinary Research and Sinergia	61.1
Total	443.0

¹ Incl. Scientific Conferences

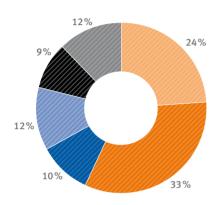
- Humanities and Social Sciences
- Mathematics, Natural and Engineering Sciences
- Biology and Medicine
- Interdisciplinary Research and Sinergia

2.2 Funding by group of disciplines

Amounts in millions CHF

Division I: Humanities and Social Sciences

Subdivision of the approved amounts



Philosophy, Psychology, Educational Science
and Religious Science

- Legal and Social Sciences, Economics
- History
- Archaeology, Ethnology, Visual Arts and Social **Urban Science**
- Linguistics and Literature
- Fields for Universities of Applied Sciences

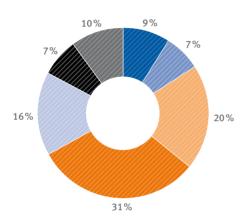
	Number	Amount
Philosophy, Psychology, Educational Science and Religious Science	114	19.0
Legal and Social Sciences, Economics	111	25.7
History	51	8.0
Archaeology, Ethnology, Visual Arts and Social Urban Science	45	9.3
Linguistics and Literature	50	7.1
Fields for Universities of Applied Sciences (incl. DORE)	80	9.0
Total ¹	451	78.1

¹ Special funding is included: DORE (76 grants; 8.6 million CHF), Research Infrastructure (9 grants; 10.6 million CHF), R'Equip (1 grant; 0.1 million CHF), Scientific Conferences (119 grants; 0.8 million CHF), Summer Schools (115 grants; 0.3 million CHF)

In 2009, the lion's share of the project contributions (33 per cent) went to the broad group of disciplines, legal and social sciences and economics. An important emphasis in the assessment of applications lay in the evaluation and the long-term support of large research infrastructures. These include mainly social sciences undertakings, which are newly impacted by an overall European-promoted accumulation of data related to the issue of the ageing population (see p. 13).

Division II: Mathematics, Natural and Engineering Sciences

Subdivision of the approved amounts



Mathematics
mathematics

Astronomy, Astrophysics and Space Sciences

Chemistry

Physics

Engineering Sciences

■ Environmental Sciences

■ Earth Sciences

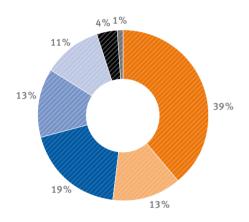
	Number	Amount
Mathematics	58	13.4
Astronomy, Astrophysics and Space Sciences	25	9.9
Chemistry	96	30.5
Physics	132	46.5
Engineering Sciences	124	24.8
Environmental Sciences	39	11.2
Earth Sciences	57	14.5
Total ¹	531	150.8

¹ Special funding is included: Research Infrastructure (1 grant; 0.4 million CHF), R'Equip, (69 grants; 13.1 million CHF), FORCE/FINES, (13 grants; 6.0 million CHF), ERA-ASPERA (2 grants; 0.8 million CHF), EUROCORES (8 grants; 2.3 million CHF), Scientific Conferences (21 grants, 0.09 million CHF)

The distribution of the approved amounts within the different groups of disciplines has changed very little relative to the previous year, with the exception of the engineering sciences (2007: 19.3 million CHF; 2008: 33.0 million CHF). Support for the purchase and improvement of laboratory equipment (R'Equip) was further strengthened in 2009 and the number of approved applications (40) almost doubled in comparison to the previous year. The SNSF also approved, for the first time, two projects in the context of an ERA-NET research programme (ASPERA: astroparticle physics).

Division III: Biology and Medicine

Subdivision of the approved amounts



■ Basic Biological Research

General Biology

■ Basic Medical Sciences

Experimental Medicine

Clinical Medicine

■ Preventive Medicine

■ Social Medicine

	Number	Amount
Basic Biological Research	145	59.2
General Biology	50	19.6
Basic Medical Sciences	77	29.8
Experimental Medicine	53	19.8
Clinical Medicine	61	17.5
Preventive Medicine (Epidemiology/Early Diagnosis/Prevention)	9	6.2
Social Medicine	4	0.9
Total ¹	399	153.0

¹ Special funding included: R'Equip (21 grants, 5.0 million CHF), MD-PhD (7 grants; 1.2 million CHF), SCORE/PROSPER (4 grants; 3.0 million CHF), ERA-NET EuroNanoMed (2 grants; 0.8 million CHF), EDCTP (1 grant; 0.1 million CHF), EUROCORES (6 grants; 2.6 million CHF), Cohort Studies (1 grant; 3.6 million CHF), Scientific Conferences (26 grants; 0.2 million CHF)

In 2009, the division of Biology and Medicine significantly expanded the spectrum of their contributions to European and international research networks with participation in many European initiatives, such as the EUROCORES programmes EuroMEMBRANE and EuroSYNBIO, the ERA-NET EuroNanoMed and the EDCTP programme (European and Developing Countries Clinical Trials Partnership).

2.3 Interdisciplinary Research and Sinergia

Interdisciplinary Research

In 2009 the SNSF supported a total of 33 projects with 11.7 million CHF. Both the number of submitted applications and the approved grants, as well as the requested and approved funding amounts are higher in comparison with 2008.

Sinergia

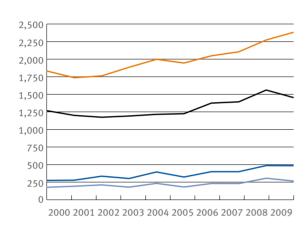
	Number	Amount
Interdisciplinary Research	22	27.7
Disciplinary Research	17	21.7
Total	39	49.4

2.4 Grants, rejections and reductions

	Number	Per cent	Amount	Per cent	Women Men
Humanities and Social Sciences					
Applications submitted	806	100%			29% 71%
			195.8	100%	25% 75%
Grants	451	56%			29% 71%
			78.1	40 %	22% 78%
Reductions in approved applications	(345)	-	17.2	9%	
Rejections, withdrawals	355	44%	100.5	51%	
Mathematics, Natural and Engineering Science	es				
Applications submitted	691	100%			9% 91%
			264.3	100%	7% 93%
Grants	531	77%			9% 91%
			150.8	57%	<mark>6%</mark> 94%
Reductions in approved applications	(458)	-	64.5	24%	
Rejections, withdrawals	160	23%	49.0	19%	
Biology and Medicine					
Applications submitted	731	100%			22% 78%
			338.5	100%	20% 80%
Grants	399	55%			20% 80%
			153.0	45%	16% 84%
Reductions in approved applications	(296)	-	55.6	17%	
Rejections, withdrawals	332	45%	129.9	38%	
Interdisciplinary Research and Sinergia					
Applications submitted	155	100%			23% 77%
			178.3	100%	20% 80%
Grants	72	46%			18% 82%
			61.1	34%	16% 84%
Reductions in approved applications	(63)	-	23.0	13%	
Rejections, withdrawals	83	54%	94.2	53%	
	1	L			
Total					
Applications submitted	2,383	100%			20% 80%
			976.9	100%	17% 83%
Grants	1,453	61%			18% 82%
			443.0	45%	13% 87%
Reductions in approved applications	(1,162)	-	160.3	17%	
Rejections, withdrawals	930	39%	373.6	38%	

2.5 Applications and grants since the year 2000

Number of applications and grants



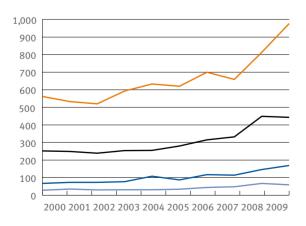
The number of applications submitted for Project Funding increased continually from 2005 to 2009. The number of grants also increased from 2005 to 2008. In 2009 the SNSF approved fewer applications than in the previous year, with the goal of increasing the financial allocation for each approved project.

- Number of applications submitted
- Number of applications approved
- Applications by women
- Applications by women approved

2.6 Requested and approved amounts since the year 2000

Amounts in millions CHF

Total of requested and approved amounts



Since 2007 the requested project funding has increased more than the corresponding budget of the SNSF. For the year 2008, the sum of the approved funds is comparatively high, since for the Special Programme University Medicine (SPUM) and the Patient-oriented Clinical Research (PaKliF) specifically assigned means of approx. 53 million francs were made available. In 2009 there was only a very restricted scope for grants for PaKliF.

- _ Total of requested funding
- Total of approved funding
- Amount requested by women
- Amount granted to women

3. Individual Funding

With a multi-faceted fellowship and grants programme the SNSF provides targeted career support for highly promising young researchers.

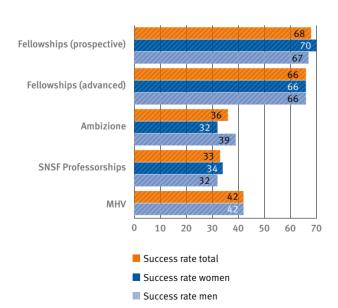
3.1 Funding by funding instrument

Amounts in millions CHF

	Number of applications submitted			Number of applications approved			Approved amount
	Total	Women	Men	Total	Women	Men	
Fellowships (prospective)	669	250	419	456	175	281	25.5
Fellowships (advanced)	130	47	83	86	31	55	10.1
Ambizione	146	56	90	53	18	35	23.8
SNSF Professorships ¹	193	56	137	63	19	44	72.3
Marie Heim-Vögtlin Subsidies (MHV) ¹	106	106	_	45	45	-	6.5
Total (excl. ProDoc)	1,244	515	729	703	288	415	138.2
ProDoc	123	25	98	80	16	64	23.2
Overall Total (incl. ProDoc)	1,367	540	827	783	304	479	161.4

¹ Incl. extensions

Success rates by instrument²



In total in the category of Individual Funding around 200 more applications were submitted and evaluated than in the previous year (+17%). In comparison to the previous year in particular, the number of submitted applications for the fellowships for prospective researchers (+127 applications), Ambizione (+57 applications), the MHV Programme (+22 applications) and ProDoc (+17 applications) increased significantly. For the SNSF Professorships the applications remained at a level similar to the previous year, and for the advanced fellowships there was a slight downturn (-18 applications).

² Ratio of the number of applications approved to the number of applications submitted

4. International co-operation and networking

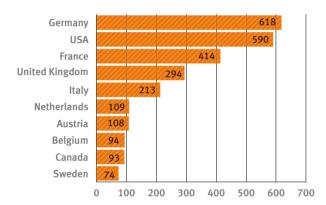
The international involvement of the SNSF manifests itself principally in the transnational co-operation of researchers within the context of Project Funding and Individual Funding. This is supplemented by instruments for use in international collaboration.

4.1 Funding by funding instrument

	Amount
International Short Visits	0.7
Bilateral Seminars	0.2
SCOPES Programme	10.9
Research Partnerships with Developing Countries Scheme	0.0
International Programmes (ESF etc.)	1.5
Multilateral Co-operation	0.1
Total	13.4

4.2 International networking in Project Funding

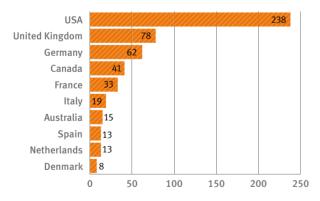
Number of instances of international collaboration



Nearly 3,400 instances of international collaboration have taken place in total. The table shows the ten countries with which the most frequent collaboration has occurred.

4.3 Host countries with fellowship recipients

Number of fellowship recipients



With 542 fellowships for prospective and advanced researchers, the SNSF supported a total of 587 work periods abroad. The graph shows the ten most frequent host countries.

5. National Research Programmes (NRP)

The National Research Programmes develop scientifically substantiated solutions to urgent problems of national significance.

5.1 NRPs in overview

Amounts in millions CHF1

	Approved amount 2009 ²	Framework	Overall amount approved up to 2009 ³	Duration
Current NRPs	Total		Total	
NRP 53 Musculoskeletal Health – Chronic Pain	0.0	12.0	11.7	2003-2009
NRP 54 Sustainable Development of the Built Environment	0.7	13.0	10.7	2004-2010
NRP 56 Language Diversity and Linguistic Competence in Switzerland	0.0	8.0	7.8	2004-2009
NRP 57 Non-lonising Radiation – Health and Environment	0.3	5.0	4.6	2006-2010
NRP 58 Religions, the State and Society	0.9	10.0	8.9	2006-2010
NRP 59 Benefits and Risks of the Deliberate Release of Genetically Modified Plants	1.3	15.0	11.6	2007-2011
NRP 61 Sustainable Water Management	8.4	12.0	8.4	2010-2013
NRP 62 Smart Materials	5.2	11.0	5.2	2010-2014
NRP 63 Stem Cells and Regenerative Medicine	0.1	10.0	0.1	2010-2014
New NRPs ⁴				
NRP 60 Gender Equality	_	-	_	_
NRP 64 Opportunities and Risks of Nanomaterials	-	_	_	-
NRP 65 New Urban Quality	-	_	-	_
Total	16.9	96.0	69.0	

¹ Amounts under 0.05 million CHF are indicated by a zero

In 2009 three new NRPs started. In the NRP "Sustainable Water Management" and in the NRP "Smart Materials" 16 and 21 projects respectively were approved and the research work commenced. The NRP "Stem Cells and Regenerative Medicine" has likewise begun, albeit with a small budget for the evaluation. For the three further NRPs of the evaluation round of 2007–2008, the research phase will begin during 2010.

The gender balance in the ongoing programmes has barely changed (women 20%, men 80%).

 $^{^{2}\;\;}$ Excluding grants for formally terminated programmes (0.3 million CHF)

³ These amounts do not take account of repayments, third party funds, etc.

⁴ Selection process not yet concluded

6. National Centres of Competence in Research (NCCR)

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, economy and society.

6.1 Current NCCRs in overview

Series 2001	Contribution SNSF 2009 ¹	Contribution SNSF for 12 years	Total budget for 12 years	Start	Home institution
Financial Valuation and Risk Management (FINRISK)	2.3	28.2	50.4	2001	University of Zurich
Computer Aided and Image Guided Medical Interventions (CO-ME)	5.3	42.7	111.3	2001	ETH Zurich
Frontiers in Genetics	3.5	43.0	106.9	2001	University of Geneva
Interactive Multimodal Information Management (IM2)	4.5	32.8	80.3	2002	Idiap, Martigny
Climate	1.8	26.6	122.5	2001	University of Berne
Materials with Novel Electronic Properties (MaNEP)	5.3	49.6	198.2	2001	University of Geneva
Mobile Information and Communication Systems (MICS)	3.7	37.5	98.3	2001	ETH Lausanne
Molecular Oncology	3.4	43.6	115.2	2001	ETH Lausanne
Nanoscale Science	5.1	49.3	179.2	2001	University of Basel
North-South	3.2	36.4	106.2	2001	University of Berne
Neural Plasticity and Repair (NEURO)	4.7	42.7	228.2	2001	University of Zurich
Quantum Photonics	4.5	44.8	106.2	2001	ETH Lausanne
Molecular Life Sciences	3.6	36.7	92.9	2001	University of Zurich
Plant Survival	2.6	33.4	79.5	2001	University of Neuchâtel
Total	53.5	547.1	1,675.3		
Series 2005	Contribution SNSF 2009 ¹	Contribution SNSF for 8 years	Total budget for 8 years	Start	Home institution
Affective Sciences – Emotion in Individual Behaviour and Social Processes	3.8	20.0	46.2	2005	University of Geneva
Democracy – Challenges to Democracy in the 21st Century	2.8	14.6	31.0	2005	University of Zurich
Iconic Criticism – Power and Importance of Pictures	2.8	14.6	34.4	2005	University of Basel
Mediality – Historical Perspectives	2.2	11.7	17.2	2005	University of Zurich
SESAM – Swiss Etiological Study of Adjustment and Mental Health ²	1.2	9.9	17.8	2005	University of Basel
International Trade Regulation – From Fragmentation to Coherence	3.6	19.8	24.5	2005	University of Berne
Total	16.4	90.6	171.1		
All NCCRs	69.9	637.7	1,846.4		

 $^{^{1}\ \ \}text{Also contains contributions for management, knowledge and technology transfer, promotion of young scientists, etc.}$

² The NCCR SESAM has a duration of 5 years