

Current issues in Swiss research prioritisation

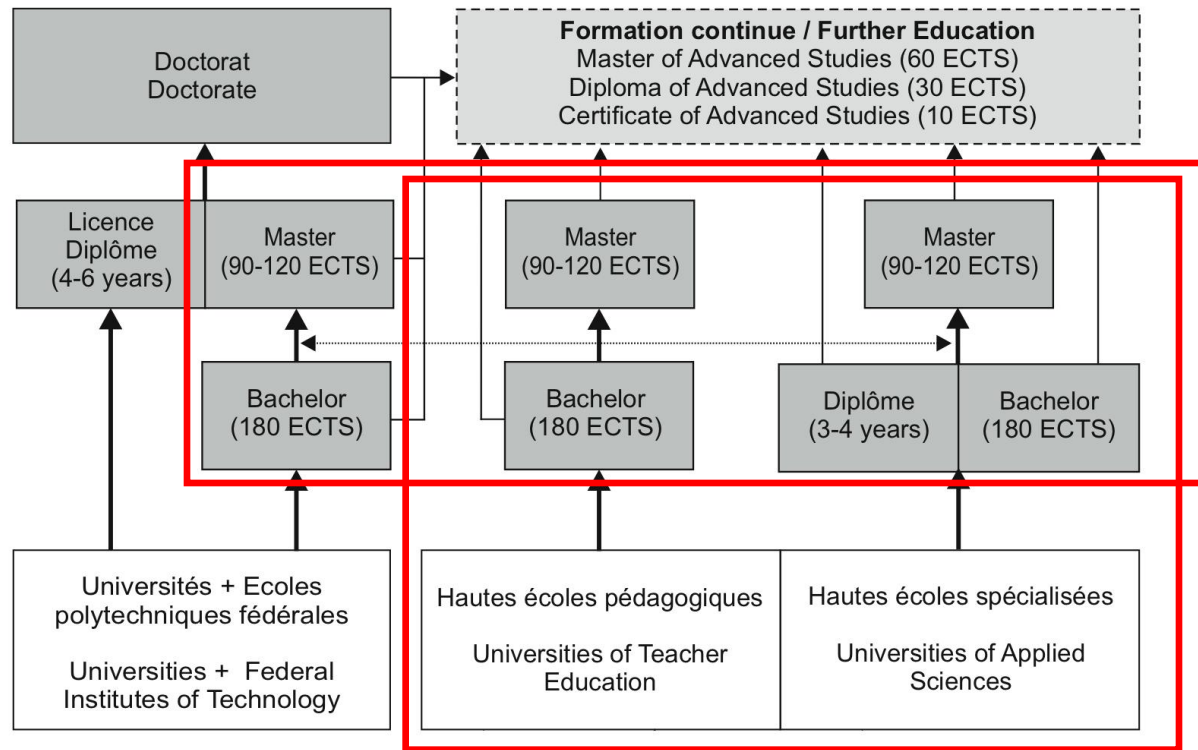
IVA's Royal Technology Forum

Stockholm October 22nd, 2009

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Swiss higher education

Le système d'enseignement supérieur suisse / The Swiss Higher Education System



University	Founded	Students
Basel	1460	<12'000
Zürich	1833	>24'000
Bern	1834	<13'000
ETH Zürich	1854	>12'000
Genève	1873	<14'000
Fribourg	1889	<10'000
Lausanne	1890	<11'000
St. Gallen	1898	<6'000
Neuchâtel	1909	<4'000
EPFL	1969	<7'000
USI	1996	<3'000
Luzern	2000	>2'000

Universities of Applied Science

Berne	<5'000
Western Switzerland (Geneva)	<12'000
Northwest Switzerland (Basel)	<6'000
Lucerne	<4'000
Italian speaking Switzerland	>2'000
Eastern Switzerland (St. Gallen)	<4'000
Zurich	<11'000
Other minor	>3'000
Universities of Teacher Education	<8'000

Research in Swiss universities

- Swiss universities devote more than 50% of their budget to research (2007: € 2,100 millions out of € 4,000 millions).
- Research is financed through the regular universities budgets, in addition to:
 - competitive funds from the national agencies for the promotion of fundamental research (SNF) and of technological innovation (KTI) (2007: € 280 millions; 2008: € 470)
 - competitive funds from international programmes, especially European (2007: € 86 millions; 2008: € 93 millions)
 - research mandates from the public sector (2007: € 90 millions; 2008: € 110 millions)
 - research mandates from the private sector (2007: € 209 millions; 2008: € 249 millions)

Source of funding	Plan 2007 in CHF	% of total budget
Contributions by the canton BS	125'500'000	24.9%
Contributions by the canton BL	127'500'000	25.3%
Total state contributions	253'000'000	50.2%
Contributions by the Confederation (UFG)	61'500'000	12.2%
Contributions by non-university cantons (IUV)	62'770'000	12.5%
Total federal contributions	124'270'000	24.7%
Third-party funding (foundations, endowments, research projects,...)	57'600'000	11.4%
Swiss National Research Foundation	43'700'000	8.7%
Total third-party contributions	101'300'000	20.1%
University's own income (fees, mandates, commissions)	25'200'000	5.0%
Total budget 2007	503'770'000	100.0%

Free vs. oriented research I

- The Swiss National Research Fund (SNF) is the main motor for the promotion of research in Switzerland. It allocates 90% of its subsidies to free research and 10% to oriented research
- SNF-financed oriented research includes:
 - the *National Centres of Competence in Research* (NCCR, 95% of oriented research), which aim to strengthen the structures of Swiss research landscape in domains of strategic relevance as defined in a bottom-up competitive process between universities
 - The *National Research Programmes* (NFP, 5% of oriented research), which aim to solve through research urgent problems of national importance as defined top-down by the Federal Council

Free vs. oriented research II

- In 2008, the Confederation launched two major research programmes within the frame of contributions linked to projects (Universitätsförderungsgesetz / ETH-Gesetz) and requiring matching funds from participating universities:
 - SystemsX.ch, (€ 65 millions over 4 years), which aims to generalize the quantitative approach to biological macrosystems. Leading house: Swiss Institute of Technology Zurich (ETH)
 - Nano-Tera.ch, (€ 40 millions over 4 years), which aims to promote research on engineering systems in health, safety and environment. Leading house: Swiss Institute of Technology Lausanne (EPFL)

Conclusions

- Swiss research policy traditionally privileges *fundamental* (over applied) research (e.g., SNF > KTI) and attributes high importance to *free* and/or institutional (over oriented and/or national) research initiatives
- In national political debate, these features are generally viewed as positive and their efficiency hardly questioned
- However, increased prominence is now given to thematic prioritisation, if based on a *bottom-up* institutional process
- Switzerland remains in constant political (and cultural) need of *consensus*, and diversity is viewed as the result of the *autonomous* strategies by involved institutions

Thank you for your attention!