Research & Innovation: Facts and Challenges to National Policy

Dr. Nicole Schaad, 17 June 2016
SwissTech Convention Center Lausanne
Governmental funding in specific areas

• restricted role of federal government:
  - financing the Swiss National Science Foundation (SNSF) and the Commission for Technology and Innovation (CTI)
  - financing the ETH-Domain
  - subsidiary support of research institutions
  - providing contributions to international research organizations and international programs
Historical perspective (leadership)

- shifting priorities, humanities ⇔ medicine:
  - Olivier Reverdin, Pres. SNSF Research Council 1968-81
  - Alfred Pletscher, Pres. SNSF Research Council 1981-87
  - Francis Waldvogel, Pres. ETH-Council 1995-2004
  - Patrick Aebischer, Pres. EPFL since 2000
Research & innovation policy: legal basis

• constitutional basis:
  - Art. 20 Academic freedom
  - Art. 27 Economic freedom
  - Art. 64 Research (innovation included only since 2006 !)
  - Art. 94 Principles of the economic system (competition !)

• legal basis for research (only since 1983):
  - Federal Act on the Promotion of Research and Innovation, RIPA
    = framework for the promotion of scientific research (basic and applied research) + science-based innovation

⇒ traditional separation of state and the economy
  - subsidiary role of state (for ex. in Research-PPP)
ERI dispatch 2013-2016
federal funding for higher education & research

- ETH Domain
- SNSF
- Cantonal Universities
- Universities of Applied Sciences
- Horizon 2020 (2014-2016)
- CTI
- Space Affairs
- Research institutions art. 15 RIPA
- Swiss Academies of Arts and Sciences
- ERI-related international collaboration

in CHF million
R&D expenditure

in Switzerland (CHF 18.5 billion)

> 70%

Private sector

> 30%

Public sector

in Swiss companies abroad (CHF 15 billion)

Swiss education and research policy and economic policy follow a similar strategy

- Favourable general conditions (science & technology, society, environment)
- Enabling individuals over micromanagement (reliance on the actors in science and private economy)
- Quality and competition-based public spending (e.g. emphasis on high-tech for production and export)
- Healthy domestic competition ⇒ international competitiveness
Objectives for Research and Innovation

- strengthening international competitiveness
- competitive location for research and production
- leading positions in emerging fields
- excellent research infrastructures
- high-level international cooperations
- dynamic cooperation between research and economy
ERI dispatch 2017-2020 - specific challenges

- Promoting high quality clinical research
  - SCTO: will be strengthened and consolidated

- Personalized Health Initiative (SPHNI) / Big Data
  - SAMW (coordination)
  - ETHZ and EPFL (part of the strategic planning)
Additional information

State Secretariat for Education, Research and Innovation: www.sbfi.admin.ch

- ERI Dispatch for 2013-2016
- ERI Dispatch for 2017-2020