

<p><b>Country Name</b></p> <p><b>Country Outline</b></p> <ul style="list-style-type: none"> <li>- GDP: 604,511mil. euros (Swiss Federal Statistical Office FSO, 2017)</li> <li>- GDP Per capita: 72.195 euros (Swiss Federal Statistical Office FSO, 2017)</li> <li>- Areas of marked S&amp;T specialisations: Engineering &amp; MEMS, Physics &amp; Chemistry, Life Sciences &amp; Medical Technology</li> </ul> <p><b>Contact Information</b></p> <ul style="list-style-type: none"> <li>- Organisation: Embassy of Switzerland</li> <li>- Name / Position: (Mr/Ms/Dr/Prof) Dr. Alessandra Apicella/Head of Science and Technology Office</li> <li>- Phone no. / e-mail: (+82) 2 3704 4703/<a href="mailto:seo.science@eda.admin.ch">seo.science@eda.admin.ch</a> / <a href="http://www.stofficeseoul.ch">www.stofficeseoul.ch</a></li> </ul>	
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Introduction:

*Switzerland is recognized as one of the most innovative countries in the world. It is also considered as a global centre of R&D, where scientists in globally acclaimed public and private institutions are involved in ground-breaking research. As Switzerland does not dispose of any natural resources, education, research and innovation have always been pivotal for the country. In addition to boasting the world's highest number of Nobel Prizes per capita, collaboration between the private industry and public research has always been strong and Switzerland's innovation output is highly productive, ranking 1<sup>st</sup> in with regard to the number of patents/capita. In addition, Switzerland is one of the world's most internationalised countries in research and innovation, a fact that adds to its attraction and strength.*

## 1. Policies and Strategies in Science, Technology and Innovation

Switzerland recognises that excellent education, research and innovation are crucial for the economic competitiveness, sustainable development and the welfare of the country. Therefore, the Swiss Government is strongly focused on sustaining excellent framework conditions for the different stakeholders. The Swiss Government pursues a bottom-up policy for a successful education, research and innovation sector, meaning that basic research is supported heavily and with long-term predictable funding. Public expenditure for research is mainly the result of personal initiatives on the part of researchers and awarded on a competitive basis. In research commercialisation, Switzerland does not have an innovation policy but rather strongly supports networking, collaboration and knowledge transfer of public and private actors.

Main players in education, research and innovation in Switzerland:

**- State Secretariat for Education, Research and Innovation (SERI):**

Government Ministry responsible for strategy, overview and resource plans as well as pursuing international activities

**- 26 Cantons:**

Co-responsible with federal government for supporting basic funding of universities, universities of applied sciences and education

**- Swiss National Science Foundation (SNSF):**

Foundation mandated by the Government to support basic science projects and careers in all academic disciplines (937m CHF in 2016).

**- Innosuisse – Swiss Innovation Agency (Innosuisse):**

Innosuisse is the Swiss Innovation Promotion Agency including start-up support and coaching. Innosuisse's role is to promote science-based innovation in the interests of industry and society in Switzerland.

**- Federal Institutes of Technology (ETH Zürich and EPF Lausanne):**

Switzerland's excellent two federal universities focusing on teaching and conducting research in natural sciences, engineering and related fields and part of the ETH domain (Budget over 2400m CHF for 2016)

**- Other institutions of the ETH domain:**

**PSI:** Paul Scherrer Institute; Switzerland's largest research centre for natural sciences and engineering

**WSL:** Institute for forest, snow and landscape research

**Empa:** Interdisciplinary research institute and service provider for materials science and technology

**Eawag:** Aquatic research institute

**- 10 Swiss universities (Geneva, Lausanne, Neuchatel, Fribourg, Bern, Basel, Lucerne, Zurich, St-Gallen, Ticino):**

Supported by the cantons and the federal government, these public universities conduct excellent research.

**- 7 Universities of Applied Sciences:**

Practically-oriented public universities. They have close connections and many common R&D projects with local industry.

**Switzerland's Education, Research & Innovation Strategy 2017-2020**

Every four years, the government presents its strategy for the area of education, research and innovation. Available public funding for education and R&D is planned to rise by at least 2% annually over the next years, totalling 26bn CHF (29.7 trillion KRW) for this strategic period. Furthermore, the Swiss Government has defined four strategic goals for 2017-2020:

- *Strengthening of Professional Education (PET):* Improving the already well-functioning Swiss Vocational and Professional Education System (VET/PET) by increased financial support for students pursuing additional qualifications.

- *Supporting young scientists:* Highly qualified and excellent young scientists are crucial to the competitiveness of Swiss research and innovation. Universities should introduce measures to support young scientists.

- *Medicine:* More financial means for supporting increased programs in educating medical professionals. Several universities such as ETH Zürich will newly start to offer medical degrees.

- *Innovation:* Increased focus on supporting bottom-up networks between public and private to commercialise research. Several new funding programs will be introduced to support the whole

innovation value chain as well as increased promotion of the Swiss Innovation Park as a location for innovation.

### Focus on Private Sector R&D

The private sector is responsible for almost 70% of all R&D activities in Switzerland. The leaders are Roche and Novartis in the pharmaceutical sector, Nestlé in nutrition and ABB in engineering. Various hidden champions, small- and medium-sized companies with technological strengths, also invest strongly in R&D. R&D activities of the Swiss private industry is often conducted in partnership with Swiss Federal Institutes of Technology (ETH Zürich and EPF Lausanne), universities or Universities of Applied Sciences. International partners often form part of R&D activities and networks.

### Switzerland and the EU

Although Switzerland is not a member of the European Union, its research and innovation is strongly tied to the EU. Switzerland was a fully associated country in the EU's FP7 framework program (2007-2013) and is currently a partly associated country in the Horizon 2020 program.

## 2. National STI Programmes and Initiatives

\* List of National Programmes open to the world

Programme Title	Contents
Bilateral R&D Projects	<ul style="list-style-type: none"> <li>▪ Outline: Innovation projects including a Swiss company, Swiss research institution and a foreign research institution (e.g. Korean)</li> <li>▪ Research fields: depending on field. See website.</li> <li>▪ Organisation: Innosuisse</li> <li>▪ What is funded: Application-oriented projects in any research-based innovative field. Only research institutions/universities get funding, not companies.</li> <li>▪ Deadlines: depending on field. See website.</li> <li>▪ Webpage: <a href="http://www.innosuisse.ch">www.innosuisse.ch</a> --&gt; Go global--&gt; International research networks for your project</li> </ul>
EUREKA Network	<ul style="list-style-type: none"> <li>▪ Outline: Intergovernmental network supporting market-oriented R&amp;D projects. Different instruments exist, e.g. network projects, eurostars, clusters, umbrellas.</li> <li>▪ Research fields: all</li> <li>▪ Organisation: Eureka (every country has a National Contact Point (NCP))</li> <li>▪ What is funded: Market-driven innovative research and development projects.</li> <li>▪ Deadlines: depends. See webpage.</li> <li>▪ Webpage: <a href="http://www.eurekanetwork.org">www.eurekanetwork.org</a></li> </ul>
Other	<ul style="list-style-type: none"> <li>▪ Outline: The Swiss National Science Foundation (SNSF) offers other</li> </ul>

Opportunities	<p>funding opportunities for researchers or young professors from abroad who wish to lead an independent project at a Swiss higher education institution.</p> <ul style="list-style-type: none"> <li>Website: <a href="http://www.snf.ch/en">www.snf.ch/en</a> --&gt; Funding --&gt; Careers</li> </ul>
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### 3. Joint Activities with Korea

Swiss and Korean universities and research institutions actively collaborate on an individual or institutional basis. For example, EPFL and KAIST have a strategic partnership and ETH Zürich and DGIST have a common research centre in micro-robotics. The two governments signed an Agreement on Science & Technology Cooperation since 2008 and run several collaboration programs under this agreement (see below). In addition, the Science & Technology Office at the Swiss Embassy in Seoul is co-organising many events and programs in Korea to support bilateral R&D. All funding opportunities are presented on the website: [www.stofficeseoul.ch](http://www.stofficeseoul.ch) --> Funding Opportunities.

\* List of Joint Programmes or Activities with RoK in 2018

Programme Title	Contents
Korean-Swiss Science and Technology Programme	<ul style="list-style-type: none"> <li>Outline: Basic science research project funding with co-funding from Switzerland and Korea (collaboration MSIP-SERI)</li> <li>Research fields (from previous call): Neuroscience, Molecular physics, technologies and methodologies for big data. The research field is not defined yet for the next call.</li> <li>Organisations: Swiss National Science Foundation (SNSF); National Research Foundation of Korea (NRF)</li> <li>Deadline: tbd, probably 2018</li> </ul> <p>Website: <a href="http://www.snf.ch/en">www.snf.ch/en</a> --&gt; Funding --&gt; Programmes --&gt; Bilateral programmes --&gt; South Korea</p>
Switzerland – Korea Joint Call for R&D Innovation	<ul style="list-style-type: none"> <li>Outline: Innovation projects including a Swiss consortium (company, Swiss research institution) and a Korean consortium (company, research institution)</li> <li>Research fields: open</li> <li>Organisations: Innosuisse (Swiss Innovation Agency); KIAT (Korea Institute for the Advancement of Technology)</li> <li>What is funded: Application-oriented projects in any research-based innovative fields. Only research institutions/universities get funding in Switzerland, companies do get funding in Korea.</li> <li>Deadline: tbd</li> </ul>
PhD exchange Program	<ul style="list-style-type: none"> <li>Outline: Exchange program to enable mobility of young researchers, e.g. PhD students for research stays of up to 3 months.</li> <li>Research fields: open including humanities.</li> <li>Organisations: ETH Zürich, National Research Foundation of Korea (NRF)</li> <li>What is funded: Living allowance, airfare for maximum 3 months stay</li> </ul>

	<p>in the other country.</p> <ul style="list-style-type: none"> <li>▪ A third call will open in September 2018</li> <li>▪ Website: <a href="http://www.ethz.ch/en">www.ethz.ch/en</a> --&gt; The ETH Zurich --&gt; Global --&gt; Bilateral programs --&gt; South Korea</li> </ul>
Swiss-Korean Life Science Initiative	<ul style="list-style-type: none"> <li>▪ Outline: Collaboration platform for R&amp;D collaboration in life sciences and medical technologies including medical doctors, engineers, companies and start-ups</li> <li>▪ Research fields: life sciences, medical technologies</li> <li>▪ Organisations: Embassy of Switzerland, Science &amp; Technology Office &amp; Ministry of Health and Welfare, Korea Health Industry Development Institute (KHIDI)</li> <li>▪ What is funded: No direct funding. Events, delegations and individual matchmaking and guidance towards existing public and private funding. Main targets are medical doctors, engineers and start-ups wishing to do R&amp;D.</li> <li>▪ Deadline: none.</li> <li>▪ Website: <a href="http://www.stofficeseoul.ch">www.stofficeseoul.ch</a> --&gt; Information --&gt; Bilateral Collaboration --&gt; Swiss-Korean Life Science Initiative</li> </ul>

#### 4. Others

##### \* Key Research Organisations and Companies

Organisation Name	Detailed information
Science & Technology Office, Embassy of Switzerland	<ul style="list-style-type: none"> <li>▪ Description: Connecting Swiss and Korean institutions and individuals for collaboration in research &amp; innovation</li> <li>▪ Contact Information: Alessandra Apicella, Head, Science &amp; Technology Office <a href="mailto:alessandra.apicella@eda.admin.ch">alessandra.apicella@eda.admin.ch</a></li> <li>▪ Webpage: <a href="http://www.stofficeseoul.ch">www.stofficeseoul.ch</a></li> </ul>
Innosuisse (Swiss Innovation Agency)	<ul style="list-style-type: none"> <li>▪ Description: Collaborate actively with Korea (KIAT) in R&amp;D funding and support Swiss start-ups expanding to Korea in all tech fields</li> <li>▪ Contact Information: Barbara Pfluger, Project Promotion and Knowledge &amp; Technology Transfer (KTT) support <a href="mailto:barbara.pfluger@innosuisse.ch">barbara.pfluger@innosuisse.ch</a></li> <li>▪ Webpage: <a href="http://www.innosuisse.ch">www.innosuisse.ch</a></li> </ul>
SNSF (Swiss National Science Foundation)	<ul style="list-style-type: none"> <li>▪ Description: Collaborate actively with Korea (NRF) in funding basic research collaboration</li> <li>▪ Contact Information: Jean-Luc Barras, Head of Division, Interdisciplinary and International Co-operation <a href="mailto:jean-luc.barras@snf.ch">jean-luc.barras@snf.ch</a></li> <li>▪ Webpage: <a href="http://www.snf.ch">www.snf.ch</a></li> </ul>
ETH Board (Korean webpage available)	<ul style="list-style-type: none"> <li>▪ Description: Strategic management and supervisory body of the ETH domain. Have a webpage about ETH domain institutions in Korean</li> <li>▪ Webpage: <a href="http://www.ethrat.ch/ko">http://www.ethrat.ch/ko</a></li> </ul>
ETH Zürich	<ul style="list-style-type: none"> <li>▪ Description: Switzerland's highest-ranking university, leading house of Swiss science &amp; technology collaboration, active research</li> </ul>

	<p>cooperation projects with Korean universities and industry, such as SNU, DGIST, POSTECH and SAIT.</p> <ul style="list-style-type: none"> <li>▪ Contact Information: Rahel Byland, Programme Manager (for Korea), ETH Global <a href="mailto:rahel.byland@sl.ethz.ch">rahel.byland@sl.ethz.ch</a></li> <li>▪ Webpage : <a href="http://www.ethz.ch">www.ethz.ch</a></li> </ul>
EPFL	<ul style="list-style-type: none"> <li>▪ Description: Switzerland's brilliant young technical university, leading in basic science and working strongly with industry. Special relationship with KAIST and research projects with Samsung Electronics.</li> <li>▪ Contact Information: Louisa Busca Grisoni, Head of Corporate Relations, Vice Presidency for Innovation <a href="mailto:louisa.buscagrisoni@epfl.ch">louisa.buscagrisoni@epfl.ch</a></li> <li>▪ Webpage: <a href="http://www.epfl.ch">www.epfl.ch</a></li> </ul>
PSI	<ul style="list-style-type: none"> <li>▪ Description: Switzerland's largest research centre. Close collaboration with Postech and Korean research institutes such as KIMM.</li> <li>▪ Contact Information: Giorgio Travaglini, Head, Technology Transfer <a href="mailto:giorgio.travaglini@psi.ch">giorgio.travaglini@psi.ch</a></li> <li>▪ Webpage: <a href="http://www.psi.ch">www.psi.ch</a></li> </ul>
WSL	<ul style="list-style-type: none"> <li>▪ Description: Swiss Federal Institute for Forest, Snow and Landscape Research</li> <li>▪ Contact Information: Konrad Steffen, Director <a href="mailto:konrad.steffen@wsl.ch">konrad.steffen@wsl.ch</a></li> <li>▪ Webpage: <a href="http://www.wsl.ch">www.wsl.ch</a></li> </ul>
Empa	<ul style="list-style-type: none"> <li>▪ Description: Application and technology-focused research institute for materials and technology (materials &amp; surfaces, civil engineering, biomaterials, energy)</li> <li>▪ Contact Information: Gabriele Dobenecker, Head Marketing, Knowledge and Technology Transfer <a href="mailto:gabriele.dobenecker@empa.ch">gabriele.dobenecker@empa.ch</a></li> <li>▪ Webpage: <a href="http://www.empa.ch">www.empa.ch</a></li> </ul>
Eawag	<ul style="list-style-type: none"> <li>▪ Description: Aquatic research center promoting the transfer of research to practice</li> <li>▪ Contact Information: Anne Dietzel, Knowledge Transfer &amp; Continuing Education <a href="mailto:anne.dietzel@eawag.ch">anne.dietzel@eawag.ch</a></li> <li>▪ Webpage: <a href="http://www.eawag.ch">www.eawag.ch</a></li> </ul>
CSEM	<ul style="list-style-type: none"> <li>▪ Description: Private research centre fostering innovation in microtechnology and ICT</li> <li>▪ Contact Information: Georges Kotrotsios, Vice-President, Marketing &amp; Business Development <a href="mailto:georges.kotrotsios@csem.ch">georges.kotrotsios@csem.ch</a></li> <li>▪ Webpage: <a href="http://www.csem.ch">www.csem.ch</a></li> </ul>
Universities of Applied Sciences	<ul style="list-style-type: none"> <li>▪ Description: 7 different Universities of Applied Sciences. Active in applied research close to industry</li> <li>▪ FHO: University of Applied Sciences Eastern Switzerland; <a href="http://www.fho.ch">www.fho.ch</a></li> </ul>

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|  | <ul style="list-style-type: none"><li>▪ BFH: University of Applied Sciences Bern; <a href="http://www.bfh.ch">www.bfh.ch</a></li><li>▪ FHNW: University of Applied Sciences Northwestern Switzerland; <a href="http://www.fhnw.ch">www.fhnw.ch</a></li><li>▪ HSLU: University of Applied Sciences Lucerne; <a href="http://www.hslu.ch">www.hslu.ch</a></li><li>▪ HES-SO: University of Applied Sciences Western Switzerland; <a href="http://www.hes-so.ch">www.hes-so.ch</a></li><li>▪ SUPSI: University of Applied Sciences of Southern Switzerland; <a href="http://www.supsi.ch">www.supsi.ch</a></li><li>▪ ZHAW: Zurich Universities of Applied Sciences; <a href="http://www.zhaw.ch">www.zhaw.ch</a></li></ul> |
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*\* The organisations/companies should be present in RoK or having active cooperation programmes with RoK.*