⊕ **SWITZERLAND GLOBAL ENTERPRISE**

KEY FIGURES

75
data centers, also called colocations, used by several organizations at the same time

5th
place - Countries with the largest number of data centers in Europe

1st
place
Fixed-broadband connections per person

DATA CENTERS IN SWITZERLAND

AT A GLANCE

Companies nowadays are confronted with ever-increasing volumes of data, which they must store securely in up-to-date facilities. Switzerland recognized this change at an early stage and turned itself into a center for the storage of sensitive data. The high standards in data protection, as well as Switzerland's political and economic stability, offer the ideal framework conditions. Switzerland also offers a large number of data centers with excellent server infrastructure, rapid internet connections, a stable and cost-effective power supply and well-trained ICT technicians.

Data centers in Western Europe
Ranked by number

Country	Number	Country	Number
🇬🇧 United Kingdom	264	🇮🇹 Italy	74
🇩🇪 Germany	194	🇪🇸 Spain	61
🇫🇷 France	147	🇸🇪 Sweden	50
🇳🇱 Netherlands	100	🇧🇪 Belgium	32
🇨🇭 Switzerland	75	🇮🇪 Ireland	22

Source: datacentermap, 2019

A selection of colocation data center operators in Switzerland

BrainServe	EveryWare
CKW LuZ	Green DC
Colt	Interxion
Datahub	IWB
Equinix	Swisscom
e-shelter	SafeHost

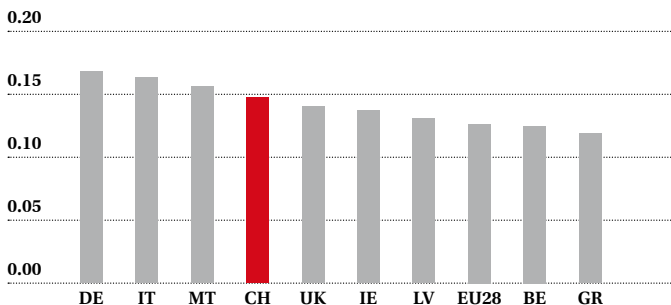Source: asut, 2018

RESEARCH AND DEVELOPMENT (R+D)

- Switzerland is **highly innovative** in comparison to other countries. Considering the number of European patent applications in relation to the number of inhabitants, Switzerland is again ranked first in 2019 with 956 applications per million inhabitants.

- Switzerland has **a wealth of know-how in the field of cybersecurity**. Swiss companies such as Crypto, Protonmail, Qnective and Adeya are among the leading international players in the information security sector.

- Switzerland benefits from **highly qualified personnel with an affinity for new technologies**. Hence it regularly ranks among the top countries in international comparisons for the relevant fields, be it in the Digital Competitiveness Index (IMD) or the Global Innovation Index (INSEAD).

- ETH Zurich trains s**pecialists in the fields of Information Security, System Security and Network Security** at the Institute for Information Security. The Zurich Information Security and Privacy Center (ZISC) is also part of the institute. The university works closely with companies from the industry to conduct the latest research and offer modern teaching solutions within the field of information security.

- ETH Zurich runs the Swiss National Supercomputing Center, the **CSCS**. Thanks to its sophisticated cooling system using water from the lake, the CSCS is now **one of the most energy-efficient computing centers in the world**.

COSTS AND FINANCING

- Switzerland has moderate and stable electricity prices. Switzerland also enjoys a high level of self-sufficiency in terms of energy supply, so it is less dependent on imported electricity than other countries.

European industrial electricity prices
in CHF/kWh, medium voltage

Sources: Swissmem «Panorama 2018», Federal Statistical Office, Eurostat

- Being at the center of Europe with a politically stable environment, security of power supply, strong connectivity and a reputation for technical innovation, **Switzerland is an ideal location to build data centers**. Between 200 and 400 million Swiss francs is invested each year in developing new data centers in Switzerland.

- Switzerland's location development policy offers various funding programs at federal and cantonal level. For example, startups or newly established foreign companies are eligible for **partial or in some cases complete exemption from corporate and capital taxes** at cantonal level for a period of up to ten years.

FRAMEWORK CONDITIONS AND MARKET ENTRY

- Increasing virtualization, ever greater use of cloud services, and the rise in outsourcing/colocation are leading to further growth in data center space. The total floor area of data centers operated by commercial providers ("third-party providers") in Switzerland is around 200,000 square meters – equivalent to over 27 soccer fields. Within Europe, Switzerland ranks **in the top ten in terms of the number of third-party data centers**.

- In Europe, Switzerland ranks **fourth for the number of secure internet servers** per million inhabitants.

Secure internet servers in Europe
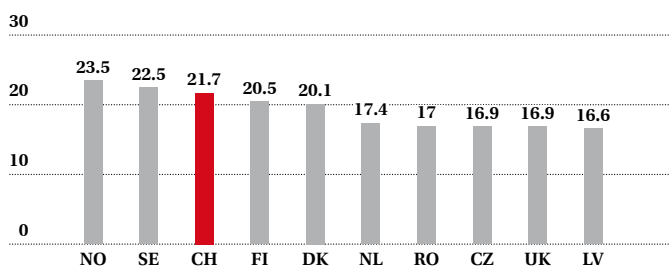Number of secure internet servers per million inhabitants, 2018

Country	Number
Denmark	123,074
Netherlands	100,585
Ireland	69,792
Switzerland	68,137
Germany	56,392
Estonia	48,934
Finland	33,984
United Kingdom	27,250
France	20,415
Italy	12,256

Source: The World Bank, 2019

- The **area used for data centers in Switzerland has consistently increased by around 10-15% over the last few years**. Along with improvements in efficiency through virtualization, Switzerland fosters favorable conditions for positioning itself internationally as a secure and high-quality data storage location.

- Switzerland enjoys an **excellent data hosting infrastructure**. There is a rapidly growing market for providers of data centers with state-of-the-art infrastructure which is extremely well protected against physical risks, as well as threats arising from cyber attacks. As of 2019, 75 data centers – so-called colocations – are operating in Switzerland, used by several companies and distributed throughout the country.

- **Data protection and privacy are traditionally very important in Switzerland.** For example, there are significant hurdles to be overcome if the state wants to access the data of private individuals. Unlike in states such as Sweden or the USA, it takes a judicial decision in Switzerland for government authorities to be allowed to access data.

- According to the Data Protection Act, Switzerland has a **Data Protection and Information Commissioner**, who is responsible among other things for supervising federal bodies and private individuals.

- International studies carried out by the OECD, IHS (Information Handling Services) and Akamai regularly show that Switzerland possesses **one of the best information and telecommunications infrastructures in the world**. According to a study carried out by IHS (Broadband Coverage in Europe 2017), the availability of broadband in rural regions of Switzerland is about twice as high as the EU average. Switzerland also has the most fixed-broadband connections per head of population of any country in the world.

- In the **asut** Data Center Infrastructure Panel, Switzerland has a **national center of excellence** which deals with issues such as location development, energy efficiency, power supply, data center facility management and operations, thus providing benefits for the entire industry.

- The Data Center Risk Index assesses countries according to how well-suited they are as a location for data centers. In 2016, Switzerland was ranked third among the 37 countries surveyed in this index. Switzerland ranks best for ease-of-doing-business criteria. The index shows that long-term and secure storage of data is provided in Switzerland.

Internet connection speeds
Average speed for households in Europe in Mbps

Source: akamai, 2017

Attractiveness of data center locations worldwide
Data Center Risk Index

Country	Rank
Iceland	1
Norway	2
Switzerland	3
Finland	4
Sweden	5
Canada	6
Singapore	7
South Korea	8
United Kingdom	9
USA	10

Source: Cushman & Wakefield, Data Center Risk Report 2016

TESTIMONIAL

"The datacenter industry continues to boom. Both today and tomorrow, it will form the physical basis of all the major digital transformation projects: big data, cloud computing, Industry 4.0 and virtual reality. For these challenges, there is no way to avoid the need for scalable, powerful, reliable and secure data centers. In this regard, Switzerland is playing in the top league and will continue to offer an excellent framework for the future. The increasing sensitivity to energy use in the Swiss economy also speaks in favor of professionally operated data centers, which make an important contribution to energy efficiency."

FRANK BOLLER
CEO green.ch AG
www.greendatacenter.ch

CURRENT DEVELOPMENTS

- In April 2018, the Federal Council adopted the newly developed **National Strategy for the Protection of Switzerland against Cyber Risks (NCS)** for the years 2018-2022. The main components of the strategy are the development of skills and knowledge, the promotion of international cooperation through the strengthening of incident and crisis management, and cooperation in cyber prosecution extending even to measures for cyber defense by the army.

- Due to the rapid technological developments of recent years, an update of the **Swiss Data Protection Act** is underway. An adjustment of Swiss laws to the data protection legislation at the European level (**GDPR**) is also being pursued in order to ensure equality of data protection between Switzerland and the EU.

CONTACTS AND OTHER INFORMATION

Authorities and regulators
Federal Office of Communications
www.bakom.admin.ch

Federal Office of Information Technology, Systems and Tele-communication
www.bit.admin.ch

Federal Data Protection and Information Commissioner
www.edoeb.admin.ch

Publications and Further Information
Study on Broadband Coverage in Europe 2017
ec.europa.eu

IWSB: Datentresor Schweiz
(available in German)
www.asut.ch

Campaign – Less Electricity and More Efficiency in Server Farms and Data Centers (available in German/French/Italian)
www.energieschweiz.ch

Data Center Map
www.datacentermap.com

Associations and networks
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S-GE resources
Handbook for Investors
www.s-ge.com/handbookforinvestors

More fact sheets on Switzerland as a business location
www.s-ge.com/factsheets

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