

Cyber. Security. Investment.

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Global cyber news in recent months

- **MSFT** is **quadrupling** its cybersecurity investment to **\$20 billion** over the next five years (2022, CNBC)
- **Google** acquires **Mandiant** (cyber-security services) for 5.4bn USD (08.03, Bloomberg)
- **Google** acquires Israeli cyber startup "**Siemplify**" (SIEM orchestration tool) for 500m USD (04.01, Crunchbase)
- **Fireblocks** (digital asset security infrastructure technology) raises **550m USD** at 8.5bn USD valuation (27.01, Crunchbase)
- **Hubspot** hacked, causing data breach (18.03, Coindesk)

War in Ukraine – Cyber Aspects

- During a two-week blitz in mid-February, hackers received access to dozens of computers belonging to multiple US-based energy companies, including **Chevron Corp**, **Cheniere Energy** Inc. and **Kinder Morgan Inc.** (Bloomberg)
 - The companies were attacked in parallel to the Russian invasion of Ukraine (Bloomberg)
- FBI warns of possible threats to **US and SATCOM** networks (18.03, Reuters)
- Estimates suggest there may be **only two months** of **disk storage space** left across major Russian businesses and government entities (17.03, Rapid7)
- A **deepfake** video of Zelenskyy is removed by **Facebook** (17.03, Rapid7)
- Fake **Russian app** deploys various **malware** on Ukrainian entities (16.03, Rapid7)
- Still **no big cyber incident occurred** since the invasion
 - Remember **NotPetya**, which occurred in 2017, and cost 10bn USD in damages to companies such as Maersk, Merck, Reckitt, Fedex (Bloomberg)
- Every enterprise we talked to is on **high alert** (Swiss banks, European retailers) (source: Cyverse AG)
- Certainly **increase in phishing attacks** since the beginning (source: Cyverse AG)

The perception of cyber-security is changing in recent months in Switzerland

Swiss perspectives in 10 languages
07.Oct.2021
SWI swissinfo.ch
More Swiss firms facing cyber-attacks and ransom demands

Swiss perspectives in 10 languages
11.Oct.2021
SWI swissinfo.ch
Hackers target the Swiss town of Montreux

Swiss perspectives in 10 languages
20.Jan.2022
SWI swissinfo.ch
Hack of Red Cross exposes data on over 500,000 vulnerable people

Swiss perspectives in 10 languages
05.Dec.2021
SWI swissinfo.ch
Ransomware attacks on the rise in Switzerland

Swiss perspectives in 10 languages
18.Jan.2022
SWI swissinfo.ch
Cyberattacks tops list of Swiss firms' worries for 2022

Tuesday, 15 March 2022 11:56
Banks Fear Cyber Attacks on Swift
finews.ch

Swiss perspectives in 10 languages
02.Jul.2021
SWI swissinfo.ch
Swiss electricity grid vulnerable to cyberattack

Notable cyber attacks in the Swiss market (last 12 months)

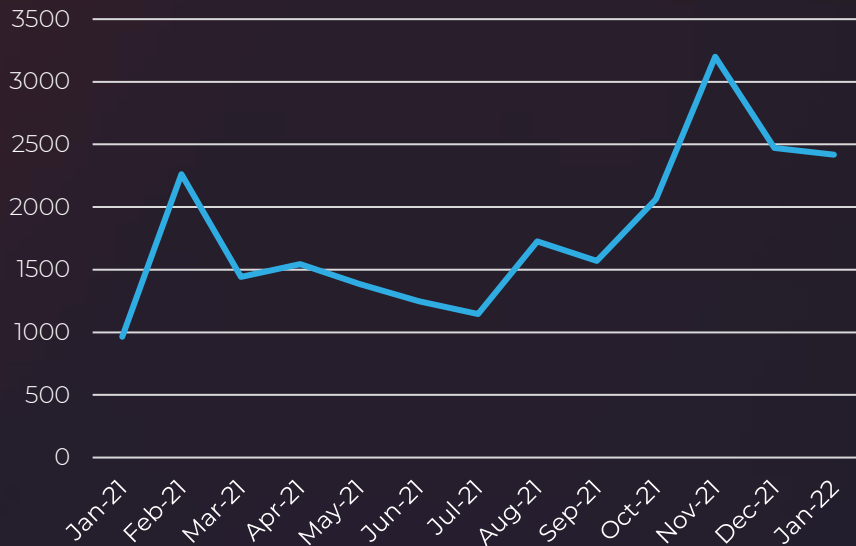
- **International Red Cross** - data leak (2022, *International Red Cross*)
- **Emil Frey AG** - ransomware (2022, *NZZ*)
- **Comparis** - ransomware (2021, *Comparis*)
- **Swiss retailer** - ransomware (source: internal)
- **Neuchâtel Cantonal Bank** - Data breach (2021, *Swissinfo*)
- **Zurich Insurance** - Data breach (2021, *IT-Markt*)
- **City of Montreux** – Data Leak (2021, *Swissinfo*)
- **Canton & City of St. Gallen** – Data Leak (2021, *Swissinfo*)



state of cyber Switzerland

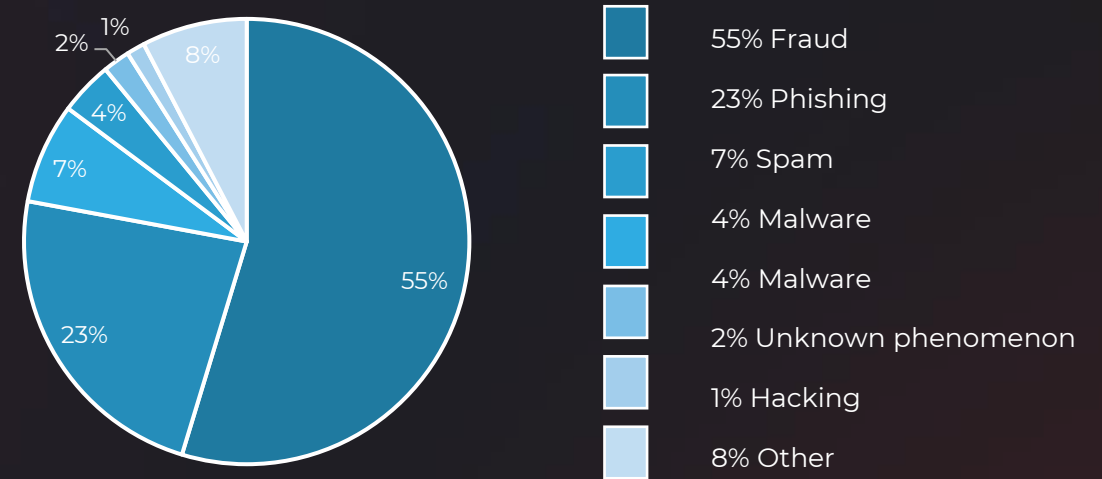
Number of reports received over the last 12 months

SOURCE: Swiss National Cyber Security Center NCSC



Type of incident reported over the last 12 months

SOURCE: Swiss National Cyber Security Center NCSC



On average, the Swiss National Cyber Security Report (NCSC) received roughly **1'800** reports each month for the last 12 months.

In the first half of 2021, the NCSC received a total of 10'234 reports. This is almost **twice** the number received in the first half of 2020. Over the last 12 months, the NCSC received **23'469** reports in total (Jan 21 – Jan 22).

Switzerland is investing into cyber-security

1.12 B

CHF billion cumulative total invested capital in 142 ICT start-ups
(2021, Swiss ICT Investor Club, SICTIC)

>1200

Swiss patents in network security
(2020, Institute for intellectual Property, IGE)

2.44 B

CHF billion expenditure in Swiss ICT security market (2020, Statista)
CH 3.2% of GDP, Italy 4.9%, France 5.1%, China 5.9%, US 7.36%

6th

place - number of secure internet servers per one million inhabitants (2021, knoema)
1st United States, 2nd Germany, 3rd Japan

There are more and more **Swiss** startups in cyber-security



Anapaya is a developer of an internet architecture platform intended to provide secure inter-domain routing.

Zürich, Switzerland



Next generation Confidential Computing solutions securing data at rest, in motion and in use.

Lausanne, Switzerland



Saporo's mission is to help organizations increase their cyber resistance no matter their size or industry.

Lausanne, Switzerland



Secure Customer Access. Build trust, not inconvenience. The Platform authenticates your users, however you want it.

Zürich, Switzerland



This is how the Israeli cyber map of startups looks like



Switzerland is a highly attractive economy for hackers – it would profit greatly from a thriving cyber-security industry

\$7.8 trillion

Amount in client assets in Switzerland *(2020, Swiss Bankers' Association)*

\$2.2 trillion

Volume of securities traded on Swiss Stock Exchange *(2020, Swiss Bankers' Association)*

- Switzerland is HQ to many systemically critical global companies (ABB, Nestle, UBS, Credit Suisse, Roche, Novartis)
- Over the last decade, Big Tech-companies have chosen Switzerland as European operational HQ (Google, Amazon, eBay)

But the talent pool and experience is obviously different here

- More **academic**, rather than **hands-on cyber-defense** experience (for obvious reasons)
- Military service is **not breeding cyber experts** like in Israel – different system
- According to the Swiss Cyber Institute, the number of **vacant cyber security positions** will **rise by 20%** from 1.5 million in 2015 to 1.8 million in 2022

Swiss enterprises are investing millions into next-gen cyber-defense

Tier-1 financial institutions:

- Cyber risk quantification
- Darknet monitoring automation
- Zero trust architecture

Tier-1 Industry:

- IoT Security
- OT Security
- Continuous attack

Critical infrastructure

- OT Security

Technologies we see emerging

- Mobile defense
- SOC automation
- API defense
- Restoration from ransomware
- Software supply chain

Swiss SMEs are becoming increasingly aware of cyber risks, but are still not investing enough

- 99% of Swiss companies are SMEs
 - They are the backbone of the Swiss economy, but also particularly **vulnerable to cyberattacks** (2022, Federal Statistics Office (FSO))
- Cyber attacks are **the number one risk** for Swiss companies (Allianz Risk Barometer, 2020)
 - **One in three SMEs** has already had to deal with cyber incidents - and this figure is rising steeply
- We are investing in a solution that can disrupt the market – **Automated Cyber-Defense for SMEs**

Cyber-Hygiene Is key

Key steps for good cyber hygiene

- Install reputable antivirus and malware software
 - Use network firewalls
 - Update software regularly
 - Set strong passwords
 - Use multi-factor authentication (MFA)
 - Employ device encryption
 - Back up regularly
 - Secure your router
- Do not **click** on anything you do not recognize
 - Do not **connect** to unsecure networks
 - Do not **share** your passwords with anyone

An outlook to the future: A **technologically-literate** **country?**

- There's not enough **discussion** around **technology education** in schools, newspapers
- There's a huge opportunity here: over **5'000 Googlers in Zürich** alone
- Not knowing **how to code** – is like not knowing how to do math or speak English – it will make our children handicap in 10 years
- The Swiss ship **needs to start adapting** to change faster than before; **technology is moving very fast**, Switzerland cannot afford to move slowly

Questions?

Thank you.

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