

THE
Futuremover



Is Switzerland a Futuremover?

PERSPECTIVES

How Well Prepared
Is Switzerland
for the Future?

PAGE 10

INTERNATIONAL

Swiss
Futuremovers
in the World

PAGE 18

SHORT PROFILES

Futuremovers
from Business, Science
and Culture

PAGE 24



CONTENTS

- 6 How Switzerland Shaped the Future
- 8 What Do Young People Expect from Switzerland?



PERSPECTIVES

How Well Prepared Is Switzerland for the Future?

- 10 Education System
- 12 Digital Infrastructure
- 14 Environment
- 16 Economic Structure

- 18 Swiss Futuremovers in the World
- 20 Globalance – a Futuremover in the Finance Market
- 22 Capitalism for the 21st Century
- 24 Innovative Swiss Futuremovers
- 27 Futuremovers 2024: Green Business Award

IMPRESSUM

PUBLISHER
Globalance Bank AG
Gartenstrasse 16
CH-8002 Zurich
+41 44 215 55 00
info@globalance.com
globalance.com

PROJECT MANAGEMENT
Nicole Stappung

EDITORIAL COLLABORATION
Rahel Lüönd
etextera

LAYOUT AND DESIGN
Daniel Rütthemann

PRINT
AVD Goldach

Published in
August 2024

PRINTED IN SWITZERLAND



Copyright © 2024
Globalance Bank AG
All rights reserved

With AI and common sense.
We created these images with
the use of AI tools.



From tradition to transformation: Switzerland is in a good starting position for the future.

Dear Readers

On the occasion of Switzerland's birthday, we present a special edition of the Globalance *Futuremover*. We invite you to join us in taking a look at our country and its role in a rapidly changing world by asking "Is Switzerland a futuremover?". Switzerland has always been synonymous with stability, precision and innovation. But how forward-looking is our small but influential country really? In this issue, we focus on the key areas of technology, economic structure, education and the environment in order to determine whether and how Switzerland can maintain its leadership position in the future.

Switzerland has an impressive track record in developing and implementing new technologies. From the first mechanical clock to the latest medical technologies – Swiss ingenuity has inspired the world time and again. Today, our research centres and start-ups are pioneers in areas such as artificial intelligence, blockchain and biotechnology. But how can we secure this leading edge in an increasingly digitised world?

In view of it having one of the highest per capita incomes in the world and a diverse economic landscape ranging from traditional industries to high-tech companies, Switzerland is also an impressive example of economic success and resilience. But are our economic structures agile enough to remain competitive in the future?



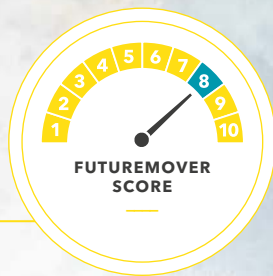
In addition to these topics, we introduce you to a number of inspiring Swiss figures who are creating a stir far beyond our country's borders and leaving their mark far away. Their stories are striking proof that Switzerland is also perceived internationally as a futuremover.

Dear readers, let us explore together how Switzerland can consolidate and expand its good position. I hope that you will find it an inspiring read and wish you a wonderful 1st of August.

Kind regards,

Reto Ringger
Founder and CEO

Is Switzerland a Futuremover?

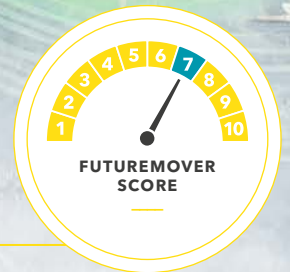


EDUCATION SYSTEM

Smart System

Anyone who has enjoyed the Swiss education system has excellent qualifications for the international labour market. But what is true for individuals is also true for systems: they only remain good by constantly evolving. Digitisation, networking with the world of work and thus dealing with the shortage of skilled professionals, as well as inclusion and diversity, are issues that we must address today – so that we can continue to be proud of Switzerland's clever system tomorrow.

→ Page 10

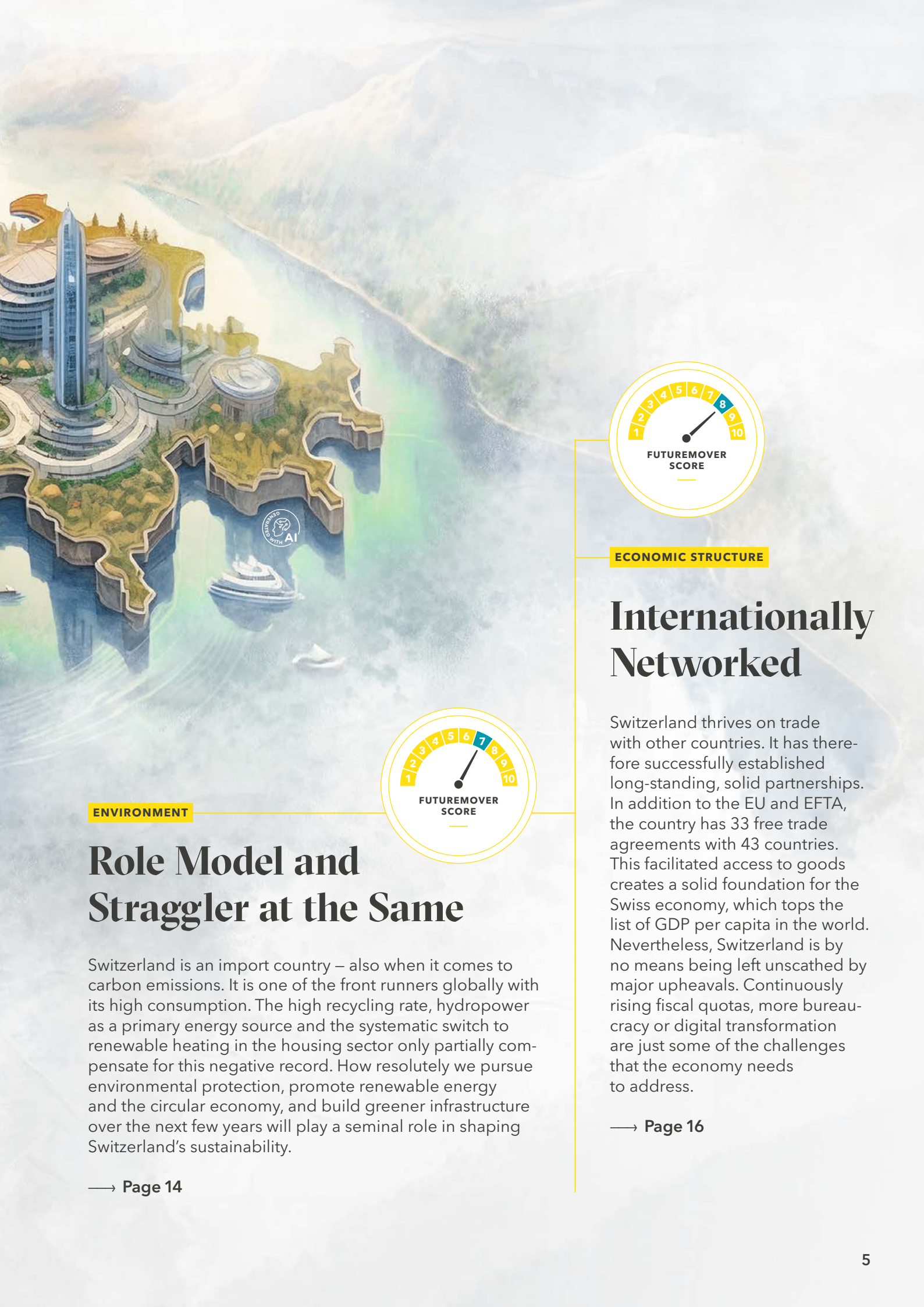


DIGITAL INFRASTRUCTURE

Digitally Prepared

Like a body's neural pathways, our digital infrastructure transports the substances we need for life and the economy. One thing is clear: thanks to its excellent broadband coverage and the expansion of the fibre-optic network, Switzerland is pretty fit. But it also needs innovative technologies such as AI, IoT or blockchain, which can enable seamless co-existence in the digital space and further strengthen our position alongside a robust infrastructure. In this respect, it is worth taking a look at South Korea, which has advanced to world leader in this area.

→ Page 12

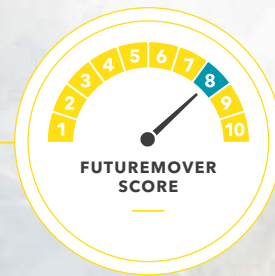
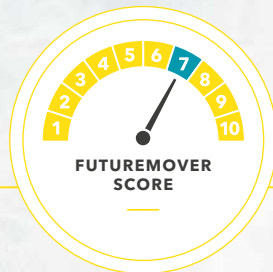


ENVIRONMENT

Role Model and Straggler at the Same

Switzerland is an import country – also when it comes to carbon emissions. It is one of the front runners globally with its high consumption. The high recycling rate, hydropower as a primary energy source and the systematic switch to renewable heating in the housing sector only partially compensate for this negative record. How resolutely we pursue environmental protection, promote renewable energy and the circular economy, and build greener infrastructure over the next few years will play a seminal role in shaping Switzerland's sustainability.

→ Page 14



ECONOMIC STRUCTURE

Internationally Networked

Switzerland thrives on trade with other countries. It has therefore successfully established long-standing, solid partnerships. In addition to the EU and EFTA, the country has 33 free trade agreements with 43 countries. This facilitated access to goods creates a solid foundation for the Swiss economy, which tops the list of GDP per capita in the world. Nevertheless, Switzerland is by no means being left unscathed by major upheavals. Continuously rising fiscal quotas, more bureaucracy or digital transformation are just some of the challenges that the economy needs to address.

→ Page 16

How Switzerland Shaped the Future

HAS SWITZERLAND BEEN A FUTUREMOVER?

How has it helped shape today's world? Our retrospective reveals that on a small scale, we have always contributed a great deal to steady progress.

What if Einstein had not established the theory of relativity in Bern in 1905? How would we communicate without the WWW, which was invented at CERN (Conseil Européen pour la Recherche Nucléaire) in Geneva? And what political order would the Western states face today without the UN and ICRC based in Switzerland? One thing is clear: our world would be very different. Every innovation alters it – fundamentally or just a bit. Every important invention, every revolution and every innovative decision paves the way for progress – and for the innovations of tomorrow. We want to understand in which areas Switzerland is a futuremover today. And for that, we need to take a look back.

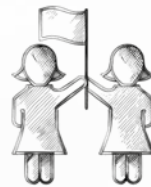
Direct Democracy



The Swiss people have been allowed to hold a referendum against the Swiss parliament's decisions since **1848**. In 1891, the right to submit initiatives also gave the people the right to initiate legislation.

Foundation of the ICRC

In **1863**, the International Committee of the Red Cross (ICRC) was established in Geneva by Guillaume Henri Dufour, General of the Swiss Armed Forces, among others. As the first ICRC president, he provided the world with a vital aid organisation.



Marie Heim-Vögtlin

She was the first woman in Switzerland to start a medical degree in **1868** and opened the first gynaecologist practice in Europe, making a pivotal contribution to strengthening the women's movement in Europe.



Albert Einstein

Albert Einstein, the genius of the century, developed the theory of relativity in **1905** at the University of Bern.

1850

Birthplace of Technical Science – Foundation of ETH

In **1855**, the Confederation created the Eidgenössische Polytechnische Schule (polytechnic institute) in Zurich. The ETH – as it has been known since 1911 – soon became world renowned and is still among the best in the world today.



1900



Construction of the Gotthard Tunnel

The tunnel, built in **1882**, became a milestone for international freight transport and tourism in Europe, uniting the North and the South.



League of Nations and the UN

In **1920**, the victorious powers of the First World War created the League of Nations, based in Geneva, giving Switzerland international influence. The United Nations replaced the League of Nations in 1946.

Switzerland provides an excellent basis for innovative and entrepreneurial personalities.



Dual Education System

Industrialisation called for well-trained professionals – and for the reform of apprenticeships. The Swiss Confederation enshrined the dual education system in law in **1930**.



Balanced Budget Amendment

In **1958**, Switzerland enshrined a debt reduction strategy in its constitution. It introduced the balanced budget amendment, also known as a debt cap, in 2003 due to rising government debt from the 1980s onwards.

Invention of the Web

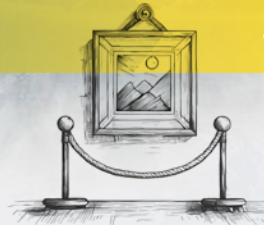
Tim Berners-Lee developed the World Wide Web at CERN in **1989**. The source code was released in 1993 – making the web available free of charge to everyone.



1950

Foundation of CERN

The world's largest research laboratory, CERN, is located in Geneva. It was founded in **1954** to promote civil nuclear research as a counterpart to the United States.



Fondation Beyeler

Ernst Beyeler shaped Basel as a co-initiator of the first Art Basel in 1970 and with the foundation of the Fondation Beyeler in **1982**, which has given Switzerland great prestige in the international art and culture scene.

2000



Quantum Cryptography

Researchers at ETH Zurich made a breakthrough in **2004** with the first marketable solution to securely encrypt data against future quantum computers.

What Do Young People Expect from Switzerland?

THE YOUTH OF SWITZERLAND PLAYS A CRUCIAL ROLE in shaping the country's future. Their voice is therefore one of the most important in the debate on the challenges and opportunities of our time.

Young people have high expectations regarding social justice, sustainability and education – and at the same time take responsibility for their future. But who exactly is Switzerland's youth? They are 15 to 29 years old, well educated, multicultural and tech-savvy.

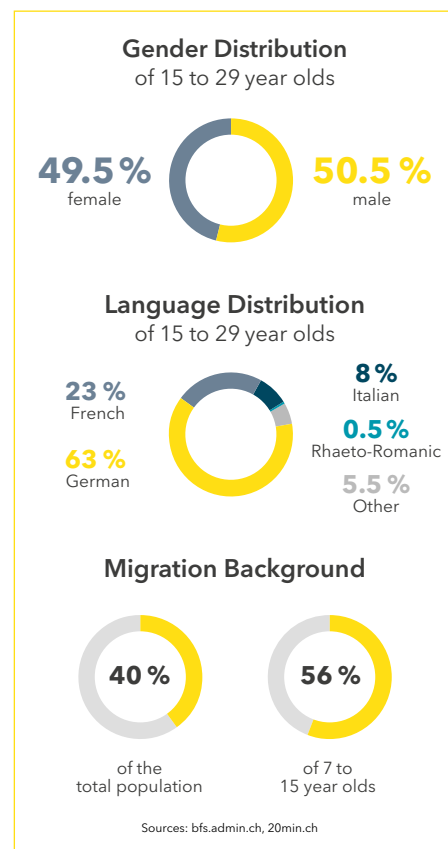
Switzerland has about 1.3 million young people. They are the ones who will be tackling the challenges in the coming decades. The priority topics

are climate change, an ageing population and mental health. So they must come together as a society to solve the complex problems of their time, while at the same time bearing their individual characteristics and life goals in mind. This is already happening in the Future Council U24, where 80 young people between the ages of 16 and 24 living in Switzerland who were randomly selected are working together to develop

solutions. Remo Spichtig, Sarah Modisch and Neelima Khan were part of this.

What Do Young People Expect?

Generations Z (born between 1995 and 2010) and Alpha (born between 2010 and 2025) do no longer accept anything as being irreversible but are willing to tackle things. The following ranking shows the expectations and challenges on key youth issues.



”

I want a safe and peaceful future.



Sarah Modisch

23 years old, management assistant, attends vocational college

“The COVID-19 crisis and current wars have led to great division and fear in our society. Added to this is the major environmental crisis, which does not seem to be getting any smaller. All of these factors, and many more besides, suggest to me that it will not get any easier. I want a safe and peaceful future for all of us. That we work and grow together as a society instead of working against each other. I see the biggest challenge in reconciling the many problems, the huge responsibility and our dreams – and still leading a healthy life.”

”

Democratic principles must be upheld.



Remo Spichtig
25 years old,
computer scientist
and mathematics
student at
ETH Zurich

“The Cambridge Analytica case has shown that data can be misused for political purposes. It is essential for us in Switzerland to ensure that our democratic principles are also observed in the era of social media. Another opportunity and challenge I see is the interaction between the new generation and the world of work as it is today. One boss in particular sticks in my mind as a good role model. He addressed the staff personally, listened to them and was then able to employ them according to their strengths. More and more young people today prefer to work on socially relevant and innovative projects instead of chasing the job with the highest salary.”

“I envisage living in a Switzerland characterised by undeniable progress in innovation, sustainability and technology. A home country where everyone, regardless of background or origin, can aspire to a promising and fulfilling future. From this perspective, I see a Switzerland that invests massively in education and vocational training. I am a firm believer in diversity and inclusion – values that are at the heart of Swiss identity. As a young Swiss citizen, I am convinced that our country is well placed to meet the challenges of tomorrow and to play a pivotal role in building a better world.”

”

Switzerland should become a think tank for young, creative minds.



Neelima Khan
21 years old,
law student at
the University
of Neuchâtel

The Young Generation's Expectations of the Future

Generations Z and Alpha do no longer accept anything as being irreversible but are willing to tackle things. The following ranking shows the expectations and challenges on key youth issues.



EDUCATION

Target-oriented learning

Young people expect targeted and meaningful content that they can process digitally. The change in social values and a lack of resources are the challenges facing educational institutions.



LABOUR MARKET

Appreciation and purpose

Generations Z and Alpha rate appreciation, purpose and creative freedom higher than pay. This may lead to conflict with older employees.



SUSTAINABILITY

In harmony with nature

High expectations of a life with little environmental impact clash with a lack of willingness to give things up. Young people will also be heavily exposed to the effects of climate change.



MENTAL HEALTH

Work-life balance

Mental health is very important to the younger population. Nevertheless, the pressure to perform continues to increase – young people will have to find a way to deal with this that is also compatible with macroeconomic objectives.



FINANCES

Less work for more pay?

Young workers expect a fair wage. However, the level of commitment is no longer as high as in the past and part-time work is normal. In combination with the rising cost of living and high risk of getting into debt, this will become a challenge.

Sources: kfmv and Schwyzer Kantonalbank



We need to constantly expand our knowledge and integrate it into innovations.

Prof. em. Dr Alexander J. B. Zehnder
Former President of the ETH Board

Requirements for a Future-Proof Education System

We must lay the foundations for tomorrow to ensure that education remains a Swiss quality seal in the future too. The labour market is changing at a rapid pace due to economic and technological advances. Learning will therefore take place much more in interdisciplinary projects in the future. The following parameters are particularly important:

FLEXIBILITY

- Modular curricula
- Lifelong learning

TECHNOLOGICAL INTEGRATION

- Digital education
- Access to technology

PRACTICAL FOCUS

- Dual education system
- Business partnerships

CREATIVITY AND CRITICAL THINKING

- Interdisciplinary approaches
- Project-based learning methods

INCLUSION AND EQUAL OPPORTUNITIES

- Equal access to education
- Support systems

+ FUTUREMOVER SWITZERLAND

Education System

THE SWISS EDUCATION SYSTEM HAS A WORLDWIDE REPUTATION OF BEING A PRIME EXAMPLE of excellence and innovative strength. What does it need to also be prepared for the future?

Switzerland has excellent universities such as ETH Zurich and EPFL Lausanne, which contribute to global research and development through international networking and support innovation and critical thinking through interdisciplinary degree programmes.

Dual Education System Delivers Success

However, the success of the Swiss education system does not start here, quasi with the elite, but directly at grassroots level: with the dual education system. It combines theoretical and practical training, which facilitates the transition

from school to work. Close cooperation between educational institutions and industry also ensures that training meets the current needs of the labour market.

Inclusion and Equal Opportunities

Strict quality controls will further ensure that the high level is maintained in the longer term. At the same time, there are efforts in place to ensure equal educational opportunities for everyone, regardless of their economic and social background. Switzerland is therefore in an excellent position to evolve its education system for the future. It must not rest on its laurels.

For children, senior citizens and everyone in between: the ETH Science City gives the general public free access to the exciting world of research.

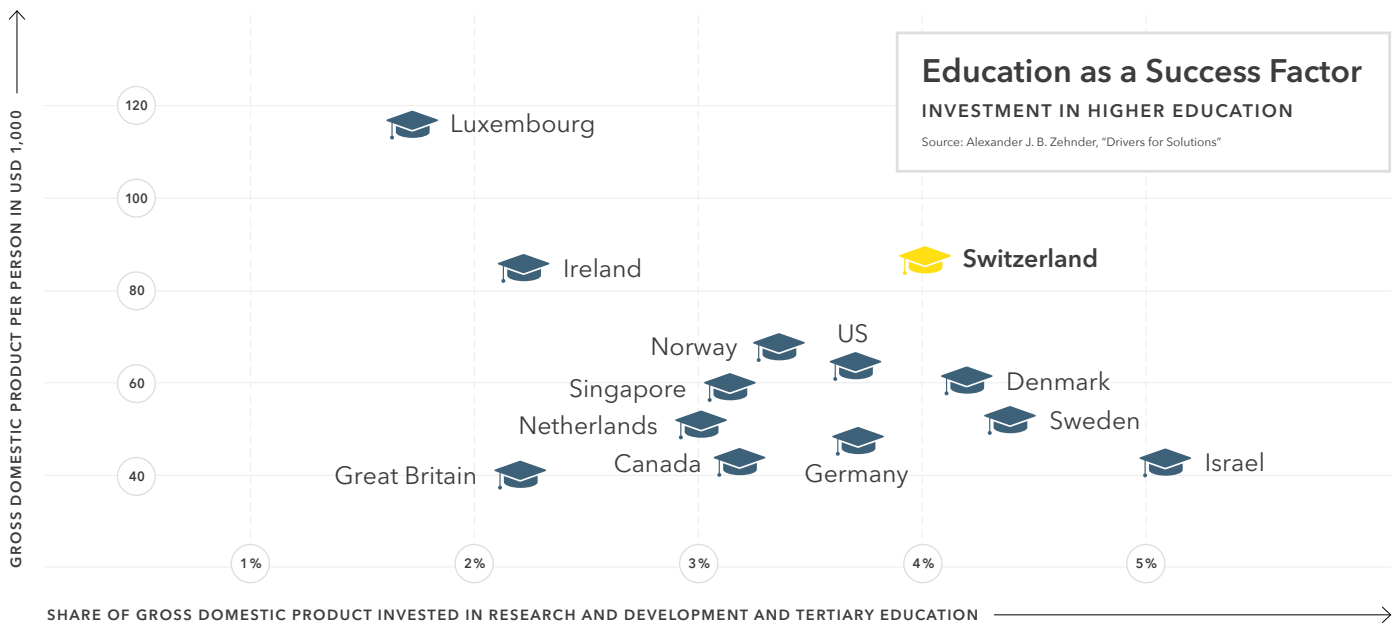


Photo: Rafael Wiedemeyer/Stock

Education as a Success Factor

INVESTMENT IN HIGHER EDUCATION

Source: Alexander J. B. Zehnder, "Drivers for Solutions"



SWITZERLAND IN AN INTERNATIONAL COMPARISON

What We Can Learn from the Netherlands

In terms of technological integration, adaptability, practical focus and equal opportunities, it is worth taking a look at the Netherlands. It already has comprehensive lifelong learning programmes in place and relies on flexible curricula. The Dutch government also ensures that all children and young people have access to modern technology. Higher education institutions also have close partnerships with industry, creating a valuable link between theory and practice. We in Switzerland can learn from the Dutch flexibility and openness to educational approaches.



ABOUT THE NETHERLANDS

The Netherlands has a population of around 17 million people over the same area as Switzerland, making it one of the most densely populated countries in Europe. The country has a strong export economy focusing on agriculture, trade and technology.

These Are the Challenges to Be Mastered by Switzerland

- 1 Financing and allocation of resources:** Disparities in the quality of education can be caused by financial differences among educational institutions, especially in view of the rising costs in education.
- 2 Digitisation:** Fully integrating digital technologies into teaching calls for significant investment and training teachers and pupils in digital skills.
- 3 Shortage of skilled professionals:** A shortage of qualified teachers, especially in science and technology, and insufficient training places in the dual education system are challenges.
- 4 Inclusion and diversity:** The integration of pupils with a migrant background and special needs requires additional resources and special education programmes to ensure access to quality education for all.
- 5 Adapting to the labour market:** Technological advances and globalisation require the constant adaptation of curricula and training methods, as well as early and effective career guidance, to prepare pupils for future challenges.



Scan the QR code now and share this article.



Switzerland's Education System

Switzerland is at a crucial juncture: continuous innovation and adaptation are essential to ensure that the Swiss education system plays a leading role and maintains its position in international competition in the future too.

The foundation stones have been laid. It is now a matter of building on them. The education system of the future must primarily be flexible so that it can adapt to developments as quickly as possible. Artificial intelligence can play a key role in this by enabling personalised learning, optimising administrative processes and supporting teachers. Thus gradually replacing a centralised with an agile structure that can adapt to future changes quickly enough.



Switzerland uses innovative technologies on the basis of stable framework conditions and democratic values.

Johns Höhener
Fintech Influencer of the Year 2024

+ FUTUREMOVER SWITZERLAND

Digital Infrastructure

SWITZERLAND IS MOVING INTO THE DIGITAL FUTURE WITH FORESIGHT AND VISION: with stable framework conditions, democratic values and a well-developed digital infrastructure that makes innovative technologies possible in the first place.

Requirements for a Future-Proof Digital Infrastructure

The digital infrastructure paves the way for a connected and advanced society that successfully addresses the challenges and opportunities of the future. These aspects are crucial:

MODERN TECHNOLOGY

- High-speed broadband Internet in all corners of the country
- Robust security and data protection infrastructure

INNOVATIONS AND POLICIES

- Investments in innovative technologies that enable seamless coexistence and interaction – whether it's AI, IoT or blockchain
- Innovative partnerships between the government and businesses
- Clear policies and regulations to mitigate risk

EDUCATION

- Low-threshold and accessible education

The world rubbed its eyes in amazement when bots like ChatGPT appeared out of nowhere at the end of 2022, re-defining our understanding of writing, creating music and art. But that was just the beginning: modern technologies such as AI, Internet of Things (IoT), blockchain and quantum computing are shaping our future. Once the necessary digital infrastructure is in place, they will transform education systems, revolutionise medicine, and completely change our professions. They will bring more productive models to businesses, educational institutions, as well as hospitals, and create smart, green cities. The digital infrastructure is at the heart of our increasingly digitised world – it is what makes innovation possible in the first place. How evolved is Switzerland?

As an innovative technology location, Switzerland needs an ultramodern infrastructure.

Internet in Switzerland – Ready for the Future

Switzerland's digital infrastructure is impressive: in addition to fast and reliable Internet, 5G standard and comprehensive broadband coverage, Switzerland has been investing in the expansion of its fibre-optic network for years. These are all prerequisites for transferring large amounts of data in a short period of time – and for creating pioneering innovations using the new technologies.

Data in Switzerland – Protected and Secure

Switzerland has also made a name for itself as a secure data location. This is due not least to its political, legal and economic stability. Recent regulations on digital use have created additional security. In 2021, Switzerland passed the world's first blockchain law, and the new Swiss Data Protection Act has been in force since 2023. And it is just a matter of time before Switzerland will regulate the use of artificial intelligence, like the EU with the AI Act.

Digital Education and Research – Switzerland Leads the World

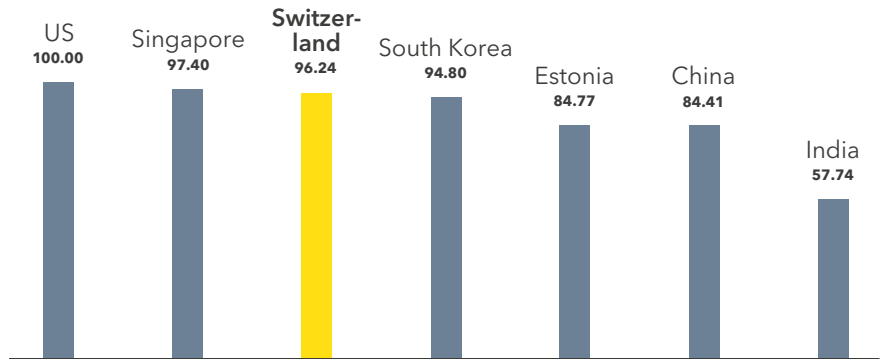
With its high-quality dual vocational education system, together with the world-renowned technical universities of applied sciences, universities and research institutes, Switzerland provides the best breeding ground for innovation and, thanks to its high quality of living, is also attractive to international experts.

Digital Competitiveness

IMD WORLD DIGITAL
COMPETITIVENESS RANKING 2023

Source: IMD World Competitiveness Center

IMD assessed the digital competitiveness of 64 countries on the basis of 54 criteria in the categories of knowledge, technology and future readiness. The maximum score is 100.



These Are the Challenges to Be Mastered by Switzerland

- 1 Direct democracy:** The Swiss people are entitled to have their say, to participate in decision-making and to take part in referendums. This promotes an innovative approach, but it prolongs the decision-making process.
- 2 Federalism and bureaucracy:** The power of the cantons makes it difficult to develop a roadmap with common, clearly defined goals. This is particularly evident in the education sector. Complex and non-uniform framework conditions or lengthy authorisation procedures can also hamper progress.
- 3 eGovernment:** Vote with a click? Register a company online? Use health services digitally? There is still a lack of comprehensive digital services from public administration in Switzerland for it to be able to keep up with other countries. Digital forms of ID, driving licences, health files and signatures are required.
- 4 Digital inclusion:** The average age is rising – and with it the challenge of keeping everyone on board with digital progress. It is not only older people but also poorer or disabled people who find it more difficult to access digital information and services in Switzerland. Programming, data analysis and an understanding of technologies should therefore be integrated into all education plans.
- 5 Healthcare:** Rapid and far-reaching coverage digitisation of administration and services.

SWITZERLAND IN AN INTERNATIONAL COMPARISON

What We Can Learn from South Korea

South Korea is high tech: for example, the country built the 5G infrastructure at a record-breaking speed, setting the stage for innovative solutions based on AI or IoT. South Korea is a world leader in broadband coverage and Internet speed. It also takes digital education for the people and cooperation with businesses very seriously. With the “Korean New Deal” from 2020, the heart of the new economic strategy, South Korea wants to spend trillions on expanding the digital infrastructure, but also on basic scientific work and developing social structures. The programme aims to pave the way for a digitalised future.



ABOUT SOUTH KOREA

South Korea is located at the easternmost tip of Asia, sharing the Korean Peninsula with its only neighbour, North Korea. Devasted by the Korean War, South Korea grew into a modern and wealthy industrial state during the boom in the 1960s. The country is densely populated: nearly 52 million people live in an area two and a half times bigger than Switzerland.



Scan the QR code now and share this article.



Switzerland's Digital Infrastructure

Switzerland is internationally known as an innovative location for technology. Democratic values and stable framework conditions promote progress. The education system, great digital expertise and many universities, technology centres and research institutes such as ETH, CERN or Empa all contribute to its innovative strength. These facilities need a state-of-the-art infrastructure, which is available in Switzerland.

However, federalist and direct democratic structures can also hamper innovative processes. Switzerland pursues a cautious strategy when it comes to expanding its digital infrastructure, which takes cybersecurity and data protection into account. For years Switzerland has ranked number one in the “Global Innovation Index”, but only number 25 in the “Digital Infrastructure” category. Whether Switzerland is slowing down change with this tactic or rather strengthening the trust and confidence that are required for innovation in society remains to be seen.

”

We don't have to save the planet, we have to save ourselves.

Ernst Götsch
Swiss Agronomist in Brazil

Requirements for Sustainable Environmental Management

We must fight climate change in order to restore the balance of nature. Particular attention must be paid to the following key aspects:

RENEWABLE ENERGY

- Investments in clean energy sources
- Technological innovation

CIRCULAR ECONOMY

- Resource conservation
- Sustainable production

SUSTAINABLE AGRICULTURE

- Organic farming
- Biodiversity

ENVIRONMENTAL PROTECTION AND NATURE CONSERVATION

- Conservation of natural habitats
- Climate action

INFRASTRUCTURE

- Green infrastructure
- Sustainable mobility

Switzerland has one of the highest recycling rates in the world.

+ FUTUREMOVER SWITZERLAND

Environment

SWITZERLAND HAS ACHIEVED A GREAT DEAL IN RECENT YEARS, particularly with heating systems. But our footprint remains gigantic.



Photo: Jason Doy/5Stock

Agrivoltaics combines agriculture with electricity generation from solar panels and is able to reduce dependence on fossil fuels.

Switzerland is already attempting to exert a positive influence on greenhouse gas emissions by using incentive taxes. One of the cleverest incentives was the CO₂ levy on fossil fuels introduced in 2008. It was linked to production targets and has steadily increased in recent years because Switzerland did not achieve the targets. As a result, Switzerland is one of the world's leading countries in terms of CO₂ levies at CHF 120 per metric ton. However, the people rejected extending this to petrol and diesel under the CO₂ Act.

Funding Programme Makes an Impact

The government's funding programme for renewable energy, which provides financial support for the environmentally friendly modernisation of heating systems, is effective as well. In 2022, the greenhouse gas emissions produced from heating buildings were 44 per cent lower than in 1990.

Switzerland the Recycling Queen

The polluter pays principle in Swiss waste management has also proven to be an effective means of reducing waste volumes and promoting recycling. By introducing fees based on the amount of waste produced, incentives have been created to avoid waste and to dispose of recyclable materials correctly. As a result of this policy, Switzerland has achieved one of the highest recycling rates in the world.

Switzerland's Footprint

The date when humanity's demand exceeds our planet's biocapacity for the year is called "Overshoot Day". For Switzerland, that date was 27 May in 2024 – meaning that our consumption is way too high. One third of this is attributed to private transport (31%), followed by food (23%). Services, housing and goods make up the rest. After the financial crisis in 2008, the per capita footprint started to fall slowly, having been at a consistently high level for nearly four decades. This is mainly due

IN SWITZERLAND:
13
METRIC TONS

GLOBAL
AVERAGE:
6
METRIC TONS

Greenhouse Gas Emissions per Capita per Year CO₂ EQUIVALENTS

Source: Federal Office for the Environment, key figures on the development of greenhouse gas emissions in Switzerland, 2021

These Are the Challenges to Be Mastered by Switzerland

- 1 **Long political processes:** Long democratic processes often mean years of inaction.
- 2 **Increasing polarisation:** Polarisation between political camps is on the rise.
- 3 **Energy against landscape conservation:** Expanding renewable energy sources conflicts with landscape conservation.

to the decarbonisation of heating systems. Nevertheless, the carbon footprint per capita, including imported goods, remains at around 13 metric tons, more than twice the global average of 6 metric tons.

SWITZERLAND IN AN INTERNATIONAL COMPARISON

What We Can Learn from Sweden

While Sweden generates more than 60 per cent of its energy from renewable sources, the figure is less than 30 per cent in Switzerland. Extensive nature conservation measures and a strong climate policy further ensure a reduction in carbon emissions in the Scandinavian model. Sweden is also an interesting example in terms of green urban development: Stockholm is growing sustainably – and is therefore one of the pioneers among the major cities. In addition to a sophisticated mobility and waste system, a dense district heating network spans the city. This system heats buildings using waste heat from data centres, among other things.



ABOUT SWEDEN

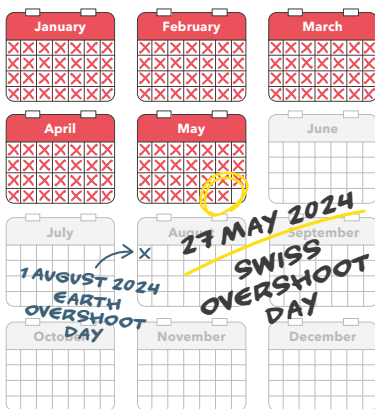
More than 10 million people live in Sweden in an area about 11 times the size of Switzerland. Sweden's economy is considered one of the most competitive in the world. Once dependent on timber, iron ore, and hydropower, it is now dominated by international trade, is high tech and well diversified.



Scan the QR code now and share this article.

Overshoot Day 2024

A LOOK AT THE CONSUMPTION OF ECOLOGICAL RESOURCES



Source: bafu.admin.ch



FUTUREMOVER SCORE

Switzerland's Environmental Management

Switzerland is heavily involved in environmental issues and plays a globally leading role in waste management, for example. It could also be a futuremover in other areas, such as renewable energy sources or organic farming.

Switzerland is an early adopter. Meaning it responds rapidly to global technological developments and adapts those systems that have proven their worth elsewhere. Nevertheless, our performance record remains inadequate. If this is to change, a clear strategy and unambiguous decisions are required, and they must be resolutely implemented.

Economic Structure

Switzerland is the country with the highest innovative strength in the world for the sixth year in a row.

CREATING AN ECONOMIC ENVIRONMENT

FOR THE FUTURE AND FOR THE LONG TERM requires good planning and a government-backed framework. Switzerland is doing well here, but it still has potential.

Requirements for a Sustainable Economic Structure

A competitive economy and adaptable environment are crucial for a society's prosperity. Particular attention must be paid to the following key aspects:

INNOVATION CAPABILITY

- Research and development
- Education

ATTRACTIVE FRAMEWORK

- Low fiscal quota
- Efficient bureaucracy
- Smart regulation

DIGITAL INFRASTRUCTURE

- Broadband networks
- Digitisation

FLEXIBILITY UND ADAPTABILITY

- Labour market flexibility
- Corporate structures

GLOBAL NETWORKING

- Free trade agreements
- International cooperation

The economic environment in Europe will become more competitive and demanding over the next few decades. The emerging markets have become our competitors and caught us up or in some cases even overtaken us in some areas. Switzerland is involved all over the world and to remain competitive, we must protect today's still attractive conditions and adapt them dynamically to future developments.

Switzerland – an Innovative Country

According to the "Global Innovation Index 2023", Switzerland is the country with the highest innovative strength in the world for the sixth year in a row.

In view of 67.6 points out of 100, it ranks ahead of Sweden (64.2 points) and the United States (63.5 points). At the same time, innovation in our country still predominantly takes place at major established corporations (for example, pharma and industry). The whole world is competing for young companies and talent: so we must create an attractive economic environment for these companies and clusters.

Switzerland – a Well-Regulated Country

Switzerland benefits from a large number of regulations that are established at both national and international level.

These Are the Challenges to Be Mastered by Switzerland

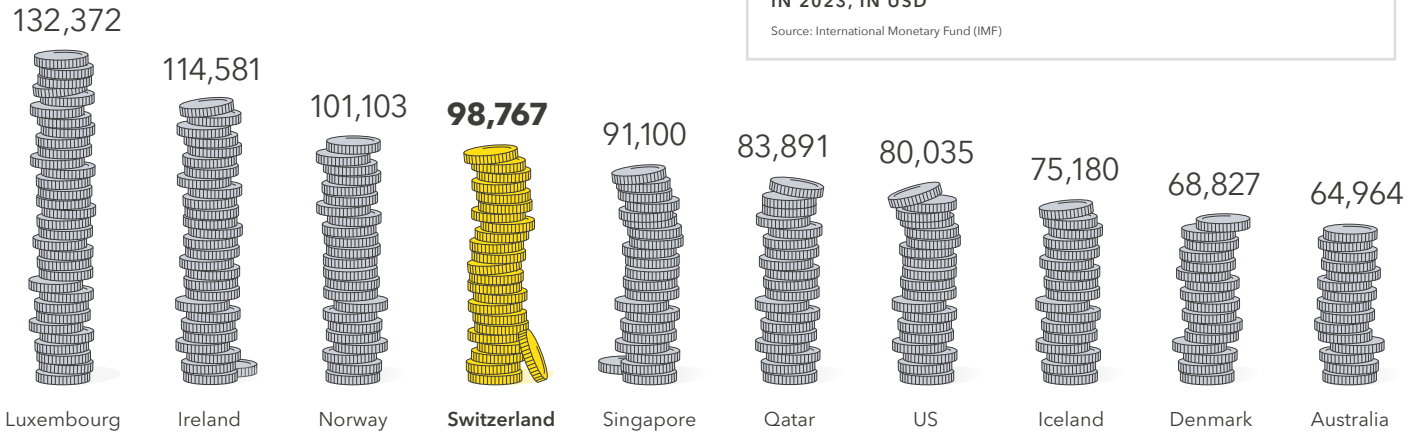
- ❶ **Scarcity of resources:** Imports are needed to meet the demand for energy, raw materials and food. Increasing water shortage during certain periods of the year and the limited availability of land are further challenges.
- ❷ **Demographic change:** The population is ageing, placing a heavy burden on the pension and health care systems. At the same time, the number of people in employment is declining. Answers must be found to this challenge in order to ensure the financing of social security.

- ❸ **Regulation:** Extensive regulations and bureaucratic obstacles, complex directives and lengthy approval procedures are holding back innovation. In addition, federalism makes cross-cantonal cooperation more difficult.
- ❹ **Climate change and pollution:** Rising average temperatures and melting glaciers are a clear indication of climate change in Switzerland. This must be countered by new technologies and innovative methods.
- ❺ **Promoting an entrepreneurial environment:** Creating an attractive environment for start-ups and young companies (financing, taxes, labour market).

Gross Domestic Product (GDP) per Capita

IN 2023, IN USD

Source: International Monetary Fund (IMF)



These promote the country's economic stability, innovative strength and competitiveness, and include the dual education system as well as a detailed data protection law and banking secrecy. We are one of the model students worldwide. Nevertheless, bureaucracy and regulation have constantly increased in the last few years and we must invest in a good framework in future as well.

Switzerland – a Country with International Partnerships

Switzerland pursues an open economic policy and benefits from numerous free trade agreements with various partner countries. As the name implies, the parties involved waive customs duties, export restrictions and import quotas, which makes imports and exports easier. In addition to the EFTA Convention and the agreement with the EU, a total of 33 free trade agreements existed with 43 partners as of 2023. The free trade agreement with China has been particularly important for Switzerland in recent years. For example, thanks to this contractual agreement Swiss companies actually saved 220 million US dollars in 2022, compared to 70 million US dollars in 2018. In Switzerland, the Confederation and other institutions also engage proactively in promoting international networks. They also help facilitate the transfer of technology and know-how across borders. Always with the aim of positioning Switzerland as a future mover.

SWITZERLAND IN AN INTERNATIONAL COMPARISON

What We Can Learn from Singapore

Singapore's "Smart Nation Initiative" enables the flourishing development of smart cities and supports the use of big data and the Internet of Things (IoT). The island and city state has a highly developed infrastructure that creates the basis for technological innovations. Fast broadband connections, modern research facilities and specialist technology parks lay the foundation for global trade and immaterial international exchange. The country also promotes international cooperation with universities. Companies and research institutes also receive comprehensive support from the country and other organisations, both financially and through expertise. In addition, there are tax incentives for start-ups, particularly in the areas of fintech, medtech and greentech. The objective of all of this is to provide the current innovation-driven economy with the best workforce.



ABOUT SINGAPORE

Established in 1819 as a British trading colony, Singapore now has nearly six million inhabitants, making it one of the most densely populated areas in the world. The city is a symbol of innovation and technological progress, with annual investments of around 20 billion US dollars in research and development. Low tax rates, little bureaucracy and transparent regulatory policy make Singapore an ideal location for companies and investors.



Scan the QR code now and share this article.



Switzerland's Economic Structure

In Switzerland, ongoing investments in research and development, leading research institutes and universities support the country's existing innovation capability. Swiss-based companies also benefit from a stable political and legal framework that creates an attractive environment for investors and companies alike. Policymakers, on the other hand, struggle with reform, as it is often delayed by federalism and direct democracy. Another difficulty is adapting existing laws to modern living conditions. As a result, Switzerland is still lagging behind when it comes to equal opportunities for men and women. Seeing challenges as opportunities: Switzerland is on the right track when it comes to innovations. But there is still room for improvement.

USA – WEST COAST



Martin Lotti

The creative mind behind Nike

He's the head designer and director of one of the biggest brands in the world: Nike. Martin Lotti has designed styles such as the Air Max 360, which can be found on millions of feet all over the world. The 50-year-old from Fribourg leaves a tribute to his roots on his shoes in the form of a Swiss cross.

Daniel Humm

He cooked his way to the top

The innovative chef from Aargau has cooked his way into the hearts (and stomachs) of his guests in New York. Eleven Madison Park was the world's first three Michelin-starred vegan restaurant in 2022. During the lockdown, Daniel Humm (48) converted his star restaurant into a soup kitchen, feeding people in need.



USA – EAST COAST



Swiss Futuremovers in the World

About 10 per cent of the Swiss population lives abroad. Some of them have made it to the top of major companies, others are working on the challenges of our time. What they all have in common is that they are helping to shape the future of our world.

BRAZIL



Ernst Götsch

In balance with nature

In north-eastern Brazil, the 76-year-old son of a farmer took over a cocoa farm classified as hopeless back then – and cultivated the same biodiversity as in the rainforest here after just five years thanks to mixed crops that mutually sustain each other. His concept of "syntropic farming" has many followers nationwide and worldwide.



CHINA

Uli Sigg

Committed to Chinese art

The former Swiss ambassador to China, North Korea and Mongolia owns the world's largest collection of Chinese contemporary art.

The 78-year-old used to work as a business journalist in Asia and concluded the first joint venture between a western industrial group and a Chinese state enterprise for Schindler, among many other achievements.

Christine Haruka

JAPAN

Japanese TV star

At the age of just 20, Christine Haruka emigrated on her own to Japan, her father's home country. She made a career for herself there as a reporter, commentator and comedian. Her focus has always been on political issues. Today, the 32-year-old woman from Zurich works out of Tokyo for Japanese regional television.



Barbara George-Jäggli

AUSTRALIA

Climate change researcher

Australia is severely affected by climate change. Biologist Barbara George-Jäggli, who conducts research for the government, is part of the solution. The goal: to cultivate grains that can withstand intense heat periods with little water.



EAST AFRICA

Hans Rudolf Herren

Pioneer of organic farming

The pioneer of biological pest control prevented famine in Africa in the 1980s by inventing a pest control method for mealy bugs. Hans Rudolf Herren (77) received several awards for his commitment. He used the prize money to set up Biovision, a foundation that promotes sustainable farming.



NEW ZEALAND

Urs Hölzle

Swiss Google pioneer

As the eighth employee at Google, the Basel computer scientist was instrumental in the development of the tech giant. After more than 24 years in leadership positions, most recently heading the roughly 12,000-strong team of Google Cloud, the 60-year-old stepped back from management last year.



Globalance Bank

A Futuremover in the Financial Market



THE ROLE OF BANKS

The financial market and the banks have an essential role to play in shaping the future and the technological transformation of our economy. Banks and investors finance infrastructure projects, technological innovations or new companies through loans and equity. They are important enablers for innovation and sustainability.

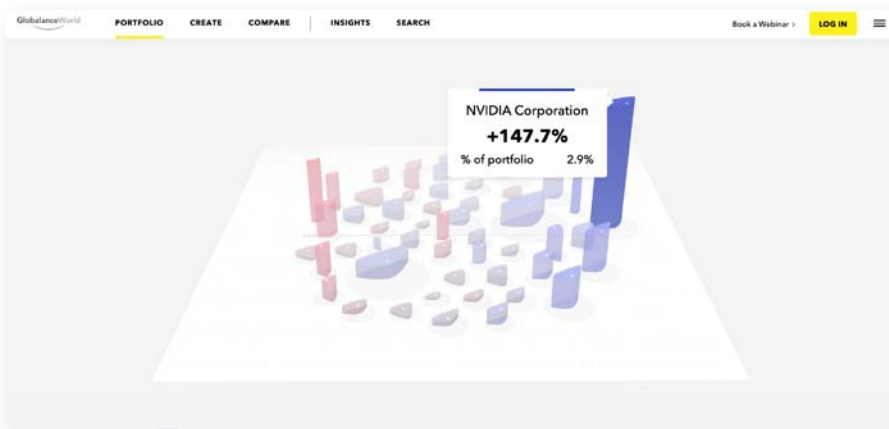
Globalance Bank

Globalance is an owner-managed Swiss private bank that invests in future-oriented themes with a positive footprint. Globalance advises private clients, families, foundations and other banks on how they can invest their assets in a forward-looking way.

The founders of Globalance are pioneers and have been dealing with sustainability and future-oriented investment strategies for almost 30 years.

With its digital and interactive Globalance World® globe, Globalance is the first bank worldwide to illustrate the impact of one's own assets on the economy, society and the environment.

Globalance World® – How Sustainable Are Your Investments?



Financial return in comparison

Globalance World® was designed to give investors full transparency about their investments. In the next few decades, our economy will undergo a far-reaching transformation and it is important to identify which companies are leading the way in future technologies such as decarbonisation, resource efficiency, urbanisation or new mobility. It is essential to adopt different perspectives to preserve and increase assets in this new world.



Top

Winner
Swiss Private Bank
2024
according to BILANZ ranking



29 YEARS

Globalance is a pioneer and a leading provider of future-oriented investments. In 1995, the start-up team launched the world's first asset management company for sustainable investments.



100 %

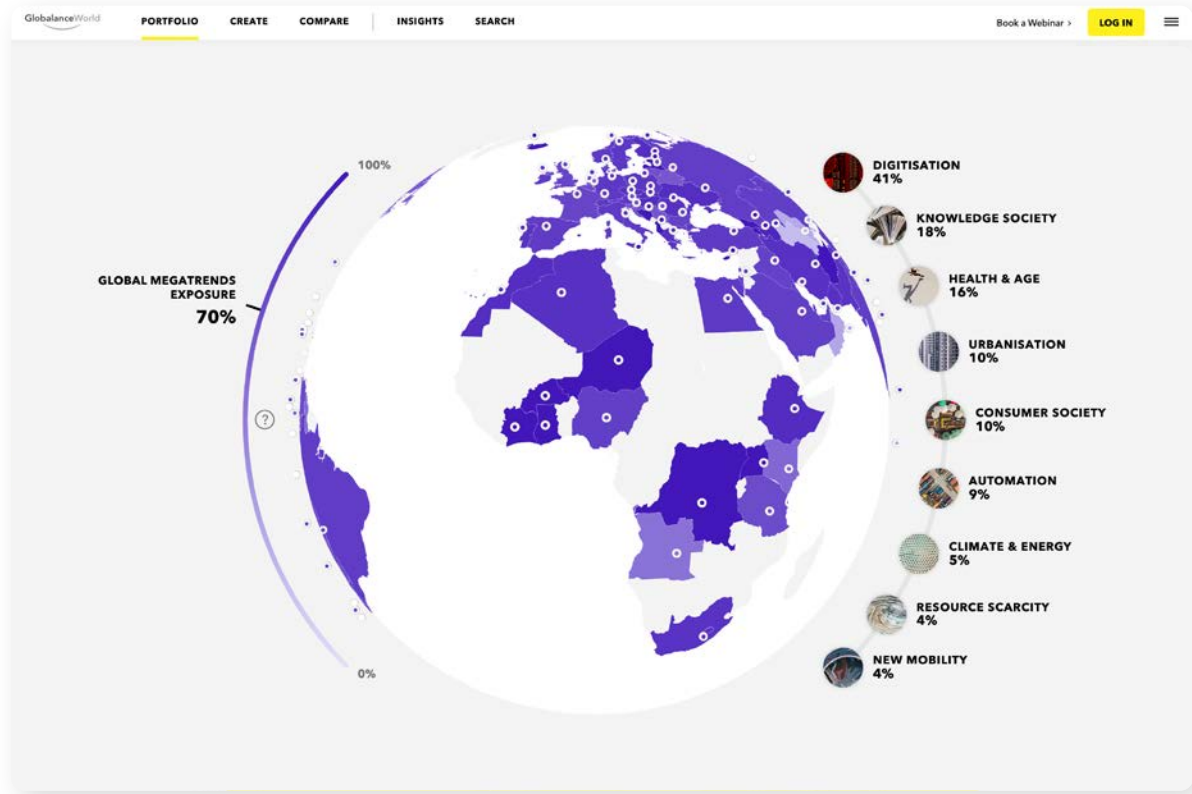
of the employees
have a stake in
the bank.





Check it out now:
globalanceworld.com

Global warming potential in comparison



Megatrend share in the portfolio

- + How sustainable are my investments?
- + What megatrends have I invested in?
- + Do I invest in companies from the old or the new world?
- + And what is my portfolio's impact on the climate?
- + What is the carbon footprint for my investments?
- + How can I improve my investments?

[Do a Future Check Now](#)



We will be happy to analyse the future potential and footprint of your portfolio and highlight any potential for improvement.

globalance.com/en/future-check

Capitalism for the 21st Century



OUR WORLD IS FACING A TURNING POINT. The challenges of the 21st century require a new way of doing business that not only takes economic profit into account, but also the preservation of our natural resources.

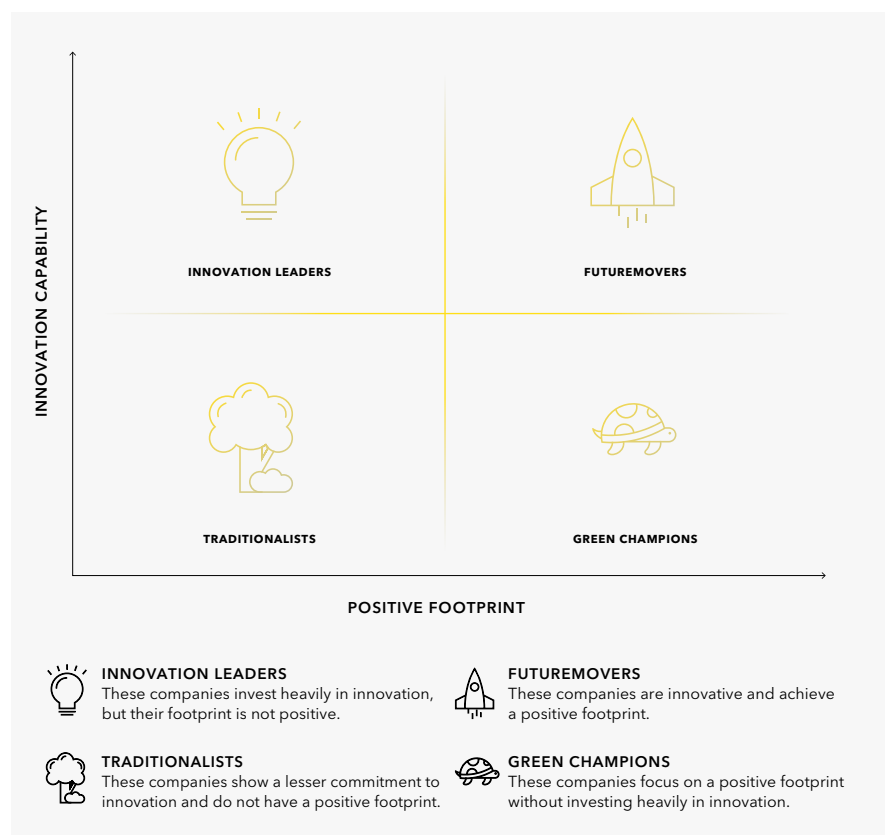
Capitalism has many favourable and effective qualities in its current form. It has promoted innovation, created prosperity and significantly improved the standard of living for most people on our planet.

At the same time, untamed capitalism also has its downsides: we are facing serious challenges, including environmental destruction, loss of biodiversity, resource scarcity and social inequality. Improved capitalism must address these challenges while preserving the positive aspects of the current system at the same time.

Futuremovers – What Distinguishes Them

21st century capitalism is changing the business environment: innovation capability and agility are becoming vital to survive. In addition, more and more relevant stakeholders also expect companies to make a positive contribution to the economy, society and the environment. The Globalance Futuremover Matrix tries to map the companies in these dimensions.

Globalance Futuremover Matrix



DISCOVER FUTUREMOVERS NOW



Find out more about investing in future solutions with a positive footprint.

Globalance Campaign: “Save the Planet. Be a Better Capitalist.”

The “Save the planet. Be a better capitalist.” campaign launched by Globalance means taking responsibility, leaving behind outdated business models that harm our planet and investing capital in the opportunities offered by future-oriented technologies instead. For example, renewable energy sources, electromobility, innovative materials such as nanotechnology, pioneering forms of nutrition, artificial intelligence or smart cities. These promising technologies not only offer attractive potential returns, but also contribute to the ecological balance and improving the quality of life on our planet.

A New Generation of Investors

MORE AND MORE INSTITUTIONAL AND PRIVATE INVESTORS want to achieve a return on their investments in line with the market and a positive impact on the economy, society and the environment.



Institutional and private investors play a crucial role in shaping a future-proof economy. In their role as investors and providers of capital, they have the opportunity to drive pioneering innovations and invest in transformative business models, thus becoming the engine of progress for the economy, society and the environment.

What Is a “Better Capitalist”?

- 1 Being an active owner:** is aware of their role as an owner of assets, utilises their creative options and makes an active contribution
- 2 Considering overarching goals:** is also guided in their investment decisions by fundamental, overarching social goals, such as e.g. the UN’s sustainability goals
- 3 Taking the impact on the economy, society and the environment into account:** is interested in the impact of their financial investments on the economy, society and the environment
- 4 Investing in the future:** supports companies and innovations and invests their assets for the long term, where projects and companies are promoted that are fit for the future and contribute to solving global challenges
- 5 Stewardship and engagement:** as a shareholder, advocates sustainable business models through voting at and dialogue with companies (stewardship)
- 6 Choosing financial partners wisely:** chooses advisers and banks carefully and only works with those that consistently implement the rules of responsible investment and operate free from conflicts of interest or short-term incentive schemes
- 7 Selecting ambitious partners:** requires regular disclosure from banks and invested companies on their ambitions, goals and results
- 8 Demanding transparency:** demands transparency from banks, pension funds and advisers on all financial investments and their interaction between risk, return and impact on the economy, society and the environment
- 9 Setting smart framework conditions:** actively supports efforts to create effective frameworks for a sustainable economy in a way that makes harmful behaviour costly and promotes positive performance
- 10 Partnering with others:** partners with other investors

We would rather invest in tomorrow’s unicorns than in yesterday’s dinosaurs.



CLEVERLY PACKAGED

Jessica Farda

Entrepreneur

Jessica Farda developed a bioplastic film made of seaweed with her start-up Noriware – and completed her studies at the same time.

At the age of 26, Jessica Farda has achieved more than most people in a lifetime. She gave her business idea a boost with CHF 2.7 million in funding and together with Stefan Grieder founded Noriware, a company that produces a bioplastic film made of the renewable raw material algae. The founder from Aargau appears in the “30 under 30” list in the German-speaking edition of Forbes magazine.

But who is this innovative young entrepreneur? Jessica Farda first studied business administration at the University of St. Gallen and then opted for international relations, politics and economics.

She was still studying when she came into closer contact with seaweed as a fast-growing, renewable resource on holiday. That was three years ago – for Jessica Farda it probably feels more like three decades. As in this short time, she has managed to acquire knowledge in all areas that are important for a successful start-up: fundraising, business law, marketing and so much more.

Experimented in the Kitchen

After absorbing everything she could find out about algae, Jessica Farda began experimenting in the kitchen with algae extract and plasticizers. Gradually, she developed an understanding of the raw material and recognised its potential in the packaging industry. “What I’m good at is just going for it,” she said in a recent interview with *Women in Business*. With tenacity and skill, she has simply worked her way through the maze of challenges. She makes no secret of the fact that this process took a lot out of her: alongside funding rounds, reports and appearances, she completed her studies. For Noriware, this is just the beginning: Jessica Farda hopes to have an impact beyond the packaging industry: “My goal is to have a global impact that is quantifiable.”

”

My goal is to have a global impact that is quantifiable.

What Motivates Jessica Farda?

Jessica Farda is a futuremover because she is driving the urgently needed resources transition. Even renewable resources such as wood are coming under intense pressure, as paper and cardboard are increasingly replacing plastic packaging. Algae, on the other hand, grow quickly without the need for much land, which makes them an interesting raw material.

Filtering CO₂ from the air: that's the innovation from Clime-works. More than 800 million US dollars have already been invested in the company's projects worldwide.



Christoph Gebald

Entrepreneur

What Motivates Christoph Gebald?

1.63 degrees Celsius – that's how much warmer the month of May was this year compared to pre-industrial average temperatures. That's what motivates Christoph Gebald. If we want to have any chance of keeping global warming under control, we not only need to reduce emissions drastically but also actively remove carbon dioxide from the atmosphere. That's why every single day he and his team ask the question: how can Climeworks scale up and expand capacity even faster?

”

Carbon dioxide removal must be established as an integral part of global climate action strategies.

CLEANING UP

Christoph Gebald is a mechanical engineer and holds a PhD from ETH Zurich, where he first met his best friend Jan Wurzbacher. Together they founded Climeworks in 2009 to solve the most pressing problem of our time: climate change. Climeworks removes climate-changing carbon dioxide from the air and allows partners to store it safely and permanently deep underground. This technology is called direct air capture and storage (DAC+S). Climeworks operates the two largest renewable energy DAC plants in the world in Iceland.

Scale Up to Gigaton Capacity by 2030

It all started in Switzerland. Having achieved success in the laboratory, the first commercial plant begins operation in Hinwil. The team has now grown to around 500 professionals who conduct large-scale research and development in Zurich and Basel and build plants worldwide.

Now in its third generation of technology, Clime-works recently made a new breakthrough, enabling it to double capacities and halve energy consumption. This generation of plants is already being planned in Louisiana, USA. Climeworks plans to realise several megaton projects by 2030. Three Climeworks projects in the United States have been selected for funding by the US Department of Energy, with the government investing up to 600 million US dollars in Louisiana alone. Climeworks is also developing projects in Norway, Kenya and Canada and checking out other locations – important building blocks for success. And this success is already impressive: over 160 businesses, including Microsoft, J. P. Morgan and SWISS, and nearly 20,000 individuals use Climeworks to offset their carbon dioxide emissions.



Olaf Breuning

Artist

Olaf Breuning is one of the few Swiss artists to enjoy international acclaim. His surreal works are often of a socially controversial nature.

”

I want to make art about the world.

Whether it's sculptures, photographs, drawings, films or installations: Olaf Breuning creates art in all its possible genres using a wide variety of media from his house in a forest near New York. He exhibits all over the world from Tokyo to Dubai and can be seen in Paris (Semiose Gallery) and Los Angeles (Sidecar Gallery, Night Gallery) in 2024.

Voice on World Events

If Breuning's work had to be reduced to a common denominator, it would probably be the socio-political component that is always resonant. "I am trying to move away from just focussing on art," he said in an interview with the NRW-Forum in the context of an exhibition, "I want to make art about the world." As an artist, he has a voice – and he takes that extremely seriously. Olaf Breuning implicitly comments on world events and very human traits in a refreshingly diverse way.

Irritating Works Arouse Interest

This attitude is reflected in often irritating and humorous works that sometimes refer to our consumption, sometimes to our increasing focus on everything digital. For example, the multimedia artist drew attention to global warming with the inscription "SAVE THE CLIMATE!" written in large letters on the back of underpants worn by otherwise almost naked skiers on Verbier glacier.

The New Yorker by choice often sees the profound in simple things. On Instagram, the 54-year-old serves his almost 70,000 followers with funny faces carved into food and other objects. This sense of the small, the everyday is as typical of Breuning as his wake-up calls on major topical issues.

What Motivates Olaf Breuning?

The challenges of our time are so complex that even the most intelligent person can never solve them alone. What Olaf Breuning masters in, however, is grabbing the attention of many people and encouraging them to reflect. He mobilises the masses through his art – and opens doors to the future.

Futuremovers 2024

Green Business Award

The Green Business Award is decided by a jury of experts chaired by Doris Leuthard and honours innovative companies that combine economic success with ecological impact.

The Green Business Award tells the success stories of those companies that want to change the world. A special selection process by national business and environmental organisations ensures that the best companies are recognised with awards every year. Companies that convince with ecologically innovative products, technologies or services and have at least two years of market experience can be nominated.

The award will be presented on 14 February 2025 as part of Impact Gstaad's Impact Circle. Impact Gstaad provides the award finalists with scale-up financing so that Swiss solutions can make a difference on an international level.

The following five companies have been nominated:

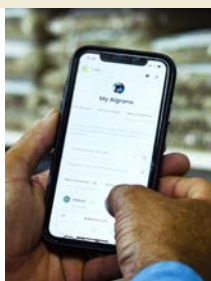


New Roots – Plant-Based Alternatives for Cheese Lovers

Traditional crafts meet innovative products. New Roots develops, produces and markets plant-based alternatives to cheese and dairy products, crafted in Switzerland based on traditional cheese-making techniques. Animal products are among the foods with the largest ecological footprint: cheese made from cow's milk ranks just behind beef. Compared to cow's milk products, the company's products achieve a reduction of 60 percent in CO₂ emissions and 40 per cent in water consumption.

Algrano – Digital Green Coffee Marketplace

Fair, direct, and to the benefit of everyone – Algrano has created a digital infrastructure that allows coffee producers to sell directly to roasters. This ensures a transparent supply chain and better prices for producers. The coffee comes from Africa, Asia and Latin America, and the customers are based in Switzerland, Europe and the United States. Thanks to the direct relationship between roasters and producers, the share of certified coffee is 80 % and thus more than three times higher than the industry average (25 %), resulting in a reduced carbon footprint during cultivation.



Synhelion – Sustainable Mobility Using Solar Energy

Synhelion produces synthetic fuels made from CO₂ and water exclusively using solar energy. These solar fuels replace fossil fuels such as kerosene, petrol or diesel and are largely carbon neutral, as they only emit as much carbon dioxide as was captured in their production. They are also fully compatible with the existing global fuel infrastructure. Carbon-neutral fuels are an important building block for sustainable mobility. Aviation in particular will continue to depend on liquid fuels in the future.



Distran Switzerland – Ingenious Cameras for Gas Leak Detection

Distran ultrasonic cameras are a global game changer for detecting all kinds of gas leaks. Not only do they do this ten times faster than conventional technologies, but Distran also enables these tests to be performed from a safe distance for the first time. By 2026, the company's acoustic imaging solutions will save more than 100 million metric tons of carbon equivalents. This amount corresponds to the consumption of almost 22 million cars driven for one year.

SELFrag – Recovering Valuable Raw Material from Waste

About 800,000 metric tons of incineration waste are produced annually in Switzerland. SELFrag's technology recovers valuable metals and minerals from slag. The recovery rate of 50 per cent per metric ton is the highest in this sector and is three times the current recovery methods. For example, SELFrag recovers more copper from a metric ton of slag than a copper mine does from a metric ton of ore. The goal is a sustainable circular economy that significantly reduces landfill space and carbon emissions.





Disclaimer This document is exclusively for information purposes. It constitutes neither an invitation nor a recommendation to purchase, hold or sell financial instruments or banking services, and it does not release the recipient from the responsibility to exercise their own judgement. In particular, the recipient is advised to check the appropriateness of the information to their own circumstances as well as its legal, regulatory, fiscal and other consequences – ideally with the aid of an adviser. Historical performance data does not provide any guarantee of future trends. Investment in fund units is associated with risks, in particular of fluctuations in value and fluctuating returns. When surrendering fund units the investor may receive less money back than originally invested. Foreign currencies also entail the risk of depreciation in relation to the investor's reference currency. The data and information contained in this publication have been compiled with the greatest of care by Globalance Bank AG. Nevertheless, Globalance Bank AG provides no guarantee of its correctness, completeness or reliability, nor any guarantee that it is up-to-date, and it accepts no liability for losses which may arise from the use of this information. This document may not be reproduced as a whole or in part without the written permission of the authors and Globalance Bank AG.