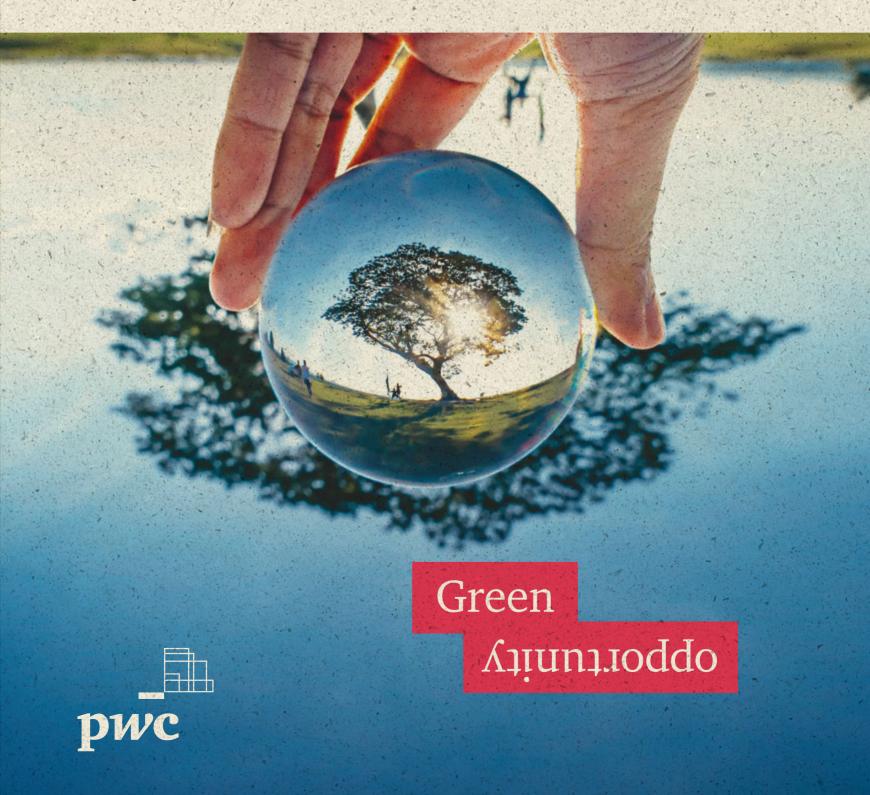
ceo

The magazine for decision makers



A journey in large and small steps

As a core part of our entrepreneurial responsibility, sustainability has been a concern of ours for a long time. We've taken a close interest in sustainability issues in a variety of different ways for a number of years. Developments in and expressions of sustainability, as with most important topics in the world, are the result of a continuous process. What began as a call for environmental protection is now an effort along multiple fronts to preserve our planet for future generations. We show some of the milestones along this journey on the following page. What they all have in common is the fact that they've emerged from a combination of multifaceted aspects and the circumstances of their respective era. They're achievements or events that act as signposts for this trip into the future as a logical - and sometimes absolutely illogical - consequence of our actions. When you look at the path from a bird's eye perspective, we think you'll agree with us. Other milestones can only come about from responsible and far-sighted interaction between politics, society, science and business. Sustainability may therefore well be a key issue for us for a long time to come.

Saxony-based mining administrator
Hans Carl von Carlowitz coins the term
'sustainability'. He defines it as a principle
in forestry for the utilisation of wood:
never cut down more trees than can grow
back in the same period of time.¹



1963

In his 'I have a dream' speech, civil rights activist Martin Luther King calls for equality for the African-American population in the USA.

The International Union for Conservation of Nature (IUCN) compiles the Red List of Threatened Species. This becomes the world's most comprehensive source of information on the global endangerment status of animal, fungal and plant species.

1964

The UN Conference on the Human Environment, the first United Nations conference on the environment, takes place in Stockholm. It's considered the start of international environmental policy.²

1972

1984

Several tonnes of toxic substances are released into the atmosphere from an Indian factory producing pesticides. The wind blows deadly methyl isocyanate gas over the nearby slum of Bhopal. Several thousand people die and hundreds of thousands fall seriously ill.

The Chernobyl nuclear disaster claims countless victims and leaves many people with long-term illnesses. In the same year, a major fire breaks out in the industrial area of Schweizerhalle near Basel. Fire-fighting water contaminated with pesticides then pours into the Rhine. The event puts environmental protection on the corporate agenda.

The Brundtland Report (Our Common Future) defines sustainable development as follows: '[...] development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.



The Deepwater Horizon drilling rig explodes in the Gulf of Mexico. Oil flows into the sea for 87 days. For months, a huge oil slick drifts around and contaminates almost 2,000 kilometres of coastline.4

UN Secretary-General Kofi Annan proposes the UN Global Compact at the World Economic Forum in Davos. Underthis pact, companies and the UN aim to jointly shape globalisation in a more social and ecological way.

1999

0.....

2001

1996

The first World Social Forum takes place in Porto Alegre under the motto of 'Another world is possible'; 12,000 people and more than 1,000 organisations attend. It's a o symbol for the anti-globalisation movement.



The Kyoto Protocol comes into force. The signatory industrialised countries commit to reducing their annual greenhouse gas emissions in the period from 2008 to 2012 by an average of 5.2% compared with 1990.

More than 150 countries reach an agreement on sustainable development at the environmental conference in Rio de Janeiro.

The Swiss Federal Act on Gender Equality prohibits any kind of discrimination against men or women in the workplace and covers working conditions, training, further education, recruitment, promotion, dismissal, pay and allocation of tasks.

After one of the strongest earthquakes ever recorded, several cooling systems break down at Japan's Fukushima Daiichi nuclear power plant. Deadly radioactivity is released and poisons the air, soil, water and food.

1992

The Montreal Protocol comes into force as an international treaty of environmental law. In it, the signatory states undertake 'to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer".

Annual CO₂ emissions in Switzerland amount to 5.8 tonnes per capita. In 2018, the figure is still 4.2 tonnes per capita.3

.....o

- Geschichte der Nachhaltigkeit, Nachhaltigkeit.info, 2012
- 25 Meilensteine der Umweltbewegung, Bits und Bäume, 2019
- Kenngrössen zur Entwicklung der Treibhausgasemissionen in der Schweiz 1990-2019, Federal Office for the Environment FOEN, 2021







Green opportunity

Sustainability is a ubiquitous term nowadays and vital for companies. It's sustainability that will ensure companies survive and remain competitive. Sustainable development wouldn't be possible without the help of the private sector. The impact companies have on the social and ecological conditions of a business location is considerable. Yet promises alone aren't enough. Today's consumers and investors are calling on companies to actively assume responsibility.

Protecting our planet, social justice and economic progress are at the forefront when it comes to promoting a sustainable economy. As a driver of innovation, sustainability is an opportunity for companies to continually adopt new perspectives and question the tried and tested. The accelerated changes brought on by the pandemic are an opportunity to initiate successful and sustainable development.







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One of the most frequently heard acronyms at the moment is ESG, which stands for 'environmental, social and (corporate) governance'. Unfortunately, ESG isn't enough to cover the complex issue of sustainability in full. This is why in this issue of ceo we talk about 'planet', 'people' and 'perspective', and about the sustainable city as a space where everything comes together.



Andreas Staubli CEO PwC Switzerland

Sustainability is a requirement for being in business today, having arisen from the increase in digitalisation as a result of the pandemic and an array of regulatory milestones, as well as from people acting on their own initiative. Examples include the Paris Climate Agreement, the UN Agenda 2030 with its Sustainable Development Goals, the EU Action Plan, the Green Deal, the Swiss Federal Council's Climate Strategy 2050 and the counter-proposal to the Responsible Business Initiative.

These frameworks hold us to account as decision-makers. In the last issue of ceo, which was entitled *Work in progress*, we looked at our obligations towards creating a working environment where each and every one of us can contribute. This issue of ceo explores how we can fulfil our corporate responsibility towards the future of humanity and the environment.

The fact is, sustainable development isn't possible without economic power. Companies create and shape social and ecological conditions – through working conditions, production processes, products and services, and through sustainable approaches such as the circular economy, bio-economy or impact investing. And also by taking part in the political opinion-forming process.

We at PwC also keep our green promises. This is why we intend to completely eliminate our greenhouse gas emissions worldwide by 2030 as part of our net zero commitment. This is why we've introduced a sustainable waste disposal and recycling system and set up a Competence Centre for Sustainability. This is why we're involved in a number of national and international sustainability initiatives such as the World Economic Forum, Swisscleantech and CEO4climate. And this is why we've deliberately chosen environmentally friendly and climateneutral paper, packaging film and shipment for this magazine.

We want to set a good example and offer solutions that enable Switzerland to be a worthwhile place to do business. This issue of ceo should be seen as a contribution to the dialogue between society and the economy – for the benefit of the environment, humanity and new perspectives.

I wish you a sustainable read.

Andreas Staubli

Current studies on the subject







PwC



Nature is too big to fail (2020) Biodiversity: the next frontier in financial risk management



Leading the way to a green and resilient economy (2020) Solutions for a sustainable financial sector



Circularity as the new normal (2021) Future fitting Swiss businesses



Greening central banking (2021) Why the time is ripe to rethink the macroprudential framework to include climate-related risks.



Swiss edition of the 24th Annual CEO Survey (2021)

Into the future with optimism and drive



Private equity's ESG journey: From compliance to value creation (2021) Global Private Equity Responsible Investment Survey 2021

Others



Bridging the Gap (2020) Measuring Progress on the Climate Goal Alignment & Climate Actions of Swiss Financial Institutions



IFZ Sustainable Investments Studie 2020 Sustainable thematic funds



Nachhaltigkeit lohnt sich jetzt erst recht! (2021) Society and companies in transition



Corporate attitudes towards sustainability 2020 Impact of COVID-19 on sustainability priorities



Sustainability & Leadership Studie (2021)

Exclusive study and survey of top managers on sustainability and leadership in German companies



Consumer Products and Retail (2020)

How sustainability is fundamentally changing consumer preferences

Let's make sustainability redundant

PwC Switzerland's lead partner for investor reporting and sustainability aims to work himself out of a job – at least in the long term. Recently he spoke to ceo magazine about the state of sustainability.



Christophe Bourgoin Partner, PwC Switzerland

We hear a lot of gloom and doom about the fate of the Earth, yet here in Switzerland, the air and water are much cleaner than they were a few decades ago – is this a contradiction?

This might be a contradiction in perception, but not in reality. Climate change is by definition a global issue, but everyone sees it through their own lens. Here in Switzerland, yes, we have clean air and water, and that's certainly good, but what if we look down into our soil or up at our glaciers? Sustainability really is about the fate of the Earth, so let's not wait until it's too late to preserve it. Let's act while we still have time, before conditions permanently take a turn for the worse.

Must consumption be reduced, or is it more an issue of changing the type of consumption? What does this mean for an average person?

We live in a world where it's difficult to tell someone what to do, how they should behave. One way to get there would be through the education of coming generations. What about now? Honestly, we need to reduce our consumption, and we need to reduce certain types of consumption more than other types. It's hard to pick a particular type, but just naming one - consumption of meat - probably needs to go down. But less quantity doesn't mean less quality. Think of how we eat nowadays, versus a few decades ago. Today there's much more takeaway, much more pre-prepared food. Behaviour evolves over time, and we need to direct that evolution. For the average person, this can pose a dilemma. Most people want to do the right thing, yet better-for-planet products tend to be more expensive. However, as those products become mainstream, their prices too should decrease - making it easier to change behaviour with such change becoming a self-fulfilling prophecy.

PwC has joined with WWF in calling for 'circularity as the new normal' in Switzerland. How do Swiss companies become part of that?

Only approximately 10% of resource consumption in Switzerland today is circular, so 90% isn't. Changing that is a high ambition. But let's remember: Switzerland has long worried about its dependence on foreign resources. Circularity is a way to mitigate that risk, to internalise resources. At first this might have sounded overly idealistic, but companies have started seeing the possibilities for growth it represents. In recent months I've seen them picking this up and asking how they can make this real, how they can make circularity part of their strategy to adapt existing business models or create new ones.

Your professional background is in corporate finance: how does that fit with sustainability?

It fits well! Particularly if you clearly see and can relate to both your values and your purpose. If you're aiming to strive for better business, there's no misalignment here. Sustainability and financial profit are complementary, as short-term decision horizons are usually not best for long-term value.

What's next in sustainability?

Next I'm not sure, but ultimately it would be to make it redundant! Today we're still in a phase of awareness building and goal setting. For instance, many companies are making net-zero commitments, many timed for around midcentury. The leaders making those commitments today are not the same leaders that will have to deliver on those goals tomorrow. Sustainability needs to become so embedded in corporate strategy and thinking that it's no longer considered separately, but becomes part of the company and a truly differentiating factor.

Christophe Bourgoin, thank you for sharing your thoughts with us.

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Reportage: Sustainable cities

Nature, people and the future in harmony

Sustainable city

GrasPapier Natur

Hearing the grass grow

For this chapter, we're using GrasPapier™. This is made from 40% fast-growing grass fibres and 60% virgin fibres. As a result, it makes a major contribution towards far fewer slow-growing trees needing to be felled for paper production. GrasPapier™ stands out with its uniquely natural feel and exudes nature from within, so to speak.



In the beginning, there was the world

From a historical perspective, protecting the planet is the first stage of sustainable behaviour. In the wake of the nuclear disaster at Chernobyl and the major fire at the Schweizerhalle industrial site near Basel in 1986, concern for the environment shifted into the public consciousness – and onto corporate agendas. Social and governance aspects were added later.

Climate leaders like Greta Thunberg have given climate protection a youthful dynamism and drive. In Swiss family businesses too, the next generation is driving the sustainability efforts of their venerable, age-old companies. Legislation and self-regulatory initiatives are providing the necessary framework, such the Federal Council's Climate Strategy 2050. These frameworks aim to conserve natural resources, avoid damage to the natural ecosystem, reduce greenhouse gas emissions, achieve climate stability and promote biodiversity.

Biodiversity as a key to survival

Mass extinctions and species poverty have many causes: changes in land use, overexploitation, acidification and pollution of the oceans. These rapid changes drastically limit natural carbon sequestration, which in turn exacerbates climate change. This negative spiral increases the risk of financial market instability² as it poses various risks with enormous macroeconomic effects. One specific example: if plants needed to be pollinated artificially instead of naturally, it would result in additional annual costs of 153 billion euros. This makes it all the more important for companies to disclose their biodiversity-related risks and conduct regular stress tests

Blue economy in a rich shade of green

The 'blue economy' describes a sustainable development approach to coastal resources, from fisheries, aquaculture, maritime transport, coastal, marine and maritime tourism right through to coastal renewable energy, marine ecosystem services (e.g. blue carbon), seabed mining and bioprospecting. Blue economy companies are helping to reduce marine pollution and curb ocean acidification. The World Bank believes this approach has enormous potential.3 According to WWF, the annual 'gross marine product' of the oceans is 2.5 trillion US dollars.4 This would make the blue economy the eighth largest economy in the world.





Tragedy of everyday things

You know the situation: you order a jumper over the internet, only to send it back because it doesn't quite fit or you don't really like it. Few people realise, however, that much of this returned clothing is destroyed. Reprocessing and re-shipping would raise prices to a level that consumers are unwilling to pay and also cause further CO2 emissions. The responsibility to do the right thing not only lies with the manufacturers and traders but with each and every individual. We need to question our personal behaviour as consumers. This is particularly difficult for us in the case of goods which we like to fill our everyday lives with while giving no thought to their negative impact on the environment.

Tracking the CO₂ footprint

This parameter evaluates the impact on the climate and shows the potential for savings and efficiency measures. It looks at both direct and indirect emissions from the generation of purchased electricity, steam, heat and cooling (known as scope 3 emissions). The CO₂ footprint is key to communicating a commitment to sustainability in a transparent way. It forms part of sustainability reporting and is used to formulate reduction targets, for example within the framework of a net-zero commitment.

A planet with many opportunities

The goal of decarbonisation is seen as a major opportunity for economic actors. It should include upstream supply chains, product use, the consumer environment and the end of the lifecycle. With a net-zero commitment, a company can contribute to its country's overall reduction path and climate goal, and help shape social change.

Transparent investment decisions should also be seen as an opportunity. This includes, for example, a stringent reporting system based on ESG (environmental, social and governance) criteria. An excellent example of a planet-friendly vehicle is shown by the world's first wildlife conservation bond. The World Bank hopes it will increase the population of black rhinos in South Africa.

By taking circular approaches, companies can make a commitment to the planet. That's why it's worth considering the use of hydrogen, biofuels or negative emission technologies. The latter retrieve CO₂ from the atmosphere, for example through reforestation or ocean fertilisation.

Interviews with people

You can read about how people and organisations are taking responsibility for the Earth in the following interviews. The Federal Office for the Environment (FOEN) has provided a framework for change. As Switzerland's oldest nature conservation organisation, Pro Natura is giving nature a strong voice. And The SeaCleaners task force is personally fighting against the pollution of the world's oceans.

- 1º Die NextGen ist ambitioniert, motiviert und qualifiziert, PwC Switzerland, 2020
- Nature is too big to fail Biodiversity: the next frontier in financial risk management, PwC Switzerland, 2020
- The Potential of the Blue Economy: Increasing Long-term Benefits of the Sustainable Use of Marine Resources for Small Island Developing States and Coastal Least Developed Countries, World BankGroup, United Nations, 2017
- Billionenschweres Brutto-Meeres-Produkt, WWF, 2015



"There's no cost

transparency when it

comes to natural resources"

She views the economy as one pillar of a successful, long-term environmental strategy: **Katrin Schneeberger**, Director of the Federal Office for the Environment (FOEN), on the topic of importing pollution and the opportunities that sustainability offers Switzerland.

Journalist: Simon Eppenberger Photographer: Markus Bertschi

The Federal Office for the

Environment (FOEN) implements the environmental policies of the Federal Council. It ensures the sustainable use of natural resources such as biodiversity, soil, water, air, forests and freedom from noise, and promotes the recycling of resources (circular economy). Among other things, the FOEN is responsible for climate protection, preserving biodiversity and the quality of landscapes, as well as international environmental policy. Its annual budget is approximately 1.6 billion Swiss francs, around 87% of which goes towards subsidies and incentive taxes. Around 600 people work for the FOEN.

www.bafu.admin.ch

With Vision 2030, the Federal Council has set its sights high when it comes to protecting nature and the environment. The Federal Office for the Environment (FOEN) plays a key role in implementing this vision. What's at the heart of it all? We're pursuing a vision focused on preserving an intact habitat. By this, we mean an environment where we don't consume more natural resources than can be renewed. Biodiversity, in particular, needs to be resilient. We also want to reduce greenhouse gas emissions to protect the climate. Natural and technical risks should be sustainable as well.

A number of laws and measures have been put in place to achieve this, like the CO₂ levy. What other measures are effective in promoting sustainability in Switzerland?

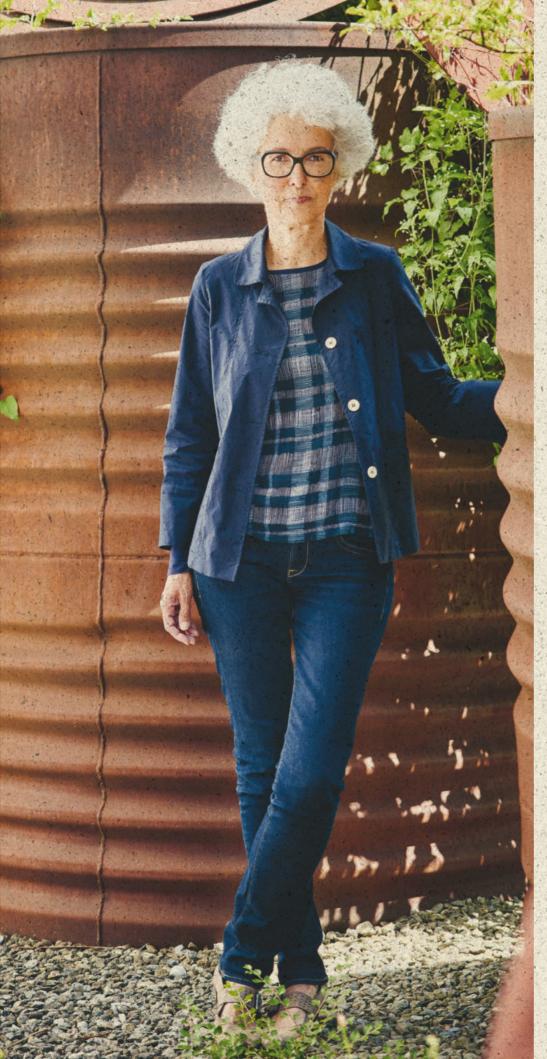
There are a variety of measures. Subsidies are a useful tool, as are incentive taxes. There are also voluntary industry agreements in place, through which companies commit to operating sustainably. Monitoring and research are important as well for evidence-based action, in Switzerland and beyond. After all, environmental problems are a global issue. That's why Switzerland plays an active part in international negotiations.

Can the general public be made more conscious of sustainability?

It's possible to make changes. For example, we've discovered that teaching children about recycling from pre-school age onwards has a positive impact. Then they go home and tell their parents over the dinner table about how waste needs to be separated. This makes recycling work better. Sometimes it's better for children to tell adults what to do instead of the government.

How can you get companies to act sustainably?

A lot of companies have already committed to using resource-efficient processes and environmentally friendly business models. Doing this is also in their own interest in order to remain competitive in the future. We give them a framework to work with and tell them about the most important challenges we'll be facing in the future, for example by pursuing a long-term climate strategy. That means companies can plan and operate sustainably. What's also important here is promoting innovation, research and technology, and supporting companies during the transition from the research and development stage to products being launched on the market. And last but not least, the federal government plays a leading role in sustainable procurement.



If everybody in the world lived like we do in Switzerland, we'd need three Earths.

Katrin Schneeberger (55) was brought up in Bern, where she went to school and then completed a degree in economic geography. After completing her PhD and spending a year studying sociology in the United Kingdom, she became head of the Mobile Society unit at the Centre for Technology Assessment TA-SWISS in Bern before becoming Secretary General of the Directorate of Civil Engineering, Transport and Green Spaces of the City of Bern. She also spent eight years working for the Federal Roads Office (FEDRO), first as Deputy Director and then as Assistant Director. Since September 2020 she has been Director of the Federal Office for the Environment (FOEN). She lives together with her partner in Bern.



What do you consider to be the greatest challenges when it comes to sustainability?

We're clearly living beyond our means. Our lifestyles require far more resources than the planet can sustainably provide. If everybody in the world lived like we do in Switzerland, we'd need three Earths. Changing this is the biggest challenge we face.

How can we change this?

It requires a wide range of measures. One problem is the lack of cost transparency. The cost of natural resources doesn't reflect their true value, so they're overused.

What topics are particularly relevant to you at the moment?

The most important topics are climate change, the circular economy and biodiversity loss. In fact, biodiversity will be the next big topic, along with climate change.

Why is biodiversity so important for us as a society?

The various ecosystems, which encompass a multitude of plants and animals as well as their habitats, are pivotal to life in general while also laying the foundation for both economic and social stability. The more diverse an ecosystem, the more resilient it is. This resilience is in jeopardy.

What should we do about it?

First, we have to create an awareness of the gradual loss of biodiversity. Describing

the problem in a way that people caneasily understand and effecting real change is therefore much more complicated than with climate change. Everybody understands that we want to reduce carbon emissions to net zero by 2050. These kinds of feasible goals are important. In terms of biodiversity, governments are currently talking about the '30 by 30' goal: 30% of the world's land and oceans should be set aside for the preservation of biodiversity by 2030.

Which are the most important natural resources in Switzerland, and what should our approach to them be?

Like I said, we can't live without natural resources. Healthy and varied biodiversity is pivotally important for life itself. The most important thing is water. While Switzerland is in a good position in terms of its water reserves, there's still work to do in terms of water quality. The ground, on the other hand, is densely populated and used intensively. You also need clean air. We can use these resources and we need to protect them. which is why we have to move away from end-of-pipe solutions.

What does that involve?

We should think ahead and prevent pollution from occurring in the first place, rather than having to combat it after the fact. When it comes to noise, for example, we need to reduce it at the source, instead of trying to use complex noise abatement measures to shield people against traffic noise.

Isn't a lot of damage already irreversible?

Problems do exist, but in many areas we're on the right track. Our monitoring shows that we've made major strides over the last 20 years when it comes to air pollution. The same is true for our rivers; people now swim in the Aare River in Bern. This would have been unthinkable back in the 1970s. because the water used to be full of foam. We need to have a clear idea of how to move forward in the battle against climate change and in protecting biodiversity.

What opportunities do you see in successful sustainable development? Ultimately, it's about preserving natural resources for ourselves, our children and our grandchildren. For the economy, this is an opportunity and a growth market all over the world, with one example being the field

of cleantech. As a champion of innovation, this also benefits Switzerland.

How much of a priority should sustainability be for CEOs and business leaders?

For me it belongs at the core of every strategy and should be embedded at company management level. When sustainability becomes relevant from a financial perspective, then it becomes a priority for companies. This is also evident in the fact that a lot of companies have created the position of Chief Sustainability Officer.

The issue of how our consumption impacts the environment abroad is extremely important.

In the Spotlight



In your opinion, what role can the economy and companies themselves play in the successful transition to a more sustainable world?

Alongside society and the environment, the economy is one of the pillars of sustainability. It generates innovations and drives technology forward. As a result, companies have a major role to play.

What does this mean in particular for Swiss companies, which often operate outside Switzerland?

Three guarters of Swiss citizens' total impact on the environment is caused abroad. This makes the international context and the issue of environmental impact caused abroad by our consumption very important. Companies are responsible for their supply chains, but also for their exports. This applies to all companies and in particular big companies with headquarters in Switzerland. Because like I said, environmental problems don't just stop at the borders.

To what extent can consumer demand influence sustainable production?

Consumers do have a responsibility and can bring about change. People's lives can be broken down into three areas: mobility, housing and diet. We decide how we move about and what kind of vehicle we buy. When it comes to housing, we can decide how much space we use and how much energy we consume. And when it comes to eating, we can keep our food waste to a minimum, and buy local and seasonal products. In more general terms, I think it's important to look for products with a long lifespan and to think and act in terms of the circular economy where possible.

What achievements do you want to be able to look back on in 30 years?

We want to have reduced carbon emissions to net zero by 2050. I'd be very happy if we managed to achieve that and we were no longer producing any net greenhouse gas emissions in Switzerland.

Where do you think is the most beautiful place in the world?

There's no single most beautiful place. The most beautiful place is wherever I'm in good company, either with family or friends.

What do you enjoy doing to recharge vour batteries?

Playing sport, eating a good meal, spending time in the great outdoors at the weekend or in a major city with culture.

What kind of things get you thinking?

The way in which we're so reckless with our environment and how people are insincere.

What advice do you have for the next generation?

Being dedicated to your own cause is worth it – the same as how it's worth staying true to yourself and your convictions.

What have you learnt during the COVID-19 pandemic?

That you should never have a false sense of security. And there are two sides to everything: The pandemic was and still is a huge crisis for us all. At the same time, emergencies make people flexible and inventive, encourage creativity and create potential for new things.







Business and civil society need to work together to conserve habitats for plants and animals, says **Urs Leugger-Eggimann.** The Central Secretary of the nature conservation organisation Pro Natura strives to lead by example.

Journalist: Editorial team of ceo
Photographer: Andreas Zimmermann

With around 170,000 members. Pro Natura is one of the largest nature conservation organisations in Switzerland. As a private, nonprofit association with a Central Secretariat in Basel and branches in all cantons, it campaigns for the preservation of native flora and fauna and represents the interests of nature as its advocate. Pro Natura is committed to environmental education and promotes projects to protect endangered species and habitats. Founded in 1909, it oversees more than 700 nature reserves across the country and runs a dozen conservation centres. Switzerland's only national park to date was created on the initiative of Pro Natura.

www.pronatura.ch

Gammarus fossarum is a little animal that most of us rarely get to see. Its limbs are delicate, its body fragile – that's how the freshwater crustacean appears, larger than life, on a huge poster on the wall of Pro Natura's Central Secretariat in Basel. The amphipod was selected by conservationists in 2021 as Animal of the Year, one of many endangered species in Switzerland that the organisation Pro Natura is working to preserve and protect.

Urs Leugger-Eggimann, Central Secretary of Pro Natura, understands the importance of such examples. The beaver, which has been reclaiming its habitats in Swiss waters for years, and the bearded vulture, whose reintroduction became a success story, are among the popular species that epitomise Pro Natura's work. 'Unfortunately, however, such successes are still rare in species conservation overall,' says Urs Leugger, a biologist by training. The organisation also promotes the interests of nature by helping hares, woodpeckers, wild bees and frogs, which are dwindling in number.

Conservation and environmental protection are now more widely discussed in society, which is a welcome development in itself. 'The urgency of the issue is gaining greater recognition,' says Leugger. But it should be noted, he adds, that Switzerland has lagged

behind other countries when it comes to the protection of natural habitats. In 1992. Switzerland ratified the Convention on Biological Diversity, which entails a commitment to protect 17% of the country's land area. However, the country is still far from achieving that goal at present. In comparison with the other industrialised nations in the Organisation for Economic Co-operation and Development (OECD), Switzerland brings up the rear, with the highest proportion of threatened species and the lowest proportion of designated protected areas. Switzerland also receives a poor report card from the United Nations in this regard, remarks Leugger.

Leaving too large a footprint

Unlike the general public, the authorities, namely the Federal Office for the Environment, are well aware of this situation. The legal basis for protection is already in place, but the pressure on the environment continues to grow. 'Our lifestyles leave too large a footprint,' says Leugger, with reference to the growing demands and divergent user interests affecting the environment. Intensive agriculture, urban sprawl and soil sealing threaten the habitats for flora and fauna. 'Some of these habitats, unfortunately, are being irrevocably lost,' he adds.



Companies that lead the way today in terms of sustainability are giving themselves a competitive advantage.

This reality makes it all the more crucial to raise awareness of the topic through outreach, environmental education and ongoing communication activities. Field trips for school classes, educational programmes for teachers, training courses for nature educators and teaching materials for all age groups constitute elements of this work, which Urs Leugger carries out with his team of over 100 people at the Basel headquarters and at the two nature conservation centres in Aletsch and Champ Pittet. Around the same number of employees work in the 23 cantonal branches. The number of volunteers involved is approximately 3,000.

Creation of the national park as a ground-breaking achievement

Pro Natura's activities are financed by membership fees, donations and legacies as well as the generous support of around 27,000 patrons. Public-sector contributions are also provided for specific projects, including the care and maintenance of nature conservation areas. 'Such protected areas are the gems in our biodiversity chain,' says Leugger. At present, the organisation is responsible for around 740 large and small conservation areas throughout the country, some of which it owns itself and can thus place under permanent protection. It also looks after protected landscape sites and natural formations such as caves and ponds. The Swiss National Park in the extreme south-east of the country is of particular

importance. Pro Natura was founded in 1909 as the Swiss League for the Protection of Nature with the sole purpose of promoting the creation of this first national park in the Alpine region. The 900 reserves that Pro Natura has since been able to secure for specific nature conservation goals cover an area of 737 square kilometres in total.

Strategic mission

Urs Leugger is pleased that the business community is also beginning to pay greater attention to the issue of sustainability. He argues, however, that it's important for companies to expand their interest beyond improvements in their own sphere of responsibility. 'It's necessary to review all processes and the entire value chain for environmental impacts,' he says. That would allow leaders to see where there's still room for improvement.

As a basis for such work, boards of directors and company management need to set an appropriate strategic course and binding goals. Only then can concrete measures be implemented at downstream levels. The achievement of goals can be monitored through comprehensive controlling, which also provides a foundation for the sustainability reports that more and more companies have begun to publish. 'Such transparency is crucial, both for companies themselves and for civil society and the authorities,' notes Leugger.

In dialogue with companies

Pro Natura actively seeks to communicate with companies and their leadership. Wherever possible, it also exerts influence. As an example, Urs Leugger cites the sale of non-native plants, or 'neophytes', in garden centres. 'Through dialogue, we've aimed to convince people that product ranges don't need to include such plants, which are a major cause of the decline in biodiversity,' says Leugger. He's rather cautious, however, when it comes to more far-reaching cooperation with individual companies. 'If we see any signs of 'greenwashing', in other words a primary focus on marketing goals, we prefer to avoid close cooperation.'

As a biologist, Urs Leugger is convinced that the environmental challenges of the coming years and decades will be enormous for the business world and civil society. Environmentally destructive behaviour will increasingly be blamed on the culprits. Meanwhile, companies will face ever higher societal expectations. 'Companies that lead the way today are giving themselves a competitive advantage,' Leugger says. This perspective also applies to the Swiss economy as a whole.

Preparing for the future

In June 2021, Swiss voters rejected the CO₂ Act amendment, which was backed by large parts of the business community. For Urs Leugger, this is a highly worrying



We constantly consider how our behaviour in everyday life affects the



What personal goal do you want to achieve?

In the

development, 'Burving our heads in the sand now isn't an option,' he says. It's also essential for the private sector to become more efficient and seek innovations that require less energy input. Climate protection and the preservation of biodiversity need to be on the agenda. That's the only way to prepare for the future.

Pro Natura as an organisation must lead by example in this context, notes Urs Leugger, in his role as operational head. At the offices of the Pro Natura Central Secretariat in Basel, housed in a former commercial property in the Gundeldinger district, plants are a prominent feature of the interior design. Like in a biotope, greenery thrives both inside and around the employees' offices. Leugger explains that the practice of sustainability means paying attention to what you consume and how you get around. 'We constantly consider how our behaviour in everyday life affects the environment.'

Credibility as capital

Credibility is part of the capital of a nongovernmental organisation, as Urs Leugger emphasises in his role as director. This kind of capital is also necessary for political work. As an advocate for nature, Pro Natura participates in the legislative process, makes submissions to consultations and launches initiatives and referendums in cooperation with other groups. Pro Natura also makes careful use of the right of associations to lodge objections. A high success rate has

shown that this important right is wielded with care, Leugger notes. He believes that the importance of non-governmental organisations will continue to grow in this context. 'Civil society expects this of us.' Meanwhile, however, Pro Natura's work remains focused on the key priorities of practical nature conservation, as carried out in protected areas, and environmental education.

Urs Leugger feels hopeful about the revised objectives of the government in Bern. It's a good sign, in his view, that the Federal Council has endorsed the United Nations' Sustainable Development Goals and this summer is adopting its 2030 Sustainable Development Strategy on that basis. Switzerland has thus set itself binding goals for sustainable development by 2030 under international law. Among other things, this commitment is intended to safeguard the diversity of both terrestrial and aquatic species - thus addressing one of Pro Natura's core concerns. This development will likely also benefit the little freshwater amphipod Gammarus fossarum as well as its endangered habitat.

Living up to family, professional and social responsibilities isn't always easy. I've set myself the goal of improving my work-life balance and strengthening my role as a family member.

How sustainably responsible is your private lifestyle?

Whenever possible, I aim to follow the principles of sustainability, both in terms of transport and consumption. I'm passionate about cycling and using public transport. We live without a car, and air travel is out of the question. When shopping, I always think about whether I really need something, and I try to purchase ecological and fair-trade products. I prefer to buy locally grown food with an organic label. We consume meat in moderation.

What have you learnt during the COVID-19 pandemic?

Cherished habits were suddenly called into question. The pandemic has shown us all how vulnerable we ultimately are, and reminded us that we should be more careful with things that we've taken for granted.

Has the pandemic changed anything for you in the long term?

I mainly realised that not everything we're given can be taken for granted. That's all the more reason for us to take care of what we have.

What's your vision for the world of the future?

That people will learn to appreciate and preserve the great diversity of nature, as a gift that we merely share with our planet, and will come to view nature as the basis for a healthy future for all. After all, a healthy future for human beings goes hand in hand with a healthy, biodiverse planet.

Fighting the flood of ocean plastic

Waste plastic kills millions of marine animals by choking, entanglement or poisoning – at a global rate of three per second. A Franco-Swiss charity, The SeaCleaners, aims to reverse the polymer tide and with it its wildlife devastation. Chairman/founder **Yvan Bourgnon** spoke to ceo magazine about his mission to save the seas.

Journalist: Eric Johnson Photographer: The SeaCleaners

The company's aim is to rid the world's oceans of waste, especially the plastics thrown into rivers and along coasts. Its approach is a complementary combination of high tech and social campaigning. The tech is a novel ship that will harvest 5,000-10,000 tonnes per year of ocean-going rubbish. Campaigns will happen in part on board: with demonstrations and education at sea and in port, especially in Africa, southeast Asia and Latin America, where the problem is worst and the money to fight it is least. Awareness-raising is under way already in workshops at companies, schools and universities, and clean-up events.

www.theseacleaners.org

Ten million tonnes per year of plastic, 17 tonnes a minute, are tipped into the Earth's oceans. And the volume is rising?

Without a major counterresponse, ocean plastic is projected to triple by 2040. That would be 50 kg for each metre of coastline. By 2050, the sea would have the same mass of plastic as it does fish. This waste kills and maims wildlife, and it causes them to reproduce less and less. The chemicals within the plastics disturb their ecosystems. The plastics add to climate change by reflecting more heat into the air. But they don't damage only nature, they harm humans, too. Ocean plastic costs tourism and fisheries 14 billion US dollars every year, according to the UN Environment Programme.

So should we just ban plastic?

Everyone should minimise their consumption, and plastic can be displaced more readily than ever. But in the wealthier world this is much easier than in, say, Africa or Bangladesh. As higher-income people earn more, they can afford to cut back on plastic; as lower-income people earn more, it's the opposite. Cheap, accessible plastic is the first thing they buy more of. The problem is collection and disposal. In the poorer parts of the world, the river is the rubbish tip. It's normal to throw waste in the river, because, 'miraculously', it just disappears. We in the developed world

need to help the less-developed world, from where most of the ocean plastic comes, to collect and dispose of waste properly.

And The SeaCleaners is developing the technology to do that.

Since 2017, we've coordinated 25,000 hours of study, engineering and trials towards the creation of Manta, a deep-water ship that will collect and dispose of sea plastic, as well as Mobula, a smaller boat for shallower. harder-to-reach waters. Mobula 8 is now operational and will see action in Indonesia by the end of 2021. Construction of Manta will start in 2022 and we'll launch in 2024. We've raised one third of the investment so far, and now that we've finished a complete design, fund-raising is taking off. A key question we faced was how to dispose of the waste we collect. Originally we thought we'd return to shore for disposal, but in some less-developed places the collected plastic might end up back in the sea. So instead, we'll convert the plastic to energy to run the ship: that saves energy and carbon emissions; and because we'll store less waste, we can stay at sea for three weeks at a time.





Yvan Bourgnon (50) follows his passions, and he loves catamarans. As a boy, with his parents and elder brother, he left for a four-year world tour by sailboat. The brothers became professional racing sailors and racked up trophy upon trophy—especially in catamarans. Then came adventuring. The pinnacle was a circumnavigation on a wide-open catamaran from 2013 to 2015. As he sailed, Yvan couldn't help but see the sea—full of plastic waste. So, he transposed his passion for roaming the seas into saving them, and founded The SeaCleaners. Naturally, the mission involves a catamaran, suitably modified to pick up and process waterborne rubbish.



Is there a social aim alongside the technological one?

When Manta is in port, we'll continue our job on land. We'll show people how the technology works and raise their awareness of the waste problem and its solutions. The only way to convince people is to show them. In time, we want to have a Manta and a few Mobulas at the mouth of every major river that feeds plastic into the oceans. Ten rivers – in Africa, Asia and South America – deliver 90% of all sea plastic.

So you're trying to change the way people think about waste?

In France, where I live, we have 17,000 trucks that collect waste every day. Why don't we have a few hundred boats doing the same? We have people working full-time to collect cigarette butts that amount to a few tonnes – we can afford this! It'll take time for this to sink into peoples' heads. When I started to think about sea waste in 2015, science was just beginning to wake up to the problem. Now science is completely awake; it's up to politics to get on with solutions. Plastic will be in our life, no matter how we fight it: this is a good time to be pragmatic and say we must solve the waste problem.

Is The SeaCleaners a company or a charity?

Plastics disposal and recycling aren't rewarding businesses, so we're a charity. In glass and metals, people can make money, but with plastics, governments and NGOs have to lead the way. They must create incentives to handle plastics properly and penalties for not doing so. There also should be and will be niches for involvement of for-profit companies; some are working with us already. Other companies who support our work are just trying to do the right thing. That includes some plastics companies.

Are there other organisations similar to The SeaCleaners?

Many organisations are active, which is good, but it's still not enough to cope with a problem of this size. One of the good ones is The Ocean Cleanup, based in the Netherlands. Their focus is more on plastics in rivers, ours is on the sea, so we complement each other. The Ocean Cleanup's challenge is that to collect plastic in a river, you usually need to block part of it, and this is problematic for traffic on the river. Either way, we're both trying to collect plastic while it's still in the water, before it sinks to the bottom and degrades into microplastics – these are almost impossible to collect.

Your CV is that of a sailor and adventurer. How does that translate into being a CEO?

As a skipper, I managed teams of some 25 people on land and at sea. I had to raise millions of euros in funding and coordinate sponsors. I had a hand in boat and equipment development. Oh, and I had to plan and conduct races. So, I have a strong background as an executive; I know how to lead The SeaCleaners. I loved competing on the sea, but since 2015, at the age of 44, it wasn't enough for me anymore just to sail very fast from point a to point b. The ocean gave me so much: now I want to give back to the ocean.



In the Spotlight

You're still sailing, right?

Yes, not as a professional anymore, but for pleasure. I especially enjoy sailing with my son, Mathis, who won the 2019 European championship on a sport catamaran. I do my sailing now at the weekends, because during the week I have work to do.

Is your only work with The SeaCleaners, or are you doing other things?

As a person I want to concentrate on one main thing, and I've found that in The SeaCleaners. It's a big job and a big organisation. We have a strong staff and already over 1,000 volunteers. This isn't the time to stop.

Where do you see yourself in 2030?

Not in a new life — the fight to protect the seas is deeply engrained within me. I want to expand our work to the whole world and help billions of people to understand the plastics problem. In the past few years we've done so much, in the next ten I know we can do so much more.

Pro Futura blauer Engel

Committed to the future

We present this chapter on uncoated Pro Futura paper. This is made from 100% recycled paper and hardly ages. The intense white colour is achieved without adding any optical brightener but simply by applying a special processing technology to the recycled paper. This paper lives up to its name and embodies the future in the truest sense of the word.



From person to person

Social sustainability puts people right at the centre, as it's the driver and focus of many developments that consciously or unconsciously make a lasting impact. Digital achievements such as automation, robotics, artificial intelligence, virtual reality, big data, blockchain and social media are no longer just specialist topics.

Society is increasingly functioning in digital terms and becoming more urbanised. People are living longer and have a new level of awareness about their health. They're increasingly consuming sustainable products or want to invest sustainably. Young generations in particular no longer talk about work-life balance, but life balance.

On behalf of the company

Against this backdrop, companies bear an important social responsibility in what they do. Not only must they improve their economic performance, they also have to contribute to the development and wellbeing of society. Workplace safety, equal pay and opportunities, fair pay, diversity and inclusion requirements, along with

upskilling programmes and workplace modernisation, are now standard in progressive companies. The purpose of this social responsibility is to empower employees so they can freely develop on the job (see ceo, Work in progress, November 2020).

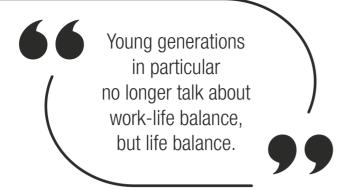
More social skills needed

It's no surprise that Switzerland is considered a high-trust nation (see ceo, Trust in society, December 2017). Its education system and innovative strength play a key role in this. Ongoing digitalisation is placing new skilling and learning requirements on people. Digital skills and lifelong learning are becoming a must. The more virtual the cooperation and the flatter the hierarchies in companies become, the greater the need for teamwork and personal responsibility.

Innovative, digital, social

The aim of digital-social innovation is to shape change in both an innovative and people-friendly way. This creates an interaction between society and digital transformation. Digital innovations can act as a multiplier of social innovation, as





shown by the rapid establishment of collaboration platforms and remote working, crowdfunding ¹ or MakerSpaces. In these virtual laboratories, people with disabilities are given educationally guided access to digital technology.

New technology is also being used in humanitarian work. For example, the International Committee of the Red Cross (ICRC) uses blockchain technology.

Although this could be made more environmentally friendly, it still has enormous potential for social sustainability. The ICRC is using blockchain-based local currencies to fight poverty in Kenya and Ethiopia. These currencies can be distributed via mobile phone and are easy to use. Slum or village dwellers can use them to get paid for their work and spend the credit earned on local goods and services. They also reduce the influence of corrupt governments.

Investing with social impact

With social impact investments (SII), donors aim to create a social impact while also producing a financial return. For this to happen, social risks need to be reduced and clearly measurable impact goals put in place. For example, SIIs can be used to

develop and perfect new therapies or forms of rehabilitation. Measurability differentiates SIIs from donations or responsible investments. Awareness of social investing has skyrocketed in recent years.

Many people, many opportunities

For us as economic actors, the human aspect offers huge opportunities for our sustainability behaviour as it's still one of our most valuable resources. For example, we ought to strive for better networking, access to digital services and digital literacy for children and young people. This can be seen with the nonprofit organisation Labdoo, which refurbishes and installs learning software on donated laptops before transporting them in a CO₂-neutral way to school projects worldwide. We also need companies to have complementary expertise in-house, for example by promoting co-creation or entering into partnerships with social institutions.

Interviews with people

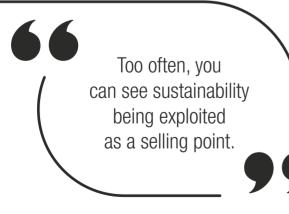
In the institutional world, many people are committed to the human factor. We've summarised the conversations with three of these people for you below. You can

read about how the Pestalozzi Children's Foundation works for peace through international understanding. Too Good to Go is working towards the goal of a planet with no food waste. The Swiss Economic Forum SEF is also making a valuable contribution to socially responsible entrepreneurship by promoting entrepreneurial thinking.



Women Unbound: Unleashing female entrepreneurial potential, PwC/The Crowdfunding Center, 2017





with his daughter and his partner's two sons.



Education as an opportunity for improving social sustainability

Charitable organisations are increasingly being run based on economic considerations. This is because good intentions and a well-known brand are no longer enough in the long run when it comes to being committed to a more equitable world.

Journalist: Simon Eppenberger Photographer: Marc Welti

The Pestalozzi Children's Foundation was founded in 1946 to care for children orphaned by war. For decades, refugees were housed at the children's village in Trogen. This all changed seven years ago, when the foundation focused on providing better education for disadvantaged children locally in 12 different countries. Some 200,000 children currently benefit from this. In Switzerland, the children's village is a place for cultural exchange. The foundation is supported by more than 55,000 donors as well as bequests and public subsidies.

www.pestalozzi.ch

Martin Bachofner studied law in St. Gallen and business in Liechtenstein. He never expected that his life would lead him to the lush green hills of Appenzell Ausserrhoden. For about a year now, he's worked there as the Managing Director of an internationally renowned organisation based in the village of Trogen: the Pestalozzi Children's Foundation. In 2021, the foundation isn't only celebrating its 75th anniversary. It's also undergoing a transformation.

This is why the Board of Trustees has employed the services of someone like 48-year-old Martin Bachofner, who doesn't see any contradiction in combining economics with social sustainability – and even considers it an urgent necessity. He runs the foundation like an SME that has to make a profit. 'We have a duty to all our donors,' the Bern native says.

A cost-saving programme is just one of the measures he's planned as a way to reverse its losses over the next two years. 'We're living off the familiarity of the brand. But we must change if we don't want to lose our strengths and become irrelevant,' Bachofner comments drily.

Temporary assistance

However, cost-effectiveness is only a means to an end as far as Bachofner is concerned.

What's more important for him is that his work has meaning. He's driven by the desire to ensure that the greatest possible number of disadvantaged children abroad have access to good education. In conjunction with this, he promotes cultural exchange and media literacy among young people in Switzerland.

The children's village in Trogen hasn't housed any refugee children since 2014. As far back as the 1980s, those responsible recognised that they could achieve far more by providing support in the children's home countries than by hosting 120 of them in Switzerland. Today, this global commitment is at the heart of everything the foundation does. It's active in some 800 schools in a dozen countries. Teachers and partner organisations are trained locally for up to nine years.

Bachofner believes that this is an appropriate length of time to help improve children's lives in a lasting manner. 'We don't want to make people dependent or make ourselves indispensable. Our approach involves passing on skills with regard to education and child protection and making sure that local staff are trained to do their job independently and thus sustainably,' he says.

This foreign strategy has proven successful and is now due to be expanded significantly.





The growth target is ambitious. 'We want to reach 400,000 children by 2030,' Bachofner says. Today, about 200,000 children benefit from the services provided by the foundation. Conventional donations alone aren't enough to reach this goal.

New business models

There's also great demand for investment in Switzerland. Before the pandemic, thousands of young people from both Switzerland and abroad used to gather at the children's village to reflect on racism, discrimination and their own behaviour and operate a radio station for young people. This is due to be started up again.

However, many of the two dozen or so buildings in Trogen are showing their age. Some are dilapidated and the paint on some of them is starting to peel off. Renovating them will be expensive. But Mr Bachofner sees it as an opportunity: 'To date we've had about 25,000 overnight stays. That's something we can build on, and we want to develop new tourist-based business models.'

The pandemic has also forced the foundation itself to change. Whereas the decision to move to emergency assistance was obvious abroad, children and young people

in Switzerland could no longer travel to Trogen. Those responsible for education quickly developed children's rights workshops which could be held in classrooms. They also visited schools with a mobile radio studio to teach 11- to 13-year-olds about responsible use of social and traditional media and raise awareness about the disastrous consequences of fake news and hate. Bachofner smiles when he describes the enthusiastic feedback he gets from children.

According to Bachofner, many companies could also learn from the honesty and commitment that younger people show when addressing social issues. Because the demand for responsible and transparent products is growing, companies must react to it sooner or later. 'This doesn't always lead to a real shift in thinking. Too often, you can see sustainability being exploited as a selling point, even when there's nothing actually behind it.' Other companies won't even go that far, he points out, preferring instead to get involved in charity work to ease their own conscience or that of their customers.

Bachofner considers an integrative approach to be the most promising one in the long run. This involves companies holistically and honestly considering

their situation vis-à-vis sustainability. Changes are then implemented based on the companies' own convictions and with long-term support from everyone concerned. Bachofner argues that 'This will open up new opportunities, including for society as a whole. It will also pay off financially for companies sooner or later.' He therefore regards the issue as a top priority that CEOs and board members shouldn't ignore.

What, then, do social sustainability and social justice mean for him and his organisation? 'The foundation isn't a protected workshop, of course, but we don't have unfair wage gaps and we're committed to providing equal opportunities and promoting the professional development of our employees.'

Asked about what he thinks are the biggest global challenges in terms of sustainability, Bachofner says we need to be very humble: 'I'm not some kind of sustainability guru, but what we urgently need is less greed. We must be more responsible in the way that we use natural resources.' Bachofner stresses that these resources don't just include the environment but also people, who have very different opportunities in life depending on where they were born.



We don't want to make people dependent or make ourselves indispensable.





This is why his vision for the world of tomorrow is a humane society with equal opportunities for all. As a realist, he knows that this can't be achieved. Nevertheless, he's convinced that 'a lot is still possible'. By this he means the long-term changes which could be brought about through social pressure.

One example he cites is the climate movement, which has helped bring about new legislation and changed consumer behaviour. He's also convinced that investing in education always gets the best results: 'The more well-educated young people we have in the world, the better they can shape the future.'

Bachofner believes that education and knowledge go hand in hand with an openness to new experiences and a willingness to reflect on one's own behaviour. That's the basis for change, he explains. That's why his favourite place in the children's village is right next to the schoolhouse, where your gaze wanders from the land out over Lake Constance. 'Far-sightedness and having a broad horizon are fundamental to making progress,' he says.



In the Spotlight

What achievements would you like to look back on in 30 years' time?

I always want to be able to say that my efforts serve a greater purpose. I want to have learnt a lot and be proud of myself.

What personal goal do you hope to achieve?

To continue learning and still be able to get over mountain passes on my racing bike without electrical assistance when I'm 80.

What advice would you give your descendants?

To get as broad a perspective as possible. This helps you to think in a nuanced way. One of the most important things is looking after your own health.

What did 2020 and the coronavirus pandemic teach you?

This might not be true for many people, but it showed me that we can do without a lot of things. It does us all good to reflect on what we have.

How thousands of Swiss

companies are doing

business more sustainably

Three years ago she was one of only two staff in Switzerland. Now she's Country Manager in charge of more than 30 people. **Alina Swirski** reflects on the rapid success of the sustainable business Too Good To Go.

Too Good To Go makes it possible in an efficient way for companies to waste less food, appeal to new customers and reduce costs. The system just uses an app – and has been on a sharp growth trajectory since it was founded in Denmark in 2016. Too Good To Go now operates in 16 countries with over 1,000 employees. In Switzerland, more than 4,700 companies are on board – from small, local firms to international food groups – as well as 1.4 million consumers.

www.toogoodtogo.ch

Journalist: Simon Eppenberger Photographer: Marc Welti

Too Good To Go uses an app to save food from being thrown away, and its business has grown impressively. In less than three years, your company has amassed 1.3 million registered users and more than 4,200 partner companies in Switzerland alone. Why is doing business with surplus food such a great success?

Our business model is simple and appeals to people. We create a win-win-win situation. Our partner companies win by producing less food waste and generating additional custom. Consumers win by doing something positive for sustainability while getting food at a reduced price. The third winner is the environment thanks to the resources being saved. All this makes compelling sense.

How long does it take to win a business over to what you're offering?

That depends on its size and structure. A company can register online in ten minutes and start saving food after half an hour. We also invest a lot in sales, however, and we go straight to those making the

decisions. Some say 'yes' after just half an hour, while for others it takes longer for the system to be integrated into their own processes.

Do you get much criticism of, or opposition to, what you're doing?

Not very much, but there are challenges and contradictions. A lot of people think they don't have any food waste, or that at 30 or 40 Swiss francs a day it's too little to make a difference. This means that food goes to waste at a lot of firms, and it's worth getting them on board even for these small amounts.

Time is money, and throwing food away is done without a thought.

The time involved in saving food waste with Too Good To Go is very short at one or two minutes per food package, and the advantages are also clear on the cost side. It's often more about what priority sustainability has at a company.





How do you measure your progress in terms of sustainability?

We want to inspire people and companies. That's difficult to measure. What we see directly is the number of meals saved. As of our three-year anniversary in Switzerland we'd reached 3 million. In cooperation with MyClimate, we calculated that this was equivalent to saving around 7,500 tonnes of CO₂.

How well is your company doing both internationally and in Switzerland?

We have more than 43 million registered users around the world, with over 88 million meals saved to date. The number of registered users in Switzerland after three years exceeds 1.4 million. Our objective is to prevent food waste. Even if we should prove to be less than entirely successful, we aim to reach as many people and companies as possible and inspire them to join the fight against food waste.

What kind of growth are you achieving with companies in Switzerland?

On average, 200 new companies come on board every month that are committed to combatting food waste. We're very happy about that. A third of these companies approached us proactively – often on the recommendation of their staff who access Too Good To Go for their own use. They also bring it to the attention of their supervisors. We now have more than 4,700 companies on our books.

Too Good To Go receives a share of the proceeds from selling the food. How profitable is it?

Our business model would basically enable us to be profitable within a very short time. However, our mission is to lead a growth strategy of expanding our presence worldwide. At the same time, we invest in raising awareness on the issue of food waste, and we're constantly launching new initiatives and campaigns. We also treat our staff fairly. All this comes at a price. But we generate cash flow through our own operations, and we have private investors who aren't looking to turn a quick profit. These are things we're proud of.

Digitalisation is a core element in the success of Too Good To Go. This makes for very straightforward processes for all those involved. How great is the potential for digitalisation when it comes to sustainability overall?

There's a lot of potential. For instance, digitalisation in the consumer sector will mean that sustainable products and services are easily accessible to a greater extent. That will appeal to even more people. In many areas, digitalisation will enable a more efficient use of resources.

What would you like to have achieved with your company by 2030?

The UN Agenda for Sustainable Development aims to halve the loss of food by then - at both the retail and consumer level. At Too Good To Go, we're pursuing this objective and even more: our vision is a planet without food waste. We can't achieve that with our app alone. This is why we see ourselves as a movement that works side by side with policymakers, companies, schools and private households. For example, we have a public affairs person in Brussels who promotes our agenda, we're active in schools, and we encourage firms to become 'Waste Warrior Brands'. which means committing to preventing food waste both internally and externally.

How can each individual employee help to make their company more sustainable?

It needs to be clear to everybody that it's not about the big things policymakers or business do. 'But I can't change anything by myself anyway' is not the right attitude. Lots of little steps can achieve a lot. For

instance, you can make your own employer aware of sustainable solutions, inspire other people you know in your private life, share your experiences, be creative with food waste etc.

A lot of sustainable products are more expensive than others. Even in Switzerland, a lot of individuals and firms don't want to pay more or can't afford to. Can sustainable consumption and sustainable business still bring about a change in the system – or will it remain something for a well-off elite?

I recently read a study from a consultancy firm engaged in the food business which came to the conclusion that there's a growing willingness to pay more for responsible products. That's particularly true of generations Z and Alpha (born 2010 to 2025, editor's note). They'll consume less, but with more awareness. The more people do that, the less of an elite thing it'll be.

Nevertheless, in the battle for custom, price will remain a strong argument.

More conscious consumers don't just see the price that goods are being sold at; they also think of the consequences for the environment and their health. And lots of people have the potential to make savings. Every year, each person in Switzerland wastes around 600 Swiss francs worth of food. That's about the average budget for food per month per household. So without waste, you could buy food for free for a month every year.





In the Spotlight

Too Good To Go is a certified 'B Corporation', and is thus committed to maintaining high standards in terms of transparency, as well as environmental and social responsibility. Furthermore, profit isn't the overriding objective. How much of a priority should sustainability be for business leaders?

The long and short answer is that success in business depends on it. More and more customers are buying products that are produced in a fair and environmentally friendly way. New and highly skilled members of the labour force also want to work for responsible, sustainable companies.

What do you consider the greatest challenges when it comes to sustainability?

There's often a lack of awareness and understanding. Above all, people underestimate the impact of their own actions. For example, a survey conducted by Too Good To Go among 500 consumers in Switzerland showed that 40% of people believe they don't generate any food waste at home at all. And yet 2.8 million tonnes of food are wasted in Switzerland every year – one third of which comes from households. So, if everybody made some changes at home, it would have a major impact.

Does doing business sustainably also mean doing business without thinking of growth?

Absolutely not. Doing business sustainably balances economic, environmental and social aspects while enabling healthy growth. The important thing is getting the balance right between making a profit and acting responsibly. It may be more expensive in the short term, but it pays off in the long run.

What's your personal contribution towards a more sustainable future?

At the moment, it's working for a company that has a 100% sustainable mission. None of us have enough time and energy in our day-to-day lives for many of the important things in life. So I'm glad to be able to use my time in a way which is worthwhile, and to be able to make a contribution to sustainability.

What achievements do you want to be able to look back on in 30 years?

Having found a balance between my work life and my children, family and leisure time, and having used my time for things that are important to me. And having practised sustainability in managing a business. Having treated people and employees fairly — having built them up when I had the chance, having dealt with them transparently and honestly, having given them feedback and always listened to them to understand their concerns and their work — whether as a CEO or as a trainee!

What life advice would you give to your descendants?

Life's too short to do things that don't motivate you and that you don't feel committed to.

And it doesn't hurt to be kind and respectful.

You became Country Manager when the COVID-19 pandemic broke out. What did the year 2020 teach you?

We suddenly learnt what before we only knew in theory: the unpredictability of life can be harsh. And direct human contact is unbelievably important for mental health. It can never be replaced by technology. We're social animals, after all.



sustainability decade"

Corine Blesi (45) studied international relations at the University of St. Gallen. After working at the World Economic Forum (WEF) and as a research assistant to two federal councillors, she spent eight years on the Executive Board of Rega air rescue. She then set up her own platform: Zurich Economic Impulse. In 2019, she took over as head of NZZ's conference business, which includes the Swiss Economic Forum (SEF). She's been a member of the NZZ's Extended Executive Board since 2021. Corine Blesi is married and lives with her partner in Feusisberg (canton of Schwyz).



We see sustainability as the third big issue of our time, alongside entrepreneurship and innovation and technology.





This will be a decade that will bring the Swiss economy together and create new opportunities for sustainable businesses. **Corine Blesi,** Managing Director of the Swiss Economic Forum (SEF), talks about ethical management and responsible investing.

Journalist: Simon Eppenberger Photographer: Markus Bertschi

The Swiss Economic Forum (SEF)

is Switzerland's leading business conference. It was founded in 1998. Every year, over 1,350 leaders from business, academia, politics and the media meet for an exchange of views and dialogue. The SEF also presents the Swiss Economic Award, the most important prize for young companies in Switzerland. The 24th SEF will be held on 2 and 3 June 2022.

www.swisseconomic.ch

Sustainability is one of the big trends emerging in society, business and politics. How competitive is the Swiss economy compared with its peers in this respect?

It's not simply a trend. For the SEF, it's the dawn of the sustainability decade, with a great many pointers being given for the future. And the corporate giants are now making it part of their strategy. In Switzerland, we're doing very well in this area in some ways, but there's room for improvement in others.

For example?

Per capita, we're the third largest producer of waste – but also the world champions in recycling. What you don't see so clearly every day is that a great deal of investment in the sustainability sector flows through Switzerland. We're not doing so badly overall and like doing ourselves down.

How has the issue of sustainability evolved at the SEF since the organisation was founded 23 years ago?

Sustainability used to be primarily a political issue, and the view was that entrepreneurship and sustainability didn't mix. But lots of new, exciting business models have now emerged. Companies are investing in technology and innovation, and this is paying dividends in terms of sustainability. The debate at the SEF has shifted in recent years as a result. The issue is no longer just political, but now has a serious economic aspect.

What do you think are the next important steps for the Swiss economy in terms of corporate sustainability?

To recognise the opportunities that the issue offers and the power you gain if you interlink your own business model with sustainability. The full potential here hasn't been reached yet. For the best proof that sustainable management can stand the test of time, just look at successful family businesses. They make decisions with the next generation in mind. With large companies though, it's still too often about coming up with a strategy, but then failing to put it into practice. Management in particular needs to act as a role model here. More honest and long-term commitment is needed.

Making sustainability part of your business model rarely leads to a quick profit. Yet investing in socially and environmentally responsible business models is becoming increasingly popular in the financial sector. Why? Many people still buy in to the narrative that there's no money to be made from sustainability. But things have changed. For example, the International Institute for Management Development in Lausanne has shown that sustainable investments are equally good if not even more successful in the long term than those that don't meet the criteria for a responsible approach to environmental, social and corporate governance aspects.

Is the financial sector becoming a driver of sustainability?

The trend has been moving in this direction and this prompted us to launch the Impact Finance Forum in September, at which the main topic of discussion was how to fund the transformation towards a sustainable economy. Investors have a huge amount of leverage. They're increasingly asking themselves how they can invest money profitably and achieve a sustainable outcome. They can also directly influence companies and their management.

The consumption of sustainable products has been increasing, especially during the COVID-19 pandemic. Can new consumer behaviour create a predominantly sustainable economy?

Besides investment, consumers are critical when it comes to bringing about major changes. We surveyed 300 Swiss people on this issue. 65% said that it was important or very important for them when deciding on a purchase that a company met its social or ecological responsibilities. 77% of respondents said that this would become even more important for them in the future. These are enormously high figures and they represent a big influence.

What opportunities do you see for successful sustainable development at a social and ecological level?

The concept of sustainability comes from forestry and means not cutting down more trees than you can replant. This should apply to all resources today. Living and doing business sustainably can only bring about positive changes for the environment and people.

Where do you see the risks in terms of sustainability?

We now have a labelling industry where you can basically buy just about anything with a label – but not everything with a green label is sustainable. It's extremely difficult to track the sustainability of the various steps involved in creating a product or its parts. It's easy to use the marketing budget for greenwashing. And anyone who really does want to act responsibly can lose sight of the big picture with all the labels.

Do we need laws to regulate the requirements on sustainability?

We believe in taking a liberal approach and having an open and honest discussion about the issue. Everyone wants to know what impact a given purchase will have. When is an organic product actually organic? What standards must it meet?

And who sets the criteria? Many industries are grappling with these challenges, including the financial industry where there's a big debate going on about what constitutes a sustainable investment. The market will show which standards will become established.

Do good and talk about it: is that still the case – or should people instead hold back in the age of social media and instant outrage?

Credible communication and transparency are expected and are becoming increasingly important. It's vital not to sugar-coat things with a 'sustainability gloss' or create a green image that doesn't accord with the actual business model. Sooner or later, it'll have a damaging effect.

How can you encourage a company to operate sustainably?

Sustainability can't be imposed from the outside. Decision-makers in a company must see the added value for themselves. When sustainability becomes more important for customers, employees and investments, a rethink will automatically take place.

Does the SEF have sustainability goals?

We see sustainability as the third major issue of our time, alongside entrepreneurship and innovation and technology. That's why we're launching the Sustainable Switzerland initiative, which combines all the competencies of the NZZ. It's not just about holding meetings at our conferences, but includes a dialogue and content platform that deals with sustainable Switzerland 365 days a year. This is intended to be a hub for business, science, politics and society. Sustainability is also an important generational issue. Many seasoned Swiss companies can no longer reach young people, who are passionate about sustainability. It's here that we want to address the relevant issues, build bridges and facilitate dialogue.

What would you like to have achieved with the SEF by 2030?

We want to have built an SEF that's a beacon of sustainability. The goal of the Sustainable Switzerland initiative is to contribute to the sustainable economy beyond Switzerland's borders.



In the spotlight

What's your vision for the world of tomorrow?

That we do at least our best to leave the world as we found it. A lot will be achieved if we do that

What personal goal do you want to achieve?

Ultimately, I'd like to be able to say that I've spent my time, both professionally and privately, with the people who are important and dear to me.

What would you like to pass on to the next generation?

Courage, innovation and a pioneering spirit will always pay off at some point. To fail every now and then is part of the process and is OK.

What are you particularly proud of?

I hat we always bring fascinating people together at the SEF and that good ideas, new initiatives and, in this spirit, value creation are the fruits of these encounters.

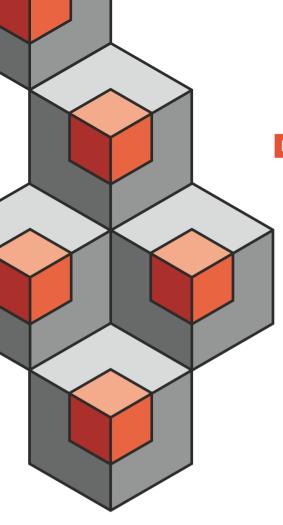
What have you learnt during the COVID-19 pandemic?

That we took our freedom for granted and really didn't value enough how freely we could move around before it happened.

Normaset Puro

A black-on-white perspective

This chapter was printed on wood-free offset Normaset Puro. This paper is produced entirely without optical brightener. Internationally recognised environmental labels such as the ISO 14001, TCF (Totally Chlorine Free) and EU Ecolabel are proof of the highest level of expertise in terms of environmental compatibility. Normaset Puro offers the printing industry a valuable alternative.



Reportage

Perspective

A question of perspective

The topic of sustainability is so multi-faceted that we should look at it from different angles. In this part of ceo, we hope to encourage you to adopt new perspectives, question the tried and tested, and innovate with a view to the future. We'll inevitably need to take up new positions on this, as humans now consume 60% more resources each year than the Earth is able to provide.¹

This makes the future a corporate responsibility. The goal of economic actors worldwide must be to do business in an economic, ecological, social and forward-looking way, as it's the only way we can support the climate goals of our country and of international communities. This is the only way we can offer current and future generations a perspective.

Fairness wins

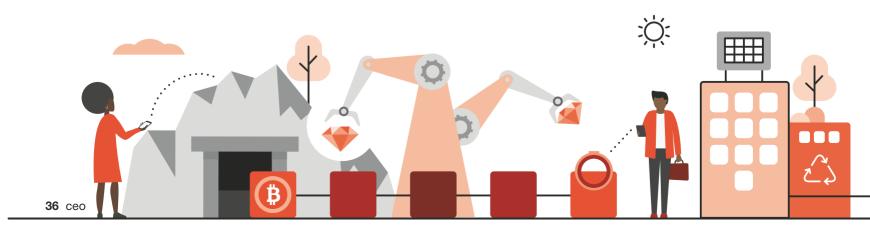
Fair trade uses some interesting mechanisms in this regard. Producers receive a minimum price for their products, which is set by a fair trade organisation. Well-known names include Fairtrade, Flower Label Program and Max Havelaar.

A remarkable example of how the concept has successfully evolved can be seen with the Lucerne-based family business Gübelin. Its first-ever provenance proof blockchain allows all steps in the supply chain for precious stones to be traced. This creates maximum transparency with regard to the provenance of jewels for the global jewellery industry. Fair trade requires a change in the way companies and consumers think.

When the circle closes

A similar change in perspective is called for by the circular economy. This is shifting from the current linear 'make-consume-throw-away' approach to a regenerative closed loop of recyclables and resources. Anyone operating in a circular manner uses the available resources more economically and reduces their systemic risks such as dependencies on operating resources. The circular economy is also strengthening the resilience of the economy and society, and paving the way for new markets, forms of innovation and investments.

Circularity as a business model envisages four strategies:² the closing of material and





energy loops (e.g. by recycling used raw materials as far as possible), slowing down (e.g. by extending product lifecycles), reducing (e.g. by producing more energy efficiently) and restoring (e.g. by making greater use of renewable resources).

Bio meets the economy

Bioeconomic innovation is also very much nature-oriented. It's driving the shift away from an oil-based economy towards the use of biological resources such as plants, animals and microorganisms - similar to green energy in electricity production. New active and valuable materials are being created from previously unused residues. for example. Examples of bioeconomic innovation abound: green algae used to produce a red dye, bioinformatics to analyse viral mutations and yeast to produce bioethanol. Another is a wood-like building material made from coconut shell - the brainchild of Swiss cleantech company NaturLoop.

One company, many perspectives

Many new perspectives are open to companies committed to sustainability. For example, those committed to sustainable

sourcing are driving the integration of social, ethical and environmental performance factors in supplier selection. Using impact investing,³ a company aims to promote positive impact on the environment or society or to attract outside capital for its sustainable business activities. To do so, it must raise its profile based on environmental, social and governance (ESG) criteria, collect the right data and expand its disclosures.

Another option is to lead or contribute to the paradigm shift towards focusing on a positive goal. To achieve this, companies must establish integrated sustainable management and assume a thought leadership and pioneering role and topic leadership in sustainability areas, for example with regard to mobility, construction or quality of life. One such case is English football club Forest Green Rovers, which is the first climate-neutral football club in the world.

Interviews with people

There are many ways of adopting a new perspective. The three interviewees below show how and why they've questioned tried-and-tested methods and approached

the issue of sustainability in a new way. Electricity producer Alpiq is focusing on green energy. NIKIN produces fair and sustainable fashion and plants a tree for every product sold. And in the double interview on sustainable finance, Falko Paetzold and Tillmann Lang talk about sustainable financial services and how they're helping clients to invest in clean energy or equality.

- Report von WWF und PwC: Kreislaufwirtschaft als Chance für die Wirtschaft, PwC Switzerland, 2021
- ² Circularity as the new normal: Future fitting Swiss businesses, WWF and PwC Switzerland, 2021
- ³ ESG Game Changer aus strategischer und regulatorischer Sicht, PwC Investmentforum, PwC Germany, 2020



"Sustainability is more than a business model"

For companies in the energy sector, sustainability is more than just a buzzword. For Alpiq CEO **Antje Kanngiesser,** it's obvious that this goes far beyond an energy mix and the latest wind turbine.

Journalist: Erik Brühlmann Photographer: Markus Bertschi

Alpiq is a European energy company with Swiss roots. For more than a century, Alpiq has been producing climate-friendly electricity from CO₂-free hydropower, and it operates a diversified and flexible power plant portfolio throughout Europe. Thanks to its outstanding expertise in asset, portfolio and risk management, Alpiq is a leader in renewable energy marketing. The Group employs around 1,200 people throughout Europe and is based in Lausanne.

www.alpiq.com

The term 'sustainability' is everywhere these days and frequently overused. How do you understand it?

For me personally, it starts with being aware of the impact of my actions. Sustainability is about being considerate and frugal for the sake of the common good. Do I really need this item? Do I absolutely have to buy it now? At Alpiq, we interpret sustainability according to the three P's: financial performance, social performance and environmental performance.

When it comes to sustainability, short-term and long-term interests often clash. How do you reconcile them?
Sustainability isn't the only area in which short-term operational and long-term strategic business can get in each other's way. It's important for a company to be clear about where it stands in terms of its values. Is an opportunity seized because it promises a quick buck, or is it deliberately passed up because it isn't in line with the company's values? Questions like these make for stimulating discussions, including with shareholders.

But shareholders want to make money!

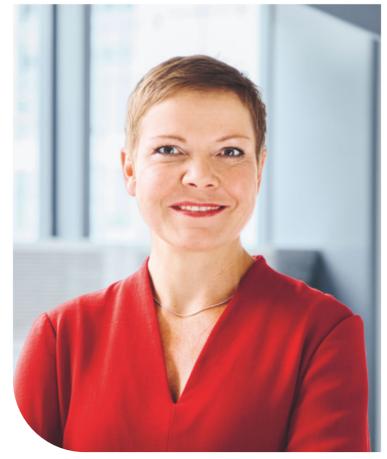
Our shareholders know that our business is influenced by long-term price cycles that encompass good and challenging years alike. In the conventional energy sector, we don't deal in months, but in years. In our industry, 'fast' means being able to imple-

ment a hydrogen project in 12–18 months, for example. However, we generally tend to work within a timeframe of 15–20 years when it comes to production facilities.

You mentioned the three pillars of sustainability: economic, ecological and social aspects. Is it possible to give equal weight to all three, or is one pillar always neglected to some extent? In the past, social and ecological aspects were often considered secondary to economic concerns. Today, we get all the stakeholders involved in a major project on board at an early stage. For example, we were able to draw a positive balance after more than ten years of cooperation in the construction of the 900-megawatt Nant de Drance pumped storage power plant. Fifteen environmental compensation measures ensure that the environmental impact of constructing the power plant and connection to the European electricity grid is offset effectively. Exemplary cooperation and constructive dialogue among the stakeholders enable us to maintain a balance between producing power and preserving nature.







Antje Kanngiesser (47) was born in northern Hesse, Germany, and trained as a lawyer. She completed her PhD at the University of Regensburg in Germany. Further studies in finance and management followed. From 2001 to 2007, Antje Kanngiesser worked as a lawyer in Berlin. In the period from 2007 to 2014, she held various positions at Energie Ouest Suisse and subsequently within the Alpiq Group. In 2014, she joined the Bern-based energy company BKW, where she had various roles, including serving as a member of the Executive Board. In 2021, she returned to Alpiq as its CEO. Antje Kanngiesser lives in Murten, Switzerland, with her husband and two children.

What influence do consumers have? Can they push a company towards sustainability?

That's much more the case today than in the past because more information is available. Social media are a powerful watchdog that stakeholders can increasingly use to influence corporate behaviour.

Can sustainability serve as a business model?

There are examples of this, like the Swiss start-up which uses apple peel to produce vegan leather for mobile phone cases and wallets. But sustainability is much more than a business model. It's also the mindset and quality of how a business is run. How do I lead people within the company? To what extent are processes optimised for sustainability? Which suppliers do we work with? Company car or public transport pass? Sustainability involves so many aspects within a company, and at Alpiq we're currently in the process of analysing them all. This is an arduous task that requires courage and perseverance because we're questioning everything – even things that might have worked quite well for a long time.

What does sustainable management mean for a company?

We want our sustainable energy activities to contribute as much as possible to a better

climate and improved security of supply. But we're aware that we can't become climate neutral overnight. We also know that we can't rely solely on wind and solar power at the moment because we need to guarantee the security of supply. Within this framework, we can make full use of our creative options. For example, we sold off coal-fired power plants even though they brought in good money. That choice enabled us to reduce our CO₂ emissions by more than half. That doesn't make the climate any better per se, since these plants are now operated by someone else. But for Alpig, the decision was an important step in the right direction. Meanwhile, we're investing in green hydrogen production. We're consciously taking on a pioneering role here because we want to drive the process rather than be driven by it. Many other questions also arise: Which political and business partners do we want to work with? How do we ensure we have a diverse workforce? How do we finance projects using conventional methods or via green bonds? What goals do we set and how do we measure them? All these questions relate to sustainable management.

You mentioned green hydrogen production. How important is this for Alpiq?
We recognised the potential of green hydrogen for achieving climate objectives early on. Green hydrogen plays an impor-

tant role in reaching the net-zero emissions target - especially through its use in zeroemission transportation. The Hydrospider joint venture, in which we hold a 45% stake, commissioned Alpig's Gösgen hydropower plant, a green hydrogen production plant that's currently the largest in Switzerland (2 MW). Now we're planning to build a 10 MW electrolysis plant in cooperation with two partners. That plant is scheduled to go into operation from the end of 2022. When completed, it will supply up to 200 electric fuel-cell lorries with about 1.000-1.200 tonnes of green hydrogen. This can eliminate about 14,000 tonnes of CO₂ a year when compared to the use of diesel vehicles.

So has the issue of sustainability changed Alpiq over the last 20 years? Absolutely. But in that time the whole industry has also reinvented itself five times over!

You mentioned the variety of energy sources available. What is Alpiq's electricity mix at present?

Hydropower, wind and photovoltaics account for about 60% of the installed capacity. The rest consists of gasgenerated power and nuclear energy. Three quarters of our portfolio is already CO_2 -free.





In the Spotlight



We've never been in a better position to change things.

What personal goal do you hope to achieve?

My goal in life is to be happy. And if I'm unhappy, I do something to quickly make the situation more positive

How sustainable is your personal life?

We do a great deal at home, but we also know that it's far from enough. We mostly get around on foot, by bike or on public transport. In addition to an electric car, we have a camper van that runs on diesel. We always buy locally produced food and aim to choose products in season. Winter tomatoes and March strawberries don't make it onto our table. But there's still much left to do.

What have you learnt during the COVID-19 pandemic?

That I'm an extremely social person! I missed people, physical contact — even handshakes. But I also realised how selfish people can be when it comes to not wearing a mask or getting vaccinated, for example.

Has the pandemic changed anything for you in the long term?

The physical distance and sense of detachment have certainly left a lasting impression on us. I wonder if we'll ever go back to the relaxed contact that we previously had with other people and which we used to consider normal.

What's your vision for the world of the future?

We've never been in a better position to change things. Unfortunately, we keep finding ostensibly good reasons not to take action. We need to understand that the future is now and action has to be taken right away to protect the climate.

All sustainability-related considerations must safeguard the security of supply. However, National Fund projects 70 and 71 showed that renewable energy sources can't currently meet that goal without the support of nuclear power. Does this mean that nuclear power plants will continue to be in use for longer than we would like?

As long as they can be operated safely and economically, they'll remain a part of the solution in the transition to a fully renewable energy supply. However, the current debate about new nuclear power plants is a red herring. After all, it would probably take 30 years from planning to approval to construction and commissioning. We need to focus on expanding renewable energy sources.

Shouldn't the public and stakeholders be made aware that you can't harp on about sustainability while at the same time blocking every new project?

That's the 'not in my back yard' attitude. Switzerland is so small that you're always in someone's back yard. We need to speed up our decision-making processes. If you spend ten years discussing a project, that's ten years lost. We need to act now to improve the future.

Does this mean that sustainability will spread all by itself?

Only those measures that make sense. Not so long ago, photovoltaic systems were considered unacceptable as a means of generating electricity within the power industry. But today, photovoltaic technology is generally accepted. It's only a question of time before a sensible approach is established. How long that takes depends on all of us, because you have to be willing to let go of old habits – and that's something people have difficulty with.









Brand promise: new trees – one at a time

Swiss start-up NIKIN is contributing to the transformation of the textile industry with its sustainable fashion products. **Nicholas Hänny,** one of the company's two co-founders, is opting for a strategy of progress in small steps.

Journalist: Editorial team of ceo Photographer: Markus Bertschi

Established in 2016, **NIKIN AG** produces and markets sustainable fashion. The company's trademark is a stylised tree. The main target group is 18 to 35-year-olds with an affinity to nature and the environment. NIKIN plants a tree for each product sold. The company is based in Lenzburg in the Swiss canton of Aargau and has around 50 permanent employees and 20 casuals. Its 2020 sales, based on its own figures, totalled around 13 million Swiss francs. NIKIN is largely certified to the Global Organic Textile Standard (GOTS).

www.nikin.ch

Piles of cardboard boxes are stacked along the corridor in the old factory building – recently delivered goods that have to be prepared for one of the regular direct sale events. T-shirts, shirts, hats and socks – everything the company's mostly young customers might want to wear over the year. Nicholas Hänny likes this atmosphere, which is typical for a young company with a motivated team. A bit improvised, not exactly neat and tidy, but authentic and honest. You can feel that things really are happening here.

Hänny is CEO of NIKIN, a Swiss fashion start-up that produces and sells sustainable clothing. The 29-year-old from Aargau in Switzerland set out on this adventure five years ago. Together with his friend and co-founder Robin Gnehm – also a 29-year-old local – he came up with the idea of selling sustainable clothing. The two had known each other since childhood and went on to hatch their plan over a beer when they met again after many years.

Trendy hats to start with

It all started more than five years ago with 'beanies' – trendy hats made from a select choice of materials. Gnehm brought the idea back with him from a trip to Canada. Hänny had made a few forays into the industry before, with sports bags he sold to his fellow students. The stylised tree became their new trademark. The NIKIN brand promise is: NIKIN will plant a tree for every product sold.

Since then, the company has planted around 1.4 million young trees all around the world. This is equivalent to a sizable forest covering almost 100 km², far bigger than the city of Zurich. Every new tree planted will help the environment by absorbing CO₂ emissions. Depending on the tree's age, species and habitat, that amounts to an impressive 10 to 12 kg of CO₂ every year. The fashion industry, on the other hand, is one of the biggest sources of atmospheric CO₂ emissions, as Hänny knows very well himself.

Constantly scrutinising processes

How can I motivate the industry to produce and sell more sustainably? This is the question Hänny has continuously asked since the beginning. 'This is a responsibility for the companies involved,' Hänny proclaims. In practice, he explains, it means taking an honest approach, ensuring transparency, and also constantly scrutinising existing processes. 'At the beginning, I still had to Google what 'sustainable fashion' means.' No generally accepted definition has surfaced so far. he says, but efforts are ongoing. NIKIN elected to align with the Global Organic Textile Standard (GOTS) and has gained at least partial certification under GOTS.

Nicholas Hänny (29) is co-founder and CEO of NIKIN. After graduating with an MBA, he gained his initial work experience in e-commerce before going into business with his childhood friend Robin Gnehm. Forbes magazine listed Hänny together with Gnehm and Carla Vilela Gonzaga Hänny, both members of the four-member management team, among the '30 under 30' in the 'Social Impact' category in Europe. Hänny, who also works as a lecturer and coach, was a boy scout for many years and describes himself as a person who's close to nature. He's married and lives in the Swiss canton of Aargau.



NIKIN is currently working with Ecos Consulting Firm and others to draw up a list of criteria for sustainable fair fashion. The aim is to examine activities more closely and extend the partial certifications. 'Traceable TreeShirt' is the name of a crowd ordering project where the focus is on end-to-end sustainability and transparency, from production to delivery. 'It's all about inspiring and motivating others,' says Hänny. NIKIN understands sustainability as a process, a path to be travelled, one step at a time – or, you might say, 'tree by tree'. There's always room for improvement, he's keen to add.

Starting with logistics

Even though his influence as a relatively small player in the fashion market is limited, the young entrepreneur is proud to share his achievements. Besides the high proportion of organic cotton in most of the lines, recycled materials are also used for new products, such as beach fashion made from recycled marine litter and bodywear mainly produced from organic cotton, enriched with recycled polyester in selected colour patterns. Hänny would like to use more of these raw materials, but some of them are in limited supply and some others are still too expensive.

Transport is also an important issue. The company has a policy of shunning air freight. For each package shipped to end customers by the logistics partners, NIKIN will make a payment that offsets the CO_2 footprint. Hänny knows that some companies offset their CO_2 emissions without giving it a second thought. He says that

although this is a self-serving approach, it's still better than nothing.

At NIKIN, offsetting is only one of many measures to reduce the carbon footprint. Customers who want to return goods bought online must pay the return expenses themselves. And the paper used for delivery notes is made of sugar cane bagasse rather than cellulose from wood pulp.

Certification gives suppliers a marketing edge

One particular aspect of fast fashion that concerns him is overproduction and the associated waste of resources. Hänny is responding by trying to persuade suppliers to find sensible re-use opportunities for sewing scraps.

NIKIN clothing comes from producers in Portugal, Poland and the Czech Republic. The bulk of the cotton comes from Portugal, with some from Turkey. The CEO is pleased to see that his encouragement has resulted in a number of suppliers gaining certification, which they can now use in their marketing. The factories are selected carefully. Monitoring producers is a key element in NIKIN's sustainability strategy.

Growth from within

NIKIN is also making great efforts with regard to its own contribution. Customers will soon be able to swap clothes, outlets are called in for unsold items from the company's collections. A 're-use collection' is in development right now and is part of

the recycling efforts. Employees organise campaigns like the regional Clean-Up Day. The species of trees planted by NIKIN not only include deciduous trees and conifers but also orchards, because they create more work and income.

Elements like these are the essence behind the growth of a young company, started by the two co-founders with just 5,000 Swiss francs in seed capital from their own savings. So far they've had no need for external capital. 'We're doing fine without big loans from the bank,' says Hänny. Even so, they do feel the pressure: salaries have to be reasonable and suppliers paid on time. This is all part of the commitment to fair business practices.

Organisational challenges

'Things can get tight towards the end of summer. We can only hope for the fourth quarter to bring in the cash we need.' Their online shop did well from the beginning, helping the two entrepreneurs during the start-up phase – and it's still doing well today.

NIKIN now has around 50 permanent employees and 20 casuals who help out at events and in sales. 'We're always a bit behind, organisationally, it seems,' the CEO accepts with a hint of self-criticism. There was a point in time when the company had reached a size that made an HR department and expense policies necessary, he remembers. NIKIN AG is now a public limited company with structures and defined responsibilities.

spotlight

What good is it
to us and those
interested in sustainable
clothing if it's simply
too expensive?



What personal goal do you want to achieve?

My goal is to share and spread entrepreneurial thinking and knowledge, to inspire other start-up founders and encourage them, and to share my own experience along the way.

What's your favourite weekend activity? Spending time with my family and friends, exercise for relaxation, skateboarding.

When you go on holiday, do you prefer the mountains or sun and sea?

One of my favourite places is Lugano. You get the best of both worlds there.

What kind of things get your thoughts going?

I think about some of the negative developments in society these days: hatred and violence, intolerance and arrogance, increasing racism.

What have you learnt during the COVID-19 pandemic?

To enjoy the moment and to become better at switching off. I've learnt to better separate work and private life and resolved to turn off my computer at 7pm. I also switched off the annoying notifications on my mobile phone. It lowers stress and improves my quality of life.

Hänny says he still often follows his gut feeling. He describes a difficulty he and other company founders have in common: 'We have too many ideas and too many projects happening all at the same time.' A lot of suggestions come from customers, and the inhouse salesforce consolidates the input. The goal is to learn and improve along the way: 'Certainly, we've made mistakes, but we've also got some things right,' says Hänny. For instance, they decided to focus advertising strongly on social media, Facebook and Google, which has paid off.

Getting the basics right is more important than a perfect solution

What's important to Hänny in all projects is to find a good balance between fair and sustainable production on the one hand and a reasonable price for the item on the other hand. 'What good is it to us and the people who are interested in sustainable

clothing if it's simply too expensive?' he asks. To him, accepting and embracing responsibility are more important than perfect solutions.

What are the company founder's plans for the next five years? 'I want us to communicate what we do and how we do it with even greater precision.' He wants to build on the good relations with his partners and secure them over the long term on the basis of master agreements. NIKIN is also considering a physical brand presence with its own shops. The pandemic and other circumstances have, however, resulted in an ongoing postponement of this project. Hänny says a trial with a pop-up store is on the cards for the coming year. NIKIN wants to keep its prices within the range of other major brands. The goal is more durable products with a timeless design. A high-quality T-shirt from sustainable production lasts a long time.

The goal: 100 million trees

Hänny himself has kept his lifestyle a modest one: the two founders have only been paying themselves a salary for the last three years. 'I probably earn less than many of my college friends,' says the MBA graduate. His point is that he can live the way he wants and is happy with the way things have turned out. He has no need for expensive extras. And a few years from now, when the forest of new trees stands a hundred million strong and NIKIN has become a well-established brand across Europe, he'll look back with great pleasure on what he and his team have achieved.

"Investors should look to the future, not at past returns"

Many banks' clients would like to invest their assets in a sustainable way. **Tillmann Lang,** founder and CEO of impact finance start-up Inyova, and **Falko Paetzold,** a professor at EBS Universität in Germany and Managing Director of the Center for Sustainable Finance and Private Wealth (CSP) at the University of Zurich, are working on ways to make sustainable investment simpler and more effective.

The Center for Sustainable Finance and Private Wealth (CSP) - a spin-off from the Next Gen Impact Investing programme born out of the Initiative for Responsible Investment at Harvard University – is an academic research and teaching institution within the Department for Banking and Finance at the University of Zurich. As such, it brings together academics, wealthy individuals and investment experts. The aim of the CSP is to generate knowledge and mobilise capital in order to implement the United Nations 2030 Agenda for Sustainable Development and limit global warming to 1.5 degrees Celsius.

www.csp.uzh.ch

Journalist: Editorial team of ceo
Photographer: Andreas Zimmermann

Mr Lang and Mr Paetzold, in recent years we've seen a marked increase in people wanting to invest in a way that's socially and environmentally conscious. Are you surprised by this trend? Tillmann Lang: We've been seeing a fundamental shift towards more sustainable consumption for some time now. This is apparent in what people eat, the clothes they buy, their travel habits and now also in matters of finance. At Inyova, we've been delighted to see how much this trend has

Falko Paetzold: Institutional investors have been familiar with these issues for a while, and they need suitable solutions. More than a thousand pension funds and institutions have now subscribed to the United Nations Principles for Responsible Investment (PRI). So it doesn't surprise me that basic concerns such as resource scarcity and social issues are now resonating with smaller bank clients.

accelerated over the last two years.

Where do you see room for improvement? And where is there still potential? Paetzold: First of all, the intermediaries banks and their client advisers – are a major barrier. A lot of advisers don't know how to talk to clients who want these kinds of products, so they simply don't. So far, no financial institution is leading the way in this area. The second point is about 'impact'. Applying exclusion criteria, which has been a popular approach, makes little or no impact. People who avoid investing in arms manufacturers, nuclear energy or casinos do nothing to improve things in these industries. Making an impact on equity markets means making active use of your voting rights as an investor or providing capital to young, sustainable firms. That has an impact.

Lang: One unresolved problem is the fact that terms continue to be used in very different ways. What is 'impact'? What does 'sustainable' mean? There are no uniform standards for these terms. Many of the intermediaries that we've just been talking about offer 'sustainable' products,



for instance, but they're nothing of the sort. I see a lot of potential here. Another point is the availability of data that can be used to assess how sustainably a company operates and how sustainable its business model is. In this respect we've come a long way in recent years.

Will the data situation improve if we have uniform standards?

Paetzold: We're working on this, although there are still some major gaps here. Our team is working with the Massachusetts Institute of Technology (MIT) on a project aimed at promoting the comparability of methods and measurements. Ultimately it will also be up to regulators to ensure that uniform standards are put in place.

It's said that younger people are more socially aware than older people in how they invest their money. Is this a generational shift?

Lang: The younger generation is an important part of this trend, but not the only driver. We've noticed that younger people's values are a major factor in how

they make decisions. These things are often kept separate by the older generation: finance on the one hand, doing good on the other. They keep them separate by donating to charity, for instance.

Paetzold: Most of the capital is still owned by older people. But this is changing. Huge sums of money are currently being passed down from one generation to the next. Since 2015, we've been offering training in sustainable investment for wealthy heirs, and 160 younger members of very affluent families have already taken part. They raise awareness among the people they know, influence older members of the family and are given greater leeway in decision-making. More can be done in this respect in a family foundation than with institutional investors, which operate within a restrictive regulatory regime.

Inyova Impact Investing is a Zurich-based digital asset management company that offers impact investment solutions for a broad range of investors. This fintech start-up, which was founded in 2017, specialises in sustainable asset management and creating personalised portfolios based on an individual's values. The focus is on social and environmental matters, from future mobility to human rights, reducing CO₂ emissions and gender equality.

www.inyova.ch



Sustainability issues should be incorporated into all training courses for financial analysts and economics students.



Sustainable investment solutions have been around for a while. Why has it taken until now for them to become mainstream?

Lang: I wouldn't say they're actually mainstream. If you look at the distribution of invested wealth or the expertise within companies, we're only part of the way there. You get the feeling that society has reached a kind of tipping point. We know a lot more about how things are interconnected today and we feel them in a very personal way. For instance, that our clothes are produced in Bangladesh, the glaciers are melting and skiing at lower altitudes won't be possible as often.

Paetzold: Sustainable investment depends a lot on people's personal attitudes, and requires individual solutions. Everyone needs to find out for himself what's sustainable. That's why we need client advisers who take the subject seriously and are willing and able to discuss it with their clients.

There are often two approaches available to choose from: exclusion criteria or the best-inclass approach. What advantages and disadvantages do these approaches have?

Paetzold: These are just two of many approaches that we now use. Both are based on the principle of exclusion.

The first excludes entire industries, while the second filters out firms that do badly in assessments. There are four other approaches that can do more: the evaluation of a company's sustainability performance, the exercise of voting rights, the focus on thematic investment such as water and solar energy, and impact investment. Sustainable investment means filtering out the best solution in this toolkit.

Lang: The disadvantage of this excellent toolkit is that you often have to rely on a good provider because using the toolkit requires a lot of expertise and a good database. The advantage is that it can be used to cover not only environmental risks but also financial risks, which these ultimately are. That's hard work, but it leads to better investment decisions.

It's still difficult for smaller clients to access compelling solutions. Why? Paetzold: Advisers still constitute a bottleneck.

Lang: Younger people hardly ever go to a bank. Older people often don't trust their advisers either because they were poorly served in the past. It shouldn't be difficult to invest sustainably nowadays. That's exactly why we set up Inyova, including for ourselves, because we had had the same problems as investors.

What could advisers do better?

Paetzold: They must practice. Banks are still not doing nearly enough in this respect. A study last conducted in 2019 showed that on average, client advisers at major banks received just one to three hours of training on sustainable investment – and that would be only once, and often this is only available to new staff. That's clearly not enough. We're trying to fill this gap with our training programmes.

Lang: The issue of sustainability should be incorporated into all financial training as a mandatory component. That applies to both financial analysts as well as economics students. Today, a finance professional who can't talk about sustainability is like an IT specialist who knows nothing about the internet.

Paetzold: Financial analysts who do a CFA do learn about this now. But you can still get a master's degree in finance from a university without attending a single lecture on climate change.

What role do indices, rating agencies and independent providers of sustainability ratings play in the selection of investments and providers? Lang: They're particularly important where you don't have your own database to rely on. But even providers that have their own researchers buy in expertise. The indexing and research agencies play a very important role. They make a lot of primary data available to us, such as a company's CO₂ emissions.

Paetzold: One problem is that there are major differences in how this data is collected. This makes them difficult to compare. One interesting aspect is that providers of sustainability ratings are independent of the firms they evaluate. They're paid by the investors. By contrast, credit-rating agencies receive their fee from the firms that they rate.

Sustainable funds are usually managed actively, which means higher costs. Is the cost argument slowing the boom in sustainable investment with major investors in particular?

Paetzold: Active and passive can be both a blessing and a curse. Ideally in our economic system, capital should be deployed actively, influence should be exerted and voting rights exercised. If all the money is put into passively managed index funds or ETFs and no one exercises their rights, then investors have no influence and this control mechanism ceases to function. On the other hand,



Dr Tillmann Lang is the CEO and co-founder of Inyova Impact Investing. Prior to that, he spent six years working as an engagement manager at McKinsey & Company, where he advised leading global organisations on innovation, product development and corporate strategy, and was the CFO of Benefit Impact Investing in Zurich and Singapore. At ETH Zurich, where he obtained his doctorate, he was a founding director of the Sustainability-in-Business Lab. Tillmann Lang is an economist, mathematician and IT expert. He studied in Zurich, Heidelberg and Santiago de Chile.

Dr Falko Paetzold is assistant professor for Social Finance at the business school of EBS Universität für Wirtschaft und Recht in Germany. He's also the founder and managing director of the Center for Sustainable Finance and Private Wealth (CSP) at the University of Zurich. Previously, he was a fellow at Harvard University in Cambridge, Massachusetts in the USA, a postdoctoral researcher at the MIT Sloan School of Management, an analyst and M&A consultant at the private Vontobel bank and a partner at investment consultants Contrast Capital. Falko Paetzold is the founder of GreenBuzz, a global network of sustainability companies. He's a proud father and enjoys playing sport.







Most of the capital is still owned by older people.
But this is changing. Huge sums of money are currently being passed down from one generation to the next.

these products offer cost advantages that enable a lot of investors to get into the market in the first place.

Lang: Costs are driven down by technology in particular. At Inyova, we're already selling financial investments with a sustainability impact at the same price as ETFs.

What about the returns? Is sustainable investment attractive?

Lang: The question of whether sustainability means lower returns or brings added value has already been answered. Countless studies have demonstrated that there's no decline in returns. The opposite hasn't quite been proven. However, there are plenty of signs that the performance is better. At the end of the day, reliable management of risks and returns is needed for any investment. Ideally, this should be combined with a good sustainability approach.

Paetzold: As an investor, you should look forward, not at past returns. The issues that are important and affect returns lie in the future: the climate crisis, demographic change and new technologies.

Mr Paetzold, in 2017 you founded the Center for Sustainable Finance and Private Wealth at the University of Zurich. How have the tasks you face evolved since then?

Paetzold: I spent a long time looking for the biggest lever I could find to drive the issue of sustainability forward myself. I first went into banking, then into academic research. In 2015, I co-founded the programme for wealthy private investors at Harvard University, which is currently operated by a team of 20 specialists. We now want to expand that programme with the addition of an offshoot in Singapore, for instance, as well as similar training courses in other Asian countries. We've also launched a programme aimed at new tech entrepreneurs. The participants in this include the initial employees of AirBnB, for example, who have now become very wealthy through the IPO. We also try to keep our alumni updated on impact investing.

Let us look ten years into the future. What role will your institution or your company play then?

Lang: I hope that Inyova will become a major provider of impact investment and that we can help hundreds of thousands of clients enter the market. Paetzold: I'm not worried. The issue is set to become a major wave, and we're only at the beginning of exponential growth. At EBS and CSP, we're right at the forefront. In ten years' time, a lot more people should benefit from what we're doing. The next few years will be incredibly important with regard to the climate.

Let's finish with a personal question: what aspects of your behaviour do you think have the greatest impact on sustainability?

Lang: In my day-to-day life, everything that affects my environmental footprint: avoiding food waste, eating a diet that's low in meat and travelling less. But I probably have the biggest impact through my job.

Paetzold: The crucial lever is my 'handprint', in other words the impact of my work. There are very few people in the world who can actually have an impact. These are the people I try to reach.

'Impact investments are investments made with the intention of generating positive, measurable social and environmental impacts alongside a financial return.'

Definition from the Global Impact Investing Network (GIIN)

In the spotlight

What are you particularly proud of?

Lang: Of the long-term thinking that's made us so successful in building up Inyova thus far. As a start-up, we're under a lot of pressure to focus on the targets for the next few months above all else. I'm proud that we've always made decisions that affect people and issues in the long term.

Paetzold: I'm proud that our work prompts investors to have what are often difficult conversations with their advisers and families and then do what really matters: transforming their portfolios such that voting rights are exercised actively and thus make companies more sustainable.

What do you do to recharge your batteries?

Paetzold: I head into the mountains on my mountain bike with my young family and committed friends.

Lang: I spend time outdoors. Hiking, making fires, camping, mountain biking, going on ski tours together with my family, with good friends or on my own.

And by playing my guitar, though not as often as I'd like.

What life advice would you give your children, descendants, grandchildren or godchildren?

Paetzold: Extremely few people are privileged enough to have an opportunity to have a significant impact on the world. Think extremely carefully about that, and do what has the greatest impact. The world needs you!

Lang: To have the courage to find out for themselves who they are, and to be content with it.

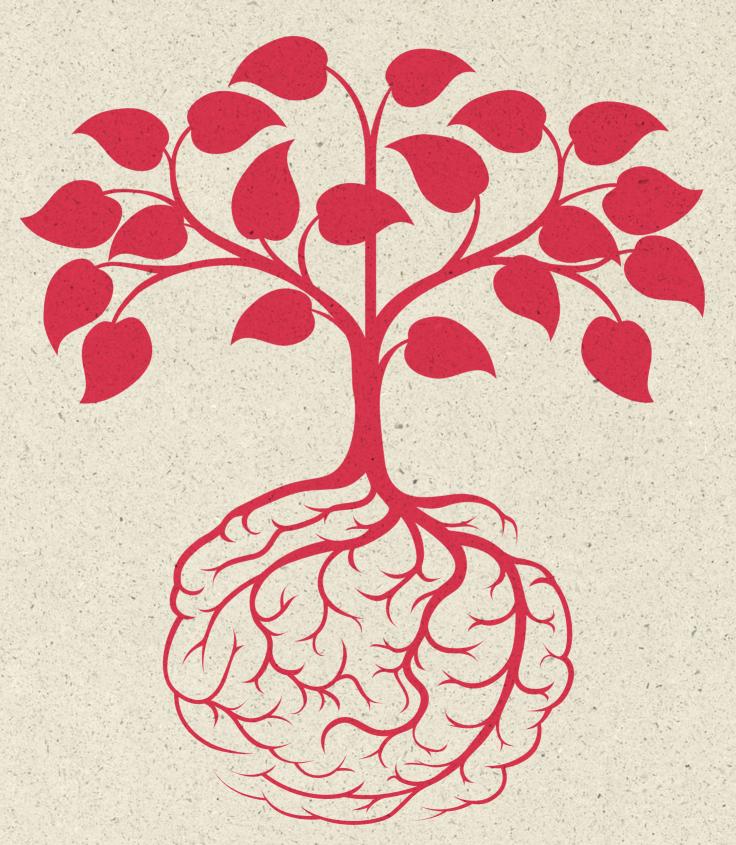
What kind of things get you thinking?

Lang: The music of Dendemann, BoySetsFire and Gisbert zu Knyphausen.

Paetzold: The obstinacy and naivety of so many people, even in the face of direct threats and concrete solutions, such as COVID-19 at the moment and sustainability issues in general.

'We want to support and accelerate the **transition to a green future** through our services.'

Andreas Staubli, CEO PwC Switzerland





Reportage

Sustainable cities

Nature, people and the future in harmony

Sustainable cities bring the sustainability aspects of 'planet', 'people' and an economy seeking new 'perspectives' into harmony within a geographically compact area. This is also a matter of urgency, as according to estimates almost 70% of the world's population will be living in cities by 2050. More than 80% of global economic activity is concentrated in urban areas. Even though urban areas occupy only 3% of the world's surface, they consume three quarters of global resources.¹

Sustainable cities primarily target Goal 11 of the Sustainable Development Goals. This aims to reduce the urban environmental impact per capita, especially in terms of air quality and waste management. Cities need to develop in a more inclusive and sustainable way. Universal access to safe and inclusive green spaces and public spaces also needs to be ensured, along with affordable housing and transport systems. Committing to these goals opens up various fields of action for a city.

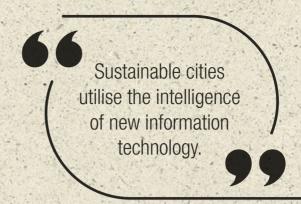
Healthy greenery

'Sustainable' doesn't mean the same thing as 'green', but green spaces form part of a sustainable environment. They help to regenerate urban areas, preserve species and absorb CO₂. A 'sponge city' maintains green spaces which filter and collect rainwater for further use. 'Green' power is also released thanks to measures such as planting vertical forests or mini-forests or converting urban facilities.

Staying mobile in the long term

Mobility is a key urban issue. At the forefront of sustainable mobility is public transport, cycling and walking. Everything that's necessary for life should be within 20 minutes' reach. Smart commuters use dynamic, algorithm-based route planning. Successful e-mobility requires a suitable charging infrastructure, state subsidy programmes and new forms of use such as electric car sharing. For example, districts can share a fleet of electric vehicles.





Energetically independent

Sustainable cities strive for energy neutrality or self-sufficiency. Certain cantons currently already require the use of renewable energies in new buildings and provide financial subsidies for this purpose. Bioclimatic construction is also making inroads. This involves using building methods and materials that reduce energy consumption. Buildings are designed to be self-sufficient in electricity, for example by installing solar cells directly on window surfaces.

Stimulus for business and life

All cities have an economy. This is why sustainable cities build an innovative, resource-conserving and open economic system that relies on networking, cooperation, the circular economy and flexible working models. This increases their resilience to crises and reduces climate risks. Digital innovation is playing a valuable role in stimulating the economy. New business areas are emerging based on advanced technologies. This is strengthening the foundations for barrier-free, communal, safe and healthy living based on equal opportunities.

From sustainable to smart

Sustainable cities utilise the intelligence of new information technology to optimise the functioning and management of their resources and reduce costs. They are turning into smart cities, which means they collect data that they can use to manage and adjust their service offering for electricity, water, transport, waste, schools or hospitals, for example – sometimes in real time.

Leading by example

London, Stockholm, Copenhagen, Oslo, Frankfurt and Zurich are clear examples of sustainable cities. Kitakyushu is less well known. The former centre of heavy industry, which once propelled Japan's economy forward, had close to no oxygen in its Dokai Bay in the 1960s. Its nickname was 'The Sea of Death'. Nowadays, the city can label itself Japan's first eco-city.

Impressive showcase models for smart cities also exist. Waven City on the former Toyota factory site is self-sufficient in energy and emissions-free. The power plant in the city of Kashiwanoha is revolutionary. Its smart grid system with one of Japan's largest lithium-

ion storage cell systems, along with its solar and gas-powered emergency generators, have helped reduce peak electricity consumption by more than a quarter.

In Switzerland too, numerous efforts are under way to create sustainable urban living spaces. The Future Cities Laboratory, a cooperation between ETH and various universities in Singapore, helps make cities and settlement systems sustainable through science. The SmartCity Alliance provides a marketplace for the transfer of knowledge, quality and investment protection. And pioneering cities² such as Winterthur, Pully and Zug are considered trailblazers for smart city initiatives,³ which are producing promising outcomes.

- 17 Ziele für nachhaltige Entwicklung, EDA, 2021
- ² Leitfaden zur Umsetzung von Smart-City-Initiativen in der Schweiz, energieschweiz, 2019
- Strategie Smart City Winterthur, Stadt Winterthur, 2018



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