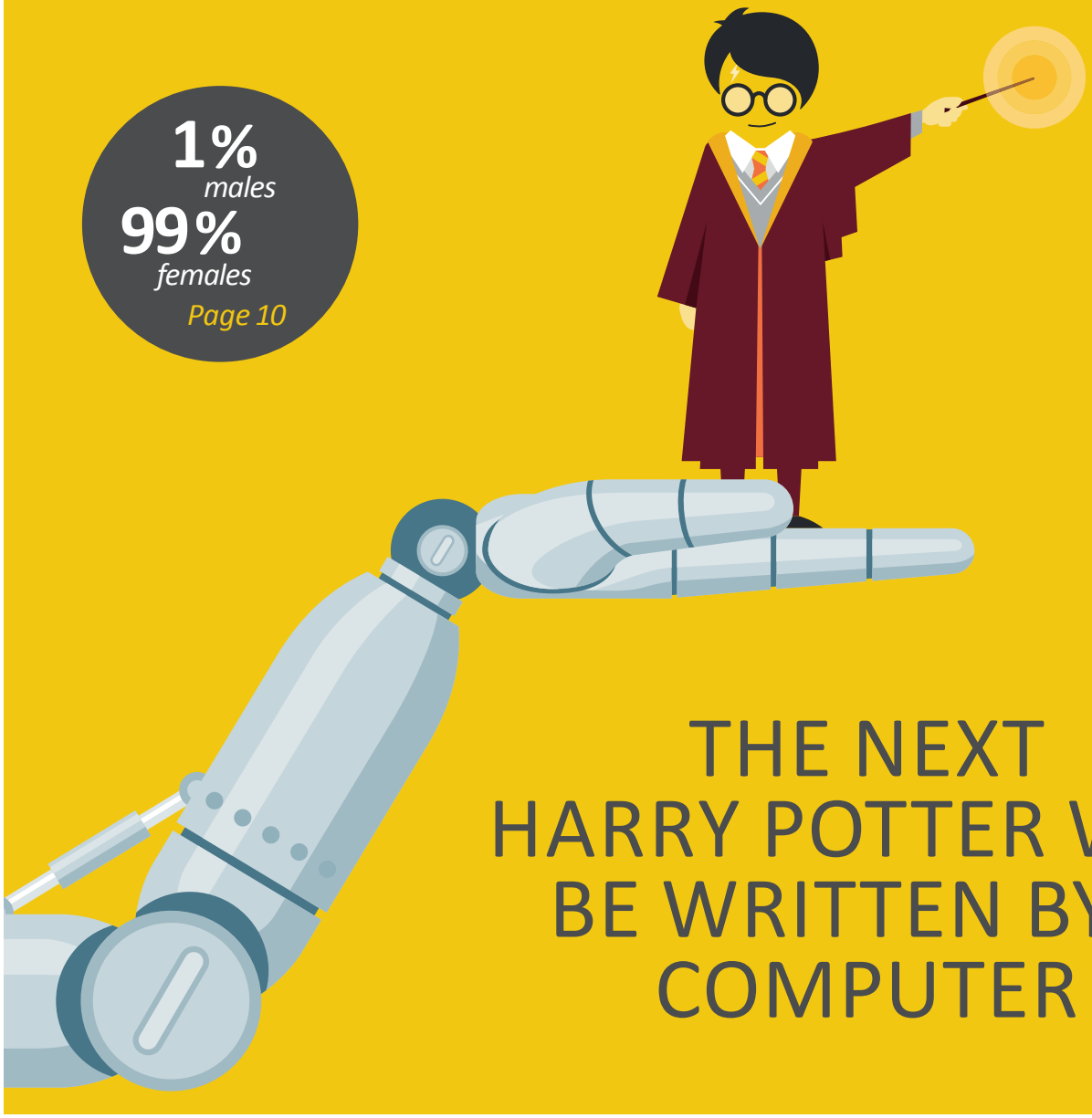
Swiss banking with a mission
GlobalanceBank

The Futuremover

Special Edition 2018

1% *males*
99% *females*
Page 10



THE NEXT HARRY POTTER WILL BE WRITTEN BY A COMPUTER

How artificial intelligence is changing our lives. A bit creepy or pure magic?

Artificial intelligence is gradually living up to its name and it is not just replacing simple jobs but is developing into a brainy worker with creative ambitions. Whether the subject is perfect Rembrandt paintings, film scripts, music, newspaper articles, or even a new Harry Potter chapter: often you simply can't tell any more whether a person or a machine owns the copyright – as scientists have found out. It may only become magical once artificial intelligence can help us to solve real problems that exist in the world.

"Stupefy, authors!"
It's coming, the magic spell that could stun many people. Gone are the days when creative people could hide from the technology-driven future behind a cloak of invisibility.

Human or machine?
The witches' cauldron of neural networking and learning algorithms is a seething brew. Artificial intelligence imitates the human brain, recognises connections, and can make data-based decisions.

Human or machine?

ARTIFICIAL INTELLIGENCE IS CHANGING OUR LIVES

An algorithm is writing a new Harry Potter chapter!

Botnik, a New York start-up, is developing writing software that can continue song lyrics, film scripts and even novels. The technique used is called “predictive writing”. This is the predictive writing that we know as auto-complete in the case of smartphones. For the Harry Potter project, all the seven volumes were used to “coach” the computer. The result was impressive, but sentences like: “Harry looked around and then fell down the spiral staircase for the rest of the summer” show the limits of the technology (for the moment).

The reader finds the computer-generated wordings more credible.

IS THE ROBOT WRITING THIS NEWSPAPER?

A few years ago Kris Hammond of Narrative Science announced that in 2016 the first computer would win a Pulitzer Prize. Now, in 2018, excellent material is still being written by human authors. And yet, the letters of the future are contained in the computer-generated content. For instance, newspapers in Great Britain have begun to publish articles that have been jointly written by software programs and journalists.

A Google-funded project is behind this. The Urbs Media company developed the software that is used.

Journalist and robot – a new dream team.

The software that is used searches national data records and incorporates interesting and regional statistics into the text modules. Toby Granville, the Editorial Development Director at Newsquest, a British newspaper group that already publishes the partially automated articles in many of its titles, is convinced that this method frees up journalists and supplies local content which they can’t afford to provide themselves due to a lack of research time.

Michelle Stanistreet, General Secretary of the National Union of Journalists, also takes a positive attitude to the new work colleague and views the software as a “useful tool” while maintaining that the journalist is ultimately responsible for what is published and whether or not the analysis is right for the context.

HOW DO PEOPLE RATE WHAT IS WRITTEN?

A study at the Ludwig-Maximilians-University in Munich has shown that readers were not able to distinguish between texts that were written by journalists and those written by software. However, what is even more interesting is that people preferred to read texts written by real humans, but they found the computer-generated texts more credible. The researchers explained this by the greater number of facts and figures in the text.

The “New York Times” for instance recognises where people access its online page from, and then it uses a computer program to supply the facts for the respective region.

GLOBALANCE FOOTPRINT

Artificial intelligence

Assessment using the Globalance Footprint involves weighing up positive and negative effects.

For artificial intelligence this means: the prospects for smart use of scarce resources like soil, water or urban space are positive. Manipulating public opinion through the use of news algorithms is negative. It is precisely in dealing with ecological or social challenges that the use of artificial intelligence can open up new, smart solutions.

By 2050 three billion people will be living in China’s cities. In order to sustain life without further overuse of the planet’s resources, we need new approaches and technologies.

Car manufacturers, component suppliers and IT companies are in agreement: autonomous driving and e-mobility controlled by artificial intelligence are coming.

The revolution begins on the street.

The advantages have right of way: autonomous driving, networked route optimisation in real-time together with controlled braking and acceleration cut energy consumption and emissions of pollutants. Driving-on-demand, carpooling via connected communities, and electric company vehicle fleets are the hallmarks of a new, environmentally friendly form of mobility.

SMART FARMS, CLEVER CITIES, CALCULABLE CATASTROPHES

Artificial intelligence falls on fertile ground in the agricultural sector. The recording of data enables computer programs to make precise predictions about pests, diseases and the weather, but also about supply and demand.

Artificial intelligence falls on fertile ground.

This reduces the amount of water, fertilisers, pesticides and feedstuffs that are used and the time needed to do so, hence improving efficiency. Great rewards are not only reaped in terms of resource efficiency but also in relieving the environment and ensuring abundant supply for our expanding population.

From the countryside to towns and cities: real-time data on energy, water consumption and flows of traffic and people will be used as an “urban dashboard” to make urban life more pleasant and sustainable. The weather, catastrophes and other extreme events can be trained for in disaster simulations and be more accurately predicted so that the responses can be better coordinated and implemented.

The only question is: who wrote this text – a human or a machine?

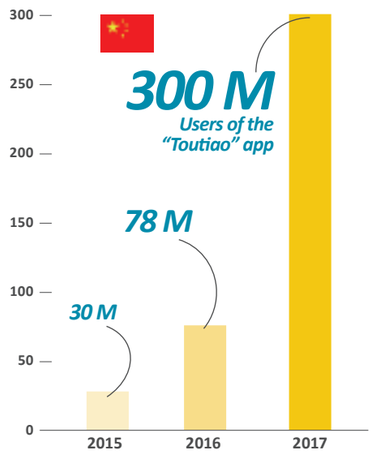
Do you know about Bytedance?

Bytedance is one of the fastest growing start-up companies in China. In 2017 alone its estimated value doubled from ten to twenty billion dollars.

Bytedance, which has its head office in Beijing, is now trading as China’s next tech-giant following in the steps of Baidu and Alibaba. The “Toutiao” app which forms the centrepiece of Bytedance collects and classifies content from over 4,000 media services and creates specific combinations of information for each user. An artificial intelligence system recognises the user’s preferences and interests, and it uses them to devise a news algorithm. The information and adverts are compiled by robots – not editors.

GROWTH OF BYTEDANCE

Users (millions)



Source: techcrunch.com

GLOBALANCE FUTURE-MOVER

DAVID HERTIG
Founding Partner & Head of Investments

David Hertig on futuremovers in the field of artificial intelligence (AI):

Infineon is developing sensor technologies (lidar and radar) which are crucial for autonomous driving.

NVIDIA – one of the biggest developers of processors – is benefitting directly from the AI boom and the demand for computing power.

Splunk is a world leader in the global market for big data evaluation technologies.

Apple is working on a new AI chip, the Apple Neural Engine, which aims to revolutionise voice and facial recognition.

iCarbonX is a Chinese start-up in the health sector: it uses big data in the field of genetics and physiology to come up with personalised health recommendations for patients.

Interview with Reto Ringger

A GOOGLE EARTH FOR MY PORTFOLIO

Reto Ringger is a pioneer and entrepreneur working at the interface between financial markets and future trends.

"The world is not just a marketplace, it's also a space for living in."

Mr Ringger: What is the rationale behind Globalance?
Together with our clients we want to invest in the future, in companies which promote progress in the world and which provide solutions to the big challenges that it faces.

It's not long before there will be between nine and ten billion people on the planet: that's only possible if we radically alter the economy, and if we organise our methods of production, consumption or digitisation in an innovative, forward-looking way. Our investment clients achieve attractive returns thanks to companies which build smart megacities, or make the energy revolution possible, or develop digital mobility platforms.

Soon there will be between nine and ten billion of us on the planet.

More and more investors expect a market rate performance combined with investments which achieve a positive impact. That's also our philosophy: we generate attractive returns for our clients by investing in pioneering companies.

You evaluate the footprint of the invested capital. What does this mean?
The world is not just a marketplace, it's also the place where we live. More and more investors, and especially women, would like to know what the impact of their investments is. What do the companies do with my money? How does its positive impact improve my returns? Are my investments part of the solution or part of the problem? Have I got hidden environmental risks in my portfolio? Our footprint approach is a key part of our investment strategy. It means that the investor sees the effects of his investments on economy, society, and the environment. A type of Google Earth for improving one's understanding of one's own investments.

What gave you this idea?
I've been interested in these future development topics ever since I was at university, and as a young financial analyst at Swiss Re I soon had the opportunity to deal with these exciting issues.

If you want to invest successfully today, you've got to know how social or ecological developments influence the returns and risk profile of your financial investments. That's our core belief. It's now over twenty years since our team working in conjunction with Dow Jones developed an equity index which measures precisely these types of indicators. We then went on to set up the world's first sustainable water fund. It's always been about combining a market rate return with a positive effect.

Reto Ringger

Founder and CEO of Globalance Bank

In 1995 he founded SAM, Sustainable Asset Management, the first asset manager in the world to provide sustainable investments, and he built it into one of the world's leading providers in this field. He developed the Dow Jones Sustainability Index in collaboration with Dow Jones in 1997 – the first index to measure companies' sustainability. Previously he had worked in the investments sector at UBS, Swiss Re and Bank Vontobel.

reto.ringger@globalance-bank.com

We combine market rates return with a positive impact.

How does the footprint boost the rate of return?
The stock market performance of companies which focus on these future development issues is demonstrably better than the benchmark. Pioneering companies cope with crises better, and they are more successful in the long-term. We invest in companies which proactively engage with global challenges and provide solutions for them. It's especially in the emerging economies like China or India that these companies find particularly interesting markets. They are companies which develop digital high-school services, help to save energy, water and fertiliser in agriculture, or provide SMEs with access to the financial markets. We call companies like this futuremovers.

In markets such as China or India futuremovers are particularly successful.

What are the advantages for investors of Globalance's investment advice and its fund?
Our track record speaks for itself: over recent years our clients have achieved good returns thanks to investments which are "fit for the future" and which have a positive footprint. They benefit from a unique degree of transparency and security. Our clients also value the fact that in Globalance they have a really independent, owner-managed partner by their side which can answer their investment queries.

GLOBALANCE BANK IN BRIEF

43% ANNUAL GROWTH OF CLIENT ASSETS (2012–2017)

No. 1 BEST SWISS BANK 2017 ACCORDING TO TEST BY VERLAG FUCHSBRIEFE (GERMANY)

48% PROPORTION OF FEMALE CLIENTS

57 years old AVERAGE AGE OF CLIENTS

100% COMPATIBILITY OF GLOBALANCE EQUITY PORTFOLIOS WITH THE UN TWO-DEGREE CLIMATE TARGET

0% LEGACIES

Paradigm change in banking

The tourist industry is familiar with tripadvisor. The aviation industry is familiar with ebookers.com. The traveller is familiar with google earth. But where can an investor find out more about his investments? Are they fit for the future, do they have a positive footprint? Are they part of the solution?

Globalance has developed the Globalance Footprint in order to provide the answers, and to show its clients where their investments are held. This innovation led to Globalance being recognised as a "Global Growth Company" by the World Economic Forum (WEF) in 2015.

Who is Globalance Bank?

Globalance Bank is an owner-managed private Swiss bank which invests in pioneering sectors.

Globalance invests in futuremovers. These are companies which respond successfully to worldwide megatrends and benefit from them. Globalance advises private clients, families and foundations about how they can invest their assets in a future-oriented manner, and it does so in a very special way: Globalance is the first bank in the world to show its clients the "footprint" of their assets. This provides clients with complete transparency about the impact of their assets on the economy, society and the environment. Globalance bank has absolutely no legacies and is managed by the founding partners.

OUR WORLD

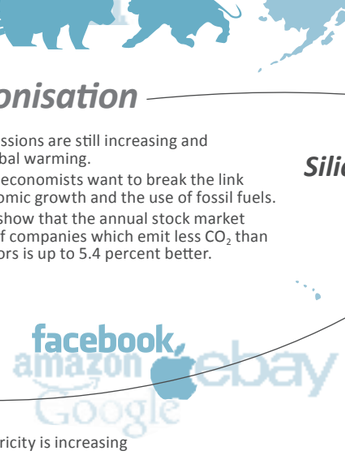
What is a futuremover?

Futuremovers are companies which respond successfully to the global megatrends and develop solutions to global challenges.

They replace redundant business models with forward-looking concepts whilst simultaneously achieving a positive footprint. They build smart megacities, make the energy revolution possible, focus on the circular economy, or they develop sustainable mobility platforms.

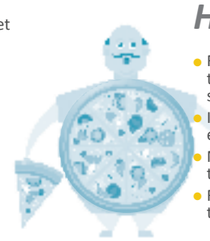
Decarbonisation

- Global CO_2 emissions are still increasing and influencing global warming.
- Politicians and economists want to break the link between economic growth and the use of fossil fuels.
- Investigations show that the annual stock market performance of companies which emit less CO_2 than their competitors is up to 5.4 percent better.



Digitisation

- The internet's use of electricity is increasing exponentially.
- The internet of things, cloud computing and big data are devouring more and more electricity and power.
- In terms of its electricity consumption, the internet would already be the fifth largest country in the world.



Health

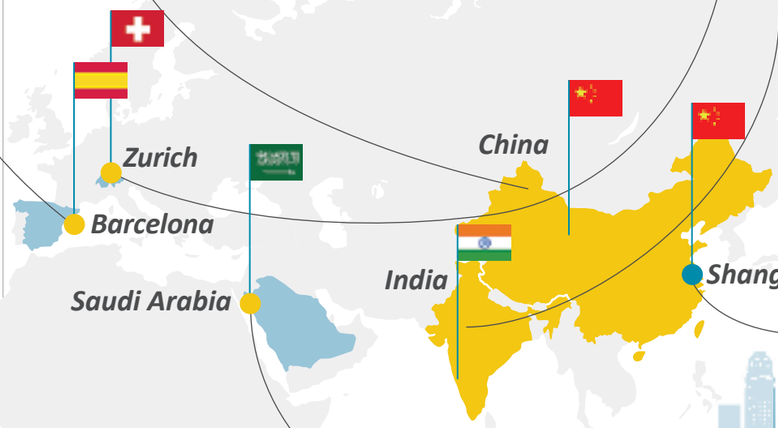
- For the first time ever, more people around the world are now overweight than are suffering from malnutrition.
- Illnesses such as diabetes are increasing, especially in developing countries.
- Mexico City is one of the first cities in the world to have introduced a sugar tax.
- Food producers are increasingly being forced to turn to sugar-free products.

Recycling

- 35 percent of all plastic waste is disposed of in our seas and oceans. Only 5 percent of plastic worldwide is recycled.
- In the beginning of 2018 China banned the import of waste (plastic, paper, textiles, building waste) from abroad. The pressure on the exporting countries is increasing massively.
- Barcelona is pursuing a "zero waste strategy" and wants to introduce a circular economy on a step-by-step basis.

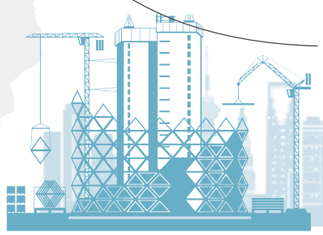
Clean forms of energy

- Solar electricity is already the cheapest form of power in over 60 countries. For instance in China, India and Brazil.
- Experts predict that by 2040 a third of global electricity will come from wind and solar power, and a third of vehicles will be powered by electricity.
- The city of Zurich is pursuing the goal of the "2,000 Watt Society".



New mobility

- Google, Geely (Volvo) and Tesla are neck and neck in the race to produce the self-driving vehicle.
- In the near future computers and algorithms will control our cars in the cities of Asia and North America.
- The demand for oil will plummet if car-share schemes and electro-mobility really take off.



Megacities

- Saudi Arabia is building a megacity which will be entirely powered by renewable energy, will cost USD 500 billion to build, and is intended to be 33 times bigger than New York.
- India will only allow electric vehicles to be built as from 2030.
- The megacities of China are also being planned in an increasingly ecological manner and are relying on non-polluting forms of mobility.

Did you know?
Globalance's Sokrates fund invests in the most exciting futuremovers around the world which have a positive footprint.

Unilever

Around the world companies are having to rapidly expand their own recycling capabilities.

Unilever has set itself the aim of making its plastic packaging 100 percent recyclable. This is leading to innovations: in 2017 Unilever introduced a biologically degradable plastic for small portion packaging in developing countries.

Globalance Footprint 67

Leroy Seafood

Consumption of fish and meat is on the rise, particularly in places where the middle class is expanding most rapidly.

Leroy Seafood is a successful pioneer in the field of sustainable fish farming. The company is involved throughout the entire production chain from breeding to restaurant.

Globalance Footprint 54

Varian

Improving the worldwide provision of healthcare while keeping costs affordable is a global challenge.

Varian manufactures devices and software which use the energy of X-rays for the benefit of people, thus enabling affordable cancer treatments in developing countries.

Globalance Footprint 60

Infineon

The megacity is based on intelligent IT networking and energy-efficient, digital technologies.

Infineon products are used in local public transport systems such as trains or subways, or in high-speed trains in order to provide a sustainable and ideally networked form of mobility within and between cities.

Globalance Footprint 76

Equinix

The amount of online data doubles every two years, and it's driving up electricity consumption.

Equinix operates data centres and internet nodes around the world. Its customers are cloud services, network operators, and content providers. Equinix helps them to save electricity, and guarantees service reliability and security.

Globalance Footprint 84

ABB

The internet of things revolution also includes industrial production and the monitoring of infrastructure systems.

The ABB Ability™ Smart Sensor provides digital information about important parameters and it makes predictive maintenance possible. This offers enormous potential savings.

Globalance Footprint 80

Cities declare war on climate change

MEGACITIES ARE GETTING SMART

"Megacities occupy just 2% of the earth's surface, but they consume 75% of global resources."

While Donald Trump advised the victims of the recent freezing weather on the east coast of the USA to simply enjoy the benefits of global warming, cities around the world are taking the problems of climate change seriously.

Regardless of national governments, they feel obliged to act, and they are developing their own initiatives for protecting the cities and their inhabitants from the consequences of climate change.

MIDDLE KINGDOM PLANS A GREEN FUTURE

The megacities have known what's coming for some time now. In 30 years two-thirds of the world's population will be living in its cities.

In 30 years two-thirds of the world's population will be living in cities.

And urban planners also know that factors such as traffic jams, air pollution and water shortages influence the quality of life and jeopardise the economic competitiveness of major urban areas.

China realises that it has got to take action as a matter of urgency, and it is also identifying attractive competitive advantages. For instance, a policy of full electrification is being actively pursued.

The megacity of Shenzhen with its 12 M inhabitants is the first city in the world to operate a fully electrified fleet of buses. 16,000 vehicles are involved, which makes it a world record. And the intention is that by 2020 all its taxis will also be electrically powered. Progress is making headway: ten years ago the city had 180 smog days a year, but in 2016 the figure had fallen to just 27. And what's more, it pays for itself. China is becoming the world's number one producer of electric vehicles.

FROM THE "SMOG CITY" TO THE SMART CITY

Megacities are mega in every respect. They don't just act as a magnet for technical, political and cultural expertise and provide a huge number of jobs and promotion opportunities, they also concentrate the problems that go with this type of development. You only have to consider the fact that megacities occupy 2% of the earth's surface, but they consume 75% of its resources and generate roughly 80 percent of CO_2 emissions.

But security, education and politics are also challenges which these cities have to tackle now as well as in the future.

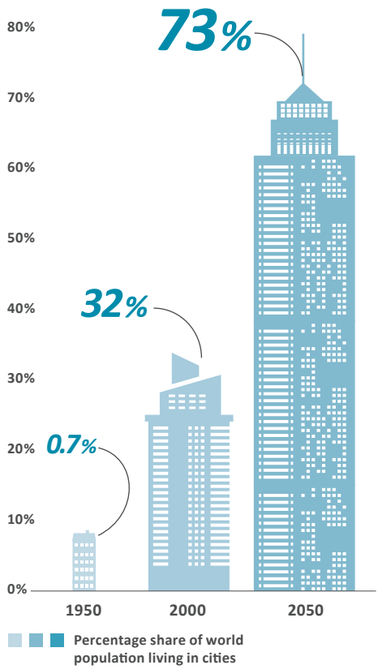
GLOBALANCE FOOTPRINT

Megacities provide infrastructure and properties that are fit for the future

PETER ZOLLINGER
Head of Impact Research

Thanks to the Globalance Footprint we manage to find investments that have a positive impact at an economic, social and environmental level in megacities. Examples are infrastructure and properties that are fit for the future: whoever increases people's security achieves a positive footprint. This includes, for instance, systems which make the smart control and monitoring of flows of visitors possible in office buildings or department stores. Mobile access systems enhance the protection of public institutions or government buildings.

GLOBAL URBAN POPULATION
Comparison of changes 1950 to 2050



Source: Financial Times, 2017

New York sues Shell

The mayor of New York, Bill de Blasio, is taking BP, Exxon, Shell and other oil multinationals to court.

He intends to get the companies to pay for the high costs that will be involved in making the city's infrastructure fit to cope with the effects of climate change. That's his intention at least – but things may turn out differently – as in the case of the tobacco industry whose negative influence on people and the environment was deliberately hushed up for years.

Artist's impression of Neom
Smart megacities are the best solution for providing a good quality of life and a future for ten billion people.

The city of Neom on the Red Sea will be 33 times bigger than New York.

Forget megacities like Shanghai, Mumbai or New York. Neom is the name of the city of the future.

Due to the increasing scarcity of raw materials and the continuing decline in the price of oil, Saudi Arabia is launching "Vision 2030" as an economic offensive.

At the Future Investment Initiative conference in Riyadh, Crown Prince Mohammed bin Salman presented an impressive draft design for a megacity. 500 billion dollars is being invested on the coast of the Red Sea in order to build Neom, a city which should be 33 times the size of New York.

The city intends to attract the economic elite of the whole world and to concentrate mainly on industrial sectors such as energy, water, biotechnology and food as well as pioneering forms of production and entertainment.

But the best is left to last: Neom is to be completely powered by renewable forms of energy.

GLOBALANCE FUTURE-MOVER

Megacities

A futuremover is a company which benefits from a megatrend, is financially sound, and has a positive footprint.

An excellently positioned company is China-based **BYD (Build your Dream).**

The company benefits from the electromobility megatrend in megacities. **BYD** already supplanted Tesla as the world's largest manufacturer of electric cars in 2016, and now it's also one of the largest producers of batteries.

As well as mobility, the **urban planning** of the future also promises attractive investment opportunities, such as **energy-efficient buildings, a decentralised energy supply,** or **urban farming.**

How global warming affects gender

ARE TURTLES ABOUT TO DIE OUT?

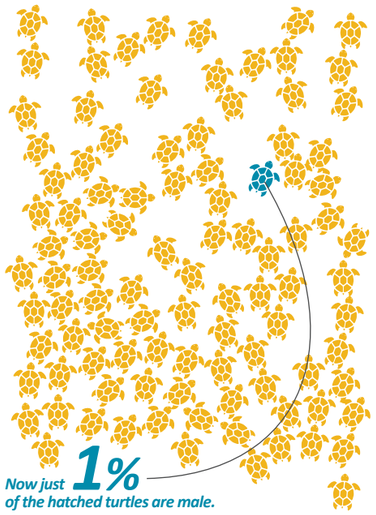
99% of the turtles that hatched on the Great Barrier Reef in 2015 are female.

Do you remember the film "Find Nemo"? In it Crush, the cool sea turtle dad, gave us something to smile about. Now people are saying: "Find Crush" – because biologists are on the hunt for male turtles.

Why is this? In the case of green sea turtles it's the ambient temperature rather than sex chromosomes which decides whether the hatchling is female or male. If the temperature is above 29.3 degrees, females are born. If it's lower, then males are produced. But that isn't happening anymore – you've guessed why: climate change.

In 1960 47% of the turtles that hatched out were still male.

SEA TURTLES THAT HATCHED OUT IN 2015



GLOBALANCE FOOTPRINT

Safeguarding the diversity of species is one of the necessary preconditions for preserving our natural life support system.

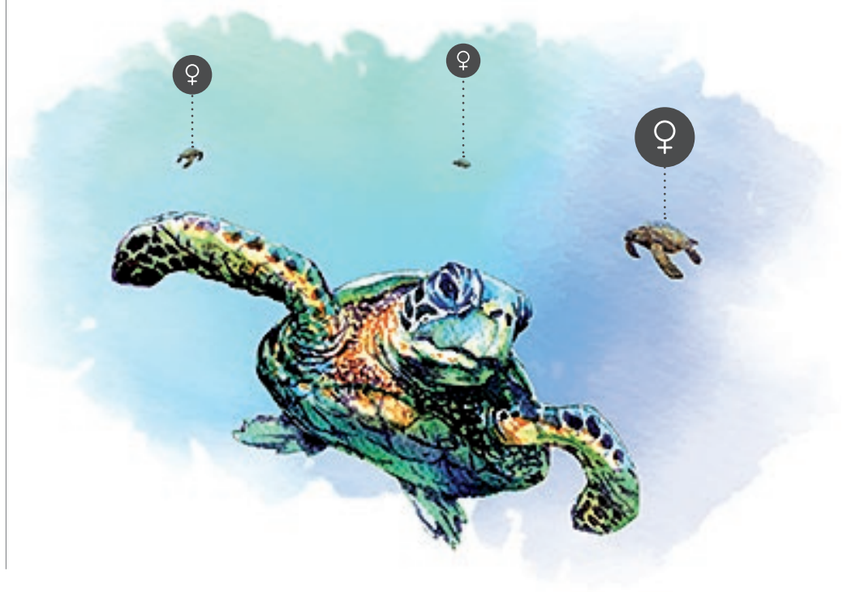
Agriculture, fishing or tourism are just three economic sectors which directly illustrate this dependence on healthy natural ecosystems. Boosting their resilience is one criterion of a positive footprint. We choose companies which take maintaining a clean atmosphere and waterways seriously and which avoid or prevent waste. The circular economy is the goal.

On Raine Island in the Great Barrier Reef is the world's largest breeding ground for green sea turtles.

Researchers have established that 99 percent of the young turtles are female, and 87 percent of the adults.

A great climate – for female turtles

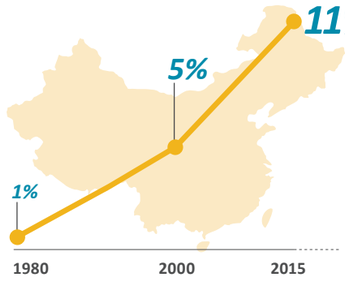
So there are 116 females born for every male. "We're talking about a handful of males with hundreds of females. We were shocked", is how Camryn Allen, a scientist with the National Oceanic and Atmospheric Administration on Hawaii, describes the situation. Of course initiatives such as the Raine Island Recovery Project are attempting to rebalance the population by providing shade and by cooling the beach. However, the most important finding may be that climate change can no longer be denied, and that we've all got to play our part in tackling it.



Smart lenses help diabetics

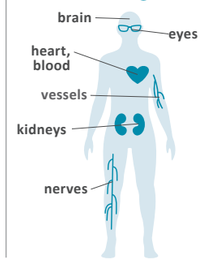
THESE CONTACT LENSES SEE MORE

DIABETES EPIDEMIC TAKES OFF IN CHINA (proportion of the population in percent)



In 1980 fewer than 1 percent of adults in China had diabetes. In 2015 the figure was almost 11 percent.
According to estimates over 92 million adults in China have diabetes, and another 148 million are prediabetic. These figures show that China has overtaken India as the global epicentre of the diabetes epidemic.

Diabetes damages the:



Source: The Economist

There are 422 million diabetes sufferers worldwide. They have to constantly monitor their blood sugar level so that they can respond quickly to any fluctuations.

To do away with the unpleasant process of pricking your finger, Google has invented a contact lens specifically designed for diabetics at its Google X research laboratory.

Together with Alcon, the subsidiary of the Novartis biotechnology company that specialises in ophthalmology, it has licensed the "smart lenses".

Will we buy our medicines from Google in future?

The clever contact lenses have a ring-shaped micro-antenna and a wireless chip that's the size of a speck of dust. The blood sugar level in the tear fluid is regularly measured and the data is then forwarded to a smartphone app or a smartwatch. If the values are too high or too low, warning signals are emitted.

China has a big sugar problem.

This technology can be developed further, both for diagnostic and for treatment purposes. For instance, there are plans to restore the natural focussing of the eye for people suffering from age-related long-sightedness. And around the world other institutes are undertaking research into blood sugar tests which don't involve the use of blood.

It's still not yet certain when the smart lenses will actually be ready for the market. So let's keep an eye on this innovation.

One's own four walls

BUILD A HOUSE? PRINT A HOUSE!

In times when living space is at a premium, rents are soaring, and construction costs are high, owning one's own home is just a dream for many people.

However, there are clever schemes which show how things can be done better, more cheaply, and even in a more self-help way. The Ukrainian-American start-up "PassivDome" is for example building houses using parts produced by a 3D printer. The walls, floors and roof are printed within eight hours. The windows and pipework are added by people.

MODERN NOMADS

The houses are solid, but they are still easy to transport from one place to another. They are self-contained since they have an independent waste water system, solar panels on the roof, and a water system which extracts humidity from the air and purifies it. Your own home can be individually configured, just like when you buy a car, and it costs between 30,000 and 60,000 euros.

QUICKER, CHEAPER, MORE ECOLOGICAL
3D technology will soon mean that everyone can afford a house.

How Blockchain is improving food security

HAPPY HENS THANKS TO BLOCKCHAIN?

Blockchain – isn't that those virtual mines where you can go prospecting for bitcoins?

Any non-gamblers will be cringing by now. But if you put the cryptocurrency to one side and do away with all the buzzwords, you discover a new technology which experts celebrate as the biggest thing to happen since the internet was invented. Blockchain has great economic, social and ecological potential, especially for the food industry that has come under critical scrutiny over recent years.

413,000 people die every year after eating food that is contaminated or has gone off.

You're standing in the supermarket and can choose between various different designs of egg boxes. The design of the packaging varies from cute landscapes to an artificial green meadow. Actually all you want to know is where the eggs come from, and perhaps whether the hens really have a good life. Of course if you've got lots of time you can work out what the codes mean, but as we know from many food scandals in the past they don't provide absolute certainty.

Blockchain – the end of the scandals?

According to the World health Organization about 413,000 people die every year as a result of eating food that is contaminated or has gone off. One in ten illnesses worldwide results from this – affecting 750 million people. The Blockchain technology means that in the not too distant future it will be possible to obtain complete, forgery-proof documentation about the foods that we want to buy – even via our smartphone when we're actually in the supermarket.

China is experiencing a real organic boom.

China, the country that has been rocked by food scandals, is experiencing a real organic boom. This gave the ZhongAn company the idea of testing a procedure involving computer chips and automatic facial recognition of the animals. The result is that thanks to Blockchain consumers can view every aspect of the animal's life.

In England facial recognition is being used to monitor the health of entire herds of sheep. It has been found that even slight changes in facial expressions may be the sign of an illness.

GLOBALANCE FOOTPRINT

Consumers are looking for healthier foods

Artificial intelligence and the Blockchain technology can make food production more sustainable.

Based on automated data management and their own decisions and corrective measures, these technologies can use robots and drones for the early detection and remedying of plant diseases or water shortages.

The comparatively cheap, seamless and quick identification of products and merchandise in real-time may also enable defective products to be detected in a targeted and quicker way. This improves the footprint of the whole value chain.

Don't bin it:

UP TO 30% LESS RUBBISH

However, it's not just contaminated foodstuffs that are a scandal, but also the excessive amounts of waste.

Worldwide about a third of all foodstuffs that are produced go to waste. This could feed over a billion people.

Worldwide about a third of all foodstuffs that are produced go to waste.

Blockchain has the potential to bring about revolutionary improvements to tackle both problems. Every transaction is fraud-proof and the technology enables the individual processes to be clearly identified and tracked.

Walmart carried out the test: it traditionally takes at least 18 hours to prove the origins of a mango by tracing its route back from the shop to the farm.

Reduced danger of price tampering.

With Blockchain the necessary information is available in 2.2 seconds. For example, if a safety problem emerges in connection with a product, all the parties involved can respond much more quickly and precisely. The risk to consumers is minimised.

The Chinese company ZhongAn is testing an automatic facial recognition procedure for hens.

The advantage is that it is really only affected products that have to be destroyed, rather than entire stocks of goods, or even the wrong stocks of goods.

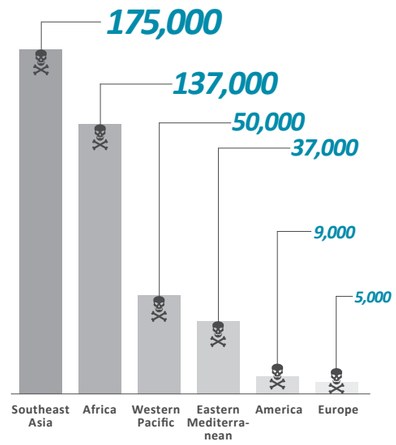
The basic assumption is that by using this optimised monitoring system waste can be reduced by between 20 and 30 percent.

Another exciting application of the Blockchain technology will make the payment of farmers and producers more transparent, quicker, and therefore fairer. Using this decentralised form of administration eliminates dependence on intermediaries, and consequently also the danger of price tampering.

An innovation which will go down well with producers, traders and consumers.

POISONING OF PEOPLE AROUND THE WORLD

About 413,000 deaths a year due to contaminated foodstuffs



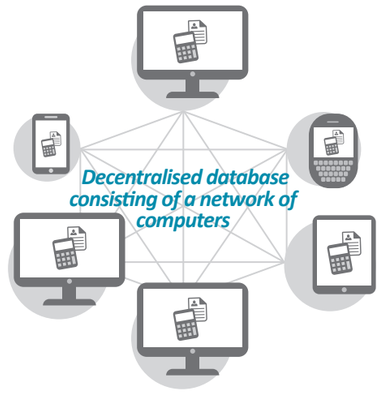
Source: WHO World Health Organization, 2015

"Thanks to Blockchain it will be possible to obtain seamless and forgery-proof documentation about our foodstuffs."

"B l o c k c h a i n" – a brief outline

Blockchain is a technology which administers information/data in a decentralised way. If a block is full, it is encrypted, locked and consequently irrevocably saved. Then the next block is chronologically appended to it – which is where the name Blockchain comes from.

Decentralised means that all the transactions – for instance between suppliers and customers – have to be administered and confirmed by several computers. The advantages: no matter how small it is, every single transaction takes place in real-time and cannot subsequently be tampered with, and it can be viewed by all the verified participants. This means that there is a high level of security and transparency, together with fast processing.



Interview with Natalie Baki

WHICH FUTUREMOVERS DO YOU INVEST IN YOURSELF?

Natalie Baki is responsible for a wide range of tasks at the Investment Center: she manages client portfolios, she carries out financial analyses, and she draws up investment reports.

"The subjects I'm interested in are the new forms of mobility and healthy nutrition."

Ms Baki, you have considerable responsibility for your clients' assets. How does your job at Globalance differ from the jobs that you've done at other banks?

We don't restrict ourselves just to financial analysis, we also observe global megatrends and then identify companies which develop innovative products to meet global challenges and which benefit as a result.

As an investor, I have to adopt a new attitude nowadays.

This involves us looking at global trends like urbanisation, digitisation, climate change, scarcity of resources and demographic change, and investing in companies that have a positive footprint.

And that makes a difference to your asset management work?

Yes, at Globalance we combine financial analyses with footprint analyses: we only invest in companies that generate profits through the use of products which will also be in demand in future. In China and India there's not long to go until petrol cars are no longer allowed in cities. So this makes suppliers of electric vehicles, or of batteries or sensors for autonomous vehicles, attractive investment opportunities. In China there are already more than 200 suppliers of electric vehicles. So it will be very hard for traditional manufacturers like BMW, Toyota or GM to maintain their large market shares. Who will benefit, and how attractively are these companies valued on the stock market? These are issues that we're interested in.

Can you give us the name of a specific futuremover?

The internet and digitisation are leading to a worldwide upsurge in electricity consumption. The Equinix company which is tackling these challenges is interesting: Equinix is a leading provider of energy-efficient storage solutions and data centres, and it thereby reduces the expenses and the CO_2 footprint of Amazon, Google, Facebook and other customers. Or ABB: the company recently connected the Tesla mega-battery in Australia to the grid. ABB builds the infrastructure for the energy revolution around the world.

How good is the performance that you achieve with futuremovers like these?

Our clients had a good year in 2017. A dynamic portfolio, 70% of which is made up of equities, achieved a return of 13 percent, while the performance of a balanced portfolio was about 8.9 percent. In addition, all the portfolios have a very good footprint.

Where would you yourself invest at the moment?

In my view, agriculture and nutrition are very interesting topics. For example, the China Mengniu Dairy company is a leading supplier of natural foodstuffs to the Chinese market and it is achieving above-average levels of growth in a segment that is benefitting from constantly increasing levels of consumer demand.

Natalie Baki

juggles numbers: she manages and services client portfolios, she draws up analyses and reports, and she prepares investment proposals. Before Natalie Baki came to Globalance she worked as a portfolio manager at WMPartners, a subsidiary of Julius Bär.

Natalie Baki is a qualified financial analyst, (Chartered Financial Analyst, CFA) and she has a Bachelor of Science degree in Business Administration from the University of Applied Sciences in Business Administration Zurich (HWZ).

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WHAT'S THE FOOTPRINT OF MY MONEY?

A "Google Earth" for my assets

"I would never have thought that looking into how my money is invested could have told me so much more than I knew previously. Globalance Bank provides a level of transparency that is unique."

R.v.B., GLOBALANCE CLIENT

The clients of Globalance Bank know what the footprint of their portfolio is, and they can look it up at any time on their PC, laptop, tablet or smartphone.

So you don't just know the stocks, bonds or real estate that you have investments in, you can also see which innovations you are promoting, for example in the healthcare sector or for conserving natural resources.

THE GLOBALANCE FOOTPRINT:

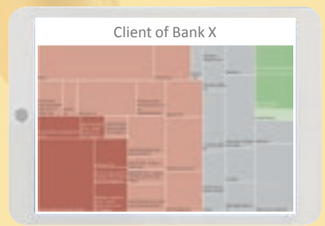
- Online access to all of your investments' impact on economy, society and environment
- Recognises investment opportunities
- Reduces investment risks
- Increases the future viability of your investments

Footprint-check for your portfolio:

Test your assets

Undertake a thorough review of your portfolio:

Is my portfolio fit for the future? Am I investing in future growth trends? What is the footprint of my investments? What's the level of hidden costs in my portfolio? We'll be pleased to analyse your portfolio and to give you specific advice on making improvements in order to achieve a future-fit investment strategy.



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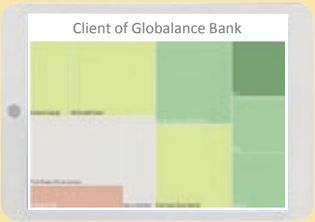

After

The Futuremover

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The Globalance trends magazine keeps you up to date

Exciting information and analyses every quarter relating to megatrends in the economic, social, environmental and technological fields.

Swiss banking with a mission
GlobalanceBank

Who is Globalance Bank?

Globalance Bank is an owner-managed Swiss private bank which invests in future growth areas.

Globalance invests in futuremovers. These are companies which respond successfully to the worldwide mega-trends and benefit from them.

Globalance advises private clients, families and foundations about how they can invest their assets so as to benefit from future trends, and it does so in a very special way: Globalance is the first bank in the world to show its clients the "footprint" of their assets. This provides clients with complete transparency about the impact of their assets on the economy, society and the environment.

Globalance bank has absolutely no inherited liabilities and is managed by the people who founded it.

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