

# Aspects

November 2019

People at the core

## Our digital life

### **Lego Mindstorms**

Getting young people excited  
about information technology

### **Kunsthaus Zürich**

See what awaits you  
from autumn 2021

Aspects talks  
to digital expert  
Manuel P. Nappo



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The A to Z  
of the digital world



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A courier without a scooter, but on wheels: currently still in the test phase, but may soon be a part of everyday life. Cute little robots are being integrated into existing supply chains and will deliver orders and mail to our homes.



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Digitalization  
opens  
new doors



Dear readers

We live in a networked world, able to access information quickly and easily any time from almost anywhere. In recent years, new communication technologies that are now ubiquitous have given us access to previously unimagined opportunities and possibilities, bringing with them new trends and lifestyles.

In this new issue of Aspects, we consider how this digitalized world shapes us and influences our actions. One element of our research involved speaking with renowned digital expert Manuel P. Nappo. He provides a compelling overview of the opportunities new technologies can offer and how digitalization can enhance our everyday lives. This issue also explores the digital trends currently taking the banking sector by storm.

We interview Anke Bridge Haux, Head of Digitalization & Products at Credit Suisse, who tells us what payment will look like in the future and what changes the digital transformation will bring for our bank and the financial sector.

We hope you enjoy this issue!

**Serge Fehr**  
Head of Wealth Management Clients

# The A to Z

In our increasingly connected world, it is easy to access information whenever we need it. Digital communication technologies are creating new trends, lifestyles, and patterns of behavior around the world. Although this trend of digitalization offers great opportunities, for many people it is also rather unsettling.

What is it like living in today's digitalized world? And how do we benefit from digitalization in our day-to-day life? To answer these questions, Aspects spoke to well-known digital expert Manuel P. Nappo from the University of Applied Sciences in Business Administration Zurich. He focuses on ten points to provide answers on how digitalization has a positive effect on our everyday lives.

Text: Pirmin Schilliger and Brigitte Selden

## Digital nomads

Work in the most beautiful locations: Digital nomads swap a fixed workplace for the freedom of working anywhere.

Photo: iStock/pixdeluxe

# of the digital world!



## Augmented learning

# Learn math on YouTube



**Manuel P. Nappo** is head of the Executive MBA in Digital Leadership and the Institute for Digital Business at the University of Applied Sciences in Business Administration Zurich. He holds a master's degree in international management from the University of St. Gallen. In 2013, he was named "Digital Pioneer of the Year" by IAB for his contribution to digital education and training, and he was voted "innovator of the year" by readers of the "Marketing & Kommunikation" magazine in 2014.

"The biggest advantage of digital learning programs is that they make the sharing of knowledge personalized and flexible. The range of courses available on learning platforms is now so large that everyone can tailor their own course of learning to suit their needs. This allows us to enhance our strengths in a focused way and to balance out our weaknesses more effectively. In addition, you can enter the virtual lecture hall whenever you have the time and opportunity to: At the tram stop, on the bus, or at home in the comfort of your leather armchair. As well as purely acquiring knowledge, we can also use on-screen simulation programs to practice manual procedures and practical activities. However, not all the required skills can be taught on the computer. Ultimately, it is only in practice that you can determine whether the tool has really been mastered. Nevertheless, augmented learning is increasingly transforming the educational landscape.

This development has given rise to questions such as whether we will still need lecture halls in the future, especially since most lecture scripts are already available electronically. The teaching of basic knowledge is being almost entirely shifted to digital channels. As a result, students learn to work in a more flexible way – and to be much more organized than they were in the past. We will continue to need good teachers and professors despite the emergence of online learning platforms and robots. In the future, however, teachers will be able to concentrate on content that can only be communicated on an individual basis, face-to-face. Most importantly, this includes social skills and critical and networked thinking. But also the ability to converse! After all, it is only through the direct exchange of experience and networking in particular that we are able to learn from and with each other – and this will remain true in the future."

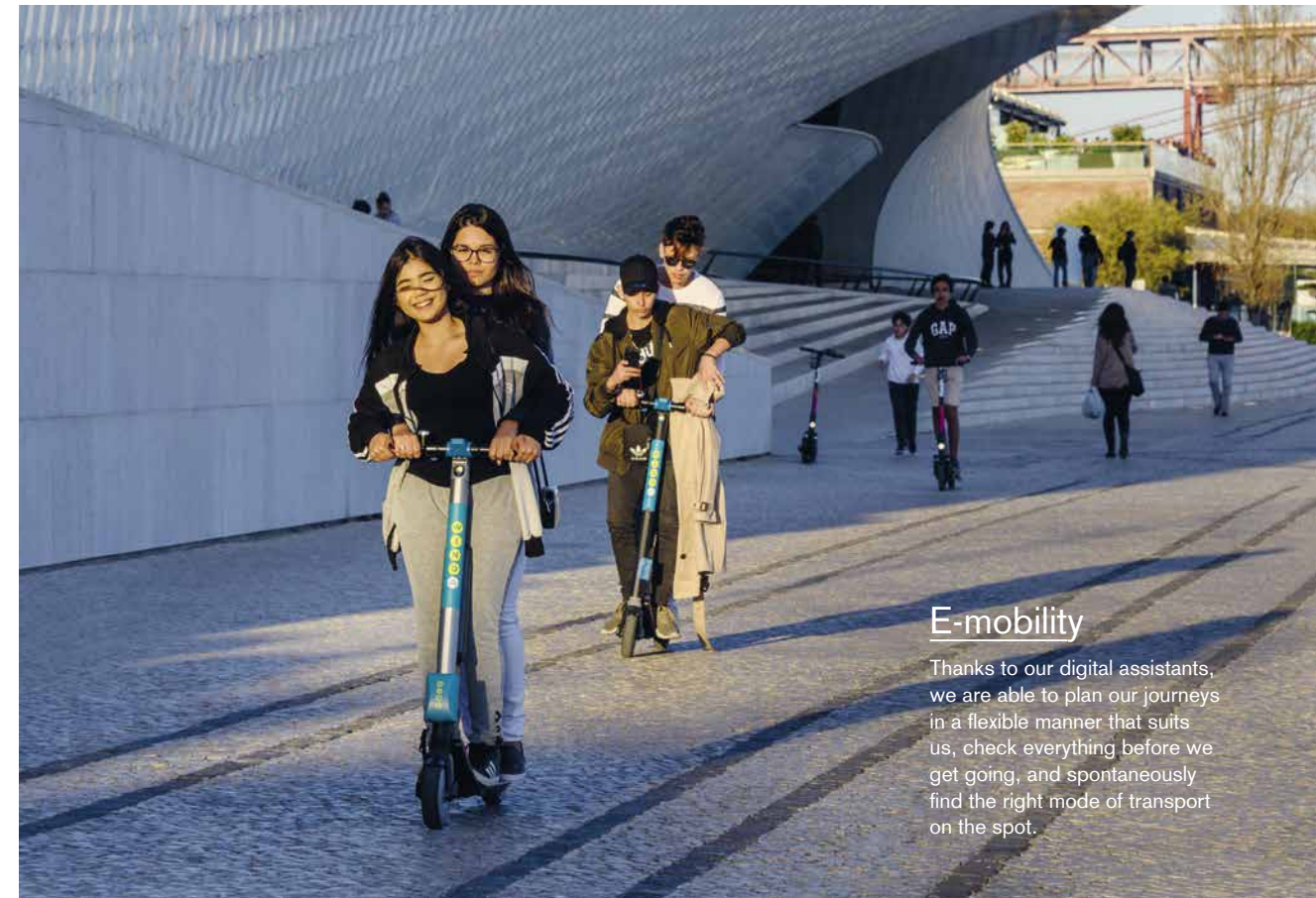
## Digital collaboration

# Work is becoming more and more flexible

"The new working models using digital collaboration mean that work is being reorganized and becoming more flexible. Tasks that were previously carried out centrally can be distributed to digitally networked teams, for example, bringing enormous advantages to individual employees. If they are able to do most of their work in their home office or in a nearby coworking space, this helps them to balance the job better with their private life. Achieving a successful work/life

balance ultimately enables us to develop our own potential much more effectively. In addition to this, coworking spaces are more than just offices. They offer a place where individuals can interact and socialize. Commuting and business travel expenses are also significantly reduced. But despite digital collaboration, it is important for employees to continue to meet and communicate directly with each other in order to be successful as a team. Digital collaboration also enables new hybrid ways of working with employees who work multiple jobs at the same time. In addition, there are more and

Photo: Maya & Daniele, Getty Images / Horacio Villalobos



## E-mobility

Thanks to our digital assistants, we are able to plan our journeys in a flexible manner that suits us, check everything before we get going, and spontaneously find the right mode of transport on the spot.

## Digital health

# Health data at a glance

more freelancers working freely via platforms or as partners of virtual companies. The world of work is starting to become differentiated according to activities that are either better handled by the swarm intelligence of a team or by 'digital nomads' who work independently without a fixed place of work. On our part, these flexible working models and situations also mean that personal responsibility and mutual trust are increasingly required. Furthermore, we need to renegotiate and regulate responsibilities in digital collaboration because it fundamentally changes the way we work."

"Digitalization is also dramatically changing the medical sector. Digital health combines health and healthcare with digital technologies. One outcome of digital health is that digital tools and applications allow us to record and measure our health in much more detail. With the support of electronically networked health data, doctors can use medicines in a more tailored and effective way, for example. We can keep track of our health-related data and know how we are doing. This enables us to take more care and make decisions more quickly in health-threatening situations. For us to be able to

do this, data needs to be analyzed and integrated into the health system. As a patient, digital health also opens lots of doors to us online as we can access comprehensive information at the first signs of a complaint or illness. This improves transparency and allows us to be more confident and self-reliant when seeing the doctor. However, patients can also quickly get lost in the medical data jungle, because the internet holds countless, even contradictory descriptions for each symptom. When a patient comes to the doctor armed with their own medical history and even suggestions for how to treat the potential illness, the doctor's role becomes all the more important: They alone are able to guide the patient through the data thicket thanks to the opportunities of digital health and then recommend the most promising treatment."



### 3D printing

Will we soon be printing our furniture at home? With his stool, designer Fabio Hendry demonstrates the potential that this technology offers all of us.

### Lifelong learning

## Boost your knowledge at any age

“Job profiles and skills are changing rapidly in the digital age, so lifelong learning becomes a professional necessity for us. To enable us to develop our individual potential, lifelong learning is no longer just something that is preached – it is already being put into practice in everyday life. Anyone wanting to learn now has a wealth of further training and education opportunities at their disposal. Many people are also driven by a constant curiosity. But the multimedia world can also be overwhelming. Digitalization produces an explosion of information. The challenge today is to focus on assessing the relevance and quality of the multitude of sources and to make a decision. This requires a lot of discipline and a new level of media literacy. For lifelong learning, we not only need a desire to learn and a willingness to perform,

but also a great deal of energy and motivation. After all, lifelong learning is no different than actual work: It is not just fun, it also takes effort and commitment – even in the digital age. Lifelong learning therefore naturally also includes experiences of success that motivate the lifelong learner to continue. It leads not least to more meaningful work and thus to a better quality of life. As they learn, many people discover that each additional piece of knowledge piques their curiosity further and further, and their desire to keep learning and to know more grows. And last but not least, learning opportunities are opening up for older people in particular to acquire new skills and thus remain attractive in the labor market – or to simply remain mentally fit and alert.”

### Mindfulness

## Be mindful in the digital world

“Digitalization is creating more opportunities in many areas. At the same time, it is also making the world a more complex place. It is becoming more and more important for people to manage this complexity in a balanced way. The desire for mindfulness is a response to this. It is based on the longing for a simpler, more transparent world. Mindfulness is a way of reducing complexity by taking a more conscious approach to digitalization. The best way to do this is to tackle digital challenges patiently, one step at a time. Mindfulness requires us to analyze digital processes according to the situation and to try to understand them better. If we succeed at this, we will be able to make an informed decision as to how and where we want to use digital systems and where we do not. Then we are no longer geared to blindly succumb to any trends. And we are no longer doing things that we do not actually want to do, such as being distracted whenever and wherever we hear a smartphone pinging. Learning the art of mindfulness can in the therapeutic sense be a form of rehabilitation, for example after suffering from burnout. In our digital everyday life, however, mindfulness begins much earlier and it is more comprehensive. For all of us, it is about finding a lifestyle that combines the qualities of the digital world with the advantages of analog.”

Photo: Studio Ilio

Source: Report on the JAMES Study 2018, Zurich University of Applied Sciences (ZHAW), [www.zhaw.ch/psychologie/JAMES](http://www.zhaw.ch/psychologie/JAMES)

### Privacy

## Be on the safe side

“A side effect of digitalization is the issue of data sovereignty: What personal data do we disclose via digital channels? How can we prevent this data from getting into unwanted hands? And how ethically is our data handled or how ethically do we ourselves handle data? Many digital users are now aware of these and similar issues. This is particularly the case for younger generations, according to the JAMES Study 2018 by Zurich University of Applied Sciences (ZHAW). Nowadays, 72 percent of young people protect their privacy on social media. They want to know exactly where their data is stored, what happens to it, and how they can prevent potential misuse and protect their

privacy. In fact, remaining the master of your own data in today's digital network is far from easy. On many platforms, the fate of data is decided at the moment it is generated and stored. Enlightened users are aware of this and are therefore more careful and cautious with their data. They rightly attach great importance to transparency. Otherwise, they are more and more frequently pressing the OFF button when it comes to the further use of personal data. But transparency alone is just one criterion for how users manage their data. They have full confidence when operators of online platforms and channels guarantee them unreserved security. There is no doubt that the digital flood of data is useful in many areas and can be analyzed to the benefit of us all. However, in order to prevent abuse, we must continue to be strict about our privacy to ensure that we are protecting ourselves in a personally and legally effective manner.”

### Seamless mobility

## More flexible and environmentally friendly travel

“The big vision of transport planners is that transport users will no longer rely on a single means of transport in the future, and the analysis of mobility trends is also pointing in this direction. Instead, as transport users we can seamlessly switch between different modes of transport, depending on the route section. Based on the destination, weather, traffic situation, and the availability of transport, daily routes

are planned using a smartphone or app. This intermodal use of different modes of transport means that, overall, transport is more efficient, faster, more relaxed, more fluid and, above all, more environmentally friendly. Different vendors with different business models ensure that the individual links of this mobility chain work seamlessly together. In this new system, the classic public transport system with train, bus, and tram still exists; but there is also the shared, rented, leased, or purchased car, which may be self-driving, taxi services of various kinds, electric motorbikes and bicycles, as well as scooters – new models, which so far have mainly been tried and used by young people. Seamless mobility allows us to plan our journeys more flexibly and so

that they are more tailored to individual needs, whether within a town or city or across national borders, as it provides us with round-the-clock mobility. Mobility chains are intelligently intertwined. This means that we have information tailored to our needs. We can access data on fares or route information worldwide, and can link this data and use networked offers. Seamless mobility also allows us to significantly reduce traffic and thus slow down climate change. In this context, the new working models with digitally integrated mobility, such as coworking spaces and the aforementioned digital collaboration, provide an additional leverage effect as it no longer matters where we work.”





### Drones

Flying assistants are now part of everyday life, for example for traffic monitoring and weather forecasts. They can also be used to detect fawns before a field is mowed, as with Pascal Zimmermann's thermal imaging drone.

### Self-tracking

## The smartphone as a fitness tracker

"Thanks to modern sensor technology, digital self-tracking is already a part of everyday life for many people. Tiny motion trackers and accelerometers, even whole mini laboratories, can be built into mobile phones, watches, bracelets, clothes, or shoes. Everyday objects are transformed into mobile monitoring devices. With a fitness tracker, for example, we can count how many steps we take each day,

and then choose to walk instead of getting in the car to complete the recommended 10,000 steps every day. Of course, self-tracking technology can monitor much more than just steps. In addition to sporting activities, vital body functions such as your pulse, blood pressure, and blood sugar can also be measured. If you want, you can also monitor the duration and depth of your sleep, calories burned, and much more besides. And you can do this everywhere and in real time. Because this gives us an ever clearer insight into our own bodies, there is also talk about the 'quantified self.' Self-tracking helps us to discover ourselves – and to achieve the best, in terms of how I feel most comfortable

within myself. Digital self-tracking can therefore help us take on more responsibility for ourselves – and possibly lead a more active, balanced life. This is because with self-tracking, we have the knowledge of how to stay healthy and what it takes to do that. We can also use mobile monitoring devices to share information with others – without needing to physically be in the same place at the same time. With digitalization, it no longer matters whether you are cycling together in Appenzell, or one of you is in the Rhine Valley and the other in the Bernese Oberland. After all, we need to motivate ourselves to be active – and that is still much easier to do with someone else, be it in digital or analog form."

Photos: Keystone (2), Gaetan Bally, Christian Beutler

Source: Statistics on social media use in Switzerland, statista 2019, <https://de.statista.com/themen/2782/social-media-in-der-schweiz>

## Social networks Ideal platforms for creativity

"Social networks are becoming more and more popular around the world. They would be nowhere near as successful if they did not meet so many of our basic human needs, such as a sense of belonging. Social networks have triggered a social process that determines our actions. We have learned to make new contacts in a completely new, easy way, while at the same time maintaining existing relationships. In regional, national, and international networks, friends, acquaintances, and strangers with shared interests meet and connect digitally. According to a survey by Statista, around 86 percent of the Swiss population now regularly uses social net-

works. If you are on a social network, you can enjoy global experiences and discover different perspectives. The networks allow us to participate in discussions and follow current events. This makes us more open overall. In addition, social networks provide the ideal platform for us to present ourselves in a completely new way. Career networks such as LinkedIn are not only used to maintain professional contacts. It is now a given that these platforms are also used to present ourselves to a broad audience and to draw attention to ourselves. There are virtually no limits to our creativity in this arena."

### Knowledge management

## Knowledge is common property

"Knowledge management is ultimately the most important aspect of all the points listed. It refers to the systematic and optimized management of knowledge as a central resource. After all, be it health or the protection of our privacy, everything is about our knowledge. And the fact that knowledge is power is still true today – albeit in a democratic sense. Knowledge has lost its elitist nature and is becoming common property available to all of us. This means that the level of education is now higher than ever before. This, of course, also changes the way we handle information. Having access to knowledge at all times helps us to differentiate between different pieces of information better and to protect ourselves against fake news, for example. In general, knowledge management opens up a multitude of possibilities for each of us, giving us the tools we need to develop on a personal level. Those wanting to make something of themselves will find the necessary information on the net."

### Glucose sensor measuring device

Scan instead of measure: The days of routine blood sugar measurements involving lancets, test strips, and pain are over. Using a small sensor, the one-second scan immediately displays the current glucose level.





# Smartphone or pencil?

The aim of the pilot project is to prepare children for the digital world.

Digitalization permeated all levels of our education system some time ago. The Goldau project school shows what digital school life can look like today. Students at this school work on their personal phones and tablets in class. Aspects visited the pilot school.

Text: Anja Fiebiger Photos: Sophie Stieger

It is 8 a.m. sharp. Melanie Hediger is standing in front of the board and greets class 5a with the words: "Good morning, we have a lot to do!" Just a moment ago, children's voices flowed through the open window of the ground floor classroom of the Zwygarten school in Arth. Now it is quiet. "In French, you'll find a tile with a phone conversation between two people. Read the conversation, perform the dialogue, and put the best version on learningview.org," says Hediger, explaining the task to her students. A few minutes later, after the final explanations of the day's goals in math, English and German, some children grab their mobile phones and leave the classroom.

Class 5a is in the Goldau project school. It is part of the standard elementary school system for the municipalities of Goldau and Arth. It has also served as a kind of laboratory for the neighboring

Schwyz University of Teacher Education (PH Schwyz) since 2004. Together, they want to find out how education is evolving with digital media.

Two boys from class 5a jump up and down simultaneously on a mini trampoline. The mini trampoline is next to the entrance to the school building. In complete unison, they shout out an English word every time they jump. "House!" – "Home!" – "Cool!" The two class 5a students are practicing their English vocabulary. A third boy sits cross-legged on the floor and reads out the German terms on his smartphone in time. Not far away, three girls sit on the steps testing each other.

**Collaborative project with PH Schwyz** Since 2009, children at the project school have been working with their own devices in class. Christian Neff, head of the Goldau school district, brought crucial attention to the "I-Phone project" through a blog entry he had written about the wealth of possibilities offered by smartphones in school. "Beat Döbeli from PH Schwyz read the blog, came to me, and said they would

run it as a project," recalls Christian Neff. At that time, he was a teacher – he now leads the project school.

The idea still seemed absurd at the time, and there was a lot of opposition. The project initially started with a single class. Today, the dust has settled and acceptance among parents is high. "We don't leave parents to deal with the problems of smartphones and the internet on their own," explains Beat Döbeli from PH Schwyz. Now, all 230 elementary school students in the municipalities of Arth and Goldau use personal IT devices in Grades 5 and 6. There are rules governing how they are used in lessons: When the teacher is speaking, smartphones, tablets, and notebooks are placed at the side of the desk with the display facing down. It works.

Digitalization has changed how the teachers conduct their lessons. Individualized learning requires a lot of space. That is why the children choose their own place



The children's own mobile phones are part of everyday school life in the Goldau project school.





Students also work independently in digitalized lessons.



to learn. This also means the teacher is able to provide more intensive support for each individual child.

“Bonjour... ça va?” Nik practices a French dialogue in the classroom. Although the text is printed and stuck on a white cabinet directly behind him, he prefers to use his device. Why is that? “Because it’s faster and easier.” His neighbor Jermaine, by contrast, is using a pencil to improve his German text about a man in the Middle Ages. Smartphone or pencil? That is not the real question at this school. Fundamentally, it is not about the device, but rather preparing children for the digital world.

LearningView is a tool for personalized and individual learning. It was developed jointly by PH Schwyz and the project school. The tool is based on tiles that contain worksheets and their answers, as well as tests and homework. “The test tiles are red, the homework tiles are blue, and the special ones are yellow,” Egzona tells us, explaining how LearningView is organized. She can barely imagine the school without it: “That would be hard!” The children upload their work such as dictations, films, and photos to the tool themselves and check off completed tasks for the teacher. Since the introduction of digitalization, the

children have to work more and they have to do so more independently,” says Melanie Hediger.

**Personalized lessons thanks to smartphones**

In a shady part of the school building, Janosch sits on a bench, deep in thought. He’s looking at feedback. “Here you can indicate how you learned and read other people’s comments,” he says. “Other people’s tips help me to learn!”

Corinne Kennel teaches class 5b. The school room is on the upper floor. Here, a student turns a red die in his hand and compares the view with a sketch in the math book. “You’re not allowed to peep at the answers,” he tells us with a glance at his teacher. So is there not an app for a spinning die? The boy thinks that would be unnecessary and explains: “My die

is more convenient.” His response demonstrates an emancipated use of the device, which is the project school’s vision.

At the end of lessons, a screen high above the board displays a list of student names, tasks, and check marks. At a glance, each child can see which tiles they have already completed compared to their peers. The moment of truth. Do the devices not distract the children too much? The temptation is there. “But if we can get students to work sensibly despite smartphones, we can say hooray, we’ve solved one of the biggest problems in dealing with the devices,” says Beat Döbeli. And how do you do that? “With good class management, control, and education.” Is there another way? “I doubt it,” says Döbeli: “When schools shy away from digitalization, children question how school is still relevant to their lives!”

Photo: private archive

# “Learning becomes easier.”

The challenges of digitalization are not only changing the courses and opportunities offered by universities and adult education, but also how we learn. Ralph Hutter explains what this means in an interview.

Text: Anja Fiebiger



**Ralph Hutter** is a graduate of computer science and program director at the University of Applied Sciences in Business Administration Zurich.

**Mr. Hutter, you have been managing various courses since the founding of the Institute for Digital Business at the University of Applied Sciences in Business Administration Zurich. What is it about digitalization that fascinates you?**

Computers and digitalization have opened up a new, unknown world waiting to be discovered. Digitalization has triggered an epochal change, comparable to the discovery of America.

**How is digitalization changing learning?**

The internet has significantly increased the availability of information, which is central to learning. YouTube, explanatory videos, and Massive Open Online Courses (MOOCs) allow hundreds of millions of users to access knowledge without having to meet specific admission requirements. Dedicated young people are acquiring knowledge separately to or in parallel with traditional education. They go on to become company founders, programmers, hackers, fashion bloggers, and engineers. Learning becomes easier. Nevertheless, certified qualifications are recommended and relevant for all learning options and formats.

**You offer a wide range of different courses. What is the direction of development?**

Digitalization is obviously based on new technologies. It is all about the impact they have on the innovative capacity of a company. But the big leap is artificial intelligence. In the coming years, we will need to clarify what is meant by ethical conduct in the digital world.

**Which fields do participants come from?**

It doesn't matter what background the participants have. Boundaries disappear quickly in the context of digitalization. What you have done is less important, it is more about whether you want to go on the journey.

**How are the courses taught?**

All of the content is taught using the latest teaching methods and by means of networked application by lecturers from the world of business, through excursions, and through study trips. The courses include traditional elements, but the students themselves also contribute a lot based on their own interests, and bring their own questions and case studies to the lessons. We also communicate via the latest instant messaging apps.

**You are planning a new course in digital leadership. What are you focusing on in this leadership training?**

Like at other universities, the focus of the education is on personal skills. Our program takes students out of their comfort zone, for example, with their own TEDxHWZ conference and individual coaching. The course forces the participants to challenge themselves, because that is the only way to move forward today.



# Building a digital future with Lego

The STEM professions especially are increasingly feeling the effects of the shortage of skilled workers. How can we make these jobs more appealing to young people especially? In Credit Suisse's "Lego Mindstorms" volunteering program, the emphasis is on learning through play.

Text: Irene M. Wrabel

**D**igitalization is an essential element of future-proofing in almost every sector, but it requires qualified staff – and finding these staff is one of the biggest challenges for our national economy. According to the latest data, young school leavers are less likely to opt for the STEM professions (science, technology, engineering, math) when it comes to choosing training and study programs.

This lack of popularity is often due in part to simply not knowing enough about these fields. Professions in the IT sector still tend to be regarded as boring, technocratic, and devoid of fun. We need to dispel these prejudices and show how rewarding it can be to create innovative solutions. This is precisely what the "Lego Mindstorms" volunteering project aims to do, by getting girls and boys interested in technical subjects and opening their eyes to the new and exciting professions available to them. So how does it work?

Digital creativity knows no bounds:  
The small robot dog runs completely  
by itself.

Photo: FLLCasts.com

## Building a robot – "just for fun"

Armed with Lego Mindstorms kits and laptops, Credit Suisse employees (three to six depending on the class size) visit schools to volunteer with classes from Grade 5 upward. The children work in teams to design, build, and program robots, and the classes are structured as a fun activity. "Lego Mindstorms" is the ideal toolkit as it is designed for children and allows them to immediately see what they have accomplished.

## Working as a team to find a solution

Building a robot may sound like an easy task, especially when you mention it will be a Lego robot, but the children quickly realize that there is a whole host of challenges to overcome. They are not simply building a figure, but actually bringing it to life, so to speak. The robots incorporate various IT components to make this possible, such as a compass, eye, touch sensors, and distance

measurement sensor technology. Each of these components can be individually programmed via software – another task that falls to the young developers. If the robot is approaching an obstacle, for instance, the distance sensor sends a signal. The children use a function to program what action the robot should take in this situation, and this gives them an introduction to the most important concepts of software development. Working together, the team identifies problems, finds solutions, and celebrates successes.

## Sharing knowledge with the younger generation


It is clear that exposure to positive experiences like this makes the children much more open to IT and digitalization. Even if they decide not to pursue a career in a STEM sector, the skills the children can acquire through "Lego Mindstorms" will still serve them well in the digital world. For the Credit Suisse volunteers, these assignments also represent an opportunity to brush up on their own skills. Passing on their specialist knowledge to this youngest generation helps them to fine-tune their own everyday professional skills. Presenting clearly, responding to individual needs in the team – the volunteers are not the only ones to benefit from development in areas such as this. Ultimately, Credit Suisse also wins.

The "Lego Mindstorms" volunteering program is an investment in the future – in many respects. For the girls and boys taking part, who get to broaden their horizons in a fun way, for the volunteers, and not least for business and society, which benefit from new opportunities for professional development.

## Corporate volunteering

Through the corporate volunteering program, Credit Suisse gives its employees the opportunity to volunteer during working hours on projects that benefit society. The program gives young people access to skills that will allow them to realize their personal and professional potential – regardless of their socio-economic background. This includes technical and scientific skills as well as professional integration, entrepreneurial thinking, and interpersonal skills. Last year alone, the Credit Suisse "Lego Mindstorms" learning program was able to bring the joy of IT and digitalization to some 800 children at a total of 40 events. [credit-suisse.com/responsibility](https://credit-suisse.com/responsibility)





“People are always  
at the core

Anke Bridge Haux is in charge of  
Digitalization & Products at Credit Suisse.

What trends currently prevail in the banking sector? And how will we pay for things in the future? We spoke with Anke Bridge Haux, Head of Digitalization & Products at Credit Suisse, about digitalization in banking and what digital transformation looks like at Credit Suisse.

Text: Anna Brugnoli Photos: Yves Bachmann

– even with the advent  
of digitalization.”

**M**s. Bridge Haux, digital transformation has been sweeping through the economy and the financial sector at breakneck speed. What will the bank of tomorrow look like?

The bank of tomorrow needs to be flexible and innovative, and the products and services must be modular, dynamic, and tailored to clients' needs. The bank of tomorrow needs to go to where its clients are, not the other way around. It's a journey that we are continuously shaping and that is strongly influenced by the needs of our clients, all supported by new technologies.

**In your opinion, what digital trends are having the greatest effect on the banking world?**

One of the key trends relates to how our clients want to interact with us as their bank in the future. Some prefer personal contact. Others tend to handle their financial matters largely by digital means. While some clients consider personal interaction with an advisor essential, others like to use services primarily via digital channels. It is crucial that we as a bank are able to offer a combination of options that meet the two different needs. We are also seeing a growing interest in “ecosystems” and networks. Clients want to be able to access services exactly where they need them. We have recognized this trend and are constantly expanding our network. Open banking is already a reality for



“Digitalization is not an end in itself, but rather the result of what clients need.”

**What digital innovations has Credit Suisse introduced for its clients in recent years?**

One important innovation is that our corporate clients and private clients can use the same online platform, thus enabling us to introduce new features more quickly. One example is the Online Credit function for corporate clients, which allows applicants to find out within just a few minutes whether they will receive a loan from us, and at what terms. The same applies to the online lombard loan for private clients. Also, private clients who are domiciled in Switzerland can now open an account digitally. This paperless service is available to private clients of around 50 nationalities, as well as corporate clients, and takes just a few minutes. Some 80 percent of new private client accounts in Switzerland are now opened digitally. In addition to collaborating with TWINT, which has over 80,000 users, we are the first major Swiss bank to offer all mobile payment options, such as SwatchPAY!, Apple Pay, Samsung Pay, and Google Pay.

**What do young people in particular expect from a bank?**

The younger generation is generally not so invested in using banks. Young people are certainly keen to think about their retirement planning and their financial future, but they expect to access services in a different way from the older generation. They don't generally go into a bank branch. They expect flexibility and they are mobile, online, and digitally connected. We collaborate with various universities and other higher education institutions on innovation and fintech topics, and this helps us to develop solutions tailored for young people.

**Fingerprint recognition? Money from the cloud? What will payments look like in the future? And is cash becoming obsolete?**

Switzerland has a highly developed technical infrastructure and the number of alternative payment options is increasing, yet the Swiss are generally more attached to physical cash than their counterparts in Scandinavian countries, for instance, where transactions

corporate clients. One example is the collaboration between Credit Suisse and the software provider KLARA – it allows us to simplify financial management for companies. In addition to benefiting from an innovative accounting solution that automatically communicates with all interfaces, clients can submit non-binding credit requests to the bank online via KLARA.

**The needs and expectations of clients are changing constantly, especially in relation to digitalization. Banks need to be ready to offer clients innovative, personalized solutions. How does Credit Suisse tackle this challenge?**

Digitalization is not an end in itself, but rather the result of what clients need. The goal is to employ technology to create modular services that clients can use in whatever way suits them. The client advisor knows the client, and knows exactly what the client needs, and when. The challenge lies in transferring this ability to a digital platform. The basic premise is that solutions provided via a digital platform should be continuously improved as the technical possibilities grow. Our clients tell us exactly what they want from us – and we then test the solutions in our dedicated User Experience Lab. We can try out new digital solutions directly with our clients there, and then continuously develop them based on the feedback we receive.



**Anke Bridge Haux** is Head of Digitalization & Products at Credit Suisse and a member of the Executive Board of Credit Suisse (Switzerland) Ltd. She holds a Master's degree in finance and economics from the University of St. Gallen, and is a graduate of the General Management Program (GMP) at Harvard Business School in Boston. She also chairs the Swiss Bankers Association Fachkommission Digitalisierung (Commission for digitalization).

are almost exclusively cashless. A look at Swiss payment behavior reveals that people tend to use Maestro cards over credit cards. Furthermore, mobile payment options are becoming increasingly common and gaining more acceptance. However, cash will not become obsolete – not in the near future in any case.

**What does digitalization mean for the long-standing Swiss banking tradition and for conventional banking in general?**

One key thing I have learnt from my many years working in digitalization is that technology is purely a means

to an end. The important question to keep in mind is “How do I as a client, as a person, want to interact with my bank?” – and that's really a discussion about people. We have done our jobs properly if our clients don't even register that they have been dealing with technology. Our goal is to create digital solutions that convey what Credit Suisse stands for – in just the same way as our client advisors would do in a conventional face-to-face conversation. The idea is for digitalization to support, supplement, and simplify banking.

**Will personal advice still be a priority in the future, or will “robo advisors” replace investment advisors?**

Technology is an enabler. It provides support, simplifies things, and saves us time. Robo advisors are a good addition to our toolkit. They make it possible to digitalize and automate services that would otherwise be provided by a traditional financial advisor. But they cannot replace personal advice, which will remain an important aspect of the client relationship.

**You've said that people are at the core of digitalization. With people come human emotions such as trust and even uncertainty, especially when we're dealing with previously unimagined possibilities. Do you see this as the biggest challenge?**

Digitalization isn't just about utilizing new opportunities – it's also about identifying potential risks. Technical progress is accompanied by the growth of cybercrime – a problem of the utmost importance for banks. Reliable data management and data security are top priorities for Credit Suisse.

**What is it about digital transformation that fascinates you personally?**

It's an exciting mixture of technology, innovation, banking, products, and services. However, the focus is always on people. It's about finding the best solutions for our clients. I find that very exciting.



# Are negative interest rates here to stay?

In the early 1990s, the interest rate on a Swiss savings account was around 5 percent, and the rate on a ten-year Swiss federal bond was around 6 percent. It was almost impossible to imagine back then that interest rates on savings accounts could drop to 0 percent or even lower, and that investors would be prepared to pay an annual fee of 1 percent to the federal government for the “privilege” of owning one of its bonds.

Text: Oliver Adler



**Oliver Adler**

Oliver Adler has worked at Credit Suisse in Zurich since 2009, in Economic Research, Credit Suisse Wealth Management. He holds both a Master's degree in international relations and a PhD in economics from Columbia University, New York. As the Chief Economist for Switzerland at Credit Suisse, he applies his knowledge to the analysis of economic and financial developments.

## 1 Negative interest rates – an impossibility?

A minus sign next to an interest rate seems something of a paradox. Why would you bother saving or investing if you knew that your assets would actually lose value over time? If the backdrop to the savings/investment was a period of deflation, with the price of goods and services declining sharply, it might actually be a worthwhile exercise, since the purchasing power of your assets in real terms could increase despite the negative interest rates. But we are not in a period of deflation, and interest rates on savings accounts and many bonds are not simply negative in nominal terms; they are actually negative in real terms.

## 2 So why are real interest rates negative?

There are potentially several reasons for this situation. One scenario is that governments could force savers into this sort of investment (“financial repression”), but this is not possible given the free capital movement we have in Switzerland – savers could simply switch to investments with a positive yield. A second scenario that could lead to negative real yields is strong risk aversion. If investments that are expected to deliver a positive yield (e.g. equities) are considered too risky, investors may be willing to accept negative yields on safer investments. A third, and more fundamental, reason might be that savers feel compelled to save “without regard for losses” – because, for instance, they fear that state and private pension systems will not be enough to cover their living costs when they retire. Increasing life expectancy and a lack of job security make “saving whatever the cost” more likely.

## 3 Why are interest rates so low in Switzerland in particular?

One of the main reasons is the long tradition of low inflation, which reflects the Swiss National Bank's conservative policy, aimed at ensuring price stability. In addition, Swiss national debt is much lower than in most other countries, especially since the introduction of the debt brake in 2003. Federal bonds therefore benefit from being somewhat rare and are regarded as particularly safe. Lastly, the Swiss franc has become one of the world's key “safe harbors” owing to price stability and good political stability. The high probability of CHF price gains during crisis phases leads to discounted interest rates.

## 4 But isn't it really the central banks that cause negative interest rates?

It is often claimed that the aggressive easing policy pursued by the central banks since the financial crisis is the main reason for the extremely low interest rates being experienced worldwide. This argument does not hold water. Central banks can only influence real interest rates on a temporary basis – monetary policy is “neutral” over the long term. In addition: If the interest rate cuts and securities purchases (quantitative easing) had indeed been too aggressive, this would have triggered economic overheating, which in turn would have resulted in rising inflation (and a higher inflation premium on interest rates). Neither of these things has happened. If the central banks were now to tighten monetary policy and raise interest rates, this would weaken the economy and reduce inflation expectations. Paradoxically, this could then see long-term interest rates fall even further.

## 5 So what would lead to a rise in interest rates?

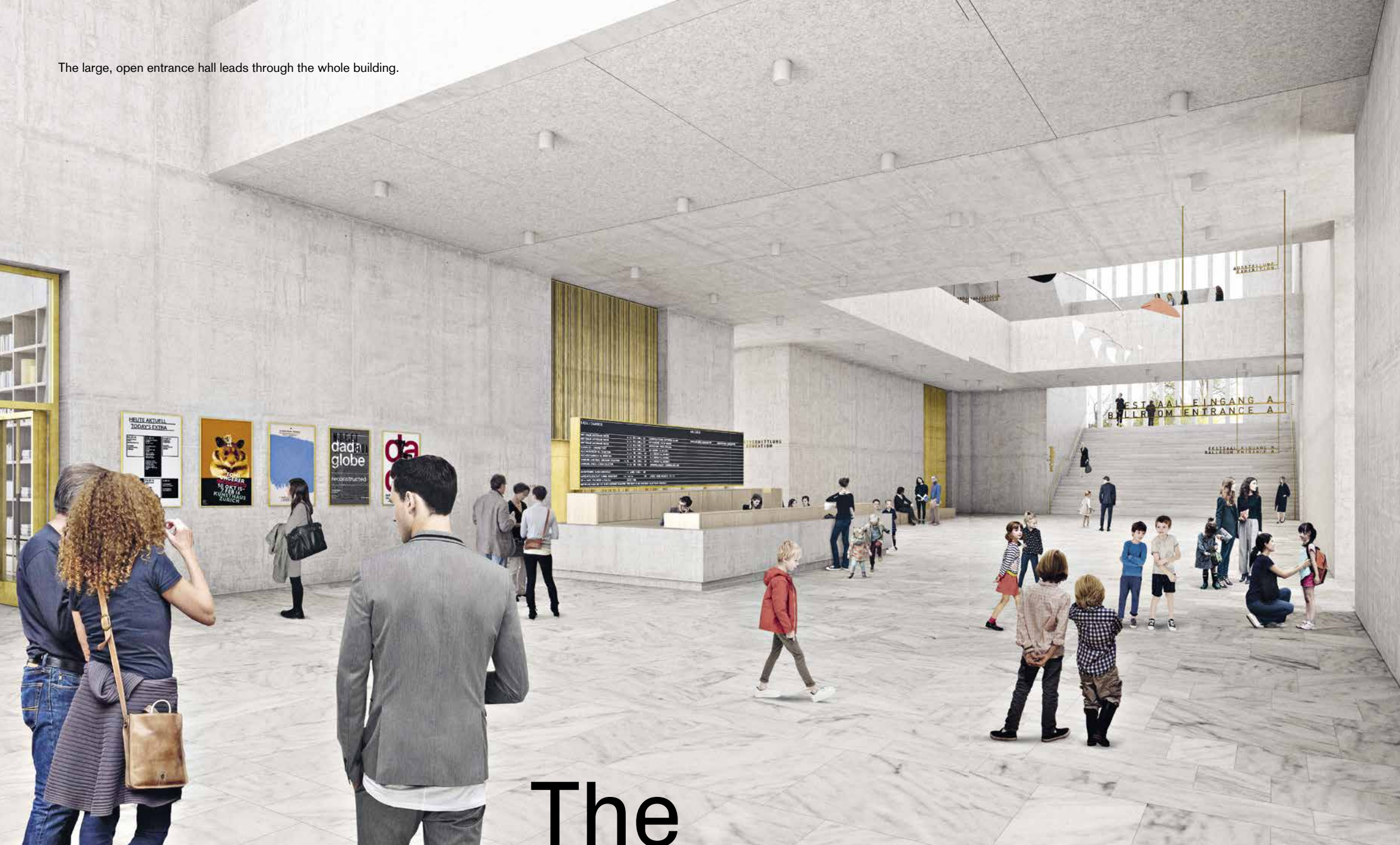
A sharp increase in interest rates seems unlikely unless there is a marked increase in growth or inflation in the key countries. Demographic trends, including those in China, suggest this turn of events is unlikely. It is conceivable that monetary policy could seek new ways to stimulate economic activity and inflation, for example by means of a “helicopter drop” – an increase in government spending financed by the central bank. Traditional fiscal stimulus measures could also be stepped up, e.g. investment in infrastructure or tax cuts funded by borrowing. The effect would be an increase in aggregate demand and ultimately in interest rates. However, as the picture in the key countries is currently not too bad, there is limited pressure to implement radical stimulus measures. Interest rates are therefore likely to remain low for the time being.

### i Find out more!

You can find regular information on the Swiss economy and the financial markets in our online guide at: [credit-suisse.com/investbetter](https://credit-suisse.com/investbetter)



The large, open entrance hall leads through the whole building.



Good things come to those who wait. And in this case, it will be something amazing. In collaboration with the Kunsthaus, the city of Zurich is building an extension which, combined with the existing buildings, will form the largest art museum in Switzerland. As a long-standing partner of the Kunsthaus, Credit Suisse is supporting the project as part of its sponsorship.

Text: Daniele Muscionico

# The Kunsthaus is building a landmark

Image: Rendering not legally binding  
Status as of 2018 © David Chipperfield Architects

The expansion was to be expected, since the museum has needed more space – for its collection, its exhibition activities, and its educational facilities – for decades. But the journey has been tough. Looking back, you can say: If you are looking to carry out a large-scale project in an urban area in Switzerland, you should expect to encounter similar difficulties to those experienced in the Zurich expansion.

The initial project sketches were drawn up back in 2001; at the end of March 2007, the architecture competition was launched, and the jury announced the winning project – that of top British architect Sir David Chipperfield – in November 2007. But the planned

design came up against resistance from residents, and objections delayed its progress. This resulted in the filing of an appeal and the project was completely blocked for two years, unable to continue. Construction actually began in August 2015. Ten meters down, archaeologists discovered pieces of ceramic from the time of pile-dwellers, unexplained metal objects from the Middle Ages, and the remains of a fortification dating back to the 17th century. The metal objects and other finds were archived in the city's store of archaeological findings. The historic sandstone buildings were cleaned, and samples of wooden beams and smaller finds are being investigated further.



**An airy, spacious landmark**

Chipperfield, the museum’s architect, will now not only have shaped cityscapes in Japan, China, New York, and Mexico City, but also Zurich as of 2020. The Kunsthauas wants to create a new architectural landmark. There are two faces to the architecture designed by the Brit. Behind the ostensibly formal structure of the building, the interior is airy, spacious, and flooded with natural light.

The Kunsthauas is located on Heimplatz, which is also home to the Schauspielhaus Zurich and various university buildings. This extension building will change the face of the location significantly. With Chipperfield’s construction as a connecting element on Heimplatz, the residents, art lovers, and also the tourists of Zurich will be able to enjoy a new space in the heart of the city.

**Public use**

Indeed, a key point in the architect’s thinking is that a large part of the new building will be available for public use. The museum will be accessed via an entrance hall that runs through the entire building. This hall will be open to the public, regardless of the opening hours of the Kunsthauas. From there, visitors will be able to access a banquet hall, a bar, and a shop. The hall also leads into a “garden of art.” This is positioned on an incline and is intended to transform the public, landmarked gardens of the cantonal school into a space for all.



The rooms in the extension building are bright, spacious, and airy.

The existing construction by architect Karl Moser and the extensions by Erwin Müller and the Pfister brothers will be connected to the David Chipperfield building on the opposite side of the road. The two Kunsthauas buildings will be connected by a walkway eight meters below Heimplatz.

As far as the program is concerned, Kunsthauas director Christoph Becker and his team of curators want, in the future, to ask more questions that art history does not overtly deal with as a scientific discipline. Aspects such as social concerns, politics, the diversity of lifestyles, and environmental concerns will be addressed.



**Long-term partners**

Credit Suisse has supported renowned museums for decades, allowing them to stage exhibitions of international importance. These include the Kunsthauas Zürich, with which Credit Suisse has collaborated since 1991. At the start of 2005, this collaboration culminated in its official status as a “Partner of the Kunsthauas.” In this role, Credit Suisse supports the main annual exhibition and various communication and outreach projects, as well as the new extension. Further information on cultural sponsorship can be found at: [credit-suisse.com/sponsoring](https://credit-suisse.com/sponsoring)

**“This is an international quantum leap.”**

Kunsthauas director Christoph Becker promises the additional museum building will allow the museum to address contemporary issues and will offer greater appeal for the public.



Art historian **Christoph Becker** has been the director of Kunsthauas Zürich since 2000 and is taking his institution into the future. The interview took place in July 2019.

**Mr. Becker, the new building by David Chipperfield will open in autumn 2021. Is that the date originally planned?**

This timing is not entirely of our own choosing. For public buildings nowadays, you can expect it to take around 20 years from the initial idea to opening. This is because you cannot rule out delays such as appeals and objections in the political and social processes. This was also true in this case, and we lost a good four years. I finished my first sketch for the Kunsthauas extension in 2001.

**How is construction progressing now?**

Very well and at a good pace. There will be no more delays now, and 97 percent of all contracts have already been awarded. So we now know the costs, and they are under control. This is ambitious because delays cost money. It is said that in a large project such as this, they add up to one million Swiss francs per year.

**When will you open?**

We are planning several stages for the opening. The handing over of keys to the Stiftung Zürcher Kunsthauas foundation, the owner, will be a political act. The oper-

ating license is expected to be issued in spring 2021. The general public should have access from then on. It will still be empty, but you will be able to see the architecture of David Chipperfield. We want to slowly take ownership of the building with performances and events. It will probably close again for a few months, so that we can get all of the technological features up and running. The art will only be brought in at the very end, because it needs to be housed in a secure and well-air-conditioned environment.

**How will future visitors benefit from the extension?**

The Kunsthauas, which is funded by an art association, has always been an institution with very close ties to the public. This relationship with the public will be much stronger in the future. A large entrance hall will run through the entire building, which will give the museum a different look for the public. We also want to feed this openness into our program. With more space, we will certainly be able to present art more freely than before. For example, the Kunsthauas will be able to engage well with social issues, with the gender debate, global warming, and with our interaction with nature.

**How do your museum’s collections differ to those of other European institutions?**

In the main collection of Swiss art, we see ourselves as a springboard for presenting artists on the international stage. The Kunsthauas extension will allow us to expand what the collection focuses on. The addition of the Bühle Collection will create a large cluster of French art. The Merzbacher Collection, which has been made available to us on permanent loan, brings various groups of works including pieces from “Der Blaue Reiter” (The Blue Rider) and “Die Brücke” (The Bridge) to Zurich.

**How will the Kunsthauas compare internationally in the future?**

In terms of impressionism, we will have the largest collection of French Impressionist art in Europe after Paris. This is a quantum leap not only for the cultural location of Zurich and Switzerland, but also internationally.



# “Cities have become attractive for families once more.”

How has the way people live changed in recent years? Fredy Hasenmaile, Head of Real Estate Economics at Credit Suisse, talks about the housing situation in Swiss cities, their appeal to families, and cooperative housing associations.

Text: Anna Brugnoli Photo: Ornella Cacace

## **M**r. Hasenmaile, what is the current housing situation in Swiss cities?

It differs from the housing situation in Switzerland in general. Cities are experiencing high population pressure while housing construction remains at an average level. This results in a shortage of living space, especially in the big cities. Cities have become an attractive location for many target groups. Growing numbers of both younger and older people are moving into the city. You could call it reurbanization.

### **How has the way people live in cities changed over recent years?**

Living situations have become more individual and diverse. This is evident from the increasing number of single-person households and small households. In the city of Zurich, for example, single-person

households account for 44 percent. This trend can also be observed in other major cities in Europe. This is a consequence of individualism due to factors such as higher divorce rates and people living for longer. But it's also a phenomenon of wealth. There are also various, more diverse forms of living, such as multi-local living, i.e. living in more than one place, and shared homes. At the moment, small flats are more in demand and the offering is being geared accordingly.

### **Cities have been considered unappealing to families for a long time. But now more and more young families are moving into the cities. How can you explain this trend?**

Generally speaking, it isn't that more families are moving to the cities, but rather that more couples are staying in the cities when they start a family. In the past,

when people have started a family, they have moved away from the city to buy their own home or find more affordable housing. Today, cities have become attractive for families once more on account of the quality of life that they offer. Among other things, this is due to lower emissions and the good infrastructure of cities, such as the quality of public transport, the greater provision of childcare, and the proximity to educational institutions. In addition, the labor market is better in cities and congestion is less of a problem.

### **Another phenomenon, which is mainly found in towns and cities, is cooperative housing associations. What are these and how widespread are they in the individual regions?**

A cooperative housing association is a kind of “self-help organization.” In its original form, families grouped together, combined



**Fredy Hasenmaile** is Head of Real Estate Economics at Credit Suisse. He has a Master's degree in economics from the University of Zurich. He is also a lecturer at Lucerne University of Applied Sciences and Arts, the University of Zurich, and the Swiss Real Estate Association (SVIT), and a member of the investment committees of two real estate investment vehicles.

## **i Find out more!**

Further information on the Swiss real estate market can be found at:  
[credit-suisse.com/homeownership](https://credit-suisse.com/homeownership)

their money, bought land, and built on it. In general, I believe this is a good form of housing since it is based on the values of initiative and community. Cooperative housing associations are particularly prevalent in the cantons of Zurich, Basel, and Lucerne. In Zurich and Basel, they are mainly found in the city, while in Lucerne they are found more in rural communities. A total of around 4.3 percent of the population live in cooperative housing in Switzerland.

### **How do cooperative housing associations help to solve housing problems?**

These apartments are generally more efficient, i.e. they need less floor space because they have more inhabitants and therefore need less space per person. They are also around 11 percent cheaper than comparable rental apartments. This means that they contribute to the economical and social use of land. However, cooperative housing does not solve all of the problems. There are not many of them around and it is difficult to get these apartments. This leads to rationing and means that low-income households rarely get a look in.

### **How else do you envisage ensuring affordable housing in cities?**

In general, the best way to deal with a housing shortage and high prices is to expand the range of offerings. In the real estate market, however, supply often can't keep up with demand. Due to the many building regulations in Switzerland, housing construction is a challenging, expensive, and rather slow process. There is currently an increase in construction activity in the cities and the housing shortage situation has already been slightly eased. But that is not enough. The most important thing is to create the right framework conditions so that more and therefore more affordable housing can be created – without neglecting quality.



## Digital banking

# Credit Suisse provides digital support for your life

We have the right offering to suit every life situation.

Illustrations: Anna Haas



## Starting high school

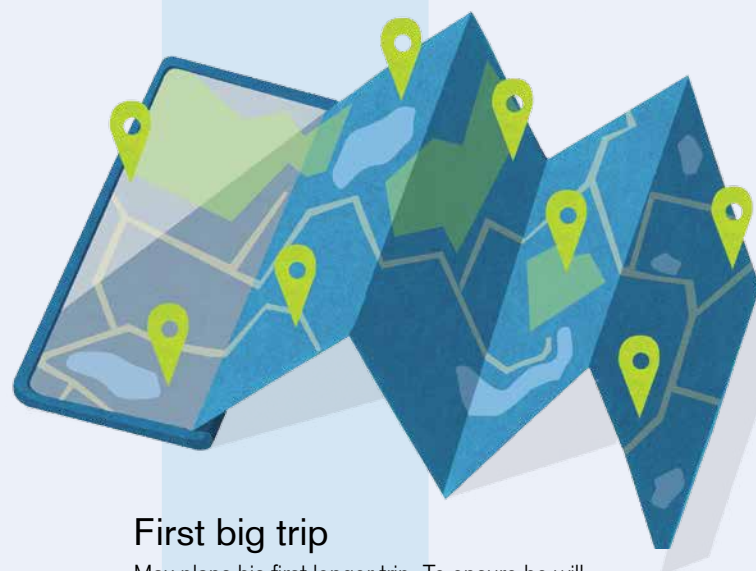
Max quickly and easily opens a Viva Young Package completely digitally.

## First job

Max receives his first salary and wants to set up notifications in Credit Suisse Direct online banking so that he is regularly informed about incoming payments and any electronic documents he has received. As he needs help setting this up, he gives his advisor access to his Credit Suisse Direct account (screen sharing) via Online Banking Support.

## Dinner with friends

To celebrate, Max goes to a restaurant with his friends. Max pays the bill for the meal and the others transfer their share directly to him in just a few clicks via the TWINT app.



## First big trip

Max plans his first longer trip. To ensure he will be able to make payments or withdraw cash while away, he checks the country settings for his Maestro card in Credit Suisse Direct. He also sets up mobile payments so that he can pay with his mobile phone.

## A guinea pig

Max is happy to act as a pilot user while Credit Suisse Direct is being developed, and regularly participates in user experience design events. He has the opportunity to give his personal feedback on the prototypes. Max is absolutely delighted to have the opportunity to test the prototypes of the new digital functions before they are introduced.



## Always on the move

Max concludes an online leasing agreement for corporate clients for his company car within Credit Suisse Direct.

## Max becomes an entrepreneur

Max wants to set up his own company and opens a capital payment account online.

## Tax returns

Max receives his banking documents electronically. Using the handy filter function, he can choose which tax-relevant documents he wishes to display.

## Planning for the future

Max sets up a Pillar 3a account online in Credit Suisse Direct.

## Everything at a glance

As Max has several corporate accounts with different banks, he uses the Credit Suisse "Multibanking" function to get a complete overview of his assets and liquidity.



## Big ambitions

Max dreams of owning his own home and seeks investment advice. The digital investment advisory process is a 360° service that covers all Max's needs. The advisor will help Max find the best solution to achieve his savings targets as quickly as possible.

## Homeowner

Max takes out a mortgage. Using the Mortgage Offer Tool, his client advisor values the property, indicates the financial requirements and the affordability, helps Max to select the right mortgage, and creates an offer.

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[credit-suisse.com/foundations](https://credit-suisse.com/foundations)

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#### Find out more!

You can find more information about our pension solutions at:

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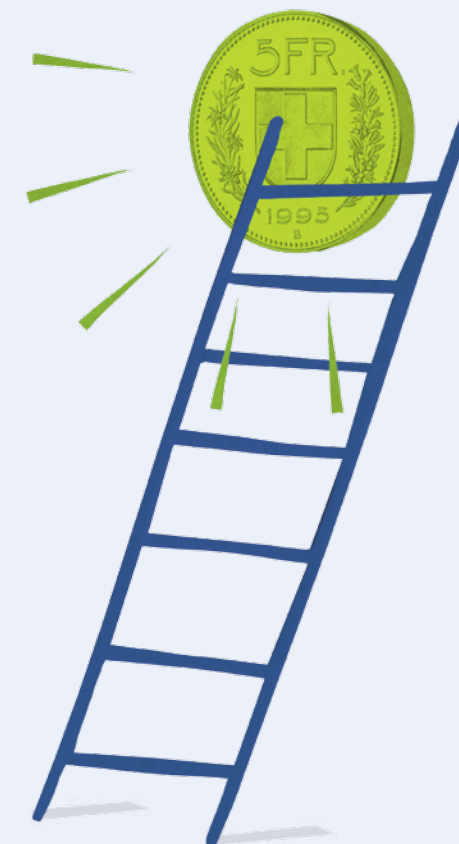
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Photo: Getty Images / Martin Dimitrov, private archive

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**WITHINGS** Body+ scale  
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[credit-suisse.com/rewards](https://credit-suisse.com/rewards)





Bonviva tip!  
**Control your home  
the smart way!**

The Apple Home app – pre-installed on the new iPhone 11 and iPad 7 – lets you control all your HomeKit accessories easily and securely. Use your iPhone to have Siri turn off the light. Or check your iPad to see who's on your doorstep. You can also use your Mac (from macOS Mojave) to control the temperature in the living room, or control your home remotely via Apple TV. With the Home App, your connected devices work not only better, but smarter. No matter which compatible accessories you choose, the Home app makes it easy to set up and control all of them, all from one place. Simply tap your finger, or use your voice. Using the built-in AirPlay 2 feature, you can also share videos, photos, music, and more from your Apple devices via Apple TV, your speakers, or any smart TV. Whatever you share always remains personal and private.

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**How do I earn Bonviva points?**

Use your Bonviva credit card for everyday purchases – even small amounts count! The more exclusive the Bonviva package, the more points you can earn. The most points are up for grabs with the Bonviva American Express® Card: up to two points for every franc spent. You'll receive 1,000 extra points as a one-off bonus when you sign up to our newsletter.

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# Five questions for a digital expert

Text: Anna Brugnoli Photo: Ornella Cacace

## What is your job at Credit Suisse?

I'm responsible for aligning and prioritizing digital solutions for our clients. I work closely with clients to understand their needs and provide customized solutions.

## How do clients benefit from your expertise?

We talk with our clients on a regular basis to hear their valuable feedback, which is then translated directly into effective products. We created the Digital Client Council for this reason. The Council consists of 50 clients from various sectors and regions. One of our achievements is developing a product that uses artificial intelligence to simplify the work and reduce the effort involved in producing annual financial statements.

## What makes your work interesting?

I particularly enjoy my interactions with clients and also collaborating with colleagues from across the bank, which gives me an insight into different areas.

## What is your biggest challenge?

We have developed a number of digital solutions that have the ability to simplify the work of our clients. Our challenge is to successfully incorporate these solutions into the everyday business of our clients and to show them the benefits.

## What successes are you especially proud of?

The Digital Client Council. This unique platform has created significant added value that helps us to better understand our clients. I'm also proud of our internal networks, i.e. how we collaborate with other organizations to provide complete solutions for our clients.

**Marcelo Victoria (56)** is responsible for digitalization within Corporate Banking at Credit Suisse. He comes from the US and has an MBA in finance & international business.