## 99 THE

### FUTURE

OF

WORK 66

### **TABLE**

OF

CON-

TENTS

	FOREWORD	4
•	DIGITAL TRANSFORMATION	6
	Digital Business Models Robotics and Artificial Intelligence The Internet of Things Other Digital Technologies	10 12 14 16
•	LEADERSHIP	18
	Self-Adaptive Systems Self-Organisation Fluid Leadership Employee Engagement	22 24 26 28
•	PURPOSE OF WORK	30
	The Meaning of Work Employer Branding New Ways We Work Socio-Political Effects	34 36 38 40
•	OPEN COLLABORATION	42
	Interaction between People Interaction between Humans and Machines Innovation needs Interaction	46 48 50
	EXPERTS RECOMMENDED READING BIBLIOGRAPHY	52 54 55

### FORE-

### WORD

"The best way to predict the future is to invent it."

Alan Kay,Internet-Pioneer

Dear Readers,

Big data and digital transformation are changing our society in ways we cannot yet fully gauge. It is equally difficult to predict how these approaching changes will affect the future of our work lives. In light of this, it is more important than ever to deal with the future - as unforeseeable as it may seem - and to remain agile and adaptable to new developments and currents. Only then can we continue to actively shape our businesses and keep them fit for a new world.

As a leading international designer and furnisher of modern office and work environments, our mission is to anticipate changes in these areas as early as possible and to provide new, intelligent solutions for our customers.

Earlier Bene Trend Reports have shown that we at Bene have the capability to translate the future into usable office concepts and products. This Bene Future of Work Report provides you with our latest findings and offers a comprehensive overview of what the future of work could look like. The report is based on specialised literature and on the opinion of more than 40 experts from wellestablished international companies, start-ups, the science community, and consulting firms. Our team has led numerous interviews with opinion leaders and hosted round table discussions particularly in Berlin, London and Vienna. Based on our research, we believe the following four aspects will play a decisive role in the future of work: Digital Transformation, Leadership, Purpose of Work and Open Collaboration.

O

 $\bigcirc$ 

In dealing with these four topics, we've taken a closer look at trending buzzwords such as robotics, selforganisation, artificial intelligence, shared economy, Internet of Things, fluid leadership, virtual reality, 3D printing, clickworker, and many others. Our (work)life is subject to a series of highly complex and multiple changes, so there is more than one possible future. Instead of suggesting final answers, or insisting on a singular prediction, our primary aim is to portray current moods and to provide food for thought on how businesses can shape their own future. And we at Bene will definitely come up with new sustainable concepts and products to help you shape your future. Stay tuned!

We are looking forward to your feedback and exchanging opinions! Your Bene Team

futureofwork.bene.com

# DIGITAL TRANS-

# FORMATION





### DIGITAL TRANS-

FOR - Digital transformation is entering all Digital transformaareas of our lives, revolutionising how we work and live.

The following chapter takes a closer look at how digital business models, robotics, artificial intelligence, the Internet of Things and other digital technologies influence and change life as we know it.

### MATION

#### DIGITAL BUSI-NESS MODELS It's

no longer the best product that garners the most success. Experts seem to agree that, in the future, businesses that generate the best data and turn it into the best services will come in first. Even so, the sharing economy and giveaway culture trends also have a downside: users make their data transparent and thus more vulnerable to manipulation.

### ROBOTS AND ARTIFICIAL INTELLIGENCE The young

generation of digital natives is expected to deliver intuitive and promising solutions. Various forms of artificial intelligence will increasingly help them. At the same time, routine tasks in production and administration will be performed by robots. While people believe that this development will give individuals greater freedom to do what they enjoy, they are still wary of a difficult transitional phase, in which many people will lose their jobs.

#### THE INTERNET OF THINGS One of the last

years' buzzwords describes a world in which not only smartphones and tablets are linked in networks. Everyday objects like refrigerators or washing machines will also be connected as they collect, communicate and process data. These new smart devices will have a life of their own, programmed to invisibly assist people at home and at work. These developments will bring lasting changes, which provoke a range of reactions, from gasps of amazement to fear.

• 9

#### OTHER DIGITAL TECHNOLOGIES Techno-

logical developments in 3D printing, 3D projectors, VR glasses etc. will have a lasting effect on our daily lives. While some see them as positive innovations in a globalised, mobilised working world, sceptics fear our lives will gradually be taken over and dictated by new technologies.

### DIGITAL

### BUSINESS

"One advantage of digital business models is that it's now much quicker to test the potential of new ideas using simple tools such as

click rates and A-B tests. We soon know if a theory or an idea for a product or a set-up is promising."

- Mark Poppenborg

### **MODELS**

Increasing numbers of organisations are facing the issue of digitalisation, and how their businesses should react to it. The answer is not always to digitise their entire business model. It is far more common only to adapt elements of the value-added network. The digital revolution has shown the absurdity of long-term planning. The goal is always the same: to be a more agile organisation where correct decisions can be implemented more quickly and cost-effectively. In the modern world of VUCA, it is more a question of being able to react quickly to change. A digital business model has the same effect on production speed and the degree of automation as it does on processing quality. There is a similar need to rethink approaches to tasks, use of technology and data exchange, as there is to redefine relationships to customers, partners and competitors.

#### PHENOMENA PRESSURISING THE BUSINESS COMMUNITY

According to Prof. Christoph Mandl, Ph.D., Business Management Institute, University of Vienna, it is important to note that the "sharing economy" seems to be a lasting trend." This means that people are prepared, at a low cost, to share their property or, for example, to make their knowledge available in online communities. At the same time, there is a movement towards "zero marginal" cost as digital products and services entail ever lower costs. In the new business models, users pay with their data, which they make available and which is then used for advertising and other purposes. "A core consequence is that in future the most successful companies will no longer be those with the best products, but those who generate the best data, with which they offer the best services," adds Prof. Mandl, Ph.D.. In this context, it is also clear that accessing resources is becoming more important than ownership. Even today, businesses can be highly successful without owning strategically important resources themselves. They gain access to resources by collecting data, or for example, via crowdsourcing, through which they can make use of the world's best knowledge workers without needing to hire them themselves.

These developments give rise to new ways of adding value. Suddenly, the winning business models are sharingbased, while companies with integrated supply chains, who previously benefitted from economies of scale. will need to rethink. One dramatic outcome of these trends is the creation of "winner-takes-all monopolies", where network effects emerge and customer benefits increase in parallel with customer numbers. This means that success increases exponentially as customer numbers rise. Many hitherto successful organisations are facing the same challenge: how best to prepare for these changes.

#### CENTRAL CHANGES FOR BUSI-

NESS Start-ups are the prime example of how to implement digital business models. Experts agree that prestigious companies in traditional sectors should be particularly careful not to miss the bus here. "Many established firms such as banks, publishers and others have dinosaur-like business models. They must either reinvent themselves in the digital world or die out," explains Prof. Michael Bartz,

professor of the International Business Institute, IMC University of Applied Sciences, Krems. It is obvious that this means radical changes in working life, and in consumer relations."In the digitalisation era, it is becoming increasingly important to get to know your customers better, and to recognise their needs and desires. It's a matter of adapting processes to your clients and speeding up internal production," says Robert Ehlert, co-founder, CEO, Smart in Culture. Many experts recognise the need to make greater use of such new methods as prototyping, pivoting and design thinking. Lars Gaede, journalist; co-founder, workawesome.com puts the expert opinion in a nutshell: "a measure of courage to try new things and learn from your mistakes" is central to success with digital business models.

### ROBOTICS

AND

"Intelligent systems are already self-learning today. By calculating an infinite number of examples, they find new solutions that humans could never conceive. We can't even retrace how the machine came up with its suggestion. Deeply fascinating, but also a bit spooky."

- Lars Gaede

### ARTIFICIAL INTELLIGENCE

The major advances in robotics and artificial intelligence we are currently experiencing are based on three factors. Firstly, on rapidly increasing processing power, which allows machines to react and make decisions in the blink of an eye. Secondly, on the growing volume of data: by comparing a situation with a seemingly endless number of examples, a robot or processor can identify patterns and react specifically to solve problems. And thirdly, on algorithms, which are becoming more and more optimised. Experts note that machines have surpassed human intelligence in many fields. But human acceptance is the decisive factor in determining whether, and to what extent, artificial intelligence will spread and enter our private and work lives.

"Today – at least for an averagely tech-savvy person – it is nearly impossible to escape automated data-collecting and processing environments. As soon as you use Amazon, Google, Facebook or maybe Siri on your iPhone, you hand your personal data to artificial intelligence software. We should all be aware of this," remarks Prof. Michael Bartz, professor of the International Business Institute, IMC University of Applied Sciences, Krems.

"Facebook experimented with two artificial general intelligences which developed their own language, which was much more efficient than ours. This new language was much shorter for expressing their kind of ideas and the human programmers were no longer able to understand it. That was very creative actually. When we go further than machine learning, when we go into artificial general intelligence, then we come into areas that have the potential to be creative. I am afraid of that."

#### - Petra Hauser

WHAT DO EXPERTS THINK WILL CHANGE? A study published by the World Economic Forum shows that 65 percent of jobs that we will have in ten years do not yet exist. Researchers also found that most people will have a lot more to do with robotics and artificial intelligence, both at work and at home. Whether this is considered a chance or a threat is a matter of perspective: positive voices claim that shorter working hours (or at worst mass unemployment) could lead to people spending their newly found time with meaningful things. On the other hand, there are concerns that "the transitional phase will hurt many, as a lot of people will not be able to cope with a transfer," Ali Mahlodji, co-founder, whatchado. Of course politics and the economy are called on to adapt our system accordingly, so the gap

between rich and poor does not become even wider. Whether winner-takes-it-all tendencies can be successfully countered will depend heavily on global initiatives.

13

Whether technological progress will actually have positive effects on work is yet to be seen. Will people really have more time to spend on creative tasks or human relationships, while machines take care of boring routine jobs? "Someone was saying to me the other day, to have a job in 20 years' time, what you need to be is an artist because it's the one thing that computers will struggle to replicate in terms of artificial intelligence. That is an interesting idea," says Tom Lloyd, co-founder, Pearson-Lloyd. One thing seems clear: robots and artificial intelligences will profoundly change organisations and their personnel structures. "We need business leaders who already deal with these issues, so they can set the right course for the imminent shift," believes Peter Schuhmacher, Ph.D., president, Process Research & Chemical Engineering, BASF. Our education system is also in need of a paradigm shift if we want today's children to be wellprepared for tomorrow's job market, experts agree.

WHAT ADDED VALUE DO HUMANS HAVE TO OFFER? Whether more than the human touch - as Alibaba founder Jack Ma puts it will distinguish humans and machines cannot yet be answered. Researchers assume that differences in quality will be increasingly tied to the question of whether or not something was produced, or a service was rendered by humans. "When it comes to functionality, machines can cover the majority of tasks, but the added value of a handmade watch, for example, cannot be replicated. Just like a fast-food chain where robots serve food could never compare to the fancy service you would receive in a top-notch restaurant," points out Dietmar Dahmen, innovation consultant, futurologist, chief innovation officer, exc.io, an IBM company; author, speaker; founder, Bamm-Institut. It is obvious that progress in the development of artificial intelligence will substantially change internal processes and the customer experience. For example, instead of human customer service, many businesses today rely on chatbots who have automated

Experts believe that we need to agree on global rules for artificial intelligence as soon as possible. "Otherwise we may cross a point of no return and lose control over the subject. Policymakers in the US, Europe and the rest of the world aren't as aware of the subject as they should be," says Dietmar Dahmen.

conversations with their customers.

### THE

### INTERNET

"At the moment, we don't even know what a strong currency our data is, or how much we could purchase with it. I wonder whether in future we'll be more inclined to be frugal with our data than our money."

- Prof. Christoph Mandl, Ph.D.

### **THINGS**

Our experts agree that our lives will be increasingly changed by using networked objects, which communicate independently and help their owners to carry out particular tasks, as will the closely linked development of "big data". According to the market research institute Gartner, over eight billion things will be networked around the world by the end of 2017, and by 2020 the number is set to rise to over 20 billion. Gartner estimates that two billion dollars will be invested in the technology globally in 2017. A growing trend.

**SMART ROUTINES** Intelligent networked systems in a smart office are now seen as essential for economic success. This view is found in the 2016 publication "Zukunftschance Digitalisierung" issued by the German Federal Ministry for Economics and Energy (BMWi), and elsewhere. Employees are also making ever higher demands in this area. According to the "Future Workforce Study 2016" by Dell and Intel, 52 percent of German employees are satisfied with their current office equipment, yet 38 percent of respondents believe that their "office is not modern enough". For Generation Y, who grew up with the internet, smartphones and tablet PCs, modern communication technology is even more important. According to the Future Workforce Study, an intelligent workplace is a key criterion when they chose employers. In this context, they expect new inspiration to come from augmented and virtual reality (AR/ VR) and connection to the Internet of Things.

SMART WORKPLACE ENVIRON-

**MENTS** A smart office also includes continued technological development of buildings, rooms and furniture, the experts stress. They also see additional benefits from these technologies, particularly in terms of activity-based working. This contemporary open-office concept offers employees the option to work from a varied array of environments according to their current needs. "The IoT could help people in open offices to find a place that best fits their current work. Room booking would also be much easier," says Sander Schutte, Ph.D., CEO, Mapiq. Ulrich Blum, Zaha Hadid Architects, goes a step further: "We believe we could use a lot of the generated data - such as when and where employees change the office temperature - to drive design and make workplaces more comfortable."

#### CYBER SECURITY AFFECTS

EVERYONE Of course, data security is a key theme here. According to McKinsey, 75 percent of IoT experts are convinced of that. But only 16 percent think their firms are doing enough. It is not only companies who need to prepare rapidly for these changes, however. The voice-activated all-rounder "Alexa" is a clear example of how far this trend is now part of everyday life. Prof. James Woudhuysen, author, journalist, visiting professor,

London South Bank University offers two perspectives here: "As is generally the case with new developments in IT, opinion is divided between uncritical boosters and alarmist doomsters. Boosters think we will simply marvel at the billions (or is it trillions?) of devices that may be connected up in the next few years - as if that alone was enough to convince an ignorant general public of the IoT's merits. By contrast, doomsters focus on the threat that the IoT could represent to personal security, safety and privacy; on how everything from mobile health devices and cars could be hacked, for example." The potential danger of cyber attacks on whole nations is pointed out by Markus Spiegel, Ph.D., partner, Schaffer Consulting New York among others: "it'll really get going in the next few years. The attacks we've seen so far are just a foretaste."

### OTHER

### DIGITAL

TECH"Physical proximity to other people is a key ingredient in innovation.
"The strength of Silicon Valley."

- Prof. Christoph Mandl, Ph.D.

### NOLOGIES

As digital technologies continue to develop rapidly, companies have a greater need than ever to question their business models and processes. After big data, robotics, artificial intelligence and the Internet of Things, this chapter will focus on the other three drivers of the digital revolution; 3D printing, virtual and augmented reality.

3D PRINTING Studies show that 3D printing will transform entire sectors. Bioprinting, using 3D print to produce human tissue structures, is already used in medical research. It is not yet possible to reproduce human organs, but work on the idea is underway. Likewise, "customised medicines" to combat diabetes and high blood pressure are already on the market. If 3D printing is making inroads into such a highly sensitive and tightly controlled field as medicine, we must ask ourselves what else customers might soon be able to print to their own specifications? It is already possible to 3D print an entire house in just 24 hours and, experts say, we can assume that many production companies will need to rethink their skill sets.

"There is a link between neuroscience and architecture - buildings affect the way you think. Our brains can't help but react to the spaces we occupy. That's the fascinating thing about how to marry up the increasingly digital world – as all of us spend a huge amount of time in virtuality – with the physical working environment. For me, 'place' has real meaning, and I think this meaning will only get more important in an increasingly virtual world."

#### - Philip Tidd

VIRTUAL REALITY (VR)
AND AUGMENTED
REALITY (AR)
These technologies are spreading slowly but surely through our everyday lives. VR and AR have a shared aim – to let users immerse themselves in a virtual world – but use different methods. AR users remain in the real world while interacting with virtual objects, whereas VR is entirely isolated from reality. VR users are plunged into an as realistic a virtual world as possible.

Experts have nuanced views on the potential of VR and AR in day-to-day work. Many think that VR tech-

nologies will have a greater role to play, particularly in marketing and sales. There, customers will be able to look at and test life-like versions of individually configured products even before they are produced. A completely virtual world seems to have less short-term relevance to internal processes, however. By contrast, there is consensus that AR has considerable potential to optimise workflows in the near future, e.g. in warehouse organisation, finding replacement parts or repair instructions. Lars Gaede, journalist; co-founder, workawesome. com, offers a vivid example: "instead of spending ages searching lists or manually flicking through catalogues to see which screw fits, you'll be able to use AR glasses to easily find the right part in a virtual catalogue."

**1**7

BUILDING RELATIONSHIPS REQUIRES PHYSICAL PRESENCE The experts agree that in future more collaboration will happen in a virtual space. Critical voices warn that a lot of relevant information will get lost as a result. Body language, smells and subliminal information that shape moods and feelings will now be perceived differently. Therefore, personal meetings will remain as indispensable as ever. "I think that the more realistic the virtual world looks, the more it gives the impression of being a real space the more this technology will be used, especially in global teams. On the other hand, I'm convinced that there will still be proper meetings. While they will be used less to discuss shared projects, it will become much more important to get to know each other and work on a shared vision or a common mindset," says Ali Mahlodji, co-founder, whatchado. Everyone considers it significant that the virtual world cannot replace the physical realm. "In some sectors, there's a trend towards increasing teamwork. It is increasingly possible to collaborate virtually. Despite virtual spaces, we need to create an atmosphere where people can think creatively. Where everybody feels comfortable and able to concentrate," adds Sarah Claes, project leader, Zenon Concept GmbH. Davide Dattoli, co-founder, CEO, Talent Garden, is also convinced that real space will still have a key role to play: "digital meetings will become more important in the future. You can be very productive working with people online, but you cannot have a great

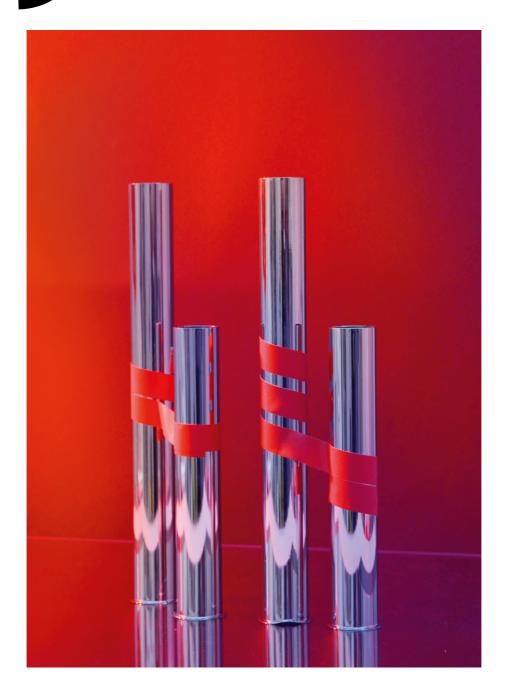
Boris Gloger, founder, CEO, borisgloger Consulting, sees things similarly: "in the early 20th century, Vienna's coffee houses were at the heart of debate and development. And today, in innovation clusters like Berlin, Boston, New York and Tel Aviv, we see that lively personal discussion gives rise to more innovations and ideas. It seems that, despite increased electronic and digital communication, we still need this constant dialogue". There is also unanimous agreement that a shared vision is gaining importance in a digital world.

personal relationship".

### LEAD-

ER-

### SHIP





### LEAD-

Fractional ferminal leadership culture. Network economy does not work so well with traditional hierarchal structures, but rather thrives on cooperation, self-organisation and teamwork among equals. The following chapter explores how businesses organise themselves and manage their staff in the future.

### SHIP

SELF-ADAPTIVE SYSTEMS The fact that businesses are fluid systems, and not static entities, is often overlooked. Many things can neither be anticipated, nor planned, as human interactions constantly change and evolve. It is up to smart leaders to understand and support this coevolution and to support employees in their learning process and teamwork

efforts.

**SELF-ORGANI-**SATION As work processes are becoming more and more complex and difficult to standardise, executives' expectations are changing, too. Nowadays, managers seek employees who deal with their tasks independently and selfsufficiently. Experts agree that trust and responsibility are key factors in this development, which can also have positive effects on motivation and stability.

#### FLUID LEADERSHIP

In an unpredictable, globalised, and increasingly complex world, traditional management mechanisms like command & control no longer get the job done. Like an orchestra conductor or coach, managers face the challenge of coordinating their staff to reach a common goal. This requires staying focussed on the big picture, while also paying attention to people's individual strengths and weaknesses. In this sense. "fluid" stands for a new permeability in business structures, going beyond traditional communication channels and hierarchies.

 $\bigcirc$ 

**21** 

 $\bigcirc$ 

#### EMPLOYEE ENGAGEMENT Experts

agree that employee wellbeing is often neglected as a determining factor for business success. This chapter takes a closer look at the growing need for a healthy work-life balance. We discuss how introvert and extrovert types thrive in different work settings and how positive relations to colleagues and leaders can favourably influence both a sense of wellbeing and productivity.

### "I like to compare leaders with music conductors, who are ultimately responsible for coordinating a group of people with different skills to reach a common objective."

- Prof. Marion Weissenberger-Eibl, Ph.D.

### ADAPTIVE SYSTEMS

VUCA (an acronym for volatility, uncertainty, complexity and ambiguity) refers to the changed and changing conditions that have upended traditional corporate structures and leadership principles in recent years. Ever-growing amounts of data and information are generated and exchanged all over the world at unprecedented speed. This leads to an equally accelerated rate of change, visible, for example, in stock markets' increased volatility. Uncertainty is also on the rise, as variables and their causalities become more and more difficult to follow. One example is the rise of disruptive businesses - one of the last years' buzzwords - which stands for the development of new markets replacing old ones practically overnight. There has also been a steep increase in ambiguity when it comes to information. It is becoming more and more difficult to find clear interpretations, while misunderstandings are multiplying. The complexity of our lives, the multi-layered, multi-channelled interaction of many, at times unknown, variables will continue to increase along with the growing stream of data. Our system, our relationships to each other and the flow of decisionrelevant knowledge have undergone fundamental changes.

#### WHAT ARE SELF-ADAPTIVE

SYSTEMS? Businesses have always been complex, adaptive systems, but it is only with recent changes brought about by technological, political and economic developments that this approach has garnered more attention and further research in practice. The basic assumption on self-adaptive systems is that all parts of an organisation interact and continuously influence each other. "This co-evolution means that every action leads to multiple unpredictable reactions. Some connections are stronger, while others are weaker. We surely should not assume a rigid structure, but rather a lively, constantly evolving organism", explains Markus Spiegel, Ph.D., partner, Schaffer Consulting New York. Business leaders should look at the fundamental dynamics of this organism from a systemic, holistic perspective.

#### WHAT DOES LEADERSHIP

CULTURE MEAN? Business leaders today must do more than make decisions. Staff must be taken along and involved in the process. Only when they share responsibility can decisions lead to lasting success. Trust and communication are key factors. Employees should also be supported in their learning process and collaboration – this opinion is a common theme in expert interviews.

Paying too much attention to control numbers and projections seems to be the wrong path, many experts believe. "Large corporations usually work with multi-layered management structures, tuned to minimising risks. This approach, however, is no longer fit for today's fast-paced world. "We must learn to allow much more open structures and more space for development", explains Peter Schuhmacher, Ph.D., president, Process Research & Chemical Engineering, BASF. The idea is not to cling to long-term plans, but rather to lead in an agile way, adapting to contexts as necessary. This means organisations need to be resilient and strong. "We have to let go of the idea that we can predict or plan the future. It's becoming increasingly important to learn how to handle uncertainties, particularly when it comes to leading businesses," Markus Spiegel elaborates.

Experts agree that courageous leadership decisions, independent of common trends and predictions, are the way to go. "Business leaders

should have the courage to forge into new territories and to leave behind old paths in order to discover new ones. This means you have to know how to handle mistakes, too," believes Dietmar Dahmen, innovation consultant, futurologist, chief innovation officer, exc.io, an IBM company; author, speaker, founder of the Bamm-Institut. Often, failure is subjectively and uncritically attributed to change. In fact, however, the risk of failing because of change is just as high as the risk of failing because things stayed the same.

"During my studies, I found that leaders who create adaptive systems are complex thinkers. They understand the fact that you can't control; you have to steer because you are dealing with something dynamic. They didn't talk about it in terms of these concepts but all of them actually understand them as leaders. They had three things in common no matter what kind of organisation it was - all had a really clear idea of what they were there to do (which they communicated); all had a tight set of values and all were pragmatic optimists.

This meant that other aspects of leading could be more flexible because everyone in the organisation knew where they were going and they felt supported, so they were willing to step into the unknown. Complex-thinking leaders understand what needs to be tight so that people have something to steer against, and what can be loose so that people have room to innovate – that is how they create adaptive companies."

- Prof. Fiona Kerr, Ph.D.

"It's not true that staff need an internally-generated goal to orient themselves by. They know perfectly well what needs to be done to keep the customer happy, to get the job done properly, and conduct themselves accordingly. To that extent, I'd say that self-organisation has a much better chance of adding value smoothly and efficiently than the illusion of classical management."

- Mark Poppenborg

### ORGANI-

### SATION

More and more businesses are realising that internal bureaucracy and monitoring processes bring less in success than they cost in time and energy, which could be better invested in external added value processes. The goal is to free people up to turn their attention outwards, towards the market, and to reduce the burden of internal processes.

"Self-organisation" is a hot topic in this area. It means that teams are at their most effective when there is no top-down imposed hierarchy with responsibilities pooled by a manager. It is more about giving teams the freedom to direct their own customer- and market-focussed actions, according to need. Who is responsible for what, and when, varies from project to project, and will be agreed within the team. Decision-making is not aimed at getting a group consensus, but at giving the final say to the person with the relevant skills.

#### HIERARCHIES AND POWER STRUCTURES HINDER AGILITY

"To create an agile organisation, you have to disband hierarchies and power structures. The decisionmaking process should be different in every case," says Ali Mahlodji, co-founder, whatchado. This means that various team members might take on leadership roles according to the task at hand. "Colleagues decide among themselves who will take on which role and assume the leadership for which project," confirms Robert Ehlert, founder, CEO, Smart in Culture. "Self-management makes it possible to master the new challenges posed by digitalisation. Only a stable, resilient system will be able to cope with the rapid changes we're seeing and enable agile reactions. The concept is stable because it is based on the fundamental values of trust and freedom," notes Patrick Kenzler, co-founder, partner, Dark Horse GmbH, speaking from experience. He adds: "I believe that this level of trust sustains intrinsic motivation, making it a key building block in our work.'

Numerous practical examples prove that "self-organisation" works, but for this approach to succeed, businesses need to share responsibilities differently, to rethink and redefine decision-making processes.

#### SELF-ORGANISATION - THE NEW MAGIC BULLET? Not every

MAGIC BULLET? company is ready to introduce this kind of organisation. Without commitment from senior management and a considered implementation process, including coaching for teams and individual team members, this form of non-leadership risks ending up in chaos and dissatisfaction. Getting the timing right is crucial to its success. The experts agree on a need for detailed self-analysis of the whole organisation, and that every company has to find its own way forward. Robert Ehlert suggests as an example a consistent approach that works in his company: "we don't have employment contracts but confidence agreements, in which the wishes, aims and duties of both sides are laid out. Instead of an HR department to determine salaries, bonuses and holidays, all staff members take responsibility for themselves."

#### A LEADERSHIP VISION

Not everybody is convinced that future management issues will vanish into thin air, however. It is more a question of the impact of "self-

organisation" on managerial responsibilities and skills. "It is becoming more important for management to set conditions in which people can work - not just effectively but also creatively. To create an atmosphere that gets results you need a light touch and knowledge of human nature. A good manager should allow teams to organise themselves," says Wilhelm Schünemann, project manager, Zenon Concept GmbH. According to Anne-Sophie Tombeil, Ph.D., Service and Human Resources Management, Fraunhofer Institute for Industrial Engineering IAO: "it's not that we no longer need management, but more that in future everyone will be networked with the most important people to themselves, and consequently will be able to push ahead with their own projects. It depends on the organisation whether, and to what extent, it will be possible to introduce self-management."

"Instead of managers laying down rules, colleagues need the opportunity to take their own decisions according to their skill sets, and to be able to assume the responsibility for them."

#### - Robert Ehlert

### **FLUID**

### LEADER-

"Today, managers can no longer know everything and have all

the ideas themselves. They need to swallow their narcissism and make the most of their employees' skills."

- Boris Gloger

### SHIP

In a network economy, undergoing drastic change, ever more new abilities are gaining importance, what we learnt at university is often already irrelevant, and we may find ourselves asking who should lead. Those with most experience, the most appropriate training, the best relationships or other key skills? It is frequently clear that companies can only fulfil their true potential when management are prepared to follow employees who have greater skill in particular areas. Meanwhile, power plays and dominance can be a hindrance because staff on the ground are often better placed to assess the most customer-focused decision to take in a situation.

Martin Pongratz, head of Workplace Strategy CEE, CBRE describes current developments: "at the moment, organisations are shifting into a kind of organic cell situation, where you somehow have a leadership that sets clear boundaries, an outside and an inside. A nucleus that ensures the inside of this cell has the right equilibrium to survive and grow. A fluid system manages on its own, led, here and there, by the nucleus who issues some command to change things in a certain direction, but it is not particularly clear, it is fluid." These changes are already being seen in a lot of companies today, as Hermann Arnold, author; cofounder, CEO, Haufe-umantis AG underlines: "today, everyone has to be able to lead. Management doesn't always mean directing whole projects or teams. A lot of the particular tasks employees have to carry out today require skills that would once have been the boss's responsibility. That means that everybody has to be able to lead, and also follow from time to time."

#### FLUID ORGANISATIONAL STRUCTURE According to the

experts, a kind of shared leadership can be created in both major organisations and smaller teams, so long as the structures are right. They emphasise that senior management will often keep the same functions as before, while things might need to change at middle management level. Unlike self-organisation, "fluid leadership" only requires the softening of existing hierarchies rather than their complete abolition. "The question of who leads will always be on the table. We need to find a winwin situation where managers, employees and technology lead, whenever necessary. But I think KPIs will still be needed; that means that managers stay as they are, to an extent, which is also something we have to respect" says Axel Bachmeier, lecturer Future Organisational Design, University of Applied Sciences Vienna; Strategic Personnel- and Organisational Development, s IT Solutions, a Member of Erste Bank Group. "In future, there will be more elected committees and temporary managers," adds Ali Mahlodji, co-founder, whatchado.

#### QUINTESSENTIAL LEADERSHIP

Road traffic can show clearly how a system can work without a boss to take every important decision. Of course, we need rules that everyone knows, and which every road user keeps. We are taught knowledge and skills by a driving instructor, and our driving licence is the proof of our competence. After that, everybody is expected to take responsibility for themselves and not to endanger others. Herman Arnold applies this idea to modern organisational structures: "although we don't yet know exactly what the new leadership rules will look like, we're in the process of trying it out, learning and conducting experiments; at some point we'll understand how it works. Not that long ago, nobody could imagine just being able to organise journeys and flights for themselves. But the internet and learning new skills have made it the most ordinary thing in the world." He thinks it is also important to rethink our own understanding. Leadership should be seen as support, not constraint.

"Leadership should be about empowering and enabling your team to be as good as they can be."

#### - Rosie Haslem

#### PREREQUISITES: SELF-REFLECTION AND EMOTIONAL INTELLIGENCE

"Fluid leadership" involves new responsibilities, decision-making processes and associated experiences. Consequently, as experts agree, forward-thinking companies should invest more heavily in structured and goal-oriented measures to prepare their employees and managers. "A manager should be a role model and, like a coach, only intervene in a supportive way. We've been reading that for 25 years now. The problem is that most managers never properly learnt those skills," criticises Prof. Gunter Dueck, Ph.D., mathematician, author, philosopher, futurologist. "The key point for sustainable leadership is the mindset of the leader. Managers need to act as mentors and try to support their staff. Underlying this is the willingness to start by understanding and working on themselves," adds Robert Ehlert, cofounder, CEO, Smart in Culture.

### **EMPLOYEE**

### **ENGAGE-**

"Maybe we have to

work less to be more productive."

- Martina Schöggl

### MENT

Work-life-balance and employee wellbeing are familiar topics in today's business community. Yet for many, the question of the extent to which soft factors make a measurable contribution to corporate success is still open. When push comes to shove, or in hard financial times, it often seems easiest at first to economise on staff. It is often only in retrospect that you start to wonder about the consequences of colleagues working too hard, or feeling pressured for other reasons, by which time it may be too late. Although company loyalty to staff, and vice versa, have demonstrably declined, the experts believe that its employees are still among any organisation's most valuable resources. Prof. Christian Blümelhuber, Ph.D., professor for Strategic Organisational Communication, Berlin University of Art, explains: "it seems to me that when employees are happy, they are not only more efficient, but more loyal to the brand. That doesn't mean that you do everything your staff want - it's more about balance and fairness." "We are now realising that if your workforce are happy and motivated they will deliver more productivity to you. There is an understanding now that there is a greater connection between the wellbeing of staff and the health and wellbeing of the business. Some of the impacts are physical, such as the right amount of light, the right amount of oxygen, having elements of nature, but there are also social impacts about how you connect, the feeling that you are in a community etc. The power of the social is clearly a very important aspect of wellness in the workplace," adds Tom Lloyd, co-founder, PearsonLloyd.

#### WELLBEING IS PERSONAL

Employees often have a good understanding of themselves, and know the conditions in which they work well and effectively. According to the experts, many organisations are missing the chance to use this knowledge to promote productivity. Everyone is agreed that employees can have very varied wishes.

These non-tangible factors include not only appreciation from management and colleagues, but also a pleasant, supportive working environment. What this actually means depends on both personal taste and job requirements. "At the moment, a lot of spaces are designed for communication and collaboration. This paradigm overwhelms all the more introverted people. We have a lot of employees who are crucial to our business model but don't feel comfortable in this buzz-environment. For me, the main question is how to provide an environment that allows these different people to work in their own style," contributes Klaus Sandbiller, Ph.D., head of Group Real Estate Portfolio, Transactions & Projects, UniCredit. Prof. Fiona Kerr, Ph.D., professor, Neural and System Complexity, University of Adelaide, takes this point further: "we've created environments that are taking the personality out of the environment. We are working with so many clients now who are questioning this whole idea of hot-desking and desksharing. I think one of the reasons activity-based working is becoming less relevant is because we are asking people to inhabit those environments in a non-territorial way, but people are territorial animals". One of the main questions emerging at the roundtable in Berlin is what an office should look like in future - if all staff are to feel at ease there. On one hand, this is increasingly seen as a place for dialogue and networking, but on the other, more and more voices are calling for opportunities for retreat, alone or in a team, and for customisation.

#### INVOLVING EMPLOYEES

Prof. Gunter Dueck, Ph.D., mathematician, author, philosopher, futurologist, the ideal productive working environment is so individual that he makes this suggestion: "I recommend that every department finds its own motivating levers and works out what it would really cost for everyone to be able to choose their own mobile, for example, use the programs they like, or even to have a

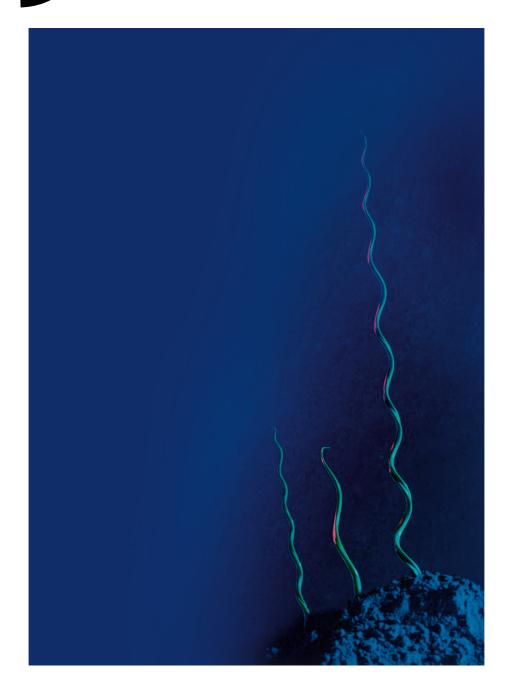
single-person office etc. In my experience, this reveals that the things that are stinted on are not actually all that expensive. If you want a holistic understanding of a system and to truly solve problems, then that, for me, is something you've got to tackle." Meanwhile, other experts stress the strong influence that the company culture can have on employee wellbeing. "Companies need to learn that such attributes as independent thinking, rapid decisionmaking, listening to each other and not always thinking commercially, complement and enrich each other. In my opinion, promoting these skills and embedding them in the company culture has enormous potential, and contributes to general wellbeing," says Patrick Kenzler, cofounder, partner, Dark Horse GmbH.

"I think the more the world gets technological, the more you should think about the human and the more human the work place has to be. So think about humans and emotions first. Be a coach and make it fun for people to come to your place, so that they can grow out of themselves, grow bigger and happier."

#### - Dietmar Dahmen

# PUR-POSE OF

WORK



### PURPOSE

While what makes a job OF purposeful means different things for different people, experts agree that the idea of finding purpose in work is becoming more and more important. What employees expect from their work is becoming increasingly nuanced. Young talents in particular, are becoming more pronounced in their wishes. Policymakers face the challenge of adapting the existing educational system and labour laws to tomorrow's needs.

### WORK

#### THE MEANING OF

WORK Millennials have high demands when it comes to their employers. Work is not only supposed to be fun, it should also serve a higher purpose. Customers are no longer the only ones who decide on a product or service based on a company's social and environmental behaviour; today's employees are just as critical of the business they work for.

#### EMPLOYER BRANDING A busi-

ness trying to recruit tomorrow's talent has to offer more than a decent salary and attractive benefits. Organisational culture and individual development opportunities have become major points for job seekers. A healthy work-life balance has also never been as important as today.

#### **NEW WAYS WE WORK**

Digital transformation and globalisation go hand in hand with the trend towards more unconventional forms of work. People are paid for the work they get done instead of for hours spent in the office; work conditions in general have become more flexible. Workshifting, for example, describes a modern idea of defining work independently of time or place. Models like this subsequently bring about changes in leadership styles and communication strategies within and between businesses.

#### **SOCIO-POLITICAL**

EFFECTS Robots taking over routine tasks in production are a phenomenon we are familiar with. Thanks to the continuous development of artificial intelligence, even more jobs will be passed on to machines in the future, some fear. At the same time, this will create new job profiles, requiring new skills and qualifications. As a result, voices calling for timely reforms and adjustments in education and labour laws are becoming louder.

33

 $\bigcirc$ 

### THE

### MEANING

"In Europe, worklife integration is definitely an issue around personal

fulfilment. The opportunities to work autonomously and creatively, to create your own scope and to be able to talk to interesting people, whether colleagues or management, are increasingly important to us."

- Prof. Marion Weissenberger-Eibl, Ph.D.

0F

WORK

Everybody has a different idea of what makes work meaningful, the experts agree. The fundamental hope, however, is that increased use of machines for routine tasks and introducing an unconditional basic income will mean that more and more of us will be able to pursue activities we find worthwhile. The meaning of work for an individual and a clear shared vision within a company are powerful motivating factors. Lars Gaede, journalist; co-founder workawesome.com, is certain that: "if people work in a job that appears meaningful for them because they are creating something, building a house, establishing a start-up, caring for someone, bringing up children etc, then they are intrinsically motivated. Work provides a sense of purpose in the lives of many people. Many people who have a job that makes them unhappy may look for a hobby instead, but I really am convinced that there are very few people who are happy simply doing nothing." In this context, however, it is also stressed that worrying about meaningful work or even "voting with your wallet" - i.e. shopping so as to shape the world you want to live in - still only affect those lucky few who can afford it. "There are privileged people who can engage with the meaning of value, but there are also very many situations where the only role of employment is to provide a paycheque. Of course it would be nice if the management created a model of value that enabled everyone to see their work as meaningful, whatever their income," adds Anne-Sophie Tombeil, Ph.D., Service and Human Resources Management, Fraunhofer Institute for Industrial Engineering IAO.

THE GROWING IMPORTANCE OF **MEANINGFULNESS** There is agreement that the Generation Y (born 1981-1997) are not only demanding more sustainable products but also wanting more from their employers. "The millennials in particular feel that meaningful work is significant. Companies in a global competition for talent should definitely take note of that," says Markus Bihler, co-founder, venture partner, Builders Union; venture partner, Vertex Ventures for example. "People who can choose what they want to work on, and where, often want more than just to earn money. They want to identify with the company, the product or their job," explains Hermann Arnold, author; cofounder, CEO, Haufe-umantis AG.

So if companies want to attract talent, they need to think very clearly about what they can offer young people, in particular, over and above financial means. A swish company car, an office of their own... that all seems outdated today. The Deloitte Millennial Survey 2016 shows that the Generation Y primarily want leadership responsibility, flexible working and value that goes beyond profit. The same study also reveals that this generation is far more likely than others to prioritise personal values over those of the company. If the corporate philosophy or a certain decision does not fit their own value system, they find it easier to say "no". Given that the millennials already make up 15 per cent of private households in Germany (by 2020 it will be 20 per cent), forward-looking companies need to focus more than ever on issues of meaningfulness.

"We don't want just to run a profitable company, we want to be seen as a fair and modern employer."

#### - Claude Ritter

CORPORATE PURPOSE NEEDS TO ADAPT Technological, societal and political change means that companies have to adapt continually to new needs, and thus to redefine their purpose. "We have long known that 30-year-old city dwellers are considerably less likely to get a driving licence than the generation before. So it is foreseeable that, sooner or later, car firms,

for example, will have to question their aims and purposes. If car manufacturers bring car-sharing concepts to the market, it's because they're not sure whether people will still own a car in the foreseeable future, or prefer just to be able to use one that's parked round the corner. Billing for these services fundamentally changes the company's purpose," adds Prof. Christian Blümelhuber, Ph.D., professor for Strategic Organisational Communication, Berlin University of Art. As well as the "sharing economy", two other revolutionary developments will completely change the scene: e-mobility and autonomous driving. The mobility industry is just one of the many facing potentially existential change. A steady stream of new approaches and societal demands are calling the purposes of many contemporary firms into question. Markus Spiegel, Ph.D., partner, Schaffer Consulting New York shares the opinion that: "in future, there'll be an extreme variety of new kinds of company and corporate purposes."

### EMPLOYER "Successful companies make the values that

matter to their staff e.g empathy, coopera-

tion and esteem - an active part of their culture."

- Patrick Kenzler

### BRANDING

There is consensus that company loyalty towards staff, and vice versa, has declined. Anne-Sophie Tombeil, Ph.D., Service and Human Resources Management, Fraunhofer Institute for Industrial Engineering IAO: "working relationships in general are more flexible. Instead of seeking long-term commitment to a company you usually keep your options open, only staying while you're happy or it makes sense for you. If something no longer fits, employees will be off." There are many reasons for this. As mentioned above, however, young talents in particular are increasingly looking for jobs where they can take decisions and responsibility, and which suit their value systems. Robert Ehlert, co-founder, CEO, Smart in Culture, speaks from experience: "empirical investigations show that top talents leave their companies because nothing changes. I'm hearing increasingly often that many are even leaving better-paid jobs for positions where they can take on more responsibility and really implement projects."

THE ATTRACTION OF CORPOR-ATE CULTURE Money, power and status symbols are less important. Instead, employees are seeking employers they can identify with. Corporate culture plays a growing role in their choices. "Increasingly often, people go to a company for its culture. Lots of them want to tell their friends, I work there, and have them respond 'woah, cool!'" claims Dietmar Dahmen, innovation consultant, futurologist, chief innovation officer, exc.io, an IBM company; author, speaker; founder, Bamm-Institut. Ali Ganjavian, co-founder, Studio Banana, emphasises the need for shared values for communication and successful collaboration: "I think Patagonia is a very interesting example because they only employ people who share their values. Sharing values builds community. I think community and technology are closely related. In a good community, you are typically able to communicate better

Some experts feel it is worth explicitly asking whether a staff member fits into the company from the outset: "our company on-boarding process is unique because we communicate very clearly our hopes from our employees. We have four central company values and tell people right at the start: if you can't identify with them, you'd better quit now. If you're found not living out the values, you'll be fired. To that extent, we're very hard and transparent about it," admits Claude Ritter, co-founder, Book a Tiger; venture partner, Cavalry Ventures.

and technology is an instrument not

an impediment."

"It's always the people, the rest depends on how you treat your people."

### - Patrick Aertsen

STRUCTURES MUST MATCH
VALUE SYSTEMS It is also

vital for company structures to promote an open culture, experts say. According to Robert Ehlert: "traditional companies need to change a bit and learn a lot if they want to keep attracting talent and stay successful. Millennials demand a lot of autonomy. Really good people, who want to make a difference and achieve things, will no longer stay in firms with strict hierarchies and protrated decision-making processes." One

central issue seems to be how new cultural forms can be implemented in businesses that employ increasingly different generations. Laure Mombrun, senior design strategist, PearsonLloyd, also sees this as one of the biggest challenges: "It's probably one of the first times we've had baby boomers still working and people in their twenties entering the work place. How do we deal with different needs and expectations, and a different take on technology? This question will redefine both work and education. What will work mean in the years to come?" Patrick Kenzler, cofounder, partner, Dark Horse GmbH, discusses the assumption that the meaning of work is changing, and that other values will play a stronger role: "today's employees are tomorrow's management. Which means that in 30 years' time, this change in values will be more obvious, and seen in very different positions. So the conflict might look huge now, but it's not actually that serious. The key thing is for organisations to start learning, and to embrace experimentation."

### THE OFFICE AS DECISIVE

**FACTOR** Workplace design is also still seen as crucial to staff retention. "It's important to companies to have impressive premises. Both to the outside world and internally, because it helps attract good staff," emphasises Sarah Claes, project leader, Zenon Concept GmbH. "Employee wellbeing comes to the fore. We need to focus on creating spaces that are good both for contact and for health. Communication rooms, relaxing retreats, and areas for sport or reading. Ideally, there should also be an outdoor area. Not just in the hope of boosting efficiency, but also because companies are competing. The globalisation of the working world means employees have more chances to choose, which they do based not only on potential earnings, but also on quality of life," adds Wilhelm Schünemann, project manager, Zenon Concept GmbH.

37

### NEW

### WAYS

"In a flexible world, the work place is a little bit like the fire and the tribe."

- Ali Ganjavian

WORK

Studies like the Global Workshifting Index from Citrix Systems (2012) attest that work is becoming increasingly mobile and more locationindependent. In recent years, many companies adopted work-shifting approaches, being careful to provide a technological working environment that made it possible to work from home and elsewhere, but now the trend is in another direction. In 2017 it emerged, for example, that the IT firm IBM was pulling its staff back from the home office to work on site. The argument goes that true creativity and inspiration can only develop "shoulder by shoulder". Although the spotlight is swinging back to the usefulness of being physically present for certain tasks, greater flexibility is now expected in many respects. It is not just the Generation Y who are used to being able to access their information anywhere - at the airport, in a co-working space etc. A move towards project-oriented working practices is becoming increasingly noticeable on the contract side too. Tamara Carleton, Ph.D., CEO, founder, Innovation Leadership Board, describes it thus: "we follow more of a Hollywood model of operation that means depending on the programme or initiative, we assemble the talent we need, set that up, ensure the delivery, oversee quality and we may or may not tap the same people for the next initiative."

TECHNOLOGICAL CHANGE MODIFYING
TYPES OF WORK The experts assume
that advancing digitalisation and automatisation, followed by the further development of

artificial intelligence, will give rise to a sharper distinction between routine activities, which machines can carry out, and more demanding tasks. We can expect radical alterations in working arrangements, explains Anne-Sophie Tombeil, Ph.D., Service and Human Resources Management. Fraunhofer Institute for Industrial Engineering IAO: "in future, companies will also work with quotas more often, where you have a core workforce of full-time and parttime employees and then take on national or even international freelancers on a project by project basis." To exist as a worker in these flexible networks you will need enhanced skills. "On one hand, a future with multi-layered and atypical employment relationships will create a lot of autonomy and freedom. On the other hand, there will be new demands for self-marketing and personal digital reputation - and current training doesn't take this sufficiently into account," points out Prof. Marion Weissenberger-Eibl, Ph.D., director, Fraunhofer Institute for Systems and Innovation Research ISI: Holder of the Innovation and Management Chair, Karlsruhe Institute for Technology. Lars Gaede, journalist; co-founder workawesome.com, adds: "I think that many jobs will be organised in a much more task-driven or project-oriented way. Then it won't be your school leaving qualifications 20 years ago that count, but what you can do right then. We will have to be increasingly active in flexible structures made up of various projects."

THE SIGNIFICANCE OF THE WORKPLACE Experts have a range of opinions on the role of the office in a more flexible working world. Some see the physical space as a place for meetings and dialogue as the foundation on which to build trust: "I think all these people in these organisations are individuals; they belong to tribes, they have cultures, they have rituals. That is not generally looked at. The solution lies in understanding these tribes, understanding these rituals. As an example: having Sunday lunch with the family is a ritual that unites people today. In the work context, how does one capitalise on and make the most of these things to build trust and community? Looking towards the future, I think the work place is somewhere more of this should be happening," says Ali Ganjavian, co-founder, Studio Banana. Others take a sceptical view: "I don't

think the workplace or the employer can provide community; I think it provides a salary, more and more now," Prof. James Woudhuysen, journalist; visiting professor, London South Bank University. Still others focus more on a space as a source of identity which expresses a shared culture and vision. "A lot of people say in the future there will be no offices, no headquarters, because we are all networking, we are nomads, working from different places, anytime, anywhere and so on. There is, however, that emotional component - the sense of belonging, culture and vision - for which we need a physical, bricks and mortar platform. For me the question is, will we see a new evolution or a new mantra of space in this digital world to support this kind of requirement and shared values?" enquires Klaus Sandbiller, Ph.D., head of Group Real Estate, Transactions & Projects, UniCredit.

39

### SOCIO-

### POLITICAL

"We have to understand society, because it reflects the microcosmos of work. The workplace reflects what is happening all around

is happening all around us, on the national and global levels. The relationships of demographics, wellbeing and politics are being represented within the workplace in small ways."

- Tom Lloyd

### **EFFECTS**

The issues already discussed go beyond the world of business – they are a hot topic in society as a whole. In the earlier chapters, it has often sounded as though they depend on each individual. We should stress that this would be a one-sided view, dividing the world into winners and losers. By contrast, the experts think it vital to also consider social safety nets. The perspectives above are about "me", focussing on self-organisation and personal initiative, but this section deals with a collective sense of "us".

### NEW BASIC CONDITIONS FOR FUTURE WORK Experts

agree that the fourth industrial revolution began some time ago. Current technological developments are breaking down boundaries between the physical, digital and biological worlds, and affect every area of life. "I have been active in sustainability research for a long time now, and I'm convinced that we have to think holistically about social, economic and ecological skills if we want to contribute to a world that is still a pleasant place to live in future," says Prof. Marion Weissenberger-Eibl, Ph.D., director, Fraunhofer Institute for Systems and Innovation Research ISI; Holder of the Innovation and Management Chair, Karlsruhe Institute for Technology. "That's why it's important to think about the future of work at a broader level. We need other ideas in politics, including what work might even look like. Our laws emerged in the industrialisation era; they're old-fashioned and need to be replaced by something new and more relevant," Boris Gloger, founder, CEO, borisgloger Consulting, says.

An unconditional basic income, already being tested in countries such as Finland, is only one component. "I am firmly convinced that in an age when ever more jobs are being done by machines, an unconditional basic income will contribute to more than just basic safeguarding. It's about giving people enough courage to put their ideas into practice and found companies, boosting the economy," says Lars Gaede, journalist; cofounder, workawesome.com. Tom Lloyd also sees an urgent need for action: "I've just visited a factory which produces two and a half million chairs per year and only employs fifty people. Capitalist philosophy sees this as a success because the company makes more profit by having less people. But in social terms it should be seen as a failure because it only serves very few people. Really, we need to make sure everyone is actively contributing to the world."

### CHALLENGES TO EXISTING EDUCATION SYSTEMS

Expert opinion is that many countries currently underestimate future challenges, and are not preparing our children adequately for them. "Digital societies are organised very differently from feudal systems or industrial societies. So the duties of the education system are also completely different," remarks Dietmar

Dahmen, innovation consultant, futurologist, chief innovation officer, exc.io, an IBM company; author, speaker; founder, Bamm-Institut. "Schools use traditional lessons, fixed timetables and subjects etc. to prepare children for rigid structures in classical professional life. But now everything is becoming more flexible without even the security of jobs for life and fixed pensions," thinks Ali Mahlodji, co-founder, whatchado, pointing out in the same breath that "the traditional grading system continues to add to people's fear of making mistakes. But today, companies suddenly want employees with the confidence to make mistakes and to learn from them."

They all agree that the prerequisites for a sure foothold in working life include a balanced combination of self-competence, social skills and digital expertise, combined with specialist knowledge. "In the near future, there will be entirely new jobs and work profiles and we need to do everything possible to prepare our children for that. The continued development of artificial intelligence will elevate creative abilities to a higher level," says Markus Spiegel, Ph.D., partner, Schaffer Consulting New York. Enhanced skills will not only be needed in management circles, Prof. Gunter Dueck, Ph.D., mathematician, author, philosopher, futurologist, is convinced: "the majority of routine work - the easy part - can already be done by machines. The remaining tricky part will mainly require social skills. Social skills will therefore be incredibly important in future. Firstly, you can't just order anyone to do anything these days. Secondly, in successful organisations, every employee acts like a small business, responsible for their own projects, and not just running to the boss with every little thing. In modern working life, every staff member is asked to do tasks that were previously the province of management. Of course this creates new challenges for the education system."

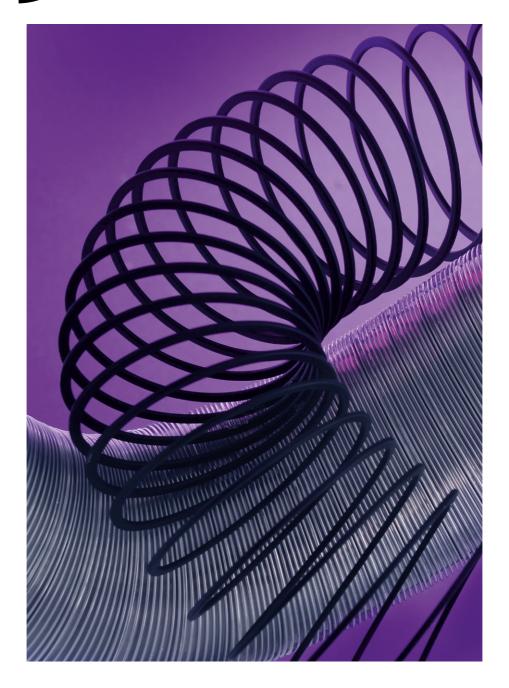
"Empathy, conflict resolution, teamwork – the essential skills for today's professions are seldom practically used or required in our current education system, whether at school or university." 41

- Prof. Gunter Dueck, Ph.D.

### OPEN

COL-

## LABO-RATION





### OPEN

COL-

Numerous studies confirm that collaborative businesses – where individual

achievements are channelled into the efforts of a common whole – have more long-term success on the market than others. Practices of interdivisional collaboration and bilateral exchange between businesses have never been as widespread as today.

### LABO-

### RATION

### INTERACTION BETWEEN PEO-

PLE As businesses delve deeper into digital transformation and global presence, they must also deal with the side effect of depersonalisation. Experts agree that we need places where people – as social beings – can fulfil their need for personal exchange. This holds true for both work environments and contact points for customers.

### INTERACTION BETWEEN HUMANS AND MACHINES In

the future, nearly all sectors will increasingly apply artificial intelligence. Issues that arise when people and machines intersect must be resolved as soon as possible, experts believe.

### INNOVATION NEEDS INTERACTION Silicon

Valley is a perfect example of how productive letting go of the idea of perfectionism can be. And how important it is to involve customers in the development process. The increasing opening of the innovation process makes it more necessary than ever to incorporate inspiration and expertise from external partners and experts.

 $\bigcirc$ 

### INTER-

### **ACTION**

"People need to come together, even to connect and to meet and socialise. After all, humans are social animals, we need to be together as

well. I think home work will definitely have a part to play in the future, but will not replace the idea of going to the office. There will always be a need to bring people together."

- Tom Lloyd

### BETWEEN

### **PEOPLE**

Digitalisation and the internationalisation of companies can lead to depersonalisation. Although there is a trend for increased virtual dialogue, this can result in many non-verbal messages getting lost. "Some conversations can be conducted perfectly well via video conferencing, chat rooms, on the phone etc. But for more complex issues, it's important also to meet regularly in person. Management breakouts need to leave room for frank and sometimes controversial discussions. That takes both time and physical space," says Peter Schuhmacher, Ph.D., president, Process Research & Chemical Engineering, BASF. "Human nature relies on bonding. Research shows that the best projects start when people meet one another and get to know each other in informal ways, such a grabbing a beer together in the evenings. That said, you can still work and talk effectively, and collaborate with people that you don't see in person. But you have to be more sensitive to the dynamics on a Skype chat or when you are exchanging emails. There, you can't rely on the same non-verbal cues and human emotions," Tamara Carleton, Ph.D., CEO,

founder, Innovation Leadership Group LLC, agrees.

CREATING HUMAN RELATIONS-Humans are social beings and need personal contact to get acquainted, build trust and work together effectively. Prof. Christian Blümelhuber, Ph.D., professor for Strategic Organisational Communication, Berlin University of Art describes the situation: "interpersonal cooperation is generally important to humans and plays a major role in enabling employees to do their jobs well. I even think that the more technological developments gain access to our lives and our work, the more likely we are to focus on such human issues as empathy, sympathy, consideration etc." "However objective and project-oriented we may be, of course we can't exclude the emotions; that will always be like this," Erhard Grossnigg, Ph.D., founder, CEO, Austro Holding GmbH, shares that opinion. "Communication is increasingly important. Unfortunately, we're in a society where we just don't listen to each other. Yet a project's chances of success often depend on understanding other people's perspective and knowing the other person's fears, dreams and desires. A lot of that information can only be picked up in direct, personal contact," adds Ali Mahlodji, co-founder, whatchado.

"Research buildings today look fundamentally different from 30 years ago. The ratio of open structures, intended to promote discussion, to individual workplaces has shifted enormously. In the past, breakthroughs came from individual genius, but today the great ideas mostly arise from networking between research teams from the most diverse disciplines."

 Peter Schuhmacher, Ph.D.

"FEELING" A PLACE Studies show that social relationships have a major influence on whether employees feel happy in their jobs, and are thus a critical factor when deciding whether to stay in a position for the long-term. "People whose front doors face each other are more likely to be friends than people who look on paper as though they should be best friends. We feel buildings in the same way. Maybe it's not always one

big community, but it's allowing people to find their own support network within the organisation. As we know, work is becoming more and more stressful, so fostering support is hugely important," emphasises Meili Taylor, behavioral nerd, HATCH Analytics.

An office building creates space to meet each other and goes a long way towards building a sense of community. Having people around us can contribute to working out a shared solution. Yet dialogue is often felt simply to be an inspiring enrichment of our own projects. It is no coincidence that increasing numbers of large companies are joining freelancers in renting co-working spaces. They may also do so for financial reasons and because it makes it quick and easy to enlarge or reduce the available space depending on team size. Rosie Haslem, director, Spacelab, a practice specialising in workplace design, speaks from experience: "Workplaces can be a place of community and collaboration, and this social network is very empowering for knowledge transfer. Physical space enables people to come together, to sit with one another, and to learn from each other." Prof. Michael Bartz, Ph.D., professor of the International Business Institute, IMC University of Applied Sciences, Krems, adds that a paradigm shift is currently taking place at the office. "Even now, my colleagues no longer necessarily sit either side of me they might be scattered anywhere around the world. It's developing into virtual collaboration via a global job market. Things are changing, diversifying and becoming more demanding and, in a way, more human."

### INTERACTION

# BETWEEN HUMANS

"The office remains a human question."

- Prof. James Woudhuysen

### AND

### MA-CHINES

Industrial robots have been helping people with routine tasks in production facilities since the late 60s. "We already have automation processes and use digital technology in the manufacturing sector and this topic is growing. It is not some development that will start in the future," explains Julia Bock-Schappelwein, Austrian Institute of Economic Research. We now assume that hybrid forms in particular, where people and machines work closely together, will be more widely used in many sectors. Defining the interfaces seems to be the most important issue facing the experts here. The question hovering in the air is: which tasks will be done by people and which by machines. "We won't be able to halt developments. It's more about rethinking and learning in very different sectors, with very different services and customer needs," says Rober Ehlert, founder, CEO, Smart in Culture, for example.

BETTER TOGETHER "The most accurate view isn't that we now have artificial intelligence to substitute for the human sort. Rather, the best results will come from human skills that are augmented by IT," explains Prof. James Woudhuysen, journalist; visiting professor, London South Bank University. There are many areas where we can no longer do without support from artificial intelligence - for example in certain research fields. "Thanks to intelligent algorithms, computers produce results from huge amounts of data that humans alone couldn't manage. But it doesn't yet work without the people. It's more a case that people can do more with computers than they can do alone," says Peter Schuhmacher, Ph.D., president, Process Research & Chemical Engineering, BASF, speaking from experience. Another example of successful cooperation between humans and machines is the use of bots in sales talks. The salesperson conducts the conversation with the customer, but with artificial intelligence listening in and giving occasional tips on which points to emphasise.

"HUMAN" ABILITIES Humans are still one step ahead of machines when it comes to empathy, creativity and emotions in particular. Martina Schöggl, curatorial assistant, University of Applied Arts Vienna, is among those whose research leads to the conclusion that: "it is important as a society to promote our creative skills and to build a working environment where creative thinking is possible. Artists, designers and creative thinkers have always used methods like combination appropriation and skills which we believe are most important for our future." "I think that what we really need to learn is how to work abreast with artificial intelligence. Our education system needs to adapt to those skills as soon as possible," adds Markus Petzl, founder, Rebranding; consultant for Brand Development; lecturer, University Klagenfurt and Medical University Vienna.

### "INTELLIGENT" LEADERSHIP

The experts assume that in future, machines will be given leadership tasks increasingly often. "Surprisingly, one experiment has shown that productivity can be highest when machines can play the boss, as it were. There are many possible explanations. One might be that people find it easier to hear something from a machine because they assume that its decis-

ions are based on neutral calculations. We don't ascribe emotions to machines. Uber drivers, for example, basically have an algorithm for as a boss," says Hermann Arnold, author; cofounder, CEO, Haufe-umantis AG.

The general opinion at the moment, however, is that it's highly unlikely that human leadership can be entirely replaced. Martina Schöggl mentions an interesting experiment here: "A design studio was trying to find an algorithm that would replace a human boss. They realised that right now it's not possible to put the boss totally aside, but they were able to come up with an algorithm that could predict whether the boss was really needed today or if it was a good time to take a day off." In this context, we keep coming back to the open question of how working environments will have to change to keep up with the new circumstances arising from closer cooperation between people and machines.

"In my view, there's no inherent contradiction in people and machines working successfully together. There are already proven algorithms and systems which do a lot of the preparatory work for approving loans or insurance policies. I think there will be more and more cases where people will leave decisions up to machines."

### - Ali Mahlodji

### INNOVATION

### **NEEDS**

"Innovation always works bottom to top. It's not only faster, it's also more credible."

- Patrick Aertsen

### INTER-

Only a few decades ago, academics still brooded in private ivory towers, but most innovations today emerge from interdisciplinary dialogue. "In complex environments, no single brain can come up with innovations alone. Today that needs teamwork. It's essential for ideas to cross-pollinate. It's more important than ever for companies to create an inspiring framework, where ideas can continue actively developing," says Anne-Sophie Tombeil, Ph.D., Service and Human Resources Management, Fraunhofer Institute for Industrial Engineering IAO. As evidence for this, growing numbers of forward thinking companies are setting up purpose-built innovation labs, which offer ideal facilities for a temporary meeting place where ideas can be implemented.

The experts are also unanimous that a team spirit must be consciously fostered. "I've never seen a good creative process where five strangers came together. When people know and trust each other, the creative process gets far better results. More absurd, less conventional," says Herbert Hetzel, CEO, owner, Bau-Consult GmbH. In this spirit, big organisations need to foster a creative environment that can cope with the new challenges of increasingly project-oriented ways of working. It is particularly important to stimulate interaction when new teams are formed to work

closely together over a long period.

### **ACTION**

ROOM FOR INNOVATION Yet innovation clusters are no new phenomenon. In the early 20th century, academics and trailblazers met in the coffee houses of Vienna and Berlin. Today, such cities as Boston, New York and Tel Aviv are hubs in inspirational networks. And who could forget Silicon Valley, home – or at least a stimulating destination – for the Who's Who of innovation?

So it is hardly surprising that people need to come together for an idea to become an innovation. Sometimes a chance encounter triggers a brainwave or shows how to take it further, while at other times, planned meetings enrich our own projects. Either way, honest dialogue seems to be crucial. So it makes sense to combine organisational structures, corporate culture and interior design to promote networking, or at least not to hinder it. The experts are convinced that many companies need a deliberate rethink on this issue. Advisers such as Boris Gloger, founder, CEO, borisgloger Consulting, often find that processes set up with the best intentions subsequently prevent people from making rapid progress on implementing their ideas. "There really should be no need for big companies to create a separate start-up just so people can innovate," says a critical Gloger, who agrees that relocating the business of innovation into external entities to protect it from the pressures of routine workflows does little to promote adaptable organisations.

### MORE POROUS BORDERS

Organisations are choosing a range of approaches to promote fresh ideas. And we cannot underestimate the importance of spatial alterations in change processes.

"Silo structures" build up over time and are now seen as the biggest barriers to further entrepreneurial development. The experts we interviewed continually stressed that dialogue should not be thwarted by departmental boundaries. "If I'm sitting in my project and the next-door project isn't allowed, for whatever reason, to know what we're doing, that's not productive. How can innovation teams inspire each other if everything they do has to be kept secret?" ask Boris Gloger and others.

Some companies have gone a step further and actively opened their innovation processes to the outside. Getting the customer involved at an early stage is still often frowned on in Europe, but has long been considered good manners in Silicon Valley. There, short development cycles and total customerorientation are the highest principles. This means that products come onto the market before they are completely finished, and are then constantly improved via "updates" – an essential ingredient for success. Customers become testers and provide companies with valuable information for further developing their innovations.

The "learning-by-doing" approach is suitable for more than just young start-ups, thinks Patrick Kenzler, co-founder, partner, Dark Horse GmbH, "companies and customers have to be open to new experiments and free themselves from any perfectionist ideas they may have. It takes courage to experiment, to be able to create something genuinely new." "That's why lean start-up and agile methodologies have become so popular because they both include prototyping and fast feedback as part of their models", agrees Tamara Carleton, Ph.D., CEO, founder, Innovation Leadership Board. In this spirit, a degree of openness towards competitors is also no longer taboo; instead it is seen as a fruitful asset, from which all sides can profit.

PERTS The Bene Future of Work Report 2018 is based on specialised litera-

ture and on the opinion of more than 40 experts from the science community and international companies, start-ups and consulting firms. We have led 25 qualitative interviews and round table discussions in London, Berlin and Vienna. We thank all the people who participated and in particular Prof. Jeremy Myerson, Ph.D. and his team from the WORK-TECH Academy for their support and the moderation of the round table discussions.

**HEAD OF PROJECT:** Didi Lenz, Bene GmbH Jenz Zimmermann, inside-consulting

CONCEPT: Michaela Hammerschmid, Bene GmbH

PROJECT MANAGEMENT: Andrea Hildwein, Bene GmbH

**EDITOR IN CHIEF / TEXT:** Barbara Korak. Bene GmbH

**PATRICK** AERTSEN, COO, Living Tomorrow

**HERMANN** ARNOLD. Author; Co-Founder, CEO. Haufe-umantis

AXEL BACHMEIER, Lecturer, Future Organisational Design, University

of Applied Sciences Vienna of WKW; Strategic Personnel and Organisational Development, s IT Solutions, Erste Group

> PROF. MICHAEL BARTZ.

Professor of the International Business Institute, IMC University of Applied Sciences, Krems

MARKUS BIHLER. Co-Founder, Venture Partner, Builders Union; Venture Partner, Vertex Ventures

ULRICH BLUM, Zaha Hadid Architects

PROF. CHRISTIAN BLÜMELHUBER, PH.D., Professor for Strategic Organisational Communication, Berlin University of Art

**JULIA BOCK-**SCHAPPELWEIN, Austrian Institute of Economic Research

**TAMARA** CARLETON, PH.D., CEO, Founder, Innovation Leadership Group LLC; Continuing Studies Instructor, Stanford University; Visiting Professor of Design, Osaka Institute of Technology, Japan

SARAH CLAES, Project Leader, Zenon Concept GmbH

> DIETMAR DAHMEN,

Innovation Consultant, Futurologist, Chief Innovation Officer, exc.io, an IBM Company; Author, Speaker; Founder, Bamm-Institut

DAVIDE, DATTOLI, Co-Founder, CEO, Talent Garden

PROF. GUNTER DUECK, PH.D., Mathematician, Author, Philosopher, Futurologist

ROBERT EHLERT, Co-Founder, CEO, Smart in Culture

LARS

GAEDE, Journalist; Co-Founder, workawesome.com

GANJAVIAN, Co-Founder, Studio Banana

BORIS GLOGER, Founder, CEO, borisgloger Consulting

ERHARD GROSSNIGG, PH.D., Founder, CEO, Austro Holding GmbH

ROSIE HASLEM, Director, Spacelab

PETRA HAUSER, Founder, Exponential Business Hub; Ambassador, Singularity University

HERBERT HETZEL, CEO, Owner, BauConsult GmbH

PATRICK KENZLER, Co-Founder, Partner, Dark Horse GmbH

PROF. FIONA KERR, PH.D., Professor for Neural and System Complexity, University of Adelaide

LLOYD, Co-Founder, PearsonLloyd

ALI MAHLODJI, Co-Founder, whatchado PROF. CHRISTOPH MANDL, PH.D., Professor, Business Management Institute, University of Vienna

LAURE MOMBRUN, Senior Design Strategist, PearsonLloyd

PROF. JEREMY MYERSON, PH.D., Professor, Royal College of Art; Holder of the Helen Hamlyn Chair of Design; Director, WORKTECH Academy

PETZL,
Founder, Rebranding;
Consultant for Brand
Development; Lecturer,
University Klagenfurt and
Medical University Vienna

MARKUS

MARTIN PONGRATZ, Head of Workplace Strategy CEE, CBRE

MARK
POPPENBORG,
Founder, CEO, intrinsify.me
GmbH

CLAUDE RITTER, Co-Founder, Book a Tiger; Venture Partner, Cavalry Ventures

KLAUS SANDBILLER, PH.D., Head of Group Real Estate Portfolio, Transactions & Projects, UniCredit

MARTINA SCHÖGGL, Curatorial Assistant, University of Applied Arts Vienna

PETER SCHUHMACHER, PH.D., President, Process Research & Chemical Engineering, BASF

WILHELM SCHÜNEMANN, Project Manager, Zenon Concept GmbH SANDER SCHUTTE, PH.D., CEO, Mapiq

MARKUS SPIEGEL, PH.D., Partner, Schaffer Consulting New York

MEILI TAYLOR, Behavioral Nerd, HATCH Analytics

PHILIP TIDD, Consulting Practice Area Leader, Gensler

ANNE-SOPHIE TOMBEIL, PH.D., Service and Human Resources Management, Fraunhofer Institute for Industrial Engineering IAO

PROF. MARION

WEISSENBERGER-EIBL, PH.D., Director, Fraunhofer Institute for Systems and Innovation Research ISI; Holder of the Innovation and Management Chair, Karlsruhe Institute for Technology

PROF. JAMES WOUDHUYSEN, Journalist; Visiting Professor, London South Bank University

### RECOMMENDED READING



### DIGITAL TRANSFORMATION

### DIGITAL BUSINESS MODELS

Steve Blank (2013), "Why the Lean Start-Up Changes Everything", Harvard Business Review May 2013, https://hbr.org/2013/05/why-the-lean-start-up-changes-everything

Dietmar Dahmen, Markus Bond (2017), "Transformation. BAMM! Management in der Vulkanökonomie", Murmann Publishers

### ROBOTICS AND ARTIFICIAL INTELLIGENCE

Blog von Prof. Michael Bartz, https://newworldofwork.wordpress.com/

Report des World Economic Forum (2016), "The Future of Jobs!", https://www.weforum.org/reports/the-future-of-jobs

### THE INTERNET OF THINGS

Nils Urbach, Frederik Ahlemann (2016), "Die Digitale Revolution – Wie technologische Trends die Business-Welt verändern", Springer Verlag

Markus Peschl, Thomas Fundneider (2016), "Büro als Treiber von Wissens- und Innovationsprozessen", Springer, p. 31-56



### LEADERSHIP

### SELF ADAPTIVE SYSTEMS

Fiona Kerr (2014) "Creating and Leading Adaptive Organisations: The nature and practice of emergent logic", Thesis, https://digital.library.adelaide.edu. au/dspace/handle/2440/91144

### **SELF ORGANISATION**

Frederic Laloux (2014), "Reinventing Organizations: Ein Leitfaden zur Gestaltung sinnstiftender Formen der Zusammenarbeit", Nelson Parker

### FLUID LEADERSHIP

Hermann Arnold (2016) "Wir sind Chef. Wie eine unsichtbare Revolution Unternehmen verändert", Haufe Verlag

Detlef Gürtler (2017), "Einführung in die Rücktrittskultur". Interview with Hermann Arnold, GDI Impuls No. 3

Detlef Gürtler, Anja Dilk and Heike Littger (2016) "Liquid Leadership. Wer führen will, muss schwärmen können. Vorschläge zum Chefsein von morgen", GDI Impuls No. 3

### **EMPLOYEE ENGAGEMENT**

Gunter Dueck (2015) "Schwarmdumm. So blöd sind wir nur gemeinsam", Campus



### **PURPOSE OF WORK**

### THE MEANING OF WORK

Ali Mahlodji (2017), "Und was machst du so? Vom Flüchtling und Schulabbrecher zum internationalen Unternehmer", Econ Verlag

### **EMPLOYER BRANDING**

Markus Bihler (2017), "The Millennial Generation in Seven Myths. An Investor's Playbook for the Greatest Demographic Shift in History", White Paper Builders Union: www.buildersunion.org

### **NEW WAYS WE WORK**

Michael Bartz, Thomas Schmutzer (2014), "New World of Work. Warum kein Stein auf dem anderen bleibt. Trends – Erfahrungen – Lösungen", Linde International

### **SOCIO-POLITICAL EFFECTS**

Kirsten Brühl, Hannes Koppel, Frank Schomburg, Christian Schuldt (2017), "Next Germany. Aufbruch in die neue Wir-Gesellschaft", Zukunftsinstitut



### OPEN COLLABORATION

### INTERACTION BETWEEN PEOPLE

Stanley McChrystal, Tantum Collins, David Silverman, Chris Fussell (2015), "Team of Teams: New Rules of Engagement for a Complex World", Penguin Publishing Group

### INNOVATION NEEDS INTERACTION

Tamara Carleton, William Cockayne, Antti-Jussi Tahvanainen (2013), "Playbook for Strategic Foresight and Innovation", https://foresight. stanford.edu/

Dark Horse Innovation (2016), "Digital Innovation Playbook. Das unverzichtbare Arbeitsbuch für Gründer, Macher und Manager", Murmann Publishers

Mario Herger (2016), "Das Silicon Valley Mindset. Was wir vom Innovationsweltmeister lernen und mit unseren Stärken verbinden können", Plassen

### **BIBLIO-**

### GRAPHY

BRÜHL, K.
KOPPEL, H.
SCHOMBURG, F.
SCHULDT, C. (2017),
"Next Germany. Aufbruch
in die neue Wir-Gesellschaft",
Zukunftsinstitut, p. 35

DILK, A. LITTGER, H. (2016), "Die Leadermacher", GDI Impuls No. 3

GLOOR, P. (2016), "To Bee or Not to Bee", GDI Impuls No. 3

SCHALLMO, D.R.A. (2016) "Digital Transformation Now! Guiding the Successful Digitalization of Your Business Model", Springer

MANDL, C.(2017)
"Auf der Suche nach Industrie-4.0Pionieren: Die vierte industrielle
Revolution in globalen Fallbeispielen",
ÖGB

COLES-BLACK, J.
CHAO, I.
CHUEN, J. (2017),
"Three-dimensional printing could revolutionize the way we practise medicine", The Medical Journal of Australia, 207 (3), p. 102-103

ARNOLD, H. (2016), "Wir sind Chef. Wie eine unsichtbare Revolution Unternehmen verändert", Haufe

GÜRTLER, D.
DILK, A.
LITTGER, H. (2016),
"Liquid Leadership. Wer führen will,
muss schwärmen können. Vorschläge
zum Chefsein von morgen",
GDI Impuls No. 3

GÜRTLER, D. (2017), "Einführung in die Rücktrittskultur", Interview with Hermann Arnold, GDI Impuls No. 3

WEGWEISER DES
DEUTSCHEN
BUNDESMINISTERIUMS FÜR
WIRTSCHAFT UND ENERGIE (2016),
"Zukunftschancen Digitalisierung",
http://www.bmwi.de/Redaktion/DE/
Publikationen/Mittelstand/zukunftschance-digitalisierung.html

STUDY BY
GARTNER (2017),
"Forecast: Internet of Things —
Endpoints and Associated Services,
Worldwide, 2016",
https://www.gartner.com/newsroom/id/3598917

STUDY BY
DELL UND INTEL (2016),
"Future Workforce Study",
http://www.workforcetransformation.
com/workforcestudy/us/assets/report/
Dell-future-workfoce-study.pdf

### PUBLISHER'S INFORMATION

Bene GmbH Schwarzwiesenstrasse 3 3340 Waidhofen/Ybbs Austria

AGENCY We Make GmbH www.wemake.at

### I AM BENE.

We plan and design spaces for people to enjoy working well. Our product portfolio comprises furniture for all sections and areas of the modern office.

We develop integrated concepts for our clients that respond to the changing challenges of the working world.

We love design. Our high standards in functionality, quality, and design can be truly seen in each of our products.

We are proud to be present in more than 40 countries worldwide as an international brand rooted in Austria.

In the future we will rely, as we have done since 1790, on the power of innovation to continue our role as a leading provider of inspiring work environments.

www.bene.com

