update

Our weak digital state

Sustainability needs AI

Data alone is no cure

12/18

Studies show that the divide between interest and realization on the adoption of big data in business strategy remains stark. While nearly all of the respondents say that their companies want to be data-driven, only one third claim to have achieved it.

tive for business management education in addressing this. In November, we hosted and participated in the annual European conference of the Graduate Management Admission Council (GMAC). More than 100 leaders in business management education came together to specifically discuss data strategy and data analytics as well as the role that educators, recruiting and admissions professionals, and program managers can play in helping the next generation of business

EDITORIAL

Because of the global digital transformation, business executives are challenged in various dimensions. How can they successfully guide their companies across an industrial landscape transformed by disrupting technologies? How can their companies identify and unlock the value of their investments in new technologies? How do they harness the increasing flow and speed of structured and unstructured big data generated by transactions, social media conversations, business apps, support forums, and more? How do they also navigate the roadblocks, hurdles, and doorways created by data privacy expectations and regulations on the handling of all that data?

ESMT Berlin has long recognized these challenges in implementing digital strategies and operations. Indeed, we see an impera-

leaders in the new digital landscape. To paraphrase a question from the opening remarks of one of my colleagues: How can today's use of data, analytics, and artificial intelligence contribute to tomorrow's better world?

In this issue of the ESMT Update, we examine the ways by which players in diverse areas – private sector, public sector, and civil society – are grappling with the questions and solutions posed by big data and data analytics. As regulators are commissioned to work on our behalf to monitor and control how private businesses use public data, the question arises as to how the law on the adoption of big data in business strategy is helping or hindering their efforts. Are hidden champions of the business world embracing digitalization in ways comparable to their larger corporate competitors? What does a comprehensive survey show of how they have succeeded and where they have failed? Investors are pushing corporates to evaluate the environmental, social, and governance effects of their corporate sustainability initiatives. How can AI-driven intelligence tools shape their work for the better?

Join me in taking a dive into the debates of the new data world. ■

Jörg Rocholl
President, ESMT Berlin

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Achilles' digital heel

Public sector weakness in comprehensive digital strategy threatens our society.

For months now, electronic mailboxes have been fuller than usual: the EU General Data Protection Regulation (GDPR) has taken effect and forced companies to demand consent from all their customers and business partners. After 10 years of preparatory work, politics seems to have successfully structured an important area of digitization: data protection. But is that actually true? Does the GDPR solve the problems arising from mass data collections on international platforms? Can we, and the data protection commissioners on our behalf, assess, evaluate, and control who is doing what with our personal data?

Over-regulated data protection

You probably already access your bank account from your smartphone. Surely, you are using one of these apps – the ones in which you store the bank details to your various accounts in one place and access online banking. The app takes care of everything for you: queries checkings, savings, and credit card accounts as well as the account balances of several bonus cards. The result is displayed transparently and is updated on demand. Of course, banking transactions are also possible with such apps.

What about data protection in such an app? Using the example of the market leader, I examined the app's work step by step in terms of data protection. Above all, one thing is clear: a complete description of all data processing operations, participating institutions, and legal regulations are no longer possible. The app developer, bank, smartphone manufacturer, mobile phone provider, iOS/Android operating system developer – they all handle your personal data when using the app, are subject to different data protection

regulations and supervisory authorities, have their own guidelines, and have obtained consent (or not). It is almost impossible to describe it – it is no longer understandable for consumers at all.

In my new book *Weak state on the net. How digitization puts the state into question*,[1] I reach the following conclusion: while data protection law has exploded, data protection has suffered. In practice, the small-scale approach of data protection law largely evaporates and is no longer capable of protecting citizens effectively, comprehensibly, and transparently from the actual hazards of data processing. On the contrary, the paternalistic data pro-

> "In practice, the small–scale approach of data protection law is no longer capable of protecting citizens effectively.

tection legislation lulls people into a false sense of security and virtually encourages them to handle their data with carelessness.

What is worrying: Facebook, Google and other global platforms have implemented the new EU rules quickly and seemingly without any significant impact on their profitable data trading business models. At the same time, many SMEs are complaining that the GDPR is making it difficult for them to implement new digital business models, and that the speed with which they can do so is suffering. No one knows what medium- and long-term effects the regulation will have in the digital space and in the competition between global economies.

Blurred responsibility in digital realms

Data protection is a particularly prominent example of the fundamental problems faced by the state in dealing with digitization. Yet another is the security of our digital everyday

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> While individuals should secure their networked digital households, they are hardly in a position to do so.

life: Have you ever counted how many digital devices in your household are connected to Wi-Fi? Are you sure that you haven't forgotten an e-book reader, a thermostat, or a "smart" light bulb? More than twenty digital devices in the local network are not uncommon for an average family. A second question: Do you know where your data is stored – your texts, photos, music, and videos? Which cloud services do you use? Even more important, which ones do you no longer use but still have data stored there? One last question: Do you have an overview of which user accounts you have set up on the Internet? How many login IDs do you have for merchants, magazines, clubs, game providers, transport companies, or travel platforms? By 2015, Internet users already had an average of 90 different accounts; by 2020, there should be over 200 accounts.

Every Internet user now calls a multitude of devices, programs, Internet services, and user accounts "their own," without still having an overview. Each of these programs has vulnerabilities, each of the devices is vulnerable. Regular maintenance, the installation of updates and patches, the configuration of security settings, reaction to known attacks – all of this is your responsibility. Each individual must take care of the security of their networked digital household, yet is hardly in a position to do so.

Little help comes from the state. Politics and law have so far not been able to make a simple distribution of responsibilities in IT security that does not overburden individu-

al citizens, places greater responsibility on manufacturers of hardware and software, and also reflects the special responsibility of providers towards their customers.

Data protection law and the security of the networked household reveal one aspect of the "weak state on the net": the blurred responsibility in digital space. Policy makers and administrators have not yet found an adequate solution to this problem. Over-complex legislation, such as data protection, is just as unsuitable as the renunciation of responsibility assignment, such as IT security. With the discussion about automated decisions and the use of machine learning in all areas of society, the next field of digitization is emerging in which government will struggle to find solutions.

The weakness of the state in the distribution of responsibilities hits the companies at least as hard as their customers. In data protection law, compliance costs are exploding, and every change to business models and processes requires a great deal of effort in terms of data protection documentation, information, and consent requirements. In the case of IT security, the situation is the other way round, for example with the use of Internet of Things (IoT) devices. Missing minimum security requirements for such devices and constantly new vulnerabilities make their use difficult, especially in medium-sized companies.

Government supply mandate – digitally rethought

While the state is struggling to assign responsibility in the digital space, it is simultaneously facing difficulties in fulfilling its own digital obligations. The poor progress made in digitizing government actions is widely known. But now there is a new challenge. With the digitization of all important areas of life – from health care to energy supply, from logistics to the arts – much more is required of the government than digital public services.

But our public sector has already fallen behind: Health apps are more widespread than digital offerings from the public health system. Google has digitized more books than all German libraries combined. Local public transport timetables are easier to find

on global platforms than via local bus companies. Many other examples could be found. Large platforms compete with the state across many areas of public services. This will advance digitalization, but it will also pose a threat to our society, because the private providers are largely out of the control of parliaments and governments. Transport, energy, health, education, and other basic infrastructures are increasingly evading public control, and individual offerings are replacing infrastructure planning.

However, we urgently need digital infrastructures for successful digitization. Even beyond broadband networks, politicians must comprehensively define some kind of "government's supply mandate" in the digital realm and carry out digital infrastructure planning. Whether it is the digital mirror image of our transport infrastructure – from traffic lights to bus schedules – digital access to health care, patient files, and research-relevant data, the digitization of libraries, or the digital future of public broadcasting, the digital transformation of the state is more than just the information and communication technologies of the government agencies, it's more like defining new essential utilities.

From weakness to strength

The digital ability of our government to act and to face the future, the overcoming of digital weakness is a complicated and long-term task. Using many further examples, I examine in my book the reasons for the weakness of the state in the digital space and work out five basic approaches to overcome this weakness:

Firstly, we need a new, less-detailed digital law, a well-considered big one, a kind of "civil code" for digital space. It should lay down basic rules for responsibility in the digital realm, such as a minimum security obligation for manufacturers of networked devices. More than twenty years of experience with legislation on the allocation of responsibility in the digital sphere are sufficient to move away from the many individual laws toward a coherent digital law.

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Large platforms compete with the state across many areas of public services. This will advance digitalization, but it will also pose a threat to our society.

Secondly, we must acknowledge that the global digital platforms, such as Google, Apple, Facebook, and Amazon, create a kind of "town square" in the digital world in which people communicate, cooperate, and do meaningful things together, but also spread illegal content and commit all kinds of crimes. Without digital platforms we can no longer live, while at the same time "life online" may not remain unregulated by the state. We should not simply pass the burden of responsibility to the platform companies. Instead, we should ensure that they are designed in such a way that governments can assume their responsibility for the community, for the protection of security and freedom, for the balance of competing legal interests, and the enforcement of laws – even on digital platforms.

Thirdly, we need a change in the allocation of tasks to our state levels – in Germany, the federal government and the federal states must break free of the interlocking links, define their digital tasks more clearly, and carry them out more independently. The only way for the public sector to achieve greater speed in digitization is to allow the individual institutions to act on their own, without coordinating every step.

Fourthly, we need digital infrastructure planning that goes far beyond fiber-optic networks. It must embrace all state-owned infrastructures, a future digital architecture of the healthcare system, as well as a digital architecture in the field of education or in the public transport sector: What common offerings come from the cloud? Which digital identities are used? What are local authorities responsible for and what are federal and state governments responsible for? What do private companies care for and what does the government retain?

Finally, we need a reorganization of digital politics. All of these issues are cross-cutting issues. It is not about economic or legal issues, national security or financial issues. However, our institutions are not yet properly positioned to deal with the cross-cutting question of digital politics. The German Federal Chancellery's new responsibility for overarching digitization issues is a first step, and a Ministry for Digital Affairs will have to follow suit. A strong digital state is a prerequisite for freedom, justice, and social security in an increasingly digital world. ◼

[1] Martin Schallbruch: Schwacher Staat im Netz. Wie die Digitalisierung den Staat in Frage stellt. Springer: Wiesbaden 2018.
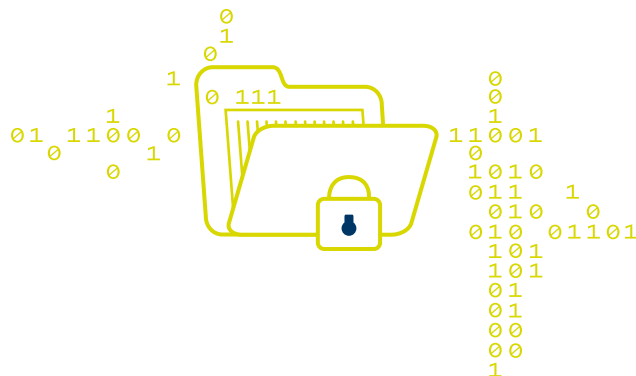
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Death defying decisions

In public health emergencies, data is no cure–all.

The Democratic Republic of Congo is facing one of the greatest health crises of its history. In August of this year, its Ministry of Health declared a new outbreak of the Ebola virus; in November, a World Health Organization (WHO) official warned that the outbreak could last at least another six months. More than 200 people have already died.

When should public health officials declare a global health emergency?

In a case study on the start of the last West African Ebola virus epidemic (2014–2016), my colleague Gilles Hilary of Georgetown University and I wrote about life-and-death decision making in the management of a global health crisis. We looked at two organizations – Médecins Sans Frontières (MSF or Doctors Without Borders) and WHO – and how each group approached the data and other information from the earliest points of the outbreak. Despite nearly identical levels of expertise and access to data, the two organizations reached radically different conclusions about the seriousness of the outbreak.

We opined that indicators beyond the virus, its epidemiology, the number of cases, and its geographic spread were at play in their decision-making. Where MSF connect-ed the dots to form a picture very specific to the region, the timing, and critical conditions, WHO benchmarked the outbreak against historical health events of similar size, even in far-flung regions. We believed that WHO, as the UN-authorized decision maker, balanced the risk of declaring an emergency against acknowledging one – that is, the wrong assessment could yield potentially disastrous outcomes for the region's economies.

With Saed Alizamir of Yale University and Shouqiang Wang of the University of Texas at Dallas, I explored this matter in greater depth. In our award-winning research – published as "Design of Public Warning Systems" – we conclude that even credibility plays a significant role in how organizations interpret and act on warning system policies. When agency credibility is low, risk is downplayed to improve credibility. In high credibility cases, the agency may exaggerate risk.

MSF declared the outbreak an emergency in March 2014; WHO identified it as such in August, five months later. In the end, based on more than just data, MSF was unfortunately proven the wiser. The Ebola outbreak resulted in more than 10,000 deaths. ◼

Francis de Véricourt
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Champions of the digital transformation?

A hidden champion is a company with a turn-over of less than 5 billion euros and a market leader in the world or Europe. Through investment in R&D, hidden champions have embraced innovation in diverse sectors, from manufacturing to medicine.

Are these companies also leading the digital transformation of the German economy? Survey results show that German hidden champions are working vigorously on positioning themselves more digitally, both in regard to internal processes and in relation to new business models.

Key findings

Digitally satisfied
51% of small and medium-sized enterprises (SMEs) are content with the progress of their digital transformation. Among the corporates and hidden champions, the figure is 71%.

The challenges of the hidden champions
42% of hidden champions name a silo mentality and approximately 54% a resistance to change as problems in relation to the digital transformation.
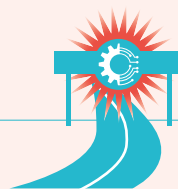
On a good path
When it comes to a self-evaluation of their digitalization progress, hidden champions have already undertaken more than half of the journey. SMEs give themselves a worse assessment; the corporates, on the other hand, have already pulled considerably clear.

Keys to success
49% of hidden champions describe Industry 4.0 as the key technology of digitalization.

Stronger together
35.8% of customers of hidden champions are actively involved in the transformation. Among corporates, the figure is 43.6%.

Disruption risk
42% of all companies and 40% of hidden champions expect digitalization to have a large impact on their exposed position in the market. Among SMEs, the figure is 29%; among corporates, 52%.
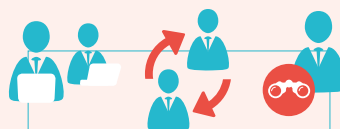
Structural traditionalists
The hidden champions name co-working spaces (~ 25%), job rotation (27%), and job shadowing (15%) as measures against silos and as pro-innovation measures.

Sought and found
Approximately 33% of all companies lure digital experts from other industries. Among the hidden champions, it is 37%; among SMEs, approximately 28%; and among corporates, approximately 33%.

Find digital talent
in the big cities

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Hidden champions must be imaginative in competing for qualified professionals to aid their digital transformation processes. Of course, they also still recruit via universities and technical colleges. (Festo with its Bionic Learning Network is a fantastic example.) But they also find new ways, such as going into so-called "Digi-Hubs," where they can exchange ideas with entrepreneurs and accelerators.

Additionally, hidden champions are increasingly leaving very rural areas and taking parts of their (mainly digital) business to larger cities. For example, Berner went to Cologne; companies such as Viessmann, Kloeckner (with Kloeckner-i), and Claas (with 365FarmNet) undertook the same in Berlin. Hidden champions are looking to expand their business and to gain fresh digital talent who can support them in doing so.

Bianca Schmitz
Co-director, Hidden Champions Institute at ESMT Berlin
In conversation with ComputerwocheTV, October 29, 2018.

Big data – great power or great waste?

Data and data analytics can play a role in sustainability efforts. If only we knew how to use them ...

Last year, the Economist declared "the world's most valuable resource is no longer oil, but data."[1] Was it big hype or was it a sobering glimpse into the future of the digital landscape? After all, the global pursuit of oil profits was at the expense of our environment and communities. Will data and data analytics cost us as dearly as this or will big data aid us in reaching our sustainability goals?

In our work with members of the Sustainable Business Roundtable, the Center for Sustainable Business at ESMT has seen the promise and the challenge that big data can play in our sustainable future. On the one hand, big data is like renewable energy – it offers a seemingly endless pool of resources from which we can draw power for our work with negligible (if any) damage to people and the planet. On the other hand, big data's potential can be quickly wasted without capable stewardship, cooperation between major players, and the trust and support of consumers, workers, and investors alike.

Assuming that data analytics can provide powerful insights on the environmental, social, and governance (ESG) factors of the sustainability picture, how can sustainability advocates – whether within or outside of corporates – use big data to formulate, implement, and evaluate corporate sustainability initiatives?

Intelligent tools, sustainable solutions

There is interest in all quarters in corporate leadership in sustainability efforts – and the verification of the same. Groups such as the Sustainability Accounting Standards Board, the CDP, the Task Force for Climate-Related Financial Disclosures, the Climate Disclosure Standards Board, the Workforce Disclosure Initiative, and the Corporate Human Rights Benchmark are just a few of the agencies and initiatives offering metrics, standards, and analytical tools to verify corporate sustainability measures.

For both corporate and individual investors, this plethora of options makes it difficult to compare and contrast their utility. What does the right sustainable company or project look like for us? Which evaluation tools and standards should we use? To what degree can we rely on externally developed systems to reflect our (unique) sustainability strategy? Should we create our own system internally?

Here, artificial intelligence (AI) offers hope for an aligned approach that would simplify sustainability decisions for corporate executives and investors alike. The Network for Business Sustainability, for example, published a detailed report by Tal Yifat, a data scientist who specializes in business sustainability, on the first market solutions that make sustainability data collection and analysis more efficient. [2] These emerging ESG business intelligence solutions are combing and processing corporate reporting, monitoring and synthesizing social media conversations, tracking regulatory initiatives, and more. The resulting big data can help shape ESG sustainability strategies, including risk assessment, consumer engagement, and supply chain oversight. "I think that these issues are becoming more and more core to strategy," said Ioannis Ioannou, an associate professor of strategy and entrepreneurship at London Business School. "They are not peripheral to strategy. They're not an add-on. I do not think this is going to be a nice technology to have, but it's going to be a necessary technology, especially for those companies that are really genuine and serious about their commitment towards stakeholders and towards having a positive impact on society."

Big data in operations, supply chains

Despite these inroads in ESG business intelligence, the lack of full control that companies have over their operations and supply chains continues to challenge sustainable transformation initiatives. Here, too, big data analytics can help.

> **How can big data be used to formulate, implement, and evaluate sustainability initiatives?**

On the operational side, as detailed above, big data can provide companies with a better understanding of their environmental impact. It can also increase cooperation, another factor in the environmental picture. IBM, for example, uses big data analytics to not only improve its own operations, but also to help other companies optimize their operations to be more energy and resource efficient. Additional efforts to increase cooperation are needed. The current linear economy model is based on the take, make, and waste paradigm; the circular economy model, in contrast, is based on the reduce and reuse principle. (One company's waste can become another company's resource.) The social enterprise Circle Economy is working to accelerate circular economy practices within sectors by using, among others, blockchain technology. Its use can increase data transparency and accountability across value chains and thus help build collaboration among producers and recyclers.

On the supply chain side, big data analytics can help companies improve the traceability of ingredients or components; address transparency concerns in labor, compliance, and sustainability data collection; and reduce supply chain risks. Big data can also help companies engage diverse stakeholders in corporate sustainability initiatives related to the supply chain. The social enterprise Provenance, for example, "uses blockchain technology to enable secure traceability of certifications and other salient information in supply chains." [3] The company works with

businesses to increase transparency in their operations and, thus, grow trust among their consumers. Consumers are encouraged to track the origins of the products that they purchase and to appreciate the social and environmental impact of their buying power. On the other side of the equation, the German sportswear brand adidas collects big data from its supply chain workers via apps

> **"Blockchain technology can aid efforts for data transparency, accountability, and collaboration among producers and recyclers.**

and hotlines. According to Supply Chain Dive, "adidas has established worker hotlines accessible to roughly 300,000 factory workers in China, Indonesia, Vietnam, and Cambodia, and piloted an app in China." [4] In this way, adidas uses data to eradicate modern slavery practices in its supply chains.

The trust deficit

Big data can help solve many of the problems that corporate sustainability initiatives face. There is, however, a necessary condition for that to occur. Companies that are mining big data need to have the trust of their data sources – namely, consumers, suppliers, and partners. This condition has not been met. A staggering 71 percent of consumers do not trust that companies will use their data ethically, according to a joint study published by the Psychometrics Centre at the University of Cambridge and the global PR firm Edelman. [5] Recent scandals and data breeches involving Facebook and Google may have deepened the

divide, but also awakened the busi to the imperative of addressing deficit and foreseeing ethical and lenges to meeting sustainable de goals (SDGs).

"Big data offers tremendous p predictive analytics and solution help to foster global sustainability SDGs," said Thomas Osburg, a lead on the issue of trust and digitizati co-editor of the book *Sustainability World*. "The challenge, however, is ing institutional trust among cit technologies lead to new forms o ed trust in transformational netw much harder to gain than tradition trust in hierarchical relationships."

Some companies are heeding engage with their consumers arou curity, data privacy, and digital t tion themes to bridge the trust ga man telecom company Deutsche T example, has pledged to regularly ly focus on the question "Are we blindly into digitization?" [6] The co interviewed leading German expe itization on its risks and has encouraged its customers to engage in a periodic "digital detox." After undertaking a joint study with Loudhouse on the "future of digital trust" in 2014, its French telecom counterpart, Orange, called for greater commitment to increasing transparency in data usage and sharing, providing consumers with tools for controlling their data, and championing the consumer role in data oversight. [7] Here, too, big data analytics are expected to play a central role.

Human and machine

Fundamentally, as Prof. Edward Freeman so aptly stated in a recently co-authored article in Sloan Management Review, "Behind every piece of code that drives our decisions is a human making judgements about what matters and what does not." As sustainability advocates with an eye to big data as more than "the new oil," we must thus ensure that corporate ethics and sustainability issues are central to the (still emerging) story of big data and data analytics. We need to ensure that the humans behind the programming and the data analysis are well equipped to deal with the diverse challenges of ESG busi-

> **We must ensure that corporate ethics and sustainability are central to the big data and data analytics story.**

ness intelligence and invested in the success of corporate sustainability initiatives. And because even new technology solutions can be manipulated or corrupted, we must also be vigilant in implementing robust digital systems of checks and controls.

We can only hope that equipped with big data and with the help of AI and algorithms, CEOs and other c-suite executives will heed the warnings of the machines to guide us to a sustainable future. ■

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ESMT Annual Forum
June 7, 2018

Pictured, top:
Olaf Plötner, ESMT Berlin;
Frank Stieler, KraussMaffei Group;
Don Gao, Positec Group;
Julia Bauer, moderator;
Jack Cheng, NIO / XPT;
Ayla Busch, BUSCH
middle:
Carsten Spohr, Lufthansa Group;
students of ESMT Berlin
bottom:
Dieter Zetsche, Daimler / Mercedes-Benz Cars;
Peter Altmaier, Federal Ministry for Economic
Affairs and Energy (Germany)
Page 19, top:
Guest
bottom:
Showcase of Creating Digital Leaders

" Technology is rapidly changing our world. Whether evidenced by the latest smartphones, smart homes, or smart industry, these innovations are shaping the personal and the political, the everyday and the future.

Europe must be less defensive about Chinese investment

The EU should focus instead on improving its internal market to help companies compete with China.

s Germany just a department store with a clearance sale for China? Leifeld, 50Hertz, Grammer – hardly a week goes by without a German company being targeted for Chinese takeover. While mergers and acquisitions in general rarely arouse public interest, everyone gets riled up when China is involved. Is that because of China – or because of Europe?

Here are the facts: China is Germany's most important trading partner. Last year, Germany exported €86.2 billion ($98 billion) worth of goods to China, nearly tripling over the past 10 years. In return, Germany imported goods worth €100.5 billion from China. The mutual dependence and benefits are huge.

According to an EY study last year, Chinese companies invested $57.6 billion in takeovers and investments in Europe. Germany accounted for the largest share, $13.7 billion, and the rate of investment is up in the first half of 2018. German companies with global reputations as technology leaders are prime pickings for Chinese buyers.

But according to an IW study, the Chinese share of all foreign acquisitions in Germany in 2017 was just 6.6 percent – less than one-third of the American share. German direct investment in China is still significantly higher than the reverse. German companies' experiences with their Chinese owners have been positive so far: The company enters the Chinese market, management keeps its entrepreneurial freedom, and worker representatives appreciate the long-term orientation.

Chinese interference?

The preoccupation with China is not only because of its size. In contrast to European and American companies, interest from a Chinese company arouses concern that the Chinese government is exerting direct or indirect influence.

The central criticism focuses on the charge that China's state-controlled economic system exploits Western openness. According to this view, Chinese companies can act freely here while German companies must deal with curbs and restrictions in China. In this context, the annual meetings between China and 16 Central and Eastern European countries are considered a threat to political unanimity in decisions at European level.

And China is no longer just copying business models but has become the world leader in select areas. If China's own developments take too long, they just acquire the missing expertise. Beijing's ambitious strategy of becoming the world's leading economy in the first half of the 21st century is no longer a pipe dream. Chinese giants such as Baidu, Alibaba and Tencent seem to be the only internet companies that can compete with the American monoliths Google, Amazon and Facebook. European competitors in this context do not exist.

What Europe should do next

China's combination of political and economic power scares Europe, as does the vague fear of being left behind. So Europe must become better and stronger. It must create the conditions for its companies to be more successful in an era of platform economies. The core condition for this is scalability in a market of more than 500 million people because here the winner takes all.

Economic policy must allow companies setting up shop in one EU member state to roll them out to all other member states without further approvals — and get cross-border financing via venture capital. Only then can they reach the critical mass that is important for their survival

and prosperity beyond Europe. The finalization of the internal market in practice is the critical success factor to Europe winning in future-oriented sectors. The European discussion could then veer away from fiscal issues and towards common issues of the future. And it would be easier to show EU member states with increasing success a clear alternative to enticements outside the bloc.

The second consideration is the question of new industrial policy or even state subsidies, as is required for artificial intelligence. But with caution, because these actions can do more harm than good. Experience shows that while the government may not be worse than the market in finding new technologies, it often fails to hit the brakes in the face of obvious failure. State support must happen within a clearly defined framework, especially in the promotion of new public goods such as digital services and platforms. Significantly increased funding of top-level research at a European level would also be a sensible way forward.

Thirdly, Europe, together with the United States, must continue to make its demand for reciprocity clear in talks with China. The first successes are apparent. The abolition of China's requirement for foreign manufacturers to enter into joint ventures is an important step — and BMW is the first beneficiary of the new regulation. But there's still a long ways to go in terms of real equality of opportunity. The more Germany and Europe can point to their own practices as a good examples to China, the more they will succeed.

Developing resilience

All these tactics can make Europe more resilient and increase its prosperity. But they don't answer the question of how to deal with Chinese takeover bids. Above all, we must have clear rules. The 50Hertz case, in which the bidder wanted to acquire a portion of the company remained below the legal minimum for a government review, must remain an exception. The government, with the help of German development bank KfW, intervened anyway.

Nor does it make sense, as with Kuka, to try to win German companies against their will. Such intervention must lie with the state and not with individual companies. It is not their job or in their interest to act politically. Their economic disadvantages in China would be too great. Rather, it is a matter of defining a clear minimum threshold for investment reviews and then carrying out the review according to clear criteria. Not all of the burden can be put on Germany's Foreign Trade and Payments Act.

If we want to prevent minority shareholders from having an excessive say, we need to think about rules to improve corporate governance. If one considers energy networks as critical infrastructure, then one can establish rules for their operation, with clear, tough sanctions for infringements.

With China's growth, Europe and Germany are facing great new opportunities and challenges. Economic openness and cooperation, the cornerstone of prosperity, must be maintained and strengthened without the state renouncing its right to intervene in precisely defined individual cases with clear rules. This is the basic principle of the social market economy.

Europe must act in unison and build on its strengths. The recent experience in the trade dispute with the US shows what we can achieve. ■

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**Jörg Rocholl**
President,
ESMT Berlin

Students hack the future of business education

Fourteen teams, composed of coding students and professional developers, participated in the first ESMT Berlin Hacknight on September 29–30. Led by the MBA and master's students of the ESMT Berlin Entrepreneurship Club, the hackathon also drew students from ESMT, INSEAD, HEC Paris, and MIP Politecnico di Milano.

Experts from global corporations, startups, and digital ventures, such as The Lean Startup Co., IBM, Daimler, Delivery Hero, TechStars, HelloFresh!, BCG Digital Ventures, Founder Institute, Outfittery, Charité, and Helix mentored teams. The Helix Foundation was the main sponsor of the hackathon, and IBM, BRLO, Red Bull, Delivery Hero, and METRO also supported the event.

The winning team, Athena, developed a project on personalized learning, powered by machine learning and artificial intelligence. Each team member received an award of 1,000 EUR, sponsored by the Helix Foundation.
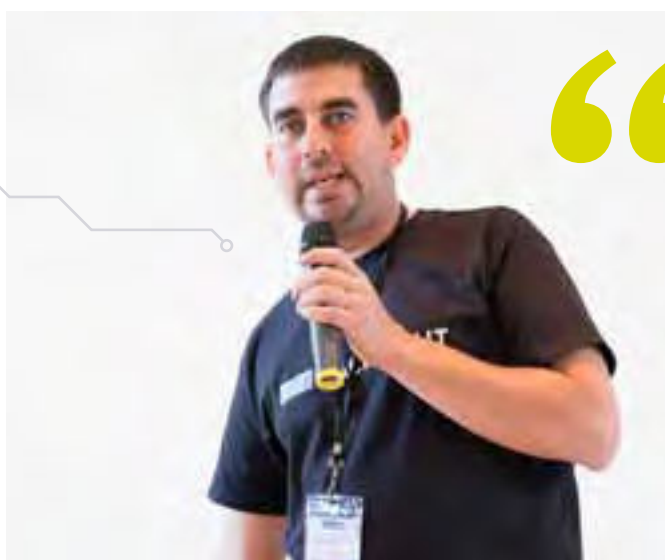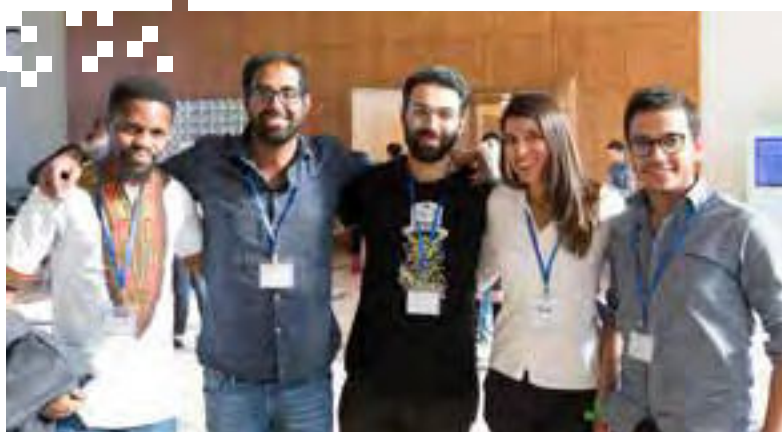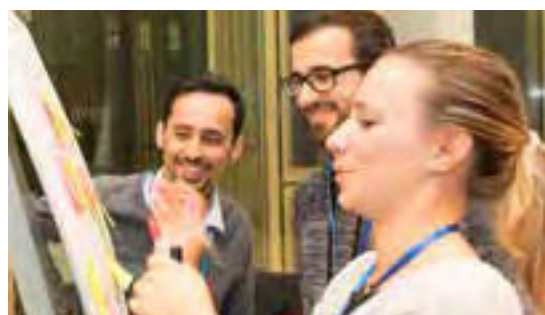

" In a world where new technologies are more accessible and new job titles appear every day, we need to rethink our educational systems and structures to prepare future workers.

Demis Estabridis
MBA Candidate 2018 and President, Entrepreneurship Club

Of Note

ESMT events, faculty, and research announcements

Meg Greenhouse, VP of Digital Workplace at Zalando, at the DigitalFuture Summit 2018, which took place at ESMT Berlin on July 12 and 13, 2018.

ESMT, global alliance build new digital learning platform

ESMT has joined five other business schools to offer management education through a new educational technology (EdTech) platform. The shared platform forms the heart of The Future of Management Alliance (FOME), the first collaboration of its kind in business education. Other FOME members include BI Norwegian Business School, EDHEC Business School, Imperial College Business School, Ivey Business School, and the Lee Kong Chian School of Business of Singapore Management University. At the center of the alliance is a custom-built education platform, designed and provided by technology enterprise Insendi, a company founded by EdTech experts at Imperial College Business School. Each member school enjoys a tailored platform, enabling them to redefine, customize, and digitize their portfolio of programs, from MBA courses to shorter executive education programs and massive open online courses (MOOCs). ESMT went live with six MBA courses, three executive education sessions, and two customized executive education programs. (November 1) ◼

Wissenschaftsrat recommends right to grant PhDs independently

The German Council of Science and Humanities (Wissenschaftsrat) has renewed its accreditation of ESMT Berlin to grant PhDs and recommended that it be allowed to do so independently in the future. In the consistently positive report, the council wrote that ESMT "completely fulfills the requirements of an institution with a university status that is authorized to award doctorate degrees." (October 22) ◼

Prestigious EQUIS accreditation received

ESMT has received the international EQUIS accreditation for an additional five years, the maximum period for this accreditation. According to the report of the accrediting body, ESMT has achieved a remarkable amount since its founding in 2002, and its activities are fully consistent with its distinctive, sometimes unique, position and aspirations. ESMT bears the "Triple Crown," made up of the successful accreditations of the world's three leading business education accrediting bodies: AACSB, AMBA, and EQUIS. (October 5) ◼

Dual degree program in Qatar begins

ESMT and the School of Public Administration and Development Economics of the Doha Institute welcomed the first intake of the dual Executive Master of Business Administration/Master of Public Administration (Executive MBA/MPA) in Qatar on September 29. The 21-month program, held in English, is the first of its kind outside of the US. The program combines business and public administration. Fittingly, the class represents a mix from leading energy, healthcare, education, and financial services companies, as well as from government ministries. (October 1) ◼

Martin Schallbruch receives Stanford fellowship

Martin Schallbruch, senior researcher at ESMT Berlin and deputy director of the ESMT Digital Society Institute (DSI), has been named a visiting fellowship at the Hoover Institution of Stanford University. At the American public policy think tank, Schallbruch is working together with international colleagues to further develop cyber security strategies. (August 30) ◼

IIP in South Africa welcomes new students

ESMT and the African Institute of Mathematical Sciences (AIMS) welcomed 26 students to the second intake of the Industry Immersion Program (IIP) in Cape Town, South Africa in July. The six-month program for mathematically trained African graduates prepares students to transition from an academic environment to employment in industry. The 14 women and 12 men participating in the IIP all hold a master's degree. They come from Botswana, Burundi, Ethiopia, Ghana, Kenya, Nigeria, Somalia, South Africa, Uganda, and Zimbabwe. Professors from ESMT faculty teach pro bono on topics such as business etiquette and presentation skills, corporate strategy, finance and accounting, data analytics, and organizational behavior. (July 2) ◼

ESMT sells Schloss Gracht, moves ahead with international expansion

Fifteen years after the start of the first executive education program at ESMT and fifty years after the founding at Schloss Gracht of the "Universitätsseminar der Wirtschaft" (USW), the predecessor to ESMT, the integration of all executive education programs in English and German has been completed. Because of this successful process, ESMT is placing its focus on its main campus in Berlin; the sale of Schloss Gracht was completed as of November 30. ESMT is also expanding its international and digital competencies, for example with the opening of a branch office in Shanghai in 2017 and, as of autumn 2018, the start of a dual Executive MBA/MPA in Doha. (May 3) ◼

Reading Room

Selected reading from published ESMT research

Appearing self-confident and getting credit for it: Why it may be easier for men than women to gain influence at work
Laura Guillén, Margarita Mayo, Natalia Karelaia (2018)
Human Resource Management 57 (4): 839–854

Competition, loan rates and information dispersion in nonprofit and for-profit microcredit markets
Guillermo Baquero, Malika Hamadi, Andréas Heinen
Journal of Money, Credit and Banking 50 (5): 893–937

Crew resource management revisited
Jan U. Hagen
In: How could this happen? Managing errors in organizations.
Edited by Jan U. Hagen, Basingstoke: Palgrave Macmillan

Do credit shocks affect labor demand? Evidence for employment and wages during the financial crisis
Alexander Popov, Jörg Rocholl
Journal of Financial Intermediation 36 (October 2018): 16–27

The Matthew effect as an unjust competitive advantage: Implications for competition near status boundaries
Henning Piezunka, Wonjae Lee, Richard Haynes, Matthew S. Bothner
Journal of Management Inquiry 27 (4): 378–381

Pricing when customers have limited attention
Tamer Boyaci, Yalçın Akçay
Management Science 64 (7): 2995–3014

The role of leadership in salespeople's price negotiation behavior
Sascha Alavi, Johannes Habel, Paolo Guenzi, Jan Wieseke
Journal of the Academy of Marketing Science 46 (4): 703–724

Too precise to pursue: How precise first offers create barriers-to-entry in negotiations and markets
Alice J. Lee, David D. Loschelder, Martin Schweinsberg, Malia F. Mason, Adam D. Galinsky
Organizational Behavior and Human Decision Processes 148 (September): 87–100

In Profile

Conversations with alumni of ESMT Berlin

ESMT alumna Hiltrud D. Werner is a member of the Board of Management of Volkswagen AG. In this edition of the Update, she speaks with Urs Müller, a lecturer and the head of the Practice Group Consumer Goods and Retail at ESMT, on her role and on the ethical and compliance challenges of managing a global company.

n February 2017, following the departure of Christine Hohmann-Dennhardt, you were appointed at relatively short notice to Volkswagen's Board of Management, with responsibility for "Integrity and Legal Affairs." What were your first thoughts when you learned of your possible appointment?

On the one hand, I had great respect for this new task, which includes the responsibility for more than 640,000 staff members worldwide and budget-relevant decisions on the Board of many billions of euros. On the other hand, I had just twenty-four hours for my decision.

I was encouraged by my husband to take on this once-in-a-lifetime challenge. He was a great support for me.

What did you learn about transitions in your first year as a board member? What helped you; what were the problems when you joined the board of one of the largest companies in the world?

The biggest challenge was to change the responsibility from a specialized field of work (i.e., IT, internal audit, or compliance) into a much broader more multipurpose task, which includes R&D-, sales-, investment-, and production-relevant topics.

My high affinity for cars and my experience – gained in different positions held in the automotive industry – were very helpful to fulfill my new tasks. Especially my last position as Chief Audit Executive Volkswagen Group offered insights in various areas of the company, which helped a lot to put some topics into the relevant context.

You were a participant in ESMT's Executive Transition Program a few years ago. What role can such development programs play in a successful transition?

Those programs can play an important supporting role for transition. Most importantly, they enlarge the horizon of experienced managers to correctly understand and assume their role as responsible leaders in a globalized industry. The exchange of experiences between different industries among the program participants is also an important and gainful factor of the program.

The ETP included some topics like intellectual property, management, and lobbying at the European Union, which, at that time, were very interesting. I can say now, in a c-suite position, that those topics are extremely important. In addition, the ETP program gave me a good start into the thinking of business leaders and academics as partners.

You assumed your new role in the midst of the Dieselgate scandal. What measures have you taken to avoid moral misconduct of individuals, teams, or the organization itself in the future?

In light of 640,000 staff members in more than 1,500 companies worldwide, even without any borders or cultural limits, this would be a very serious task.

With respect to compliance and integrity, a lot has changed in the last year. For example, the so-called Golden Rules for R&D departments have been established and rolled out. For the first time in the history of Volkswagen a consistent, group-wide and easy to understand code of conduct has been implemented. The whistleblower system has been enlarged and re-designed – protection of the affected and the whistleblower, 24-hour hotline, different languages, anonymous email contact channel, and other measures.

In addition, a holistic integrity program with a huge communication campaign has been started. In the meantime, integrity has been anchored in various core processes, like in the management development process. The "mood barometer" – our employee survey – asked two questions regarding integrity. Based on the results, follow-ups are conducted to identify the underlying problems.

A very important key event in the last year was the so-called "Convention on Integrity, Compliance, and Culture" as tone from the middle. During this three-week event more than 7,300 executives participated.

Furthermore, the Group Board of Management has made our tone from the top also much clearer to the rest of the organization by a finalized self-commitment. Our

> " The Executive Transition Program program gave me a good start into the thinking of business leaders and academics as partners.

bottom-up communication process includes sounding board meetings with our integrity ambassadors from different business areas and hierarchical levels on a regular basis.

As you can see, we put a lot of effort to increase the pace of change. But I can assure that we will not stop here. We have a lot of work in front of us.

In previous positions as the head of audit departments, you gathered a lot of experience working on moral and legal transgressions. What are the decisive factors for such misconduct in most cases?

A very interesting study from the Association of Certified Fraud Examiners shows and discusses the reasons that can lead to individual misconduct. The most important reason in this study is "living beyond means" with 33 percent. Other reasons are "irritability, suspiciousness or defensiveness" with 24 percent, "unusual close association with vendor/customer" with 18 percent, "divorce, family problems" with 17 percent, and "financial difficulties" with 15 percent.

This tells us very clearly that there can be various reasons for individual misconduct; a one-and-only reason does not exist. I have also found the article that you wrote with Ulf Schäfer for *European Business Review*, "The Dirty Dozen: How Unethical Behaviour Creeps Into Your Organisation," to be a good summary of root causes for wrongdoing. ∎

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Questions, not commands
for top performance

"

From February 2010 to May 2013, my colleague Zhike Lei and I observed [flight] crews during simulator training in a study of how teams collaborate and communicate. Among other things, pilots were required to handle emergencies such as the failure of speed sensors or an unexpected drop in flight cabin pressure. They had to solve the associated problems and complete the task safely. Each task called for teamwork among those involved.

We established that the teams worked well together to solve acute emergency problems. However, we observed varying performance levels as flights continued. Without exception, this was linked to the captain's communicational behavior. Crews performed best when the captain involved the co-pilot in the decision-making process by asking questions such as: "How do you evaluate the situation?" "What options do you have in mind?" "What do you suggest?"

Jan U. Hagen
Associate Professor, ESMT Berlin
In: How Could This Happen? Managing Errors in Organizations (2018).
Edited by Jan U. Hagen, Basingstoke: Palgrave Macmillan.

Alumni at Large

A roundup of news and events from and for ESMT Berlin alumni

Alumni Meeting draws hundreds

The 2018 ESMT Alumni Network Annual Meeting (AAM) took place on June 8. The school welcomed over 270 participants – the highest number in its history – and contributed to the vitality of the alumni network's activities in the coming year. Group sessions held by the Entrepreneurship Club, Investment Club, and Social Impact Club were among the day's highlights, as well as a lively panel presentation, which tackled the timely topic of the effects of technology on business. The AAM also hosted the 10-year class reunion of the MBA class of 2008. ■

Fellowship awarded

Since 2012, the ESMT alumni community has raised funds for the Alumni Network Fellowship, a scholarship given to an incoming MBA or EMBA student from the non-profit sector, who plans to return to non-profit work after graduation. Donations cover half of the student's tuition; ESMT Berlin covers the other half, amounting to a full scholarship. This year's successful funding of the fifth Alumni Network Fellowship was awarded to **Ana Filipovska**, who is a member of the Executive MBA class of 2018–20. Ana is a social entrepreneur with the Health Education and Research Association (HERA), as well as a UNDP executive coach and trainer, supporting people with special needs or long-term unemployment who are starting their own businesses. ■

The 2018 Alumni Awards go to …

Outstanding alumni were also honored at the AAM. The 2018 President's Award for Alumni Service was conferred to **Annette Malmann** and **Alexander Trost**, EMBA 2008–10 and chapter heads of the Rhein-Ruhr

Prof. Francis de Véricourt joins 10-year reunion of MBA Class 2008

Alumni Chapter. Annette and Alex have both been active members of the alumni community and have contributed in many ways since graduating in 2010. They took over the lead of the Rhein-Ruhr Alumni Chapter in 2017 and impressed many with their innovative approach to chapter leadership. Over the past year, they demonstrated a great level of commitment in their role as chapter heads by organizing a number of engaging chapter activities, including presentations with excellent speakers and social events that drew a large, regional alumni audience. Their inspirational input to other areas of alumni life and their continued support of the school, such as to the Alumni Network Fellowship, is greatly appreciated.

The 2018 President's Award for ESMT Alumni Leadership Achievement was awarded to **Hiltrud Werner**, ETP 2013–14. Since her time at ESMT as a participant of the Executive Transition Program (ETP), Hiltrud's career path at Volkswagen AG has been exceptional, culminating in her appointment to the Group Board of Management. We are pleased that she has accepted our invitation to join the International Advisory Council of ESMT. Additionally, she has already served the school in various ways, such as sharing her expertise with current students in a MasterClass. ■

ESMT Berlin goes Wiesn

On October 4, ESMT alumni celebrated the fifth anniversary of the school's collaboration between the Executive MBA program and Ernst & Young (EY) and experienced the iconic Oktoberfest at the Alumni Reunion in Munich. This special day was organized by the Munich Chapter and supported by Allianz and EY. Some 90 ESMT alumni heard keynote addresses on inclusiveness by **Line Hestvik**, the head of Global P&C at Allianz Group who spoke on "Inclusive Leadership," and **Jörg Rocholl**, president of ESMT, who spoke on "Inclusiveness in Europe." Opening and closing remarks were made by hosts **Claudia Donzelmann**, EMBA 2009–2011 alumna and the head of the Munich Chapter, and **Michael Faske**, partner and head of Forensic & Integrity Services (Forensics), EY Switzerland. ■

New lead for Frankfurt Chapter

Ana-Maria Copotoiu (EMBA 2016–18) is now the head of the Alumni Frankfurt Chapter. She took over from Costina Barbu (MBA 2011), who ran the chapter successfully for the past 18 months. Ana-Maria has been an active member of the Frankfurt Chapter since completing her Executive MBA. We are excited about what will come! ■

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