The Stern Stewart Institute

PERIODICAL #22

PUSHING FORWARD

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PUSHING FORWARD

The American President. Forget about Trump. Over the holidays I read two biographies: Franklin D. Roosevelt and Harry S. Truman. Truly fascinating. There are so many parallels and lessons to be learned. They certainly did not lead their country in easier times, and they too struggled with politics and the limits of democracy.

It reinforced my understanding of the impact of true leaders. Compare them with Trump or compare Churchill with Johnson. “It is amazing what you can accomplish if you do not care who gets the credit,” Truman famously said. It is scary what can be destroyed if you care only about your own credit, is what comes to mind thinking of Trump.

Leadership is not just about knowing what is right and what is wrong. Not just about standing up against evil and misdemeanor. Leadership also means pushing forward, taking positions, and taking risks. Then and now “it’s the economy, stupid.” The strength of the economy relies more and more on leadership in technology. For years, at our Institute we have been discussing the fact that Europe is losing out in many new technologies. Who takes the leadership for technology in Europe? Can we only rely on political leaders? Are you as an entrepreneur or corporate leader taking on enough responsibility? Are you looking outside your short-term, narrow field of business?

One of the authors of this periodical, Moritz von der Linden, talks about the holy grail of renewable energy: nuclear fusion (not: nuclear fission). Abundant, carbon-free, and waste-free energy. Commercial realization has always been, and always remained, 20 years away. But with quantum leaps in some enabling technologies, this energy revolution suddenly might be viable in just 10 years. But again, the technology is about to jump to China or America. So, how do we keep technology in Europe?

Time for you to jump right into this 22nd edition of our Institute’s periodical.
I wish you an inspiring read.

Yours,

Markus Pertl
Chairman of The Stern Stewart Institute

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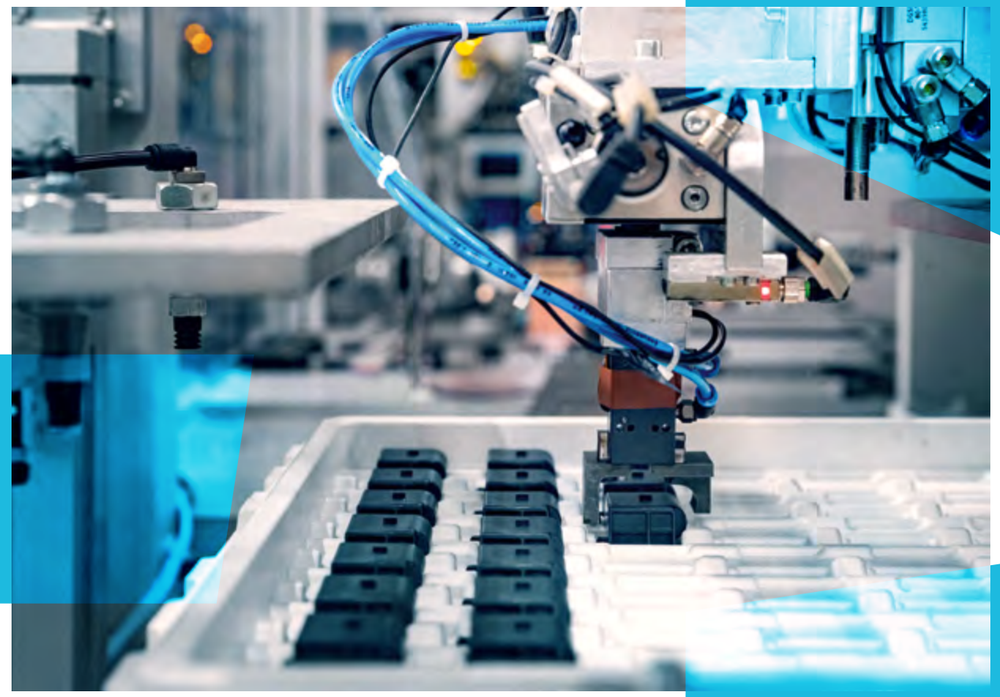
Customer-Centric Organization: Desirable Goal or Myth?

Business life would be so much easier and sometimes even fun if it weren't for the customer who unnecessarily complicates issues.

Prof. Dr. Hanns-Peter Knaebel
CEO
Röchling



That statement may seem unduly harsh but it does contain a grain of truth. We all need to realize that our organizations, in whatever industry, are usually not designed around customer needs and are not naturally suited to adding value for our customers. An organization tends to align itself along its competencies and groups individuals with similar competencies into teams. If management is trying to impress company insiders and outsiders, it might label these groupings as Centers of Competence (CoC) or Centers of Excellence (CoE).

However, that usually means that people with a similar or even identical view on problems and challenges are working together trying to solve issues from their common perspective, utilizing their competencies and focus. In general, there is nothing wrong with that approach. To the contrary, these vertical competence units exist rightfully so as they increase the technological competence of an organization. And yet, we need to recognize that our internal view and perception of customer needs might not necessarily match the reality. Furthermore, we then seek to align existing product solutions with actual customer needs in what we call the "sales" process, i.e. an attempt to convince the customer to buy what we have produced.

The customer – the unknown entity

How much influence customers should have over product development processes and hence their input into product specifications has been debated for some time now. For most organizations, it seems an impossible challenge to serve each customer with individual product solutions without diluting their development efforts and compromising overall sales success. In some R&D departments, a frequent topic of discussion is whether the customer really knows what he or she needs. If that position is taken, then product portfolio management is driven largely by an internal perspective only.

In consequence, many R&D engineers gather multiple specifications for product adaptations or new product developments from customers, sales teams, marketing colleagues, and operations specialists. They then develop products that tend to be overloaded with specifications, which substantially increases the cost base and subsequently the market price. Usually, that combination of increased cost base and higher market price is not a secret of market success but a clear indication of overengineering. Furthermore, these overengineered products not only lose their unique characteristics but even mutate into less attractive "one-size-fits-all" options with a less recognizable profile that struggles to capture customers' attention.

USUALLY, THE COMBINATION OF INCREASED COST BASE AND HIGHER MARKET PRICE IS NOT A SECRET OF MARKET SUCCESS BUT A CLEAR INDICATION OF OVERENGINEERING.

Gathering market feedback, evaluating market trends, and collecting additional market intelligence is an important exercise but it is only half the job. Analyzing what content finally makes its way into the product development process is a complex but necessary task demanding a higher level of experience. It also requires specifications (and thus the resulting products) to be kept as simple as possible.

Vertical competence versus horizontal processes

As noted above, there is nothing wrong with an organizational structure that reflects the various competencies in the organization. Such structural alignment is even necessary to deepen the technical and procedural expertise of the different teams. But in-depth expertise also requires a broad horizon with a clear perspective on the overarching vision. We therefore have to realize that the value-stream process of any industry does not respect our internal organizational borders as it is a process that lies horizontally across the vertical competency units of our organizations.

We shouldn't advocate eliminating vertical competency units as it extremely important for the technological maturity of an organization that people in these units are motivated to continuously drive technological advancement. Thus, these units reflect the permanent structure of an organization. By the same token, we need to realize that this structure does not resemble what is happening in the market, nor does it align with the customer's value stream. Balancing all these factors is key when it comes to creating a Customer-Centric Organization. As long as we understand these mechanisms, we are capable of making sound organizational decisions. Consequently, we need to temporarily realign the experts from the different units into project teams or working groups in order to execute projects driving customer value.

Line or matrix? Irrelevant!

Furthermore, by analogy with the swarm intelligence of a school of fish, it makes sense to regroup project teams and put together teams with different competencies on a regular basis, using an iterative approach to product development based on agile work methods. Every member of the organization needs to understand that collaborating in an agile setting entails moving beyond standard reporting lines. Your "boss" is liable to change frequently and may not necessarily be the same person who signs off on your vacation request. Whether your organization is a conventional line organization or a matrix organization seems to be irrelevant as long as people understand that they will regularly work in different settings, on different projects, and thus in different teams in order to speed up the value-stream process for an improved time to market.

Front end versus back end

By understanding that our organizational structure is not naturally aligned with the customer's value stream, and therefore with customer needs, we are able to make clearer and more informed decisions. We need our internal structure to continuously develop and to increase our technological, methodological, and market expertise in order to remain pioneering as an organization and at the cutting edge of technology. However, our customer-facing front end needs to look different as customers do not call directly on our technological competency units but demand solutions for their day-to-day business challenges. This customer-facing front end must also include the know-how and capability to understand customer needs but also the ability to communicate with customers in their accustomed terminology, so that information does not get "lost in translation." In the Röchling Group's Industrial Division, this is achieved by means of a new Industry Management structure where the front end is managed by individuals recruited from the B2C market, i.e. from among customers themselves. This bridges a communication gap, thus helping us to deliver better solutions for customer needs on a daily basis. If all these above mentioned good intentions come together, then consequently customer needs drive our product portfolio management.

Process orientation achieved collaboratively

Industry Management is the much-talked-about "one face to the customer" which we all are trying – sometimes desperately – to achieve. However, this one face to the customer does not (necessarily) mean a single individual but rather a philosophy that runs throughout your organization. This philosophy drives an organization to be truly accustomed and motivated to provide the solutions its customers need to meet the daily challenges they face. Process orientation is key here, and that can only be achieved if all vertical technology competency units align themselves and collaborate for improved market success.

Customer centricity is not the naive ambition to do everything that my customer asks me to do but to find creative, innovative, and technologically feasible solutions for challenges the market imposes upon us. Consequently, customer centricity does not simply mean doing everything the customer wants us to do but sometimes also educating customers about what they really need in order to be successful in their line of business.

Clearly, our path towards becoming a Customer-Centric Organization is a journey to a desirable goal, based on acknowledging the barriers that keep us from being successful as such an organization. And these barriers usually lie within our own structure, not within our customer relationships.

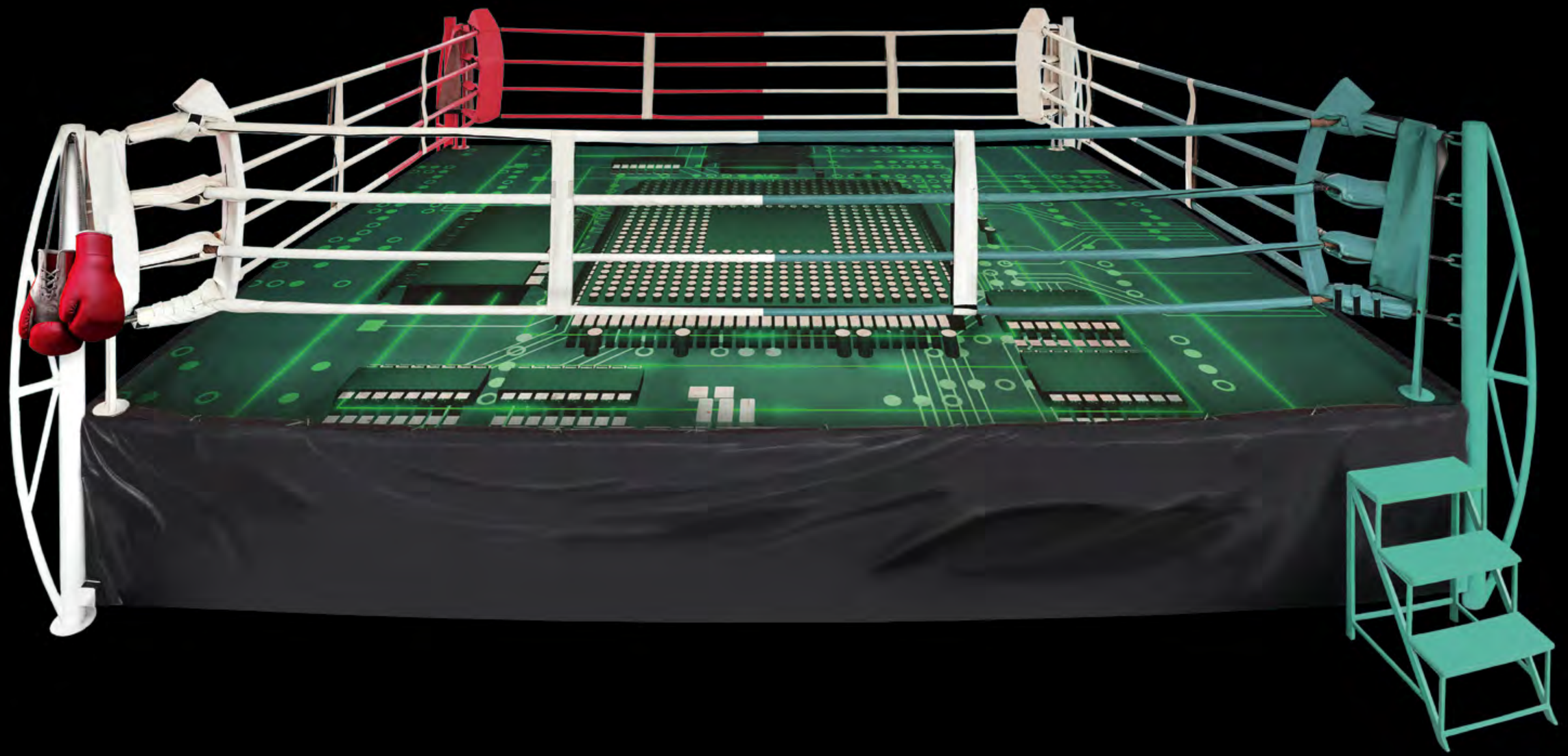
Let's start the journey today!

Prof. Dr. Hanns-Peter Knaebel Customer-Centric Organization: Desirable Goal or Myth?

Dr. Klaus Hommels
Founder and Chairman
Lakestar

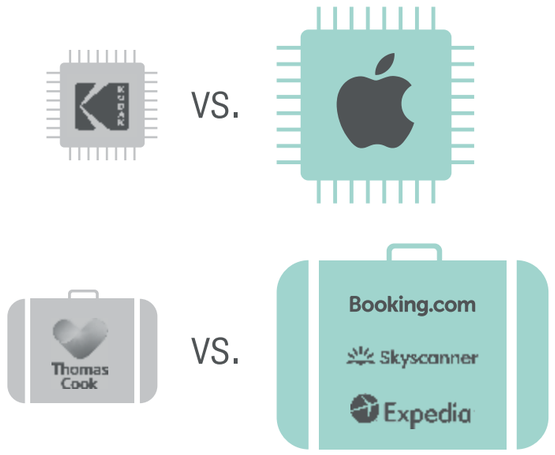
Cold War II: A Technology War with Two Dimensions

Update on the European tech ecosystem



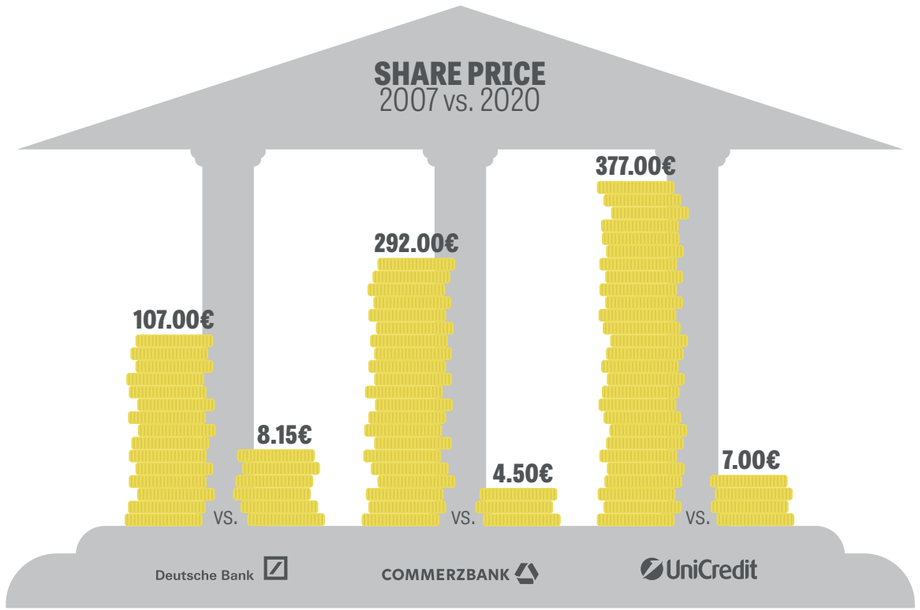
Last year, I attended a Temasek summit in Singapore along with leading business figures from Asia. After I heard their fears about the future of technology innovation, I drafted a summary of their views which I called 'Cold War II and the Role of Tech'. That was a very deliberate title, because their thoughts set out exactly what they were experiencing and it summarises what is likely to be a similar impact on the European market.

The technology war has two dimensions: the economic dimension and the political dimension. Starting with the economic dimension, technology creates and destroys entire industries, as the Chart (figure 1) demonstrates. The share prices of three leading European banks have fallen by 90 percent since 2007, and technology has also decimated companies like as Kodak and destroyed Thomas Cook.



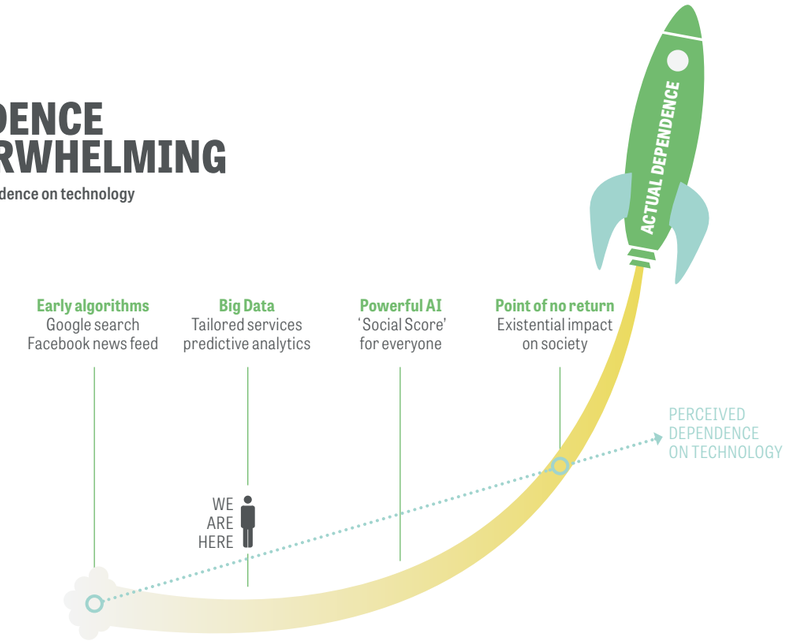
RECAP: TECHNOLOGY HAS DECIMATED COMPANIES AND ENTIRE INDUSTRIES

Figure 1



TECH DEPENDENCE WILL BE OVERWHELMING

Figure 2: Perceived vs. actual dependence on technology



Dependent on foreign infrastructure

How does this happen? We tend to look at change in a linear way, but technology works in a logarithmic way and underperforms linear expectations in the early years (figure 2). Then the pace of technological change accelerates and within two to six years, old industries have gone and tech dependence has become overwhelming. Digital platforms such as Google, Amazon and Netflix have become the infrastructure for our daily lives – and none of them are European.

The other part of Cold War II is the political dimension. The Scottish commentator Niall Fergusson has pointed out that we now have populism for the first time in very many years, and this is because of the growth of social media which give politicians a direct line to voters. The filters that used to take out the lying and emotions in traditional media have been watered down or even eliminated.

Attention as currency

Today's youth are constantly influenced by technology. In Europe, they spend an average of three hours a day on social media – over 13,000 hours by the time they complete their university studies, which is the equivalent of seven years of office working hours. Attention has become the new most critical infrastructure, with direct communications and no gatekeepers on Twitter, curated newsfeeds on Facebook shaping our opinions, and artificial intelligence shaping our perceptions.

Those tech platforms are free, depriving people of their time and delivering the prerequisites for populism. People say they want to use social media for 12 minutes, but they spend an average of an hour at a time on them. Tech platforms try to keep us engaged as long as possible, using AI to analyse your viewing habits and take you to the guilty pleasures and weak spots of your peers. Every click takes you to content that is more extreme than what you started with, and outrageous content such as Infowars.com wins.

ATTENTION HAS BECOME THE NEW MOST CRITICAL INFRASTRUCTURE, WITH DIRECT COMMUNICATIONS AND NO GATEKEEPERS ON TWITTER, CURATED NEWSFEEDS ON FACEBOOK SHAPING OUR OPINIONS, AND ARTIFICIAL INTELLIGENCE SHAPING OUR PERCEPTIONS.

More than a billion hours is watched daily on YouTube, 70 percent generated through recommendations. Emotional headlines attract a 20 percent higher click rate, while fake news spreads six times faster than real news. Donald Trump wins over more truthful and factual candidates, which is why I call this Cold War II. Both the economy and politics have become highly dependent on technology.

The other thing I learnt from the business figures at the Singapore summit was that for the 100 most valuable tech companies, Southeast Asia is 50 percent dependent on the US and 50 percent dependent on China. In Europe, the same is also true: the most valuable tech companies are equally dependent on the US and China. This means that technology can be used as a major foreign policy pressure point, as can be seen from the US trade sanctions against Iran.

This is because dominance can be exerted through sanctions imposed over the payment infrastructure. More than 60 percent of European retail spending is processed through Visa, Mastercard and American Express, which makes Europe hugely dependent on the US control over payments. China is largely independent of any foreign payment infrastructure but is increasing its influence in global financial infrastructure through its investment in fintech companies, giving it control of almost half of the global investment infrastructure.

How can Europe become independent?

So what can tech investment and venture capital do to secure Europe's domestic economic future? The average company half-life of the S&P 500 index in the US has fallen since 1965 from 30 years to 15 years which means that 7 percent of its capital is recycled each year bringing in new finance for tech innovation. If this were to be replicated in Germany, more than €65 billion would have to be replaced each year to retain the cumulative DAX30 value, which would require systematically putting money into the system.

If we do not do that, we will not gain political independence on global markets and offset economic substitution on our domestic markets. France has understood the urgency of the need for action and is starting to put money into its tech ecosystems. In September 2019, President Emmanuel Macron unveiled commitments from insurers and asset managers for €5 billion of investment to nurture home-grown fledgling tech start-ups and create a cohort of highly valued heavyweights.

In the case of Germany it took a global pandemic to finally realise the importance of the domestic venture capital ecosystem. Only in recent months have initiatives such as the matching fund been launched to support and scale up domestic innovators. The necessity to take further action for the economy and politics is increasingly clear, especially as financing digital would pay off positively – yielding up to 15 percent returns a year.

Dr. Klaus Hommels Cold War II: A Technology War with Two Dimensions

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Coronavirus and the Role of the State – A Capitalist Dilemma?

What's the Way Out?

The black swan called Covid-19 is an unprecedented crisis that has triggered an experiment in simultaneous monetary and fiscal expansions on an unprecedented scale.

Dr. Günther Bräunig / Dr. Friederike Köhler-Geib Coronavirus and the Role of the State – A Capitalist Dilemma?

State interventions across the globe, irrespective of the economic or political system, appeared *alternativlos*, as we say in German. The goals of safeguarding human life, absorbing the shock to the economy, and ultimately protecting the social fabric of societies required action of this kind. With time, however, the question of how we can get out of this crisis unscathed and what the role of the state is in that recovery becomes ever more relevant. In the following article, we discuss the levers for addressing the challenges of the post-coronavirus recovery.

Germany's response to the first wave of the pandemic was nimble and fast. In the spring of 2020, the government quickly put together a comprehensive fiscal package. A protective shield in March, totaling €1.3 trillion, over half of it guarantees, was followed by an economic stimulus package of €130 billion in June. The two add up to around 40 percent of Germany's 2019 GDP.

This fiscal "whatever-it-takes" stance proved effective. Currently Germany is in a lockdown since November which has since been successively extended and rendered stricter. To mitigate the economic effect, the government has put in place additional compensation for directly impacted sectors. Nevertheless, as of December 2020 only a small portion of the initially announced funds has been spent so far: around €120 billion. This consists of short-time work benefits, subsidies for the self-employed and SMEs, loans by the state-owned development bank KfW, and tax rate reductions.

THE SHORTAGE OF SKILLED WORKERS AND EXPERTISE REMAINS THE MAIN BOTTLENECK FOR INNOVATION AND DIGITALIZATION.

The KfW coronavirus aid program has provided over a third of this support. Representative surveys of the program's beneficiaries show that they were hit harder by the crisis than the German SME sector overall and that they used a large portion of the funds to meet short-term obligations such as payments for suppliers or wages. The loans have thus contributed to preventing downward spirals in the economy. Having been extended to the summer of 2021 and now made available to very small businesses as well, the KfW program is well-positioned to buffer the impact of the second wave.

For the German economy, the road back to pre-crisis levels remains long and full of risks. As the infection rates have remained high despite the partial lockdown in November, containment measures have been extended and made stricter, with deeper economic repercussions.

State support therefore remains necessary, not least to ensure acceptance of containment measures in the business community and the wider population. However, as the pandemic drags on, it becomes increasingly important for fiscal measures to provide stabilization and support for structural change at the same time. After all, we are facing three immediate challenges, and the way in which we address them will determine the nature and speed of the recovery.

1

First Businesses need to be able to reconcile the trade-off between their present financial stability and investments that position them well for their future competitiveness and unlock areas of economic growth. Despite strong buffers, as illustrated by historically high average equity ratios in the SME sector of 32 percent in 2019, solid profit margins of more than 7 percent, and moderate debt-to-loan ratios of 20 percent, pandemic-induced losses in turnover have strained companies' liquidity and are increasing their debt levels. Combined with the current high level of uncertainty regarding the economic outlook, this will make companies even more reluctant to invest. It therefore makes sense for the KfW loan program to remain in place until June 2021. At the same time, however, the viability of business models must be assessed to avoid supporting businesses without a future. In addition, we need to rethink the adequacy of debt levels altogether. Raising debt levels is not negative in itself, even less so in the current context of extremely low interest rates. On the contrary, credit-financed investment, innovation, and digitalization are an essential driver of structural change and economic dynamism.

THE POST-PANDEMIC ECONOMIC RECOVERY MUST GO HAND-IN-HAND WITH ACTION ON CLIMATE CHANGE.

2

Second We need to translate the initial digitalization thrust into a boost to Germany's economic growth. During the crisis, 43 percent of small and medium-sized enterprises implemented or planned to implement an innovation or digitalization project. That is a much higher rate than previously seen. However, most of the projects require little development work and capital expenditure. Large-scale investments that enable more in-depth innovations or digital transformation are more likely to be stretched over time or postponed because the crisis has created a bottleneck in financing.

To prevent this innovation gap from turning into a competitive disadvantage, we need to promote innovation and digitalization activities more strongly. This includes lending-based instruments. Recent findings on the KfW Digitalization and Innovation Loan Program show that extensive borrowing for digitalization and innovation is still not adversely impacting companies' credit rating due to increases in competitiveness. In the medium term, the shortage of skilled workers and expertise remains the main bottleneck for innovation and digitalization. More training and professional development are therefore needed, and businesses require support in innovation management. In addition, expanding broadband connectivity continues to be a priority.

3

Third The "Made in Germany" label requires future-proofing through consistent climate action. Massive investment is necessary if Germany is to meet its target of reducing greenhouse gas emissions by 95 percent against the 1990 baseline by the year 2050. A study by the Federation of German Industries estimates the required investment at €2.3 trillion. Here too, businesses' reluctance to invest may prove problematic. Moreover, the crisis-induced drop in fossil fuel prices is making climate-friendly technologies relatively less cost-effective and hence less attractive.

Given the risks of an unabated global temperature increase, the post-pandemic economic recovery must go hand-in-hand with action on climate change. Ambitious climate action policy will unlock new markets and areas for growth. Relevant areas include the expansion of renewable energy and the electricity grid, energy-efficient retrofitting of buildings, the promotion of sustainable mobility, and the creation of a hydrogen economy to decarbonize industry. The success of this transformation will depend on reliable policies, chief among them a reliable and upward CO_2 price signal. Compensation mechanisms for disadvantaged households and businesses competing internationally are vital to ensure acceptance. The energy transition offers enormous economic opportunity, and could become an important engine of growth and innovation for Germany, provided strong investment incentives are in place.

Strong government interventions during the Covid-19 shock may have led some to question whether capitalism is still alive. However, let's face it: judging from the past, a crisis of this magnitude unbuffered by public intervention could easily have spelled almost certain death for capitalism due to social unrest. With the immediate threat from the crisis abating, governments now need to help capitalism back on its feet. Finding a way out of the dilemma requires governments to shift their focus from stabilization to supporting structural change while setting the stage for a recovery towards more sustainable economic growth.

The Rise of the Digital Mega-Platforms

Over the past 20 years, a small group of technology companies have managed to evolve into mega-platforms. Amazon, Apple, Google, and Facebook are as much a part of our everyday life in the West as are Tencent and Alibaba in the East. Their joint market cap has reached approximately $5.5 trillion, roughly 24 percent of the total S&P 500.

Axel Hefer
CEO
Trivago

Axel Hefer The Rise of the Digital Mega-Platforms

Starting with product innovation, be it the iPhone, Google Search, or social networks, they have systematically integrated additional services to their offering to increase their daily relevance to their users. Simultaneously, they improve their understanding of users by continuously collecting data. Taking Google as an example, the company started as a search engine with a superior algorithm for ranking websites. By adding Gmail, a free email service, it required users to log into the website, laying the foundation for a spree of additional acquisitions and feature additions, such as operating systems (Android), local search (Google Maps), internet browsers (Chrome), and online video (YouTube).

How has this been possible? Why aren't smaller, more innovative companies taking share from these massive conglomerates, as economic theory would imply? The answer is: integration! By closely integrating offerings, these platforms can offer more convenience to users even though competing products exist. They can cross-subsidize their new offerings with profits from their core businesses until they have reached a dominant market share in the next product category. But even more importantly, they leverage data across all their products, which enables them to iterate much faster in product development, increase personalization, and better market their offerings. In short, we see a gravity around these ecosystems that leads to systematic market failure, a phenomenon that we have not experienced to this extent since the Industrial Revolution.

Why does this matter?

The most common argument to support the current market structure is that the mega-platforms are promoting innovation and, therefore, deliver superior user value. Amazon, for example, has revolutionized e-commerce and made it easy, reliable, and cheap to shop online – something that we all have learned to appreciate, particularly in the past few months. Apple offers new software developers the opportunity to reach millions of users worldwide, and Google allows SMEs to be discoverable by a global audience. However, with increasingly sky-high valuations, there is great pressure on all platforms to grow their profits at a breathtaking pace. But with overall growth in internet usage slowing, they have all started to "monetize" their offerings more aggressively. In other words, they are increasing their share of the value added by taking higher commissions, increasing their share of paid search results, and launching their own products.

When a new product category becomes big enough, it is almost certain that mega-platforms will venture out to capture those markets

by closely integrating their own, often inferior products and pushing the original innovators out of the market. There are many examples, starting with Amazon offering its own AmazonBasics products on its marketplace, from flashlight batteries to luggage. Apple and Google helped make Spotify's music service popular, but now they both offer competing music services. Google Search helped companies like Booking.com and Expedia grow, but now Google offers travel products to vie with them.

In other words, mega-platforms promote innovation in niches, but when innovators reach a certain scale they can be certain that the platforms will try to capture the benefits of their innovation.

From a European perspective, this is now particularly problematic. Over the past 20 years, European companies and politicians have done tremendous work to build a functioning technology ecosystem. EU venture capital investment grew to a record high in 2019 of €32.4 billion invested across 5,017 deals, still small compared to a stunning $136.5 billion in the US, but catching up. Moreover, the number of EU exits has averaged nearly 500 deals over the past two years. These exits are vital because tech entrepreneurs are an important source of funding for early-stage start-ups, reinvesting their proceeds into the local ecosystem.

By de facto capping the size a company can reach before it faces unfair competition from the mega-platforms, the European ecosystem is capping the upside from investments in technology and reducing the amount of money that can be reinvested.

How should this be addressed?

The problem of the closed ecosystems of mega-platforms is currently under investigation across the globe. Australia, the UK, Germany, the European Union, and even the United States are all investigating how they could intervene to improve the current situation. Regulation is the obvious solution: restricting certain practices, giving competitors equal access to integration and data, restricting cross-subsidies.

However, regulation of global digital businesses is not straightforward. Interests differ significantly, and there is a real risk that rules will differ market by market, making it much more complex for digital businesses to operate on a global scale. Even more important will be the outcome of the European Commission initiative to regulate on a European level. As one of the three economic and political superpowers, the EU should be watched closely because it is likely that the US, China, and other countries will follow the lead of the Commission and stay close to its path.

An alternative would be the unbundling of the mega-platforms' different services or even companies. There is no reason Android and Google Search need to be owned and operated by the same corporation. By unbundling the large conglomerates, the entire ecosystem could reduce complexity and gain innovative power – with these platforms contributing to developing innovation rather than just capitalizing on it.

Axel Hefer The Rise of the Digital Mega-Platforms

Climate Chaos: The Cost of Inaction

A Look at America's Breaking Future

Sebastian Copeland
is a polar explorer and climate analyst. His latest book "ANTARCTICA: The Waking Giant (Rizzoli)" was released in fall 2020, with a foreword by Leonardo DiCaprio.

On Saturday, November 7th, the season's finale of 2020's TV ratings bonanza came to a disorderly end; and the world collectively exhaled. Whether vindicated or outraged by the result of the US presidential elections, no one will dispute that a clear winner for now is the environment.

The Trump administration's relentless assault on conventional norms was especially notable for rolling back decades' worth of environmental regulations. Mr. Trump placed fossil industry tsars at the head of top government agencies, opened national parks to drilling, and vowed to make the US the number one energy producer in the world. And it worked. His America First agenda not only eliminated US energy dependence on foreign producers, but the US also became a net exporter. With ample product made cheaper from fracking, the US flooded a hungry and growing market, and the world's carbon emissions gingerly grew: 32.5 metric tons in 2017 versus 36.81 for 2019. This hardly animated the energy policy goals of the departing Obama administration who had announced that "no challenge poses a greater threat to our future than climate change." In response, one of Trump's first policy decisions was to announce the US's withdrawal from the 2015 climate accord, a non-binding global effort to reduce greenhouse gas emissions.

This November 4th, on election day, it was official: the US became the only country, out of 183 signatories, to pull out of the Paris Agreement.

And on January 20th, 2021 the US will rejoin the accord, once again, with non-other than Secretary John Kerry, the man who first signed it and now Mr. Biden's climate change envoy. But what does that really mean? On the surface, the framework of the accord aims to collectively work to limit global temperature to a 2C degrees rise compared to 1880, with an aim to hold at 1.5C (it has just passed 1C degree now). The US is the second largest emitter after China, and the largest per capita, so getting back in the circle should matter. But even under Obama, it still got low grades for climate policy. Since then, the stakes have grown, as has the scope of commitments required to shift this runaway narrative. We have learned, for instance, that positive feedbacks are actively amplifying the release of methane, CO_2 and nitrous oxide, three of the more toxic greenhouse gases. Today's levels are 62 percent higher than in 1990, and researchers project that we will hit 1.5C by 2024. At 2C degrees, it is now estimated that 230 metric tons of carbon could be released from the soil, or twice as much as the US has emitted in the last century.

A runaway train

The scope of these projections should theoretically marshal a global brain trust to neutralize the doomsday machine and galvanize cooperation to finance it. We have done it before in time of war, and more recently – however chaotic and confused – with the Covid response. It is what you'd expect if an asteroid was hurling towards Earth, as it did 65 million years ago, and we had a window to divert it. Climate is no different, but for the timeline. Our contempt for the carbon budget has consequences that are well understood: the disruption of the world's meteorology from soaring temperatures, and the extinction of species; rising seas, and the re-drawing of global maps; the stress on global calories and shifting hydrology; the forced migration of millions for survival; and the sinking feeling that closing borders to climate migrants constitutes a quasi-death sentence to perfectly good men, women and children who were just unlucky with their place of birth. This has other consequences, too: sociopolitical and geopolitical, not to speak of psychological. Climate change will change us. It already has.

And yet, merely 54 percent of Americans are either "alarmed" or "concerned" about it. Globally, it's a more reasonable 68 percent, so it is fair to say that, given its share of responsibility as the world's mammoth emitter, the US has an outsize responsibility. To use a timely metaphor, when the US sneezes the rest of the world gets the flu. Of course, this does not let other nations off the hook. But Mr. Biden has vowed to make climate action a center piece of his administration and set an example to re-energize global commitments. The mountain in front of him, however, is not just political: it is behavioral. Fighting the ongoing headwinds of partisan hostility towards meaningful policy change is predictable; but our collective attitudes reflect a deeper disconnect with the scope and urgency of the problem, even among "believers". Take California, arguably a bellwether of progressive thinking, particularly on the environment. The state lost a staggering 4.2 million acres to wildfires in 2020 (8.6M for the US). This came on the heels of unfathomable destruction in the last few years, a trend that meteorologists and the US Forest Service predict will only grow. Dead wood, killed by infestations of tiny beetles (spared from the habitual winter culling by increasingly warmer and drier cycles), is providing explosive fuel. The intensity, scale and length of the fire season across the US is reliably rising. The six-year average of destroyed land in the US amounts to 33,000 square kilometers per annum, an area larger than Belgium. And this pales in comparison to Australia's 186,000 square kilometers for 2020, a footprint the size of Syria. But the dots have yet to be connected with human dwellers.

GIVEN ITS SHARE OF RESPONSIBILITY AS THE WORLD'S MAMMOTH EMITTER, THE US HAS AN OUTSIZE RESPONSIBILITY.

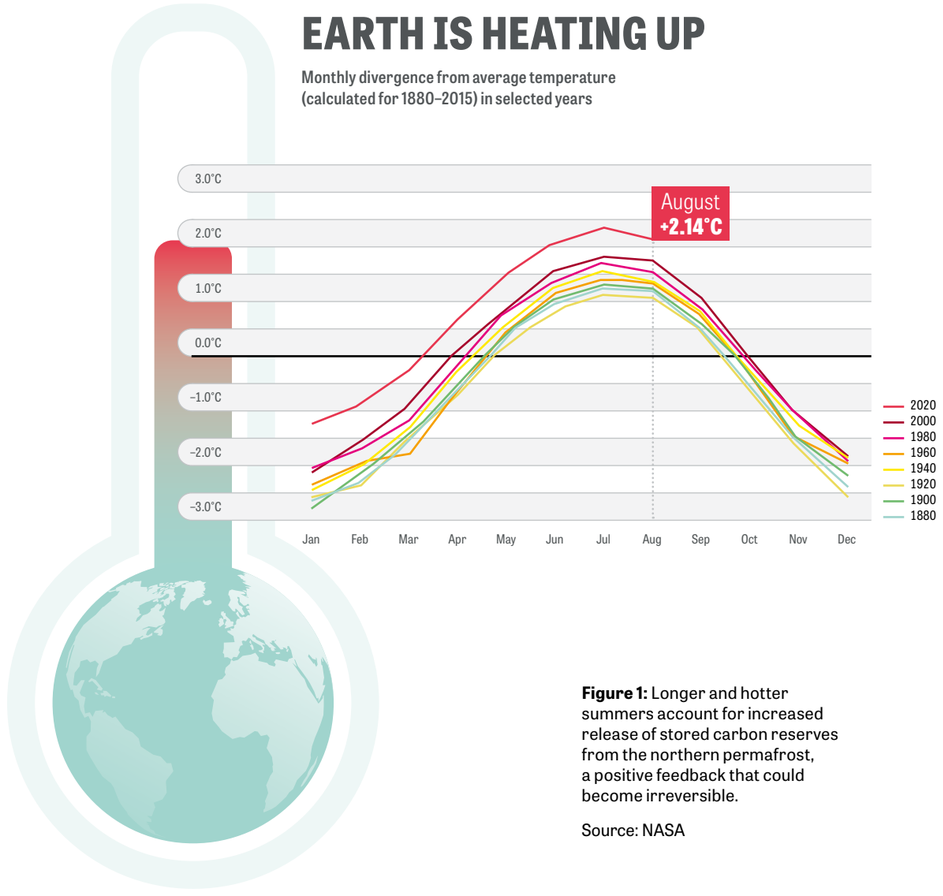


Figure 1: Longer and hotter summers account for increased release of stored carbon reserves from the northern permafrost, a positive feedback that could become irreversible.

Source: NASA

Fight or flight: the economy of denial

Year after year, we witness enormous human loss on live television; we are moved by images of stranded or burnt wildlife; and sickened by the economic toll. Still, Californians, Australians and countless others return to the scorched grounds, convinced that their Eden can be raised from the ashes. This belief has been brokered by home insurers multiple times over until the cumulative losses stop making business sense. That's when the federal government has stepped in, to bond and mandate the upholding of policies. The subsidies are cynical, put in place to shore up economic prosperity in surrounding areas. When the skyrocketing housing market has pushed humans to settle in places considered high risk, no amount of natural forces has spurned them. But for how long, and what then? In the US, the number of people moving in search of cloudless skies and economic opportunities has turned Phoenix into the nation's fastest growing city. In 2020, Phoenix experienced 53 days of 43C temperatures. In 1990, it was 29 days. That trend has placed undue pressure on the electrical grid and further depletes the Salt and Colorado rivers that supply its water. With a population of 4.5M people, Phoenix grew almost five times in thirty years. In Florida, the poster state for violent storms and ocean rise, the population has virtually doubled to 22 million since 1992's hurricane Andrew, the first of the costliest storms to hit the state.

Rolling blackouts; predictably deadly storms and tornadoes; the loss of coastline; drying aquifers; ubiquitous fires and plummeting air quality. None of these seem to deter the elusive promise of the good life. This stubborn refusal to face a growing environmental reality is the head scratcher. It speaks volumes of the human creed that stemmed from the Age of Enlightenment: the belief that we can engineer ourselves out of anything, neglecting that the greatest engineer is Nature itself. Consider the Amazon forest: not just the largest carbon sink – sucking CO_2 from the air and releasing oxygen in return while creating rich nutrients for its ecosystem – the forest actually delivers 22 metric tons of water daily, through transpiration, to the atmosphere. These atmospheric rivers transport rain and snow thousands of miles away. A notable benefactor? California, whose fire season largely depends on hydrology. But four million acres of pristine Amazon were deliberately burnt this year, 30 percent more than last year's record-setting destruction, depleting precious hydrology globally while delivering all of that stored carbon back into the atmosphere in the form of greenhouse gases. Today, we are witnessing CO_2 levels in amounts that have not been seen in at least 20 million years.

Go big or go home

So, for president-elect Biden, the moment is pregnant. Mr. Biden has vowed to lead the US towards carbon neutrality by 2050, by reducing but also removing greenhouse gases. China aims for 2060. Technology has placed those goals squarely within reach, with wind and solar cheaper than fossil fuels, and hydrogen opening up the next wave in smart grid electrification, and electrofuels for shipping and aviation. But what is the appetite today? Disinformation and the non-linear nature of climate continues to fuel confusion and the repudiation of science for deniers (even a broken clock is right twice a day). But the one-two punch of Covid and acrimonious politics and its global impact has forced new contemplations. And we should never waste a good crisis: this one could be the last chance we have to recalibrate our attitudes. They say a star burns brighter just before it dies. But a market transformation towards a sustainable model could make ours burn forever, renewably. We have thirty years to get it done.

Sebastian Copeland Climate Chaos: The Cost of Inaction

IT SPEAKS VOLUMES OF THE HUMAN CREED THAT STEMMED FROM THE AGE OF ENLIGHTENMENT: THE BELIEF THAT WE CAN ENGINEER OURSELVES OUT OF ANYTHING, NEGLECTING THAT THE GREATEST ENGINEER IS NATURE ITSELF.

Rolf Buch
CEO
Vonovia

Making Climate Protection Affordable

Challenge for the Housing Industry

Vonovia tests technologies and develops models for carbon-neutral operation of housing stock, but policy makers must also step up.

A line from the hit song "Bochum" by Herbert Grönemeyer is "Deep in the West, where the sun turns to dust…" Though the subject of this paean to the Ruhr city is the good old days of coal mines and steel mills, Bochum has long since headed into the future. Both Bochum and the property sector stand for a new, future-oriented course of action.

An excursion to Weitmar, a neighborhood south of the city center: Many multi-story residential buildings here were built in the mid-20th century. These are classic settlements from the days when people in Weitmar worked in the local "Prinz Regent" and "Vereinigte General und Erbstollen" mines or in the "Rommbacher Hütte" steelworks. Neighborhoods like these are the sites of an exciting, future-oriented experiment. We at Vonovia have been working with renowned Fraunhofer Institutes here since early 2020 to develop and test technologies that reduce the emission of carbon dioxide from buildings. We have set ourselves an ambitious goal: By using solar and hydrogen energy, the neighborhood will provide itself with electricity and heat in the most self-sufficient and carbon-neutral manner possible. This will happen not as a result of expensive solutions at some date in the future but will be cost-efficient and will transpire within the course of the three-year test run.

Housing industry plays a key role

How are we going to do this? One example is our focus on sector coupling, which we see as the key technology in the energy revolution: This involves interconnecting electricity and heat generation. The energy generated will be used firsthand by neighborhood tenants with the help of artificial intelligence, instead of being fed into the public electricity grid as is often the case. A self-learning energy management system ensures that the right energy is available in the right place at the right time – at electric charging stations, in the form of electricity for tenants' own households, or in the form of heating. A digital market platform connects providers and customers so they can trade and enter into dialogue with one another. These projects do not cost tenants a single cent. We can later apply the knowledge we acquire in the Bochum-Weitmar "neighborhood of the future" to our residential buildings nationwide.

A SELF-LEARNING ENERGY MANAGEMENT SYSTEM ENSURES THAT THE RIGHT ENERGY IS AVAILABLE IN THE RIGHT PLACE AT THE RIGHT TIME.

Why is this important to us? Because climate change, urbanization, digitalization and demographic change are megatrends that we as a large residential real estate company must adapt to. The coronavirus pandemic has increased the pressure. It challenges us to be more resolute, and perhaps to think even more fundamentally about how we deal with subjects that have such a strong influence on society. At the historic climate conference in Paris in 2015, the world community set itself the goal of limiting the warming of the planet to significantly less than two degrees Celsius compared with the pre-industrial era. This makes a rapid global transformation of nearly all areas of life necessary, from energy generation and industry to our way of feeding ourselves. In December 2020, Europe positioned itself as the leader in the battle against global warming by formulating a new climate goal: 55 percent less greenhouse gas by 2030 than was emitted in 1990.

Making housing stock climate neutral by 2050

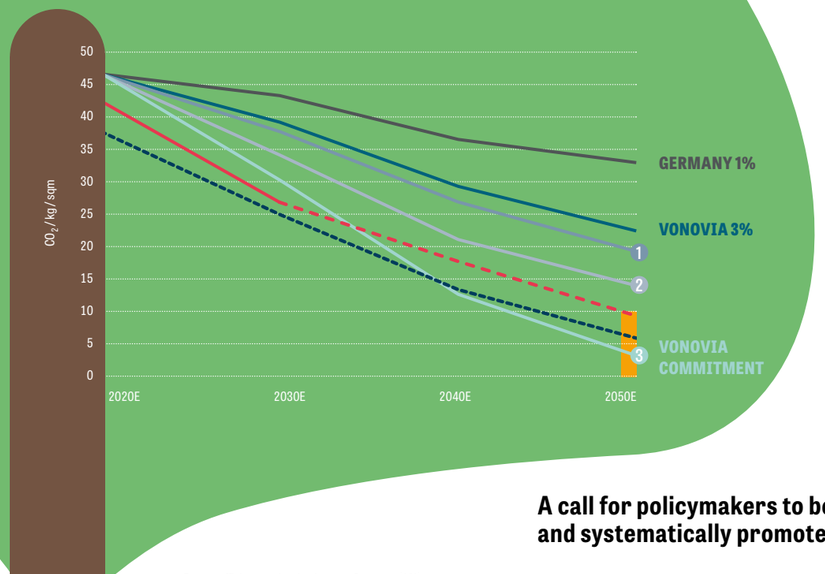
In 2019, the German federal government set guidelines which are to be used to reach the Paris goals. Residential properties play a central role since more than 30 percent of CO_2 emissions in Germany are caused by operating buildings. Consequently, if we do not manage to generate considerable savings, the general climate protection goals will not be reached. Specifically, this means that greenhouse gas emissions in the housing area must be about 40 percent lower in 2030 than in 2018: 70 million tons rather than the previous 118 million tons. Managing this will require an enormous effort. Heat-insulated facades, optimized windows, new heating systems: Tried and true energy-saving renovations are not enough to allow us to achieve the necessary CO_2 savings. We need new technical solutions that are efficient and economical.

What does this mean for Vonovia? As a market leader, we feel particularly responsible – however, our market share is only 1.6 percent and we cannot overcome these challenges alone. Our goal is to make our housing stock climate neutral by 2050 at the latest. To manage this, we must take even more intensive measures to make our residential properties energy efficient. This is the greatest lever with which the housing industry can contribute to climate protection. Currently, we sustainably refurbish about three percent of our buildings and apartments every year. Sometimes we manage considerably more, as in 2019, when we invested almost a billion euros to modernize nearly four percent of our portfolio with a view to climate protection. By comparison, for years, the nationwide average has been less than one percent.

Energy consumption in our modernized buildings is 45 percent less than it was prior to refurbishment. This has allowed us to save about ten percent of our carbon footprint, or a total of one million tons of CO_2, since 2015. We intend to increase our efforts in the upcoming years. Our methods will include "Energiesprong," a serial refurbishment solution originally from the Netherlands, which is easier, faster and more economical than previous approaches. Using a newly designed digitalized building process, prefabricated facades and roofing elements and regenerative energies, buildings will be brought to a net-zero standard within a few weeks. They will generate as much renewable energy as is needed for heating, warm water and electricity on an annual average. The serial approach makes sustainable refurbishment particularly economical.

VONOVIA'S CLIMATE PATH TOWARDS CO_2 NEUTRALITY THROUGH CONTINUED MODERNIZATION, RENEWABLE ENERGY AND SECTOR COUPLING

Illustration of different climate path scenarios 2020–2050
CO_2 intensity



1 BASE CASE
Increased modernization depth (approx. 60% reduction)

2 HYBRID CASE
Increased modernization depth (approx. 60% reduction) + gas condensing + solar thermal technology

3 CLIMATE NEUTRAL CASE*
Conversion to green district heating, sector coupling and renewable energy (heat pump / PV)

- Energy efficient modernization rate Germany (1%)
- Energy efficient modernization rate Vonovia (3%)
- 1 –60% reduction, 3% energy efficient modernization rate
- 2 –60% reduction, 3% energy efficient modernization rate + gas condensing & solar thermal technology
- 3 –60% reduction, 3% energy efficient modernization rate + proprietary district heating, sector coupling / or + heat pump / or + PV
- Target path of German government 2030 / scenario for climate neutral housing portfolio
- CRREM 2-degree path 04/2020
- Target corridor

Note: This climate path refers to the German portfolio; we are in the process of developing separate climate paths for the portfolios in Austria and Sweden. Source: Fraunhofer ISE modelling of Vonovia portfolio.

Reduction of energy need of 160kWh towards 60% through the following measures: Building envelope (insulated facade, windows) to become KFW Standard 100–70; scenarios 2 and 3 include the simulation of a change of energy sources.

*) In order to achieve the climate neutral case certain regulatory adjustments still need to be made and not all of the technological concepts have been fully developed yet.

A call for policymakers to better inform the public and systematically promote the energy revolution

The issue of cost is particularly important for popular acceptance of the energy revolution. Tenants in multifamily residences often have low incomes, pay taxes for the energy revolution through the German Renewable Energy Sources Act (EEG), and are additionally encumbered by refurbishment. For these reasons, there is often opposition to energy-related modernization measures when residential real estate companies reflect part of the costs – of facade insulation, for example, or the exchange of old windows – in the rent. This makes it evident that our sector is operating in a multifaceted conflict area as it goes about realizing climate protection goals. The tremendous reconstruction has to be financed; on the other hand, affordable living space is a precious social good.

How can this be resolved? At Vonovia, we do not want to overwhelm tenants. No one should have to leave their apartment because energy-related refurbishments are being made. For this reason, we want to pass efficiency gains directly to the tenants and thus make climate protection affordable. If we increase rents due to energy-related refurbishments, they are raised by two euros per square meter at most. But we also call upon the policymakers. They must explain more forcefully why the energy revolution is necessary in the housing industry, and why it makes sense for tenants. They must also explain how the necessary measures – which are partially low-threshold – will be financed. What's more, to make Energiesprong projects possible, gas, in addition to electricity, should play a more important future role in climate protection and the energy revolution. It is important to further reduce the spread between gas and electricity prices, and not just through CO_2 pricing.

If people want to protect the climate, they must focus more strongly on renewable energies. Currently, the proportion of renewable energies in gross electricity consumption is 56 percent. The German federal government has set a goal of increasing this proportion to 65 percent by 2030. However, the expansion of renewable energy providers has primarily concentrated on the electricity segment up to now. In the housing sector, a significant portion of end-user energy is needed for heat production. Roofs are still too rarely used for the generation of renewable electricity. At Vonovia, every year we erect photovoltaic installations with a total output of about five megawatts. Hydrogen is also a relevant technology in the housing area: These days, we already have a very high, climate-friendly utilization level in this area.

Neighborhoods as platforms for mobility concepts

We are focusing on a decentralized energy supply. The idea behind this: With landlord-to-tenant electricity models, where electricity is generated in direct proximity to the user and not delivered through the public grids, we want to get tenants more involved financially and thereby gain more acceptance for the energy revolution. Landlord-to-tenant electricity should be a standardized fringe benefit for residents. In order for this to succeed, decentrally generated energy may not be subject to grid fees or taxes. Incidentally, the EU also supports this idea.

Regenerative, decentralized electricity generation rather than large fossil fuel-fired power stations: At Vonovia, we want to turn our neighborhoods into self-sufficient energy systems where renewable energies are produced, distributed and used independently. This will allow us to use electricity more efficiently and more flexibly. The prerequisite is that managers of neighborhoods are permitted to build and operate their own distribution networks.

Another issue: Though there has been much talk of electric vehicles, there have still been no significant CO_2 reductions in the mobility sector in Germany. Systemic change is needed here as well. We will only manage the mobility revolution if expansion of the charging infrastructure is forced, electric vehicles become more available on the market, and unified standards are created for grid connection. In partnership with tenants and communities, the housing industry can make an important contribution to the mobility revolution and implement local, regional, and even national mobility concepts – provided that policymakers support this with targeted funding programs. For many people in multifamily residences, for example, the necessary charging infrastructure for electric cars is still unaffordable. Neighborhoods could become platforms for mobility concepts by providing the needed infrastructure for residents as well as cities and communities. At Vonovia, we see ourselves as community partners. Alongside local players, we develop, test and implement mobility solutions in our neighborhoods. We make electric cars available as part of car sharing programs. By 2030, we want to install up to 10,000 wallboxes – home electric car charging stations.

NEIGHBORHOODS COULD BECOME PLATFORMS FOR MOBILITY CONCEPTS BY PROVIDING THE NEEDED INFRASTRUCTURE FOR RESIDENTS AS WELL AS CITIES AND COMMUNITIES.

Sustainability index as customer satisfaction index

All these initiatives show that we are taking responsibility for social and environmental balance in Germany. We are extremely committed to the goal of achieving climate neutral housing stock by 2050. This means we must specifically supplement our previously successful strategy with aspects of sustainability. These will form the basis of our corporate decisions for the coming months, years and decades and will allow us to make our business model sustainable for the future. In the future, we will also orient our actions to a non-financial key figure, the Sustainability Performance Index. This subsumes climate-protecting factors such as the reduction of CO_2 emissions per square meter and the proportion of energy efficient new constructions. It also assesses social aspects such as the share of senior-friendly apartment conversions, the degree of diversity and customer and employee satisfaction.

This approach demonstrates Vonovia's comprehensive approach to climate protection. This is a multidimensional transformation process which can be nicely summed up as a "socio-ecological investment program." But we know we can't do it on our own. We need close collaboration between society, politics and business. Only if we work together can we develop solutions that will make environmentally friendly and affordable urban living continue to be possible in the future.

Dr. Georg Korn
Co-Founder & CTO
Marvel Fusion

Moritz von der Linden
Co-Founder & CEO
Marvel Fusion

Ultrashort Pulse High Intensity Lasers: A Key Tool in Combating Climate Change

New scientific breakthroughs in laser technology have made it possible, for the first time, to develop a sustainable, safe and clean energy source that will play a crucial role in the shift towards alternative energy solutions.

The energy turnaround is already beginning to take its effect: Only 51 percent of Germany's electricity is still generated from coal, gas or nuclear power. This significant reduction indicates the strong political will to reduce the proportion of fossil fuels for environmental protection and safety reasons. The EU has once again upped its climate change targets, and the US re-entered the Paris Agreement – both factors demonstrate a strong commitment to this common goal.

At the same time, energy demand around the world is growing significantly. It's expected that the global energy requirements will have more than tripled by 2050 to 60 terrawatts compared to today. Not even half of this volume will come from renewable sources. And the conversion of highly energy-intensive industries such as manufacturing, chemical and steel production to carbon-free power has not yet been factored in.

On a global scale, solar, wind and hydroelectric power can only meet a fraction of the demand in many regions at this stage. We need a new source of energy to meet the growing demand for carbon-free energy around the clock at competitive prices.

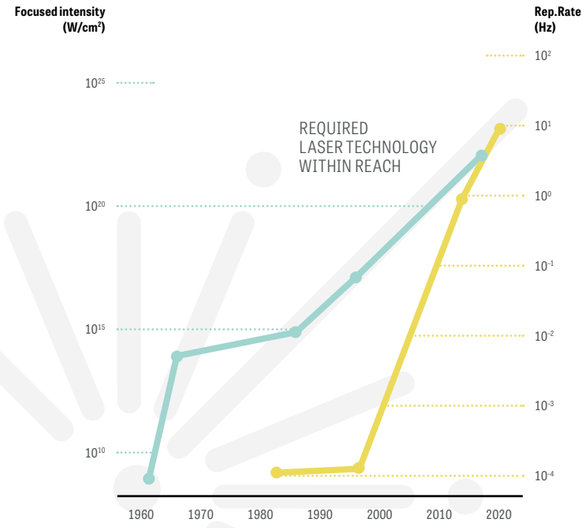
Laser technology could be the key.

New scientific breakthroughs make it possible to adapt the promising technology from laboratories for commercial use, overcoming previous challenges associated with alternative forms of energy: weather-related fluctuations causing underproduction or overproduction, risks related to costs and grid stability, long distances between production and consumption locations, as well as the insufficient expansion of power lines and high land use for wind turbines and solar panels.

Laser technology has matured in a way that it can overcome these issues. Peak power, pulse duration and repetition rate of lasers have dramatically improved over the past few years. Falling prices open the door for commercial use for the first time, for example in a power plant. The fact that the Nobel Prize in Physics was awarded to three laser researchers in 2018 demonstrates the momentum in this area of research.

"Chirped Pulse Amplification", the award-winning scientific development by Donna Strickland and Gérard Mourou, paves the way for peak laser output in the range of over 10 petawatt, opening up completely new areas of application. The continual improvement of diodes makes quick-pulse lasers with pulse repetition rates of up to 10Hz technically possible and commercially viable. Diode-pumped laser systems are more efficient than traditional pump technology using flashlamps, and they generate less heat requiring less cooling.

The breakthroughs in ultrashort pulse lasers turn the technology into the driver of progress in various fields, such as highly accurate eye surgery, diagnostics, radiation therapy, materials science and new X-ray generation methods for high resolution medical imaging.



IMPROVEMENT OF LASER TECHNOLOGY

Figure 1: Chirped Pulse Amplification enabled a new regime of focused intensity, and the continual improvement of diodes makes quick-pulse lasers with pulse repetition rates of up to 10Hz technically possible and commercially viable.

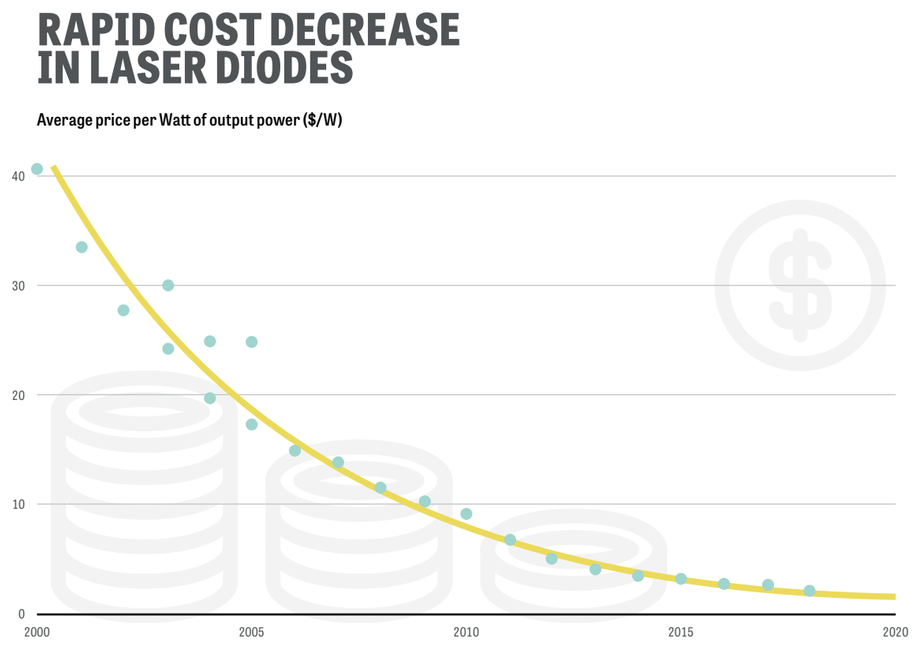


Figure 2: Diodes are based on the same semiconductor technology as photovoltaic, which is why they benefit from the same cost degression and allow for competitive electricity prices.

WE NEED A NEW SOURCE OF ENERGY TO MEET THE GROWING DEMAND FOR CARBON-FREE ENERGY AROUND THE CLOCK AT COMPETITIVE PRICES. LASER TECHNOLOGY COULD BE THE KEY.

An application that has only become possible within the last few years is laser-induced inertial confinement fusion, which could provide a carbon-free, safe, abundant, high-density, and reliable source for a constant energy supply at competitive prices – near to the metropolitan and economic centres that need it.

The technology is safe, clean and reliable: During the fusion process, fuel pellets containing hydrogen isotopes or protons and the boron-11 isotope are hit with a high intensity short pulse laser. This triggers the fusion of the fuel's nuclei – the actual inertial fusion. No neutrons are set free in the proton-boron process. Depending on the fuel, the energy released can be converted into electricity via a Carnot cycle or directly via magnetic induction.

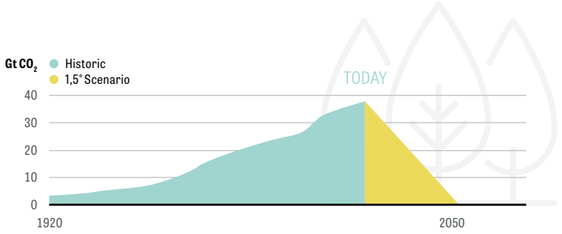
Laser-induced inertial confinement fusion provides a solution to the many challenges posed by the energy revolution and is a vital addition to alternative energies. It levels the way for a significant reduction in carbon dioxide levels, does not release hazardous emissions, and, with the right choice of fuel, just a minimal amount of activated materials and no long-lasting waste.

The provision of flexible base and peak energy in the commercial and industrial sectors could lead to new industrial growth, for example for electrification of steel production and chemical processes, for sustainable mobility (electric vehicles, synthetic aviation fuel) and for the production of green hydrogen.

The reliability of laser-induced fusion extends beyond reliability of supply. A power plant using this system can be set up for operation within a relatively short time. Its output can be adjusted from one to several gigawatts to meet prevailing demand. Most importantly, it can also be switched off within a tenth of a second when needed. In the case of unforeseen events, the reaction stops automatically when the laser stops. A chain reaction is not possible.

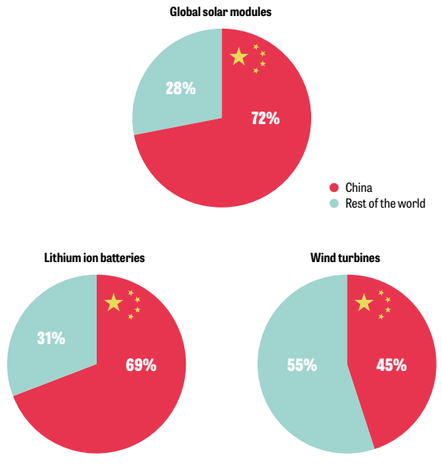
WE NEED TO ACT NOW TO REDUCE CARBON EMISSIONS IN ORDER TO MEET POLITICAL AND SOCIETAL DEMAND...

- Achieving the emissions target set in Paris Agreement
- Serve the growing global energy demand for carbon-free energy



...AND TO ALLOW EUROPE TO REGAIN GEOPOLITICAL INDEPENDENCE

- Today, Chinese firms already produce the majority of solar and wind technology globally
- They also control the refining of minerals critical to clean energy such as cobalt and lithium



Leaders globally need to invest in sovereign energy supply to
1) meet the climate goals for 2050,
2) exploit opportunities before competitors do and
3) ensure geopolitical independence.

The energy can be converted directly into electrical current, which increases the power plant's efficiency. While modern coal-fired steam power plants and lignite-fired power plants achieve an efficiency level of 46 percent and 43 percent respectively, laser-induced fusion targets an efficiency level between 50 and 80 percent.

Up until now, the limiting technology for the success of laser-initiated confinement fusion has been the intensity of the laser. With recent improvements in laser intensity in combination with the drastic increase in repetition rate, it now seems possible to generate energy at competitive prices in a commercial fusion power plant.

The great progress in laser technology, coupled with the political desire to reduce carbon emissions, has put the objective of a clean, reliable and safe energy source using modern lasers within reach for the first time.

Laser-induced inertial confinement fusion not only has the potential to meet the huge energy demands of industrialised countries, but also those of emerging and developing countries with growing populations and economies. It tackles the key issues associated with conventional and alternative energy production, thereby making a significant contribution to the energy revolution.

What's more, this new technology offers a unique opportunity for Europe to rise to the position of leader in innovative new energy technology by continuously advancing enabling technologies, such as the highly efficient diode-pumped laser, thereby preventing China and the USA from commercialising the technology first. In this way, Europe could avoid a geopolitical dependence on China for clean energy and at the same time strengthen its own industrial base.

Figure 3: Global CO_2 consumption and energy dependency

Dr. Georg Korn / Moritz von der Linden Ultrashort Pulse High Intensity Lasers: A Key Tool in Combating Climate Change

“The People are the Heroes”

Dr. Elmar Degenhart, former CEO of Continental until the end of November 2020, talks about the difference between leading and managing, the limits of money, and people’s insatiable appetite for bigeye tuna.

Dr. Elmar Degenhart
Former CEO
Continental

Mr. Degenhart, ***at the end of November 2020 you stepped down as head of one of the world's largest automotive suppliers due to health reasons. Firstly, how are you?***

E.D.: I'm doing relatively well, but if I want things to stay that way, I'll have to manage my priorities differently than before. The transformation process that Continental will undergo in the coming years must be led by someone who is in top condition and able to invest a considerable amount of energy in dealing with various external, industrial, and political factors.

Again, that shows that you take the topic of leadership very personally…

E.D.: I do. I firmly believe that leadership very much depends on the individual. And not only on the individual who leads, but also – and above all – on each and every individual you deal with as a leader. It's vital that you take your counterpart seriously as a person and not just see him or her as the bearer of a particular function.

Some people might view this as adopting a soft line. Can companies afford to take this approach if they want to be globally competitive?

E.D.: I would go as far as to say it's an approach they must take. And it has nothing to do with being soft. We've known for many years, for example from the annual surveys by the research institute Gallup, that up to 85 percent of employees only do the minimum that is expected of the position. In the worst case, employees have already resigned mentally. Only 15 percent at most are fully motivated. For me, that means that managers are often failing to connect with their team members on a personal level. And in my opinion, that's no way for a company to succeed in the current competitive environment in the long run.

That may be true, but do calls for a more human touch help?

E.D.: How else will companies thrive? Who is supposed to deliver the performance we need: the innovative ideas, the process optimizations, the fast and flexible agility, if not people? And people can't just be managed. That's the difference between management and leadership. Managing implies measuring, weighing, and counting. In other words, controlling people and reducing them to their pure function. This is outdated and in no way boosts motivation. A leader is someone that people follow, who shares the same mindset; everyone else is a manager or simply a "boss."

What kind of goals should you set if not numerical targets?

E.D.: First and foremost, employees expect their leaders to give them a credible sense of the big picture, or the "purpose" as we tend to say now. Put simply, employees should have a clear idea of why they are doing something, what it will eventually lead to, and whether they can identify with it as an individual, so that they know they are using their skills and abilities to help make the world a better place. This is more concrete than a vision, but more general than a numerical target. Employees should also be able to derive the purpose after the fact. Nobody gives everything in their job when you tell them you want to achieve a certain sales level or return target, as this doesn't provide any long-term motivation.

Speaking of motivation, many firms are increasingly relying on non-monetary incentives such as recreational opportunities or a special feel-good atmosphere within the company. Is that the right approach in your opinion?

E.D.: No, I don't think so at all. I recently read that an international company in California is serving Mexican and Italian food, sushi, and all kinds of other extraordinary cuisine in its canteens. But apparently the people there are now complaining that there's no bigeye tuna on the menu! Attempting to motivate employees with extrinsic incentives is therefore a futile concept.

And what do you propose as an alternative?

E.D.: Unlike managers, leaders rely on trust. They know that success is a result of perception, challenge, and appreciation – the three essential ingredients. Employees want their talents to be recognized and to be able to develop their strengths. They therefore want to be assigned challenging tasks and solve them on their own initiative, without having to be micromanaged along the way.

Isn't that too much to ask of many employees?

E.D.: Sometimes it is, but in my experience, it's more of a problem when employees are not sufficiently challenged. You're more likely to be pleasantly surprised. And as a leader, I have some say over whether my staff are being overburdened. Because ultimately it's my job to remove obstacles from their path, to give them clear goals, and to select the talent with the greatest potential to solve the task at hand while truly enjoying their work.

But people still change employers simply because there is more money elsewhere – in other words, for very extrinsic reasons.

E.D.: That's true, but more often they change because of their boss. The problem with external incentives is that they need to be increased again and again over time in order to produce the same effect. At the same time, for many years now, studies have confirmed the so-called displacement effect, whereby the more extrinsic incentives there are, the more intrinsic motivation is lost. In other words, motivating destroys motivation. I believe that people arrive at an organization already fully motivated. All I must do as a leader is clear the way for them to develop their strengths.

Does that mean you want to abolish incentives and bonuses?

E.D.: Not necessarily. Employees should be well paid, and bonuses should be granted where appropriate. But we shouldn't fool ourselves into thinking that this is the reason why good people stay, why even better people join, and why employees do an extraordinary job.

What is the reason then?

E.D.: We know from various studies that people join an organization because of its reputation, the pay, the level of challenge the work involves, and their new boss. They leave an organization for similar reasons, but the most common ones are their boss and a lack of development opportunities. Genuine recognition, appreciation, and a caring mentality are therefore key, and leaders should do everything possible to ensure that the workforce has a favorable working environment. Their most important task is to remove obstacles in the way. In addition, they must promote professional and further personal training and development by means of appropriate tasks, provide suitable feedback, and occasionally give clear, candid criticism. All of that shows that they take their counterpart seriously.

But how realistic is that in a company that – like Continental, for example – employs 230,000 people worldwide? Top executives at the very least are not likely to be able to cooperate on such a personal level.

E.D.: It works only if leaders set an example and serve as role models. Obviously, you can't communicate in this way directly with 100,000 people. But with about 10 you certainly can. And any more than this number can't be managed directly anyway. If a leader can't have at least one meaningful conversation with each of their employees during a week, then something is wrong. The head of the Gallup research institute, Jim Clifton, once said this, and I think he's right. What's more, a leader's effectiveness extends much further than the employees who report to him or her directly. After all, the aim of good company organization or a good corporate culture is to ensure that these smaller units exist at all relevant management levels and that they work well together without adopting a silo mentality.

In this context, how important do you feel the role-model function of leaders is for the success of a company?

E.D.: Being a role model shapes a company's culture. And the culture is key to success. You can recognize genuine leaders by the fact that they don't take themselves too seriously. They are aware that the people are the heroes! That means they are adults who already know exactly what it takes to be or remain successful: in business as well as in their personal lives. By and large, most are also well oriented in terms of their values. Almost everyone who takes on a task at some point does so with great commitment. They want to achieve something – perhaps even something special. You don't have to bring out this drive by setting a good example. But what you do have to be very careful about is not to misdirect or destroy this

commitment, this drive, and this focus. And that can happen quickly. If I keep hitting a brick wall with my initiatives, then at some point I'll stop – even if I'm paid well. This is the great challenge for every corporate culture: to create an environment that promotes personal and operational growth.

You mentioned the issue of "purpose" earlier. Do you believe that leaders in companies today also need to provide a sense of purpose?

E.D.: No, leaders don't have to provide a new sense of purpose as such. But they should always emphasize the existing sense of purpose of what they do as a company. As I said, nobody works just for the numbers. If instead you can demonstrate to people how their work will contribute to a common, long-term goal, how they can create not only material value but also idealistic values, and how all of this will contribute to the positive development of society, then the chances are you'll be able to attract "followers" and not just subordinates. And that must be the goal.

Mr. Degenhart, thank you for speaking with us.

LEADERS DON'T HAVE TO PROVIDE A NEW SENSE OF PURPOSE AS SUCH. BUT THEY SHOULD ALWAYS EMPHASIZE THE EXISTING SENSE OF PURPOSE OF WHAT THEY DO AS A COMPANY.

“IF YOU WANT TO REACH A BIGGER MARKET, THEN THERE IS NO PLACE LIKE UAE…”

In an **interview** with CNN’s Emerging Markets Editor/Anchor and Stern Stewart Institute Board Member, **John Defterios** and **Sultan Ahmed Bin Sulayem,** Chairman & CEO of DP, talk about the Abraham Accord, Jebel Ali port’s importance for global trade and how Covid-19 impacted cargo.

The United Arab Emirates took a bold step to sign the Abraham Accord on September 16th to normalize relations with Israel – the first Arab Gulf State to do so. Unlike previous agreements with Egypt and Jordan which go back decades and were driven to end conflict, this effort is starting with business to drive normalization amongst the two countries. Dubai's Jebel Ali port is the largest in the Middle East and offers Israeli companies a springboard into both the Arab market of 400 million consumers and potential gateway to the Asian subcontinent and Africa.

John Defterios sat down with the Chairman and CEO of DP World, Sultan Ahmed Bin Sulayem who has been at the helm of the group for nearly four decades.

Sultan Ahmed Bin Sulayem (left)
John Defterios (right)

John Defterios: We're looking at normalized relations with Egypt that go back about 40 years. Jordan's what, 27 years. But what is different in the normalization of relations with Egypt and Jordan, vis-a-vis the UAE. Is it a business DNA that establishes it from the start very differently?

Sultan Ahmed Bin Sulayem: The only difference I could think of is that the previous normalizations were more political, while our deal is more business. UAE leaders, and I really feel very proud that we make a courageous decision not to limit our ambition in expanding our business and potential and unlock opportunities for UAE.
So this relation is a very serious relation. It will produce mutually beneficial opportunities for both to take advantage of. Israel is the highest in technology. Since the 1980s, they invested billions of dollars in technology. Today, every smart phone, every interior of an airplane, everything that goes in satellite, are made in Israel.
Even China, no matter how developed they are, they are developing things in Israel. And there is no way UAE is going to stand basically on the side and say, "Well, we cannot do it. We cannot approach."
We will approach a business that's beneficial for us. And we need the technology, we need to be up-to-date with it.
And the interesting thing is from all the Arab countries, the most advanced country in using technology and implementing it in their life, is UAE.
If you look at per capita who basis uses technology, we are the highest in the Middle East.

John Defterios: So going into it, the normalization with Egypt and Jordan was politically driven, driven by conflict. In this case, business and the DNA between two countries, the UAE and Israel reframe this agreement in your view?

Sultan Ahmed Bin Sulayem: Absolutely. I mean, we have no conflicts to resolve. We as UAE, as announced by our government that we definitely support the Palestinians, resolving their just cause, and this deal is not going to undermine that. But UAE made a decision to normalize relations so that we can improve the business prospect for our country, and their knowledge and technology that we can mirror it and can improve the level of technology that we can have access to.

John Defterios: Is it fair to say that the UAE/Israeli ties can be in business, the cement or the foundation to build diplomacy? Because diplomacy is not a straight line. It'll have fits and starts. But business is essential to build upon.

Sultan Ahmed Bin Sulayem: Absolutely. Absolutely.
I would like to quote Einstein. Einstein said, "If you are doing things in the same way, all the time, you do the same thing the same time, your result will only be the same. If you want to see new results, different results, you better do it differently."
Now, we're not representing all the Arabs and we aren't going to decide for the rest of the Arab world, but the way the issue with the Palestinians and Arabs have been dealt with did not produce anything positive in the last 70 years. And so basically there is no reason why we can't try something new.
And I am a firm believer, when countries benefit from each other, they get closer to resolving issues.
Definitely. And this agreement, in my opinion, between UAE and Israel and added to Bahrain and other Gulf countries, will actually give the Arabs a stronger position to negotiate. Because now there is a mutual benefit, a mutual benefit that helps both countries. When countries benefit from each other, they will always see eye to eye and eventually try to resolve issues.
We have been wasting our time in a confrontation, and we call it Cold War, Hot War. It didn't work, for us at least. And we believe that this is going to strengthen the Arab position in the resulting situation. In the meantime, as UAE, we are looking at an opportunity that can come out of this that help both.

WE HAVE BEEN WASTING OUR TIME IN A CONFRONTATION, AND WE CALL IT COLD WAR, HOT WAR.

John Defterios: Many believe that you signed a number of MOUs, and as we say in English, "Window dressing." A lot of show, nothing inside. What's the counter argument to that? What's been signed so far?

Sultan Ahmed Bin Sulayem: Not at all. Actually one thing in UAE, we don't waste our time in MOUs. MOUs are just a document to set the pace for what you're going to do. But we know what we want to do. We know the business and we know how we can get the business. It's about technology adoption.
It's about logistics. It's about connection.
It's about ability of both to trade and do business.
We need something from them in technology.
They need something from us. They need our market, they need our location. They need to learn how we do business in UAE, because the way we do our business is totally different. They've been in isolation for a long time. They've been dealing with Europe or dealing with other countries through a third party. Now they can do it themselves. Jebel Ali is a testament of success. KIZAD in Abu Dhabi in Khalifa port is a testament of success. We have many free zones that have succeeded anyway today. And they are basically promoting trade.
The world is small. The world is one and there are plenty of opportunities. And unfortunately in the past, people are looking, what are the differences? But people avoid to see what are the similarities. We have a lot of similar issues, similar opportunities that we can build on. And the decision of the leadership is really a courageous decision because we need to come out of the shadow and really start to do meaningful businesses that will basically impact the economy in a better way.

John Defterios: I had three sources that were involved in the discussions in the United States and Israel and here in the UAE, and they all said that without the Jebel Ali port and DP World, the Israelis didn't want to sign the Abraham Accord. It was vital to them. Why is that?

Sultan Ahmed Bin Sulayem: Obviously all of the above. Jebel Ali is a very active business community with far reaching markets. And so, companies in Jebel Ali are selling in the local market, they're reaching India. And when you at Jebel Ali, Jebel Ali is serving 2 billion people. Between Dubai and UAE in general to India, the biggest economy is maybe one hour 45 minutes. Less than two hours flight from Dubai, get you 2 billion people. And that's a lot.
We look at India, Pakistan, Bangladesh, Sri Lanka, and the surrounding. You get almost over 2 billion people. That is a market they like to reach. And the beauty is that reaching that market is so easy. You get flights anytime of the day, not a day, but anytime of the day. You get shipment out of UAE, whether Jebel Ali or Khalifa anytime of the week to any destination at a fraction of the cost.
Israel is not alone. UK is also looking at the experience Jebel Ali, and we have been chosen as board members of a committee that looks at the 10 free trade ports in UK. And we are giving valuable impression to them in how to turn it around.
And we'd like to be the first one in UK to have London Gateway as a first free trade port.
So they is a huge connection. The Jebel Ali achievement in the last maybe, I've been working for 38 years, the freezone is only 35 now, and in those 35 years we've cemented the relations. We have actually improved the shipping routes between us and the region. And so if you want to reach a bigger market, then there is no place like UAE.

John Defterios: So the strategy here for Israeli companies is also a tax play, right? Because the taxes are high on corporations in Israel. So they can come in reassemble or manufacturer and then have access to these markets you're talking about.

Sultan Ahmed Bin Sulayem: Absolutely. The tax incentive is big in this area. The facilities are good and they have markets. They know what to do. And definitely to ship from Israel is longer than shipping from here. If you want to reach Africa, we are a closer. If you want to reach India, we are closer. You are in the sub-continent in general, we are much closer.

John Defterios: The other thing I was thinking about, it sounds fairly simple, but there's 400 million people in the Arab market alone that wasn't accessible to Israeli companies before. That's profound if it opens up.

Sultan Ahmed Bin Sulayem: Definitely. I mean, they've been reaching the Arab market through back doors and now they can reach it directly. There's no reason why they shouldn't be able to, definitely.

John Defterios: What's your thoughts about this united front between the Sunni Arabs and Israel today? Does it reestablish ties with Iran? Because that was a big market for Dubai, $20 billion worth of trade before sanctions.

Sultan Ahmed Bin Sulayem: Well, I'm sure the Iranians want to stop this sanction. They want to get out of it. And they want to differently have normal business. I think any development in business is going to have a positive effect on the region. As people create more business, everybody benefits. And who knows, it could be a positive step for them to maybe find a way to get out of this sanction issue that they have.

John Defterios: Does it make the region, because of the business ties that are being developed by the UAE in Israel, more secure or less secure?

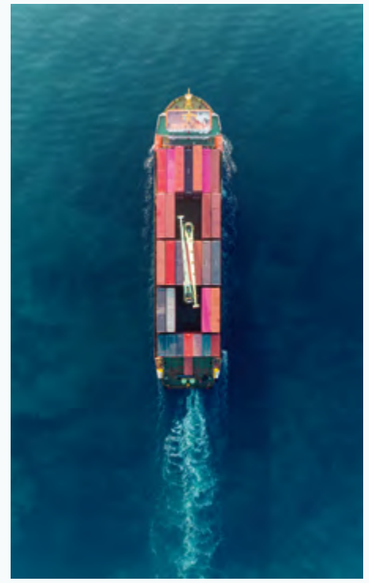
Sultan Ahmed Bin Sulayem: The region is going to be more secure. As people engage in making business and developing, nobody has time to create a problem. People are busy. Like UAE, UAE people are busy developing their country. How did we develop so fast? Because we created a climate in a way to encourage people to invest. To encourage people to develop themselves. And this kind of strategy is contagious.
We were able to do it here. They'll be able to do it in Israel and the region will start to focus. Instead of disagreeing with people. Why don't we agree at least look at what we agree on. Why don't we look at it differently? This will impact making people's life better. Who can disagree with that? We have set an example for that.

John Defterios: I wanted to shift into this other subject, and we had a chance to talk about the trade collapse because of Covid-19 in the past. But I think it was Churchill who was saying, "Never let a good crisis go to waste."
Are other governments in the region realizing that technology, the TIR system, even the E-TIR system should push forward now because we should facilitate trade and not have non-tariff barriers to trade too much paperwork, for example, too much waiting time at borders.

Sultan Ahmed Bin Sulayem: Well, technology was always there. People were lazy to use it. When Covid came, it was a matter of life and death. You're going to go for a meeting in person and it might risk your life. So people started using technology.
Now, in DP World, we actually deployed a lot of technologies in the digital age, dealing with cargo. And to be honest with you, today there are 11 billion tons of cargo moving on paper still. Now, there's a huge opportunity to disrupt that. There is no reason we should continue on paper and there is an opportunity to disrupt it.
And we invested heavily. From 2016 until 2020, we invested over $4 billion to $5 billion in logistical enabling technologies, whether it is physical, like logistic parks in Peru and Chile or India. Or a rail company in Switzerland or rail in India. Or technology itself. Many platforms we have launched that will help us to achieve the ability to basically make trade more easier and much less complicated.

John Defterios: As you know, some of the regional countries, and those in Eastern Europe, stretching into Russia, didn't want to sign onto the TIR system, for example. Now we're advancing to E-TIR.
What's your kind of message to everybody in a post Covid-19 world? Embrace technology and make it happen, particularly because we got clogged up because the global economy took quite a strong hit?

Sultan Ahmed Bin Sulayem:
They have no choice. People who want cargo to move into and out of their country, they have to adopt the system.
They have to embrace it. And actually it is safer. Today, not only you're worried about things which could go in a country undetected. The only way to make sure the wrong thing don't go in your country is go on the digital side because it will be a clickable button to tell you this shipment that came, where did it go and how they treat you, and gives the customer officials and many regulatory authorities the ability to really make sure only the safe items comes.



Hung Tran
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Atlantic Council

New Asian Free Trade Agreement Secures Economic Space for China

After eight years of negotiations, ten Association of South East Asian (ASEAN) nations and five other Asian countries (China, Japan, South Korea, Australia, and New Zealand) finalized the Regional Comprehensive Economic Partnership (RCEP) on November 15, bringing together about 30 percent of world's population and gross domestic product (GDP) under the new free trade agreement.

This new arrangement will compete with the European Union (EU) as the world's largest trading bloc, and will be the most important economic configuration in Asia, totaling a 27.4 percent share of global trade, compared to 15 percent for the Comprehensive and Progressive Agreement for TransPacific Partnership (CPTPP).

The RCEP's main winner will be China, which has secured a dominant position in one of the world's most dynamic economic regions, giving Beijing the opportunity to establish its preferred rules and standards, and providing a major advantage for its companies to exploit these valuable markets. The United States, on the other hand, sets to lose out from sitting on the sidelines, as its attempts to re-shore US manufacturing and promote Western-backed trade rules could be dented by the new trade agreement.

Too superficial to be useful?

Despite its topline numbers, many observers have cautioned that the agreement itself is "shallow," containing only twenty chapters without any commitments to deep tariff cuts or structural reforms. In particular, RCEP does not have a chapter on labor rights or the environment, and offers weak protection of intellectual property rights. RCEP members committed to reduce tariff rates on about 80–90 percent of the current tariff lines, to be contained in a series of bilateral tariff schedules – with carveouts for politically-sensitive agricultural sectors. By comparison, the CPTPP when fully implemented will reduce tariff rates to zero on 99 percent of tariff lines. The RCEP also does not address the problems of industrial subsidies and state-owned

RCEP IS SET TO BE A MAJOR BOON TO ITS PARTICIPATING COUNTRIES, WHILE A MISSED OPPORTUNITY FOR THOSE LEFT OUT.

enterprises. While disallowing data localization requirements, it does not prohibit countries from requiring the disclosure of source codes (like in the Trans-Pacific Partnership or the US-Mexico-Canada trade agreement). RCEP will create common rules of origin for the whole bloc, however, so that one country-of-origin certificate will suffice in shipping goods across the membership, reducing intra-RCEP transaction costs. As configured, this set-up serves China's needs very well, securing a lower tariff trading environment in Asia without any change to China's model of state capitalism, as has been demanded by the United States and the EU.

RCEP is set to be a major boon to its participating countries, while a missed opportunity for those left out. According to the Brookings Institution, China stands to gain the most income from RCEP ($100 billion) by 2030, followed by Japan ($46 billion), South Korea ($23 billion), and Southeast Asia ($19 billion). Being excluded from RCEP (and having withdrawn from the TPP) the United States will forego about $131 billion of expected come gain, while India's decision to sit out this agreement will forego about $60 billion of income.

Invest more to get a piece of the cake

To participate in the economic windfall from this new agreement, US and EU companies will need to invest in production facilities within RCEP countries, potentially endangering US efforts to re-shore manufacturing activity and employment back to the United States. Many of these companies are highly reliant on production in China and will likely try to diversify their supply chains, but they will probably achieve this by moving production elsewhere in Asia instead of going back to the United States. The big winners from this could be Southeast Asian countries, especially Vietnam.

RCEP represents a significant strategic step forward for China – cementing trading relationships with the most populous and dynamic region of the world, whose GDP is estimated to constitute more than half of the global economy by 2050. Asian growth is increasingly driven by intra-Asian trade – already accounting for more than half of the region's total foreign trade. With RCEP and CPTPP, the intra-Asian trade share will certainly rise further, to match the 60 percent ratio of intra-EU trade to its total trade.

China sets the tone

RCEP, together with the Belt and Road Initiative (BRI), has enabled China to build out a viable economic space for itself – one where it has been influential in establishing trading rules and standards to the exclusion of the United States and the EU. Moreover, growing economic relationships with China stimulated by RCEP and BRI will enable China to leverage its trading, investment, and financing capabilities to compete for political influence throughout the region against the United States and the West. China's influence can be

RCEP HAS HELPED DEEPEN THE FRAGMENTATION OF THE WORLD TRADE ORGANIZATION-BASED GLOBAL TRADING SYSTEM.

observed in the support it receives from developing countries in international organizations and fora – in particular through their defense of China against criticisms of human right violations by the West. More importantly, China also aims to use its economic levers to gain adherents to its new technologies including 5G and 6G mobile telephony; artificial intelligence (AI) and surveillance systems; and its recently launched global positioning and navigation system Beidou as a competitor to the US-controlled GPS. This will also allow China to push its standards in these emerging technologies to be adopted by large portions of the world – helping its high-tech companies surpass its competitors in the EU and United States.

Besides giving China the leg up in its competition against the United States, RCEP also raises two major issues. India's withdrawal from the pact out of fears of sharply rising trade deficits with China and others – even though India has left the door open to participate in the future – has tilted the originally-balanced RCEP toward Chinese dominance. This could raise questions about the sustainability of RCEP if China uses its dominant economic power to "punish" countries which are critical of its policies. An obvious example is China's unilateral use of trade and investment restrictions against Australia, after the latter demanded an internationally independent investigation of China's lack of transparency at the beginning stages of Covid-19 and criticized China's policies in Xinjiang and Hong Kong.

RCEP has also helped deepen the fragmentation of the World Trade Organization-based global trading system, following a plethora of regional trade agreements which have created a multitude of trading regimes and tariff schedules. This has increased the complexity and transaction costs of cross-border commerce compared with a truly global trading system, to the detriment of all countries.

This article has first appeared as a bloc post with the Atlantic Council.

Hung Tran New Asian Free Trade Agreement Secures Economic Space for China

REVIEW

THE STERN STEWART INSTITUTE **ANNUAL SUMMIT 2020**

In no other year has it been so easy to find a consistent leitmotif under which the past twelve months have stood. Since March 2020 at the latest, the world has been shaken to its foundations by a two nanometer virus called Corona. No area of the economy, politics or society remained unaffected by the pandemic, even though the effects and the way it was dealt with varied greatly from region to region.

For these reasons it is only too understandable that this topic was also reflected in the program of this year's Summit of The Stern Stewart Institute in the form of several panels.

Nevertheless, other global developments should not be forgotten and so we also devoted our attention to the situation in the USA, which at the time of the Summit was marked by the pre-election campaign between incumbent Trump and his challenger Biden. The role of Europe within the global power structure was also dealt with, just as in other discussions we tried to give an outlook on the most important trends for the coming years. With great seriousness and with their usual debating spirit, the participants spoke about the future of capitalism as well as the influence of climate change.

It is this special mix of important topics and outstanding personalities that has long made The Stern Stewart Institute an indispensable part of the annual calendar for many of our participants.

THE CAPITALISM DILEMMA – BROKEN IMAGE AND STATE AS DOMINATING STAKEHOLDER?

It was not only Covid-19 that showed the West that a market economy, as it has developed in most Western countries in recent decades, can reach its limits in the event of a global pandemic when it comes to the health care of its citizens. As a result, some countries have taken measures whose scope was reminiscent of the state bailouts following the financial crisis of 2007–8.

And just as then, voices are being raised today that are skeptical or even critical of excessive state intervention in the economy. This attitude is also reflected in the results of our survey this year. In response to the question whether capitalism does work at all when everyone knows they will be bailed out anyways, a slight majority of 60 percent of participants felt that too big to fail violates key principles of capitalism. 40 percent felt that such black swan events do not invalidate capitalism (see **figure 1**).

These two positions were also opposed in the discussion, but other aspects of the topic were also discussed. For example, some of the participants observed an increasing willingness on the part of Western governments to become much more involved, particularly in the areas of digital and trade, especially in order to counter the threat of China's superiority.

Among the participants, the tenor of this was that state interventions in a country's economy can only be considered sensible in the future in the event of a crisis and for a limited period of time, as otherwise they could lead to dangerous distortions in competition. At the same time, it was pointed out that companies, too, would have to strive to regain their independence and economic status through constant innovation.

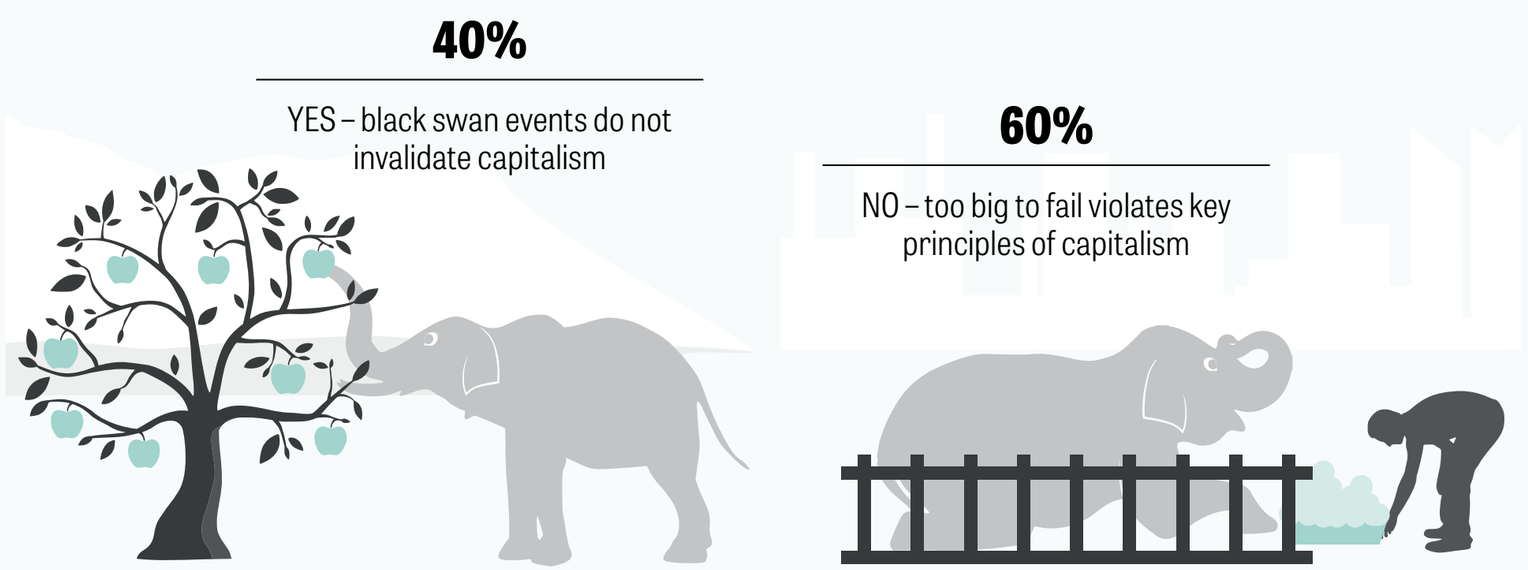
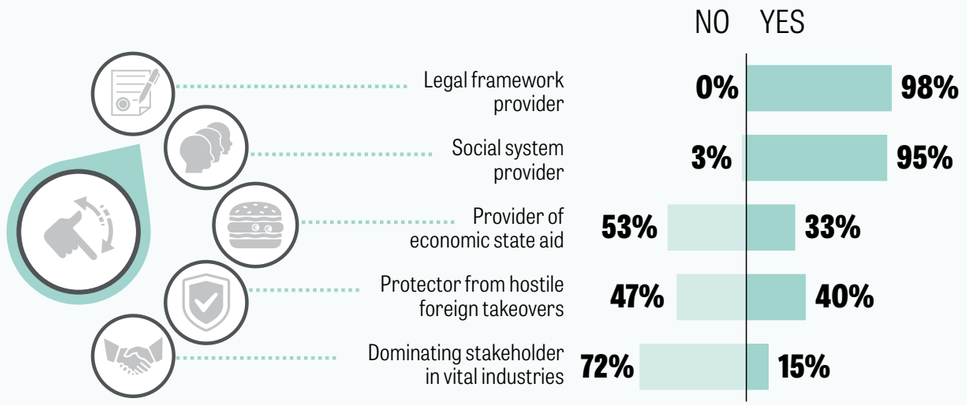


Figure 1: Does capitalism work at all when everyone knows they will be bailed out anyways?

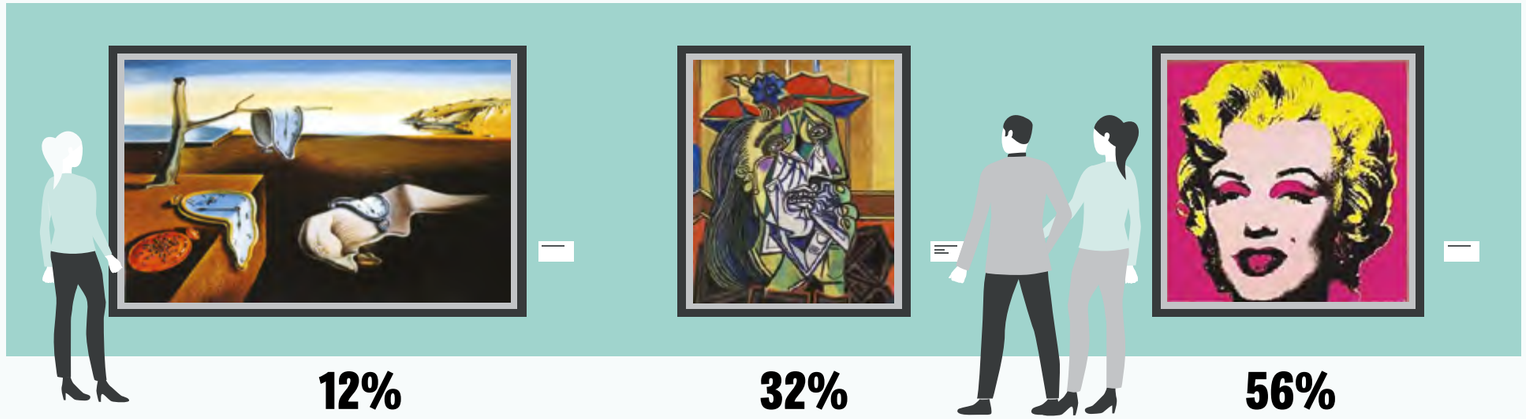
Figure 2: What should be the state's appropriate role in the economy?



This consensus was also reflected in the survey results. When asked what role the state should play in relation to the economy, the overwhelming majority of respondents felt that it should limit itself to the role of legal framework provider (98 percent), and almost as many also saw it as having responsibility for social systems (95). On the other hand, only 15 percent of respondents want to see it as a dominating stakeholder in vital industries (see **figure 2**).

Review The Stern Stewart Institute Annual Summit 2020

Figure 3: Is the love for liberties and the humanistic value of lives an Achilles' heel for the west?



It is in the nature of a hitherto almost unprecedented crisis situation such as the one we are currently experiencing with the Corona pandemic that serious statements on further economic development are much more difficult to make than is the case in "normal" times. How exactly will the many social upheavals, the serious disruptions in the global division of labor and trade affect the coming global economic development?

At the same time, other factors and political trends must not be ignored, which will continue regardless of the pandemic and will have just as great an impact on the economic balance of power and Europe's future role in the world.

Of the three response options presented to the participants in this year's survey, a majority (48 percent) expected a further globalization of the European economy, slightly less predicted that Europe will have to choose between a Western and an Eastern power bloc (32 percent) and only 20 percent believed that a focus on domestic production would prevail from now on.

IN 5 YEARS EUROPE'S ECONOMY WILL...

Certainly, it would be interesting to know whether it would have made a difference if the result of the presidential elections had already been known, because it can be assumed that the orientation of future US foreign and trade policy will also play a decisive role in this issue.

HOW TO FIGHT PANDEMICS? THE FLIP SIDE OF GLOBALIZATION OR A NEW KIND OF WARFARE?

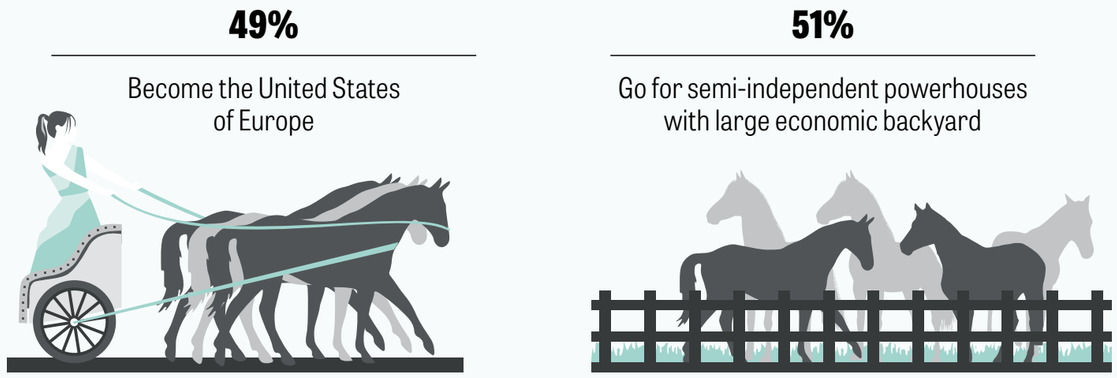
Politicians often used the term warfare when talking about the fight against the corona virus. This may be understandable because it not only makes the action of governments seem particularly urgent, but also because they probably hope that this will lead to greater cohesion among the populations and greater discipline in complying with the rules and restrictions imposed.

Although there were differences in our discussions about the nature of the pandemic and how to deal with it and future pandemics in detail, there was broad agreement that such military terms should not be used. It is wrong because further outbreaks of global epidemics are to be expected in the future and it therefore makes more sense to prepare against them in good time and, in the long term, to find a way to live with these threats.

At the same time, several participants in the discussion pointed out the most important lessons that we, in politics, business and society, must learn from the crisis: coping with such global emergencies can only succeed through close international cooperation; in the long term, a way must be found to combine effective health protection with the maintaining of economic activity.

In the course of this Corona Year, the question of whether the more authoritarian states of Asia had an advantage over the liberal states of the West in combating the pandemic was also repeatedly discussed. When asked whether these individual freedoms might possibly represent the Achilles' heel of the West, a clear majority of respondents to our survey said that these freedoms were precisely what made us strong (56 percent), while only 12 percent thought that they were in fact a weakness that made the West more vulnerable (see **figure 3**).

Figure 4: How can Europe become a true Hero on the world stage?



It was not only the extensive withdrawal of the United States under Trump as international regulatory power that shifted the focus of world politics to Europe. And so, we also discussed the question of whether the present Europe is capable of being a regulating power factor that is able to act with sovereignty in foreign policy and to counteract Russia and China.

Whether Europe is actually able to do this was a controversial issue, but there was agreement that this could only be achieved, if at all, if Europe were to succeed in finding a new unity. Only in this way would it be possible to go beyond the role of a mediator, for example in the Middle East, and find an independent role in foreign policy. However, as one participant pointed out, this would probably require the initiative of Germany, which would probably have to give up its right of veto on important foreign policy issues.

The most important issue for the further integration of the European Union in the coming years was quickly identified: Will the diverging interests of the 27 states remaining after the brexit allow unanimity to be required on all issues or should a core Europe be formed in whatever form, with only those countries that are willing to cede sovereign rights to Brussels following the model of the monetary union? Supporters of such a "two-speed Europe" were also found among the participants in the discussion.

WE DO NEED ANOTHER HERO! HOW CAN THE EU BECOME THE STABILIZING POWER BETWEEN US, RUSSIA, AND CHINA?

Of course, the future direction of European foreign policy also played a role in the survey. Just under half of the respondents (49 percent) consider the development towards a United States of Europe to be the best way to play a greater role in the global system of powers. The remainder, on the other hand, believe that the better goal would be semi-independent powerhouses with large economic backyards (see **figure 4**).

Of course, this year's Summit did not only discuss economic policy issues. As always, there were panels this year, too, which dealt with purely economic issues. Particularly stimulating was a speech that dealt with the future of the manufacturing industry. On the surface, the industry is on a steep downward path, while the success curves of brands such as Facebook or Google seem to be far from having reached their zenith.

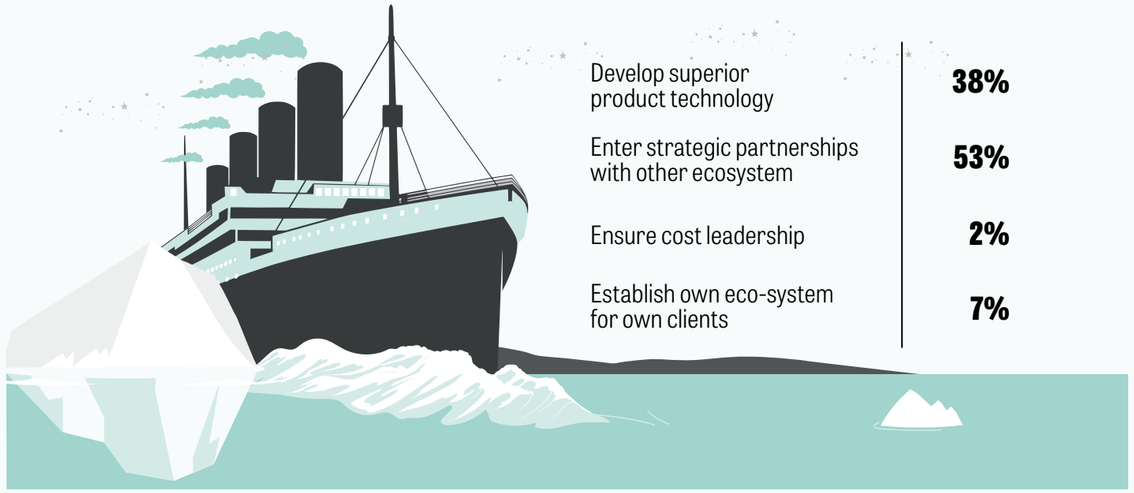
And yet, according to the thesis of the speech, one should not be deceived by the mere numbers: Google's business model, which is largely based on advertising revenues, may be lucrative in the short term, but it does not generate long-term added value. Sustainable changes and technological paradigm shifts have only ever been achieved through products if they were innovative. The logic that products follow is different from the logic underlying the New Economy, as can be seen, for example, in the prices people are willing to pay for luxury products or for things that promise us security.

AMAZON VS. MANUFACTURING INC. – BUSINESS MODELS FOR PRODUCERS TO COPE WITH AN ASSET-FREE ECOSYSTEM

This is why, according to the tenor of the speech, the key to every business model in the manufacturing industry will continue to be constant innovation, a challenge made even more urgent by climate change and other processes.

The question asked in our survey on this topic was: "What should be the priority for manufacturers to avoid disruption?" Nearly one in four respondents named superior product technology as a top priority, but even more (53 percent) felt that would be even more essential for further development to enter strategic partnerships with other ecosystems. Surprisingly enough, only 2 percent of the participants believe that cost leadership is a critical factor for business success (see **figure 5**).

Figure 5: What should be the priority for manufacturers to avoid disruption?



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