

Double Dis— rup— tion

What every company
needs to know
about the future

ELLUN  KANAT

*Double Disruption –
What every company
needs to know about the future*

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Foreword: Double Disruption – What every company needs to know about the future	4
Summary	14
Double disruption and change drivers	22
Globalisation: An uncertain, shock-prone world	27
Politics: movements challenge the machinery	36
Technology: speed and radical transparency changed everything	52
The Earth's ecological capacity: the climate crisis and resource scarcity define the future	62
Economy: companies with a purpose create sustainable value	74
Humanity: The limits of capacity are approaching	84
Also bear in mind: urbanisation, demographics and social change	94
Double disruption challenges companies and organisations	102
Closing words: Looking forward	110

Double Disruption – What every company
needs to know about the future

Transform or die. Ellun Kanat Company introduced the concept of communicative disruption in 2015. The rate of change had accelerated substantially and, as the Internet moved from the desktop to smartphones, technological development revolutionised communication. Companies and organisations were struggling with the new rhythm. Communicative disruption took place as companies, organisations and societies tried to apply traditional methods in a rapidly changing world. We declared that companies would either transform or die.

This disruption has hit our world hard and caused anxiety. Democracy, communication, power, politics, work, companies, organisations, hierarchies, culture and knowledge are all examples of things that were fundamentally challenged by the communicative disruption of the 2010s.

You are now holding Ellun Kanat Company's report called *Double Disruption – What every company needs to know about the future*. The rate of change is accelerating, and our analysis of the communication disruption is no longer sufficient to explain the current

situation. We are already facing the next revolution while still learning to cope with the previous one. Reaching the limits of the Earth's ecological capacity simultaneously with an age of technological upheaval results in double disruption. What's more, this report is being published as the world is facing a pandemic the likes of which has never been seen during the modern age, and one that will certainly have an impact on the future.

The world is full of different trend reports and future outlooks. However, they are useless unless you consider the relevance of the phenomena presented in them. This report presents various change drivers that will have a profound impact on companies, organisations and society. In our report, we discuss which drivers affect development and we also present our view on how these change drivers should be approached.

The following matters, in particular, are at the core of the double disruption:

1

The massive paradigm shift has been brought about by new communications technology.

When the smartphone changed our way of communicating in the 2010s, it also disrupted information, hierarchies, politics, power, transparency, public discussion, everyday life, culture, business models, earnings logic and the manner in which companies and organisations in general can operate.

2

Reaching the limits of the Earth's ecological capacity.

In 2019, the world was given a clear warning that its best before date is quickly approaching. The report by the International Panel on Climate Change (IPCC) made it clear that the current actions will not be sufficient

for reaching the targets set in the Paris Agreement. The target of the agreement is to limit global warming to 1.5 degrees. This would keep the effects reasonable in terms of humanity and the environment. According to the report, humanity has about ten years to act in order to stop the warming and avoid its catastrophic consequences. This will disrupt the economy, value creation, consumption, society, culture, politics, resource use, purpose of companies and everyday life for all of us.

Together, these two phenomena will cause a **double disruption**. Therefore, the most significant megatrend for companies and organisations in the 2020s will be **change**. The preconditions of the world as we know it were set in a different situation. A massive number of companies have also been

built to rely on these old preconditions. The changing preconditions will also alter companies' chances of survival.

Reaching the limits of the Earth's ecological capacity means that we are facing an unavoidable change that will basically concern everything related to human life. Above all, however, it will concern the economy, methods of value creation within societies, available resources, consumption, culture and politics. Major changes need to take place if we want to keep the Earth habitable.

Of course, it is possible that no changes will be actively made and we will keep operating the same as before. However, *business as usual* is now off the table as an option. Our operating environment will undergo major changes, regardless of whether or not we bring them about ourselves. Change will happen even if we do nothing. Its rate may be slower in this case, but the outcome will also be more unpredictable and comprehensive, as the current rate

of warming is predicted to have dramatic consequences. We, therefore, need to choose our strategy for approaching this change.

The purpose of our report *Double Disruption – What every company needs to know about the future* is to help readers understand the change that is under way, and to provide companies and organisations with tools for observing the future. We have backed up our vision with plenty of data, information and research. We have sought out different, interesting visions of the future and offer them to you, our reader. We have interviewed change experts for our report. On our website, Ellun Kanat Company's Disruption Barometer follows peoples' thoughts about change. We aim at painting an understandable and usable overall picture of what is happening right now, where the world is going and how you should act in this changing world. We believe that the change we are currently undergoing will affect the

strategic core of companies and how they need to communicate with the outside world.

However, this is about more than simply being at the mercy of change and adapting to it. Above all, it is about choosing the future and systematically working towards it. Before you can decide how you will change, you need to decide what kind of future your company or organisation wants to be involved in creating. This question is at the heart of everything right now, as we enter the second decade of the second millennium.

The purpose of this report is to shake companies and organisations out of their sleep, prepare them for the change, and to better explain the change we are experiencing. We also believe that, by grasping the change and boldly looking forward, you can both succeed and change the world for the better.

**Let's get things
done together!**

The report “Double Disruption – What every company needs to know about the future” compiles a vision of the revolution – double disruption – facing all companies and organisations, and the change drivers that each company and organisation should be aware of as we enter the 2020s. We also present a view of what the double disruption and change drivers will mean to the strategy work and communication of companies in the future.

Change drivers

The report “Double Disruption – What every company needs to know about the future” compiles a vision of the revolution – double disruption – facing all companies and organisations, and the change drivers that each company and organisation should be aware of as we enter the 2020s. We also present a view of what the double disruption and change drivers will mean to the strategy work and communication of companies in the future.

1

Globalisation: An uncertain, shock-prone world.

Global power structures are under many forms of turmoil. The global operating environment is unpredictable and vulnerable to shocks and surprises that may have far-reaching impacts. Global politics is characterised by the centralisation of power and the competition between China and United States as well as the values and world views promoted by these countries. At the same time, however, power is also becoming decentralised and diffused. It is being exercised by new types of actors that can challenge the existing power structures in entirely new ways.

2

Politics: movements challenge the machinery.

The future of politics will be increasingly defined by factors related to values and identity that motivate people to take action. This is not a new value distribution; instead, it has been developing since the 1960s. However, its power has only been truly manifested along with the communication revolution of the 2010s. Traditional political institutions, such as parties, have lost genuine contact with the people whose lives they aim to influence. With fewer and fewer people behind them, they are operating more and more like machineries. This paradigm shift in politics puts trust and democracy to the test.

3

Technology: speed and radical transparency changed everything.

The popularisation of smartphones in the early 2010s caused a massive disruption that sent shockwaves through almost everything in our lives. Radical transparency, a quick opportunity for real-time communication and the multiplication of information created a new reality that companies, organisations and societies are still trying to adapt to. In terms of scale, the change can be compared to the invention of the printing press – and we are only getting started.

4

The Earth's ecological capacity: the climate crisis and resource scarcity define the future.

We are reaching the limits of the Earth's ecological capacity. Due to both the climate crisis and resource scarcity, humanity will need to make an adjustment of unforeseen magnitude within the next decade if it wants to limit global warming to 1.5 or even 2 degrees. There are four different future scenarios: climate catastrophe, green deal, ecological reconstruction and absolute disconnection. The rate of change is currently too slow, which causes a major challenge.

5

Economy: companies with a purpose create sustainable value.

Criticism towards the current form of capitalism has increased as wealth is distributed more and more unevenly and the limits of the Earth's ecological capacity are approaching. In theory, it should be possible to create an economy that combines social justice, ecological sustainability and financial growth. In practical terms, we are already late as regards the climate crisis. Entirely new forms of value creation will be required going forward. The future belongs to companies that can clarify their purpose and capabilities for value creation as the preconditions for their operation change.

6 Humanity: the limits of capacity are approaching. A lot has changed over a short period of time during the past decade. In the Western world, burnout and stress are worrying trends. With less and less workforce available, companies need to be able to build a corporate culture that supports a positive work experience. The tools for this include group guidance, anthropocentrism and the structures and leadership that support them.

7 Also bear in mind: **urbanisation, demographics and social change**, all of which are massive megatrends whose manifestations have enormous impacts on companies and organisations. The ageing of the population and urbanisation are altering the social fabric that has served as the foundation for many of our societal and financial constructs.

Double disruption

The change drivers will affect companies and organisations in many different ways. However, two megatrends rise above all the other drivers in terms of defining the future.

The first of them is **technological change**, which in the 2010s caused a communications revolution and the first disruption of information, hierarchies, politics, power, transparency, public discussion, everyday life, culture, business models, earnings logic and the manner in which companies and organisations can operate in general. Companies and organisations are still learning to cope with the first disruption.

Now, the second massive megatrend – **reaching the limits of the Earth's ecological capacity** – will disrupt the economy, value creation, consumption, society, culture, politics, resource use and purpose as well as everyday life.

Together with the other variables, these megatrends will create a double disruption for companies and organisations, and the resulting accelerated rate of change will fundamentally challenge companies' abilities to change. This change will either occur as the economy readjusts to the limits of the ecological capacity or as the result of a dramatic downturn in the companies' operating environment if the limits of sustainability are not reached. The choice will be made within the next decade.

What will the double disruption and change drivers mean in terms of companies' strategy work and communication?

With the double disruption, the major megatrend for companies and organisations in the 2020s will be capability to change. In order to succeed in the world of the double disruption, you need to embrace major change. Above all, this will be seen in strategy work and communication.

In terms of strategy work, you need to adopt a new way of creating strategy on the move. You need to be able to clarify the purpose of your existence, predict the dynamics that may influence your company's future, and also prepare for surprises. You also need to build a shared vision of the future across the entire organisation and genuinely instil change. All of this requires an organisational culture that enables change and working towards it.

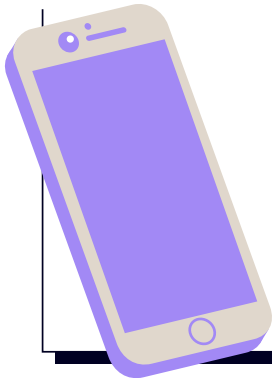
Communication, on the other hand, is the enabler for all of this, as it is the best tool for both advancing the company's internal work and justifying its existence to external parties. Communication is a process of constructing and receiving messages, but above all, it is about creating meanings. Today, communication is linked to everything. In a disrupted world, communication is required at all the various levels of change: establishing the purpose of a company or organisation, verifying the purpose within the organisation, making it visible externally and maintaining a dialogue between the company, society and the environment.

The vanguard companies that boldly look into the future will be the ones who dare to imagine a better future. Believing in the future and doing things differently will allow companies to survive, differentiate themselves and shine in the age of the double disruption. The most successful companies will boldly look into the future, even in the middle of a crisis.

As a company how to operate in the world of double disruption?

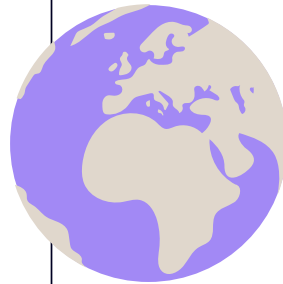
- Foresight and know-how on future.
- Clear purpose, continuous strategy work.
- Dialogic culture.

Disruption 2010



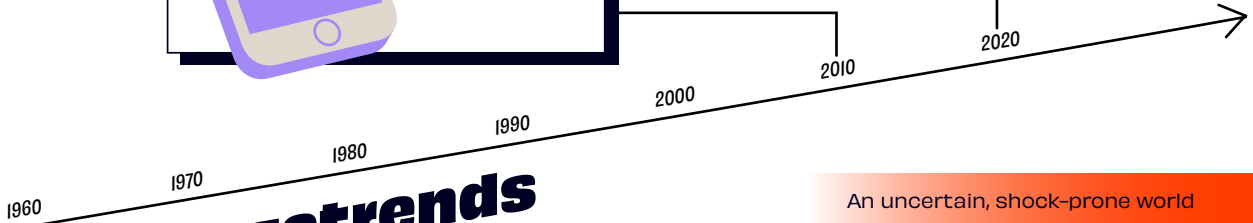
Power
Hierarchies
Companies
Work
Trust
Corporate responsibility
Politics
Culture
Knowledge

Double Disruption 2020



Economy
Value creation
Strategy
Meaning
Resources
Politics
Culture
Complexity

How to operate in disruption?



Megatrends and drivers:



How these affect companies?

Before we can talk about the double disruption, we need to look at both megatrends and trends: what they are and how they act as change drivers, both globally and locally. Although the double disruption will emphasise technological change and reaching the limits of ecological sustainability over everything else, we also need to have a broad understanding of the other dynamics, as the disruptions that companies face increasingly originate from outside of their field of business.

Being able to look forward and outward is becoming a key survival skill for companies. Before you can make your strategy future-proof, you need to understand the dynamics that influence the future: it is no longer enough to know your own field of business and its internal trends.

Events will occur in the future that will have an unavoidable effect on us and that we may have very little control over. At the same time, however, we will be able to control other things.¹ The digital revolution of the past decades is a good example of this. Each company has had to adapt to it. Some companies were overrun by the revolution; one of these was the photography company Kodak that did not survive the change. However, Fuji, a competitor to Kodak, saw an opportunity in the unavoidable change. Fuji took a bird's-eye view of its industry and the future and then changed its course. Currently, its website states that it is known for innovation in health care, graphic arts, optical devices, highly functional materials and other high-tech areas. When operating in these fields, it can leverage expertise gathered from film technology.

Surviving change requires finding answers. However, finding the answers requires asking the right questions. When doing that, you can look towards the change drivers: megatrends, trends and interesting phenomena that can be used as benchmarks for different fields.

Megatrends are extensive development phenomena that change relatively slowly and have an identifiable, clear direction of development as well as major impacts. A megatrend cannot be defined solely by looking at individual actors or factors. It is an extensive and usually global complex of macro-level phenomena and event descriptions that contain several different, even opposing sub-phenomena and event chains. Nevertheless, the complex that they form can be seen to be developing in its own direction that is expected to remain unchanged in the future.²

Currently, lists of megatrends generally include phenomena such as the climate crisis and resource scarcity, the ageing of the population, globalisation and the resulting change in power relations, and urbanisation.³ Trends are general directions for

¹ Hines & Bishop (2006)

² Rubin (2004)

³ See e.g.: Kiiski Kataja (2016); Dufva (2020); Hiltunen (2019); Black Rock (2019); HP Megatrends (2019); European Commission: Competence Centre for Foresight (2019); Institute for the Future (IFF) (2018)

development or change patterns that are smaller in scale when compared to megatrends.⁴

Many different interpretations of the megatrends are currently available. At Ellun Kanat Company, however, we are most interested in the changes and their impacts on companies and organisations on a wider scale. This is why we have considered it meaningful to create our own interpretation of the key change drivers from a double disruption point of view.

We have chosen the generally known and recognised megatrends and examined them from the point of view of the change pressure they cause towards companies and organisations. We have also added two new perspectives into our interpretation: new value creation and human capacity. These two phenomena are not visible in the current lists of megatrends, and they cannot be counted as such. However, we believe that these are phenomena that anyone planning future business would do well to understand. They may grow into megatrends, which is also why it is important to discuss them as change drivers.

4
Rubin (2004)

Globalisation: An uncertain, shock-prone world

A globalised world is susceptible to shocks and surprises. Economic systems are globally intertwined while the worldwide political system is diffused. As regards global power relations, we can see three major forces that are mismatched and work in different directions: global insecurity and the simultaneous centralisation and diffusion of power.

World in a state of insecurity

With the rapid globalisation and technological development in recent decades, the world has entered an era of high interdependency. Interdependency means that matters taking place on different sides of the world may have a strong impact on each other. This interdependency is built around matters such as global trade and production chains, logistics, energy, human mobility and political processes.

All of this is reinforced by the close and rapid connections between people which are made possible by the Internet and social media. Tightening this interdependency has simultaneously created risks of chain reaction-like vulnerabilities in societies and companies. Vulnerabilities may be exposed by the consequences of different surprising events, such as economic crises, terrorist attacks, viruses, natural disasters, technological threats, political instability or conflicts.

An increase in shocks or extreme events has already been predicted for a longer time.⁵ However, no one can create an exact list of events that could cause a shock. Firstly, this is due to *unknown unknowns, things that we are unaware of not knowing*. Secondly, shocks commonly involve social contingencies that may be impossible to control, trace or prevent. In this sense, shocks are also unpreventable, but applying different tools allows you to better understand the future and possible paths for development and to build resilience, which refers to flexibility and the ability to adjust to different situations.

The challenge has been that, even though shocks are known to have massive impacts on societies and the economy, their randomness and rarity have made them matters that are preferably not thought about. Shocks and extreme events have countless multiplier impacts on human behaviour as well as institutions and, thereby, the future. When a shock occurs, the corrective actions often require substantial investments from the public sector, and the events will also commonly have massive impacts on businesses and individual people. Shocks, their prevention and building resilience should, therefore, be a matter in the minds of decision-makers on the public and private sectors alike. Resilience, or the ability to adapt to and recover from shocks, is built every day as we live our lives. A society's ability to recover from shocks is intrinsically connected to the shape of its institutions, its infrastructure, and its ability to cooperate and culture of cooperation. Resilience can be built by creating practices for continuous anticipation within society and companies alike. A sufficiently broad economic structure and a wide range of different companies are important for a society's resilience. Companies, for their part, should have the ability to anticipate the future and iterate their strategy under rapidly changing conditions. During periods of slow growth or recessions, the public sector could even support companies in their anticipation and in building tools to survive the recession. A competent and well educated population is also important for resilience, as it can operate in very different situations.

As the world has transitioned into an abnormal situation caused by the COVID-19 virus in the spring of 2020, shocks and the vulnerabilities of societies and the economy are especially important targets for research. During the past decade, several parties engaged in anticipation have warned of different events that may paralyse societies around the world. In this sense, a global pandemic is not a major surprise; instead, it is a matter that has been considered, alongside other global risks, as a possible shock scenario for societies.

When you want to access the uncertainties in your anticipatory work, you should consider the following actions, for example:

- 1 Listen to a wide range of experts from different backgrounds.
- 2 Dare to challenge your assumptions and existing strategies.
- 3 Use a systematic process and methodology when studying the uncertainty factors and surprises.
- 4 Aim to take concrete actions in light of the results.

The pandemic of 2020 will surely alter the global economy, and the timescale and scope of the structural change are completely uncertain for now. In 2019, globalisation seemed to be accelerating, even though there were already dark clouds on the horizon. The cross-border mobility of international trade, capital, information and people reached the highest level since 2007, when the percentage was even higher. Nevertheless, the degree of globalisation is likely lower than people imagine. People and products remain local. Only 20% of the world's production is exported, 7% of the world's telephone traffic (including VoIP) crosses boundaries and only 3% of the world's population live outside of their home country.⁶

It should be noted, however, that the proportion of expatriates is larger than ever before and it is expected to grow as a result of the climate crisis in particular.⁷

In autumn 2019, the World Trade Organization (WTO) reported that the number of new political decisions that limit trade had quickly increased by 37% in the world's largest economies during the previous year. According to the WTO, these limitations have direct impacts on the development of the global economy, as the increased limitations are pushing growth towards zero. WTO also estimates that new trade barriers will continue to be set up.⁸

Global risks are becoming even more likely, but there seems to be a lack of willingness to combat them together. Instead, differences are being emphasised, and this trend seems to be strengthening with the

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Casti, Ilmola, Rouvinen & Wilenius (2011)

6

Altman, Ghemawat & Bastian (2019)

7

National Intelligence Council (2017)

8

World Trade Organization (WTO) (2019)

power politics between nations and the rise of nationalism. The thought of “taking back control” resonates across many different countries. At the same time, many countries are using their political power for problem-solving on the national level at the cost of the larger, global issues. The risk is that the global problems will continue to grow and become increasingly harder to prevent.⁹ Already in the early 2010s, the Organisation for Economic Co-operation and Development (OECD) anticipated that sudden events with global impacts will become more common, and that global interdependency will amplify their impacts. In the field of foresight, these events are known as black swans, disruptions or blinds.¹⁰

Power is being concentrated globally: The power struggle between the United States and China uses both conventional and modern means

The global world order led by the Western bloc, as we know it, is disappearing. Out of a global, complex operating environment, two competing giants will rise: The United States and China.¹¹

China has risen alongside the United States in the superpower game primarily due to its massive rate of capacity growth. The United States and China are now even in terms of several benchmarks measuring economic performance, such as GDP purchasing power parity and trade volume. The Chinese economy keeps growing at a rate of 4–7% per year, compared to 2–3% for the US economy. When measured by purchasing power, the Chinese GDP bypassed the United States in 2010 and is likely to be twice that of the US by 2030. The rate of growth in China is also a good depiction of the trend of Asia’s growing middle class. By 2030, 70% of the Chinese will be middle-class, and the Asian population in general is forecast to represent up to 66% of the world’s middle class by 2030.¹²

Throughout the 2010s, the United States has been increasingly aligning its policies in international politics towards domestic voters as well as withdrawing from its role as the global leader. From a future perspective, it will be very interesting to see how the rising and emerging economies will shape the global institutions – or if they will establish completely new ones?

China is already showing signs of this. From the financial side, we can look at the Asian Infrastructure Investment Bank or the New Development Bank, for example. China is also building global infrastructure with the Belt and Road project, the new Silk Road, with the goal of opening a seamless trade route over land and sea to Eurasia and Europe. Over 80 countries have already signed a partnership

agreement. China is skilfully mixing up the ways it exercises power. Instead of looking for allies in the traditional way that the United States prefers, it has been utilising strategic partnerships to build trust and establish relationships across the world.¹³

What makes the competition between United States and China especially interesting is that the power struggle currently also extends to technology. The Internet is a contested platform, but new technologies, such as 5G, AI, nanotechnology and robotics, are also intertwined in interests related to geopolitics, finances and trade. The infrastructure of the new millennium will be built on digital traffic. It is by no means insignificant whose platforms are used for digital data traffic, trade and connections between people. Control over the infrastructure ensures a leading position in the world economy and politics. The future of democracy will also largely depend on who controls the development of the Internet and technology.

China has been very determined in seeking global technology leadership and disconnecting itself from us technology companies. China currently has more Internet users than any other country.¹⁴ China is also leveraging its massive user volume, domestic legislation, innovation and foreign politics to build an impenetrable cyber security system. It also aims to take more control over the Internet, attract more world-class companies onto its platforms and lead the world in advanced technologies. TikTok, popular among young people, is the first Chinese social media platform to reach global success. China becoming a cyber-superpower is by no means a done deal. Nevertheless, its massive size and technological progress give it a clear advantage. It can shape cyberspace into its own image. If this happens, the Internet is likely to be much less global and open because the Chinese government's view on the freedom of discussion and access to information is very different from its Western equivalent. Chinese applications and digital devices are also becoming more commonplace.

Freedom House, an organisation that follows democracy across the globe, has stated that the digital practices employed by China are a severe threat to democracy.¹⁵ Of course, we need to bear in mind that the Internet also has problems in the Western world. The extensive surveillance of citizens performed by the NSA in the United States and the uncertainties regarding the collection of data by social media companies are examples of similar issues that the United States and Europe are facing.

9
World Economic Forum
(2019a)

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OECD: Reviews of Risk
Management Policies
(2011)

11
Creutz, Iso-Markku, Raik
& Tiilikainen (2019)

12
Kharas (2017)

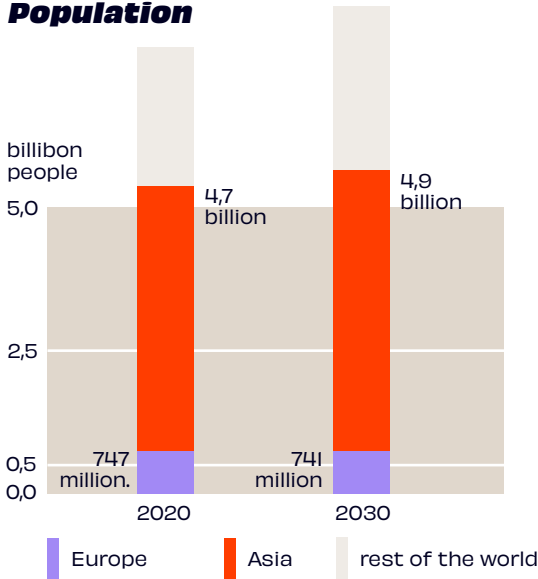
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Creutz, Iso-Markku, Raik
& Tiilikainen (2019)

14
Foreign Affairs
(2018, lokakuu)

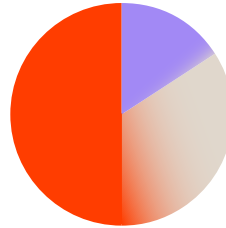
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Freedom House (2019)

Europe and Asia in numbers

Population

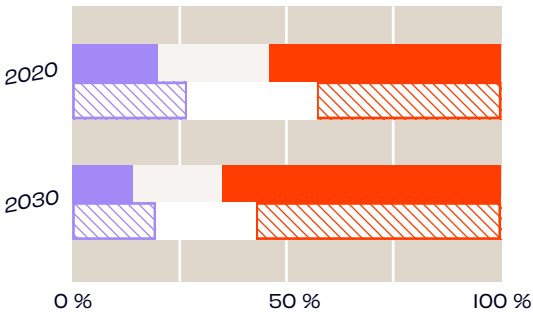


Economy



In 2020, Asian economies will amount to more than half of the world's GDP (measured in purchasing power). The EU's share in 2020 will be some 16%

Middle Class



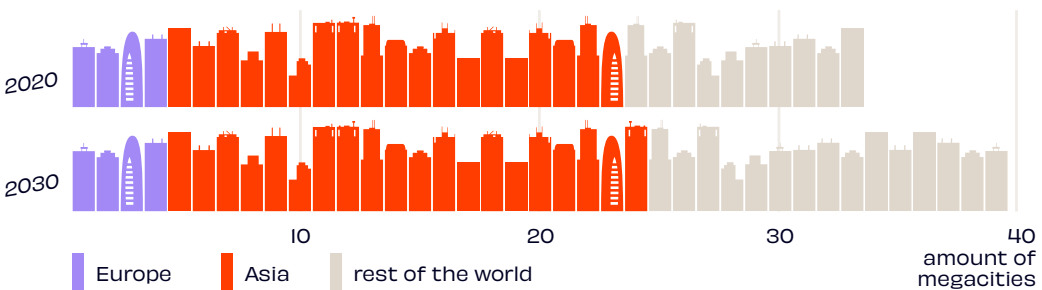
Middle class share of the world's middle class:

Europe (blue), rest of the world (grey), Asia (orange)

Middle class consumption, share of all middle class consumption in the world:

Europe (blue), rest of the world (grey), Asia (orange)

Megacities



Data sources:

United Nations, Department of Economic and Social Affairs, Population Division (2019);
The Financial Times (26.3.2019); Statista (2019); Kharas (2017); Razvadauskas (2018)

Europe and the third way of technology?

Technology is currently the subject of a global struggle. China's authoritarian vision of a nationalised and government-controlled Internet challenges the United States' vision of a global Internet based on the private market. On the other hand, many US technology giants have been criticised for dodging responsibility for disinformation and hate speech as well as for violations of users' privacy. Alongside the Internet, new technologies, such as artificial intelligence and the platform economy, also involve questions regarding the rights of individuals and social justice.

Europe has been wondering whether it could offer a "third way" for technology in the future. In this vision, technology is both developed and utilised in alignment with the public-private-people approach. This will allow both public and private parties to participate in the development. The thinking emphasises utilising technology for the benefit of democracy, the economy and the lives of individual people. Discussions on ethics and a perception of the common good would be key parts of the technological development in this vision.¹⁶

China is exercising its soft power, or cultural power, by acquiring strategic partnerships around the world and providing plentiful funding to science and culture, for example. Internal problems in Europe and the United States have been beneficial to China's soft power approach.

Although the Chinese model of society has not been traditionally attractive from a Western perspective, China's economic boom has been so significant that the Chinese government has coined its own concept of the Chinese Dream to counter the traditional American Dream. As Europe and the United States struggle with financial insecurity, reduced social mobility, economic inequality and employment, the Chinese model gains a foothold in developing countries.¹⁷ However, the global world order of the coming decades will be characterised by the fact that China is not committed to human rights, good governance, democracy or government transparency. In its own rhetoric, these are replaced by Confucian values such as harmony, unity, co-existence and shared wealth.¹⁸

The Western countries, for their part, are struggling with surviving the pandemic and an era that is characterised by challenges to democracy, instability created by technology, social inequality, and slow economic growth. The internal problems of Western democracies are developing into a similar force that will alter the global playing field.

Power is being diffused and decentralised globally and exercised by new actors

We can see that the centralisation of power, authoritarian leaders and strong nations are starting to dominate the global operating environment once again. At the same time, however, we can find a strong counter-trend that challenges the centralisation of power and the struggle between the current superpowers.

We have seen actors emerge that have no official authority but can nevertheless challenge the power of nations and even the global order. At the same time, new communications technology continues to empower individuals. The power of nations is mixed with a complicated operating environment where a group of individuals or a movement built around a single cause can challenge the discussion and status quo. These types of movements have risen around the climate crisis and human rights, for example. New movements and activity can also be created around global corporations, religious movements or civil society activists. The

global order can also be challenged by cities, as the megatrend of urbanisation increases their local, national and global influence. Terrorists and criminal organisations can also operate more easily in this changing, decentralised environment. Intergovernmental organisations, people of influence and different forms of hybrid influencing can also be added to the list.¹⁹

Overall, exercising power becomes more difficult as more actors have the opportunity to exercise it. However, the diffusion of power also provides us with unforeseen opportunities to bring matters to the global agenda that arise from people's needs and hopes related to their own future. In peace negotiations, for example, we can see weak signals that agendas are shifting from superpower interests towards the needs of local people and a shared dialogue. Participation and involvement allow for creating sustainable stability on terms that people genuinely require.²⁰ The youth front led by **Greta Thunberg** has changed the discussion around climate crisis prevention. Instead of focusing on individual choices and technological solutions, the discussion has shifted towards challenging decision-makers. The discourse has changed after the generation that needs to pay the price for political actions joined the table.²¹ This is a significant change, although the actions resulting from these demands are yet to be seen.

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The Diplomat (18.11.2017)
- 18
De Wijk (2016)
- 19
Creutz, Iso-Markku, Raik & Tiilikainen (2019)
- 20
Director of CMI Tuija Talvitie, interview, 11.12.2019
- 21
Hanna Nikkanen, interview, 16.11.2019
- 22
Edelman Trust Barometer 2020 (2020)

Other new forms of influencing include informational influencing, hybrid threats and cyber warfare. Governments, companies and organisations must be able to understand these methods. They must also create new ways to respond to the crises brought about by the newly changed situation. In the global Edelman Trust Barometer survey, up to 76% of people were concerned that fake news could be used as an attack on society.²²

Our global future largely depends on how individuals, groups, societies and governments can renegotiate their expectations concerning the political order. We live in a time that is characterised by strong nations, on one hand, and strong displays of diffused power by individuals and groups, on the other. We need to solve difficult problems related to the climate crisis, radical deterioration of living conditions, fairness between generations and challenges created by technology. Will we be able to create global political actions in the future that will enable us to solve the problems? Or are we on an unstoppable path towards new conflicts? There are no answers yet.

Politics: movements challenge the machinery

Contrary to what Europe and the United States hoped after the end of the Cold War, the 2010s have not been a victory march for democracy. Freedom House, which tracks the progress of democracy around the world, reported in 2019 that the level of democracy had been declining internationally for a total of 13 years. With the exception of the Asia Pacific region, all studied areas ranked lower in the results for 2018 than those for 2005.²³

Tensions based on values and identity are surfacing in different ways and places. Political leaders and communities feel that they have lost control of the country's internal development or international factors. To counteract this, they are working to reinforce the nation and its safety and sovereignty. At the same time, the diffusion and reforming of power challenge the familiar ways of exercising it. The centre field in politics becomes smaller, as political division pulls the future questions further away from the centre.²⁴ The new political forces can be called *movements*, while the traditional forces are more like *machineries*. Why has this happened and what does it mean?

Political machineries running on empty

Voter turnouts and party memberships have been on the decline for a longer time in Western countries. In the Nordic countries, for example, only some 4–5% of the population in each country are currently members of a political party.²⁵ These figures are very similar across Europe, and very low when you consider that parties exercise substantial power in a representative democracy.

There has been a lot of discussion about the reasons for the weakening of representative democracy. In Western countries, parties were born around the societies' production and class structures. Up until the early 2000s, political maps in many countries have been reminiscent of the 20th century class structure, with farmers, workers and the bourgeois. However, the role of parties as unifiers of social classes and providers of identity has been eroded. We have moved from class parties to general parties.²⁶ These general parties can be characterised as machinery parties, as they operate with certainty, answer any questions according to their own logic and try to speak to a broad constituency by operating around the centre of the political landscape.

However, the disappearance of strong ideological or identity-creating questions from the parties is also a reason for the crisis they are facing. For example, the late politics researcher **Peter Mair** compared the party systems between different countries and came to the conclusion that the cause of the political crisis actually lies within politics. As the world changes, politics cannot react fast enough, as its internal structures guide it in the wrong direction. Over the past decades, politics and politicians have distanced themselves from the citizens and civil society while making decisions according to their internal logic.²⁷ The political machinery has replaced genuine contacts with the voters.

In a democracy, representation works in two ways. The first has to do with power and governance exercised by the citizens themselves – governing *by* people. Here, parties are seen as the people's movements, and politicians are elected into their positions as citizens, not as experts. The second method involves power and governance that is exercised on behalf of the citizens – governing *for* people. Here, parties and politicians manage society as a kind of a service to citizens. Over the past decades, European democracies have emphasised governing for people over governing by people.

23
Freedom House (2019)

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World Economic Forum
(2019a)

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Demker, Heidar
& Kosiara-Pedersen (2020)

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Westinen (2016)

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Mair (2013)

Expertise has been a key emphasis for politics and decision-making. People have not always had the opportunity to participate in the political discussion by applying their common sense. According to Mair, for example, this development has been ultimately seen as an inability by the parties to build new solutions. New solutions could be used to alleviate concerns that genuinely affect the lives of citizens, and to create space for governing by people.

It can, therefore, be said that the trend of machineries has been dominating politics for years. This trend now has a powerful challenger, however: Movements have been born to counter the machinery. Movements organise people around new types of issues that are meaningful to them.

Movements challenge the machinery

Even though *a crisis of democracy* has been brought up in recent political discussions, the matter is more complicated than that.

If we accept the notion that people have become distanced from the agenda of traditional machinery parties, we can also consider that people have a need to fill the empty political space. Power is challenged and the matters that touch people are brought to discussion.²⁸ In this sense, it is not a crisis of democracy; instead, it is a demonstration of its strength and ability to channel to the needs of individuals. In order to work, democracy requires power to be constantly challenged. It needs to transform into decisions in exactly those matters that touch and move people.

This will unavoidably lead to creating new political division lines and differences, which have previously become blurred in the centre.²⁹ Therefore, disruptions to democracy can also be seen as displays of power by the people. Power comes from the people and, in the end, it does not belong to anyone. Society has an open architecture and it renews itself through conflict.

The political machine, parties, cannot operate without the necessary energy: movement and people. Now, in the early 2020s, the energy and movement in politics are being drawn on the map in an entirely new way.

At the moment, questions related to identity and values, in particular, seem to be the most powerful forces shaping the political map.³⁰ The questions are related to nationalism, religion, nationality, climate, gender, equality, treatment of minorities and the different forms of freedom. The new political division lines are also reinforced by phenomena related to generational differences and feelings of financial insecurity and inequality.

In Europe and the rest of the world, we can see a trend that differentiates the movement parties from traditional ideological frameworks. They are aligning in different ways to respond to concerns that their leaders say traditional machinery parties have failed to connect with. **Emmanuel Macron** from the En Marche party won the French presidential election in 2017, and both the Christian Democrats and Social Democrats have suffered significant losses in Germany, making the far-right Alternative for Germany the third-largest party in the German Bundestag. In Italy, the centre-right and centre-left received less than one fifth of the votes in 2018, which resulted in a coalition government between the populist Five Star Movement and the right-wing Lega party. In Finland, the Finns party has been growing throughout the 2010s, and is now even reaching the top spot in the polls. In Brazil, the long reign of centre parties ended with the victory of the far-right **Jair Bolsonaro**. The incumbent us president **Donald Trump** and British PM **Boris Johnson** are also part of the grand populist trend. In contrast to the far right and the populists, green parties, which can also be considered movements, have gained major ground across Europe and transformed from challengers to a significant political force.

The new movement parties answer some needs that old machinery parties cannot put on the political agenda. However, these political division lines based on values and identity are in no way new; instead, their foundation seems to have already been laid in the 1960s.³¹

Political researchers **Ronald Inglehart** and **Pippa Norris** have been following the development of values with the World Values Survey for decades and established that the significance of income levels and social class in voting decisions has been declining since the 1960s. This was when questions related to values, culture and identity already started to become visible in the large value surveys and in politics as well.

This development can be seen to have started with the cultural upheaval of the 1960s and 1970s, when new generations put women's rights, the rights of minorities and environmental matters on the political agenda. Later additions include gender equality, secularisation, matters related to gender diversity and sexual freedom as well as abortion rights.

This trend has developed a strong counter-trend characterised by a longing for authoritative control, conservative values and support of nationalism. During the us presidential elections, Donald Trump understood that cultural threats would be

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Bilakovics (2013)

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Martin (toim.) (2013)

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Norris & Inglehart (2019)

31
Norris & Inglehart (2019)

much more useful for moving the Republican base than free trade or tax cuts. During the election, up to 65% of white Americans stated that they would be ready to “vote for a party that would limit immigration, promise jobs for American workers, protect their Christian heritage and stop the threat presented by Islam.”³²

This counter-trend of traditional values has been visible in the World Values Survey for a long time, but it only mobilised into actions, political movements and parties in the 2000s. These movements have become a proper political force in the 2010s, and their rise has often been propelled by strong online movements and discussions.

Large samples of value responses seem to indicate that the liberal side was politically mobilised much earlier and more actively than the conservative side. This could also be seen in Western politics, especially in the United States, as a relatively liberal main stream from the 1960s onwards. However, research from the early 2000s shows that the current political division was already visible in the value survey.

At the same time, the survey indicated that supporters of conservative values were less keen to participate in national politics or to appear on the political arenas as the supporters of liberal values. In the value surveys, the supporters of liberal values stated that they were happy to promote their causes through politics and associations, in contrast to supporters of conservative values who preferred to work within their church or nearby communities, for example. At that time, researchers were contemplating how long it would take for the conservative supporters to mobilise politically.³³ Compared to the past decade, conservative values were still lacking in political representation in the early 2000s.

Another interesting feature of the new value-based political division lines is that they are crystallised around individual questions instead of extensive topics. Voters seem to be choosing a party based on its stance on the question that they consider to be the most important. For example, voters of populist parties are aligned on matters such as immigration and the EU, but they may strongly disagree with the party on matters such as social equality or sexual minorities. However, they are willing to ignore these values in favour of the most important question.³⁴ This sets a major challenge for centre-field, general parties that aim to provide responses to many different questions across a wide front.

The resurgence of traditional values likely required new mobile technology to happen. The new technology moved political arenas away from the citizen meetings, conference halls and capital cities, first onto Internet forums and, later, onto social media where strong

Identity

Philosopher Francis Fukuyama describes the rise of identity politics, related to the changes in the political system, in his book "Identity". According to Fukuyama, identity politics are primarily fuelled by thymos, an individual's natural desire for recognition and glory. In the post-modern political system, the need for recognition is visible as self-empowerment and the restoration of glory of the individual's reference group. The tools and mechanisms of social media enable this empowerment and provide a more efficient platform for being heard than anything earlier in history. In Fukuyama's thinking, the era of identity politics is best suited for parties that can best harness and channel this need for empowerment.³⁵

movements began to take shape. Demands for presenting opinions and political views took on entirely new forms on Facebook, Twitter, alternative media and the endless barrage of memes. Suddenly, it became possible to challenge the role of journalistic media and their gate-keeping regarding who can be on the air and what can be said. The sharpening of political opinions and voting for providers of single solutions may be the result of a changed, rapid communications environment. You need to choose your words sharply in order to stand out from the flood of messages. The new movements have been much more skilled at this than the old machineries.

The change in values has been visible for a long time, and the political mobilisation around them has probably been only a question of time –

- 32 Gest (2016)
- 33 Flanagan & Lee (2003)
- 34 Fukuyama (2018)
- 35 Backlund & Jungar (2019)

and possibly technology. New technology is changing society on a grand scale. Maintaining political control has also become more difficult and cabinets can be easily toppled, as the political field is dispersed and decider parties can strongly affect political agendas and outcomes.

The industrial revolution changed society, transferring power from the classes to parliaments. It will be interesting to see where the representative power is transferred next and what will be the forums of power going forward. The old parties have done little to react to this change in the political division lines; they are still competing on traditional political questions regarding the economy and the social dimension, even though the voters would like to discuss different matters. This can easily result in a problem of representation, as citizens are asking for values but the party system cannot provide a representative for them.³⁶ A good example of this is the creation of Finland's equal-opportunity Marriage Act, which required a citizens' initiative and a group of activists to support it.

Slippery slope for liberal democracy

As the traditional division lines in politics fall, there has been growing concern that liberal democracy is being challenged. This is because the new, rising parties and movements may have agendas that question the very principles that Western liberal democracies are built on. For example, these agendas may be related to the principles of the constitutional state, human rights or international agreements that have been signed to guarantee human rights and freedoms. Western liberal democracy is not solely based on majorities; the majority cannot dictate everything alone, with

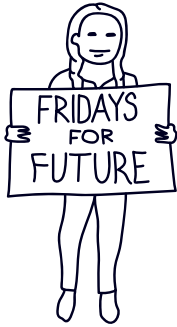
no regard to the rights of the minorities. The beauty of liberal democracy lies in its ability to fit different interests together, so that no one gets everything and everyone gets something.

Democracies also need to consider their relationship with sentiment in politics. As the social media algorithms pick up on contents that evoke sentiments, politics also needs to deal with them more intensively.³⁷ In a democracy, however, institutions and laws have been set up in order to guarantee that everyone is treated equally, not arbitrarily or based on sentiment. It could be that, following this massive shift in exercise of power, we face yet another challenging task related to the citizenship skills of the future. The ancient philosophers already saw that the core of democracy is built around citizens and their ability to exercise power. Citizens must be able to manage official tasks responsibly, as they both control the nation and are its subjects.³⁸ In order to operate in a democracy, citizens need to manage this double role. As the Internet and social media have distributed power from the institutions to the citizens, the citizens now need to exercise this power responsibly. This requires media reading skills and digital skills, the ability to see the bigger picture and the competence to operate according to the deep principles of democracy.

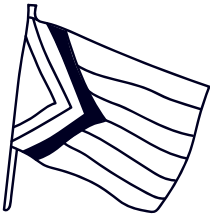
When movements challenge machineries, we need to ensure that we are not throwing the baby out with the bathwater. In all likelihood, we are only at the beginning of an entirely new era. The continental plates of politics are shifting, and by the 2050s the political map will surely be different from what we were used to at the end of the 20th century.

³⁶
Westinen,
Kestilä-Kekkonen
& Tiihonen (2016)

³⁷
Knuutila (2019)



GREENPEACE



SAK

Green
Alternative
Libertarian



vasemmisto



GAL-TAN

Instead of the traditional right-left axis, the GAL-TAN scale divides the political field between Green, Alternative and Libertarian, on the one hand and Traditional, Authoritarian and Nationalist, on the other hand. We can place the traditional machinery parties, which have approached each other in terms of politics, at the centre of this scale, and the green and right-wing populist parties at the ends of the scale. The scale also contains different movements that have been increasingly able to influence the political agenda. GAL-TAN is unlikely to be a perfect match for any situation, but it is useful when considering the overall dynamics of the political field. This GAL-TAN axis is describing the situation in Finland.



Päivän Byrokraatti

HOMMA
www.hommaforum.org



Traditional
Authoritarian
Nationalism


KOKOOMUS



Kristillisdemokraatit



Trust during the age of the disruption

Trust is the foundation for real democracy and economic activity. Overall, any demanding forms of cooperation within smaller communities, the working life, politics, science and the arts require trust between people. Building trust requires functional democratic institutions and the ability to work together with different people. Communities that feature a high level of trust and a feeling of reciprocity are safer as well as more flexible and productive than communities dominated by isolation and distrust.³⁸

The Edelman Trust Barometer measures trust around the world each year.⁴⁰ Trust in institutions, the elite and authorities has decreased significantly over the past two decades. The popularisation of social media has created a trend of people trusting their peers. In the Edelman Trust Barometer for 2019, it seemed that people were also increasingly trusting the parties close to them, such as their employers. Employers were the most trusted parties in the survey for 2019.

The division of society can also be seen in the trust survey. General trust towards institutions reached record numbers among people who considered themselves well-informed. An entire 65% of this group of people indicated that they trusted institutions. At the same time, a large group of people who felt that they were not well-informed did not trust institutions. Only 49% of them indicated that they trusted institutions.

This sort of ideological division in trust can be seen in two thirds of the countries involved, and it is the strongest in the United Kingdom. A large divide in terms of trust towards society is also fertile soil for nationalism, protectionism and different forms of societal rebellion. This could be referred to as trust-related inequality, and it has now reached developed countries as well.

Pessimism is also on the rise globally. Only one in five respondents with low trust believed that the system is working to their advantage. In the developed countries, only one in three respondents in this group thought that their family would be doing better in five years. Fears of unemployment are high. A total of 83% are afraid of losing their job due to automation, the gig economy, lack of skills, immigration or a possible economic downturn.⁴¹

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Alhanan & Perhoniemi (2017)

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Lahti (ed.) (2018)

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Edelman Trust Barometer 2019 (2019)

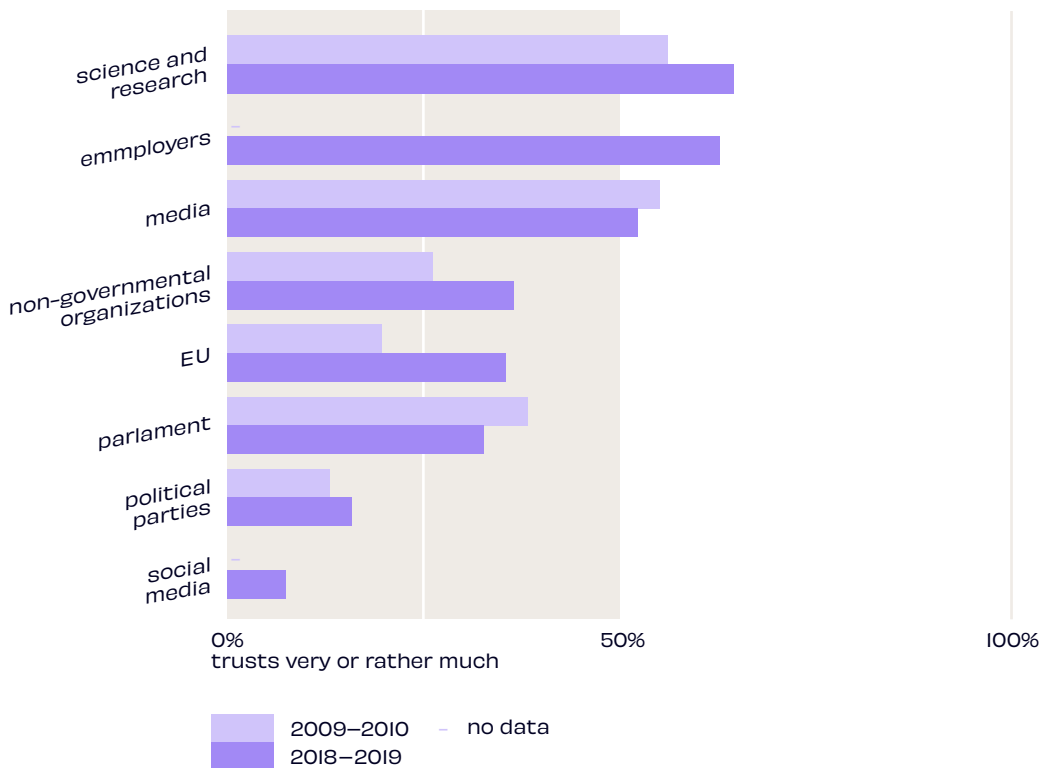
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Edelman Trust Barometer 2019(2019)

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EVA:n Arvo- ja asennetutkimusten tietokanta (2009), EVA:n Arvo- ja asennetutkimusten tietokanta (2019), Tiedebarometri 2010 (2010), Tiedebarometri 2019 (2019), Työ- ja elinkeinoministeriö (2018)

The trust of Finns in domestic institutions ⁴²



At the turn of the decade, a clear change from earlier trust surveys is that watching, consuming and sharing news have clearly increased in recent years. Now, a total of 72% of the respondents want to ensure that the news contains correct facts. This is a dramatic change from 2018, when half of the respondents were distrustful of traditional media. Currently, trust in traditional media seems to be soaring compared to the reference years: up to 66%

trust in traditional media. Social media, on the other hand, is in crisis: only 43% trust it.

Results from the OECD are not positive in terms of trust, either. Only 43% of residents in OECD countries trust their government.

Based on an extensive study, the OECD has defined two fundamental elements that administrations can use to build trust. These elements are the ability to implement services and value-based decision-making.⁴³ The administration must be able to anticipate change and protect its citizens. It also emphasises values that should guide decision-making under all conditions. Open information sharing and active interaction with the citizens during the decision-making process is very important. The administration should also promote the improvement of socioeconomic status for everyone and equal treatment aiming at fair governance.

Difficulties in control and exercise of power

Exercising power is becoming increasingly difficult. Forming majority governments and keeping them in power for their entire term has become increasingly difficult in the 2000s. Power has shifted substantially from West to East, from the cabinets to the streets, from institutions to people, from hierarchies to peers and from journalistic media to the Web. It is characteristic of the nature of the trend that it is not unidirectional; there are also counter-movements. These can be seen as efforts to centralise power and take control. Technological, economic and social change all create new conditions. However, we are hearing more and more objections

and different opinions regarding the basics that define society. Despite the efforts to centralise, this variety of opinions has made it difficult to effectively pursue political agendas or to retain control as in the past.

In the 20th century, the use of power was characterised by the Weberian idea that power is based on bureaucratic organising and a rational approach. Weber argued that, before the modern society, use of power was based on tradition and charisma. He believed that bureaucracy was the key to exercising power. It enabled people to be organised around different tasks in the most efficient manner, distributed clear liabilities and obligations, and defined the hierarchy and command chain. Weber showed how a rational, professional, hierarchical and centralised approach to exercising power suits many different fields, from political parties to universities and governments.⁴⁴

The obstacles to attaining power have been lowered substantially and quickly during the past thirty years. Formal authority is easy to bypass and its credibility can be easily brought to question. A major cause of this change is new communications technology, which we will discuss in detail in the following section. However, it is not the sole reason, and this change results from a long development. One way to describe this development is to organise it into three types of revolutions: The “More of everything” revolution, the mobility revolution and the revolution of minds.⁴⁵

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OECD:

Trust in Government (2015)

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Weber (1921); Naím (2013)

45

Naím (2013)

The more of everything revolution

In the “More of everything” revolution, we have access to more of everything than before. More people, countries, cities, parties, armies, goods, services, companies, medicines, students, computers, technology and so on. The world economy has grown fivefold since the 1950s. Halving extreme poverty, one the UN's Millennium Development Goals, was already reached in 2015, as 660 million Chinese have risen from poverty over the past forty years. The entire 2000s have been a period of substantial improvement in terms of poverty, infant mortality, access to food and education. This is the core of the “More of everything” revolution: When there are more people, they live longer and they are less vulnerable, but they are also more difficult to control.

The mobility revolution

The mobility revolution means that the world's growing population is also an increasingly mobile population. As people move, they also move ideas, thoughts, capital and religions. Mobility can lead to both imbalance and empowerment. The UN estimates that the world has 214 million immigrants, which is 37% more than during the two earlier decades. During those decades, the number of immigrants grew by 41% in Europe and 80% in the United States. The mobility revolution is also linked with the megatrend of urbanisation. Each year, a total of 65 million people everywhere in the world move to the cities. In addition to people, the world is now seeing an unprecedented amount of mobile goods, services, money, information and ideas. Exercising power requires an object, but mobile citizens, consumers, investors, employees and customers in many parts of the world can change their place of residence.

The revolution of minds

The revolution of minds has made people expect more from their lives. The world's growing middle class expects prosperity, freedom and opportunities for self-fulfilment. Governments face more and more expectations, which may be difficult to meet. Political pressure is caused by both the globally growing middle class and the Western middle class that struggles to retain its benefits. Attitudes towards authorities have strongly changed within the scope of a few decades, and younger generations in particular are no longer afraid of challenging them. In addition to these factors, the revolution of minds is driven forward by people's growing wishes for a better everyday life, globalisation and available technologies.

Technology: speed and radical transparency changed everything

Rather few were able to predict the change that would be brought about by the popularisation of the Internet in the early 2000s. Mobile Internet revolutionised everything, from politics to dating. The effects on everyday life were not as significant while the Internet was bound to a desktop computer. We would still keep our phones in our pockets while on the bus and book our trips on the PC. Taking part in an online discussion required sitting down at the computer.

The radical, all-encompassing change of the past ten years boils down to the birth of the smartphone. It enabled people to communicate with the entire world in real time, regardless of location. Over the past decade, combining the Internet and the telephone has changed the world more than we could ever have imagined. Earlier, digitalisation was used to refer to matters moving

online or becoming digital. Now, it is more about how we live as digitalisation penetrates nearly every area of our lives.⁴⁶

We carry our smartphones with us from our beds to the shops, on holidays and on board aircraft. We use them to work, relax, make purchases, freak out and rejoice. We buy our bus tickets with them and use an app to navigate to our destination. All aspects of our relationships take place on their platforms. We have our families, shopping lists and cash in the palm of our hand. They have fundamentally changed the business logic of several companies and moved a part of the political discussion into the endless Twitter stream. Nearly everything we do is connected to smartphone platforms in one way or another. The platforms do not only accept what we do; instead, their logic also guides our actions to follow it. Therefore, we can say that we are living in a *platform society*.⁴⁷

The smartphone blew up the first wave of disruption, as mentioned at the beginning of this report, which we are still learning to live with. The disruption was created when the smartphone's rapid rate of communication, endless uses and radical transparency collided with 20th century societies, companies, organisations and politics. During the disruption, the traditional actors tried to apply old world methods to survive in a world of rapid communication that had irreversibly changed.⁴⁸

Interesting theories regarding the societal impacts of the Internet were laid down long before the Internet actually came to be. The Toronto School was of the opinion that, once a medium has stabilised within society, it will start to heavily influence practices within the human community. This school included famous philosopher **Marshall McLuhan**, who wrote about the global village and Internet-like networked communication already in the 1960s. Similarly to the media, the Internet has also changed practices within society.⁴⁹

Revolutions often involve the breaking down of monopolies. Challenging the monopolies of information has also been one of the revolutionary forces of the Internet. Media could be controlled efficiently while it was still owned by a limited number of parties. For a period in history, the Catholic Church controlled all publishing operations, as copies were produced by friars. When the printing press was invented, it dismantled the church's monopoly on information, advancing reformation and a new distribution of power. Later, this redistribution gave rise to the press, for example. The press continued to hold a monopoly

46
Lindgren, Mokka, Neuvonen,
Toponen, Liukas &
Hirvonen (2019)

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Dijck, Poell & Waal (2018)

48
Piha (2015)

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Cavell (2016)

on the use and distribution of information, but it was significantly looser than that of the Catholic Church. The Internet has now democratised information and created a space where all opinions can be presented. Current developments have challenged the authority of scientific experts and the traditional information providers' monopoly on information, for example.⁵¹ Everyone has become an influencer. One person can start a movement that can challenge or even destroy gigantic companies or political projects.

New power challenges the old

Power is closely related to the disruption. Even though different types of changes in the ways power is used have been visible for a long time, the new communications technology has nevertheless changed the game completely. This is a complex transition that is only beginning and characterised by tensions between the traditional and new power. Internet activists **Jeremy Heimans** and **Henry Timms** have created an interesting practical division between the new and old powers.⁵² Traditional power is closed, not easy to access and, once it has been assigned, its use has been closely regulated. This type of power could be compared to money, for example.

New power operates in different ways, however. It could be compared to flowing water. It is generated when enough people participate. It is open, participatory and powered by peers. Like a flowing river, it is at its most powerful when it flows over. New power is not symbolised by the ability to retain and exercise it, but instead by the ability to get people involved and channel the movement that is generated. In addition to creating content, new power involves sharing, editing, funding and producing it and sharing ownership. It bypasses traditional institutions and intermediaries, such as banks, newspapers or representative democracy. Power is not only distributed in a new way; it also empowers people to become actors in areas where this has not been possible previously. This change of roles and empowerment

⁵⁰
Karvonen (2016)

⁵¹
Harvard Business Review
(2014, December)

involves teenagers with YouTube channels reaching millions of people, platform services offering peer to peer loans and viral web campaigns from activists as well as websites and discussion forums spreading fake news or hate speech.

In particular, people under 30 have a clear opinion: everyone has the right to participate, produce, share and act. For earlier generations, participation was possible through elections, unions or churches, for example. Now, everyone can be their own voice, producer and publisher, and the Internet gives them – in theory, at least – direct access to the consciousness of others.

New power favours an informal, networked approach to decision-making. The way of thinking emerging from Silicon Valley, in particular, is characterised by a belief in innovations and networks to create the common good that was previously offered by government actors or large institutions. A part of the new thinking is that official representation is not appreciated. Unofficial cooperation is rewarded online, and communities set their own rules by ranking the network users, for example. Messy Airbnb guests might have trouble finding their next place to stay. DIY culture is valued and amateurish behaviour is allowed. The boundaries between private and public are volatile.

New power supports the things it chooses with a passion, but attaches itself lightly in the long term. People will quickly join communities to support something that interests them, but are also quickly to move on. Therefore, this new power is quite fickle. The age of the new power might not recognise the importance of institutions for implementing the principles of the constitutional state, for example. Furthermore, the new power was unable to channel itself into a force for long-term change in the aftermath of the Arab Spring, for example. In Finland, on the other hand, the discussion on Hommaforum has been channelled into an existing political force within the traditional representative democracy through the Finns Party. It seems that the long-term use of this new power also requires the ability to organise in the real world.

In any case, the new power will fundamentally change how people view themselves in relation to institutions, authorities and

each other. It empowers people to act and bring out their opinion. However, it does not eliminate the need for traditional institutions. Institutions, for their part, need to consider how they will survive in the age of the new operating logic.

Communicational power

The new power changed the world on many different axes. It changed the world from simple to complex, caused authorities to fall and has increased people's trust in each other. It moved the focus of action from planning to speed and from control to opportunities. It forced companies, politics and organisations to change their rhythm and be more open. In a thoroughly communicative world, the emphasis of power shifted towards communicational power.⁵² This means that a company is no longer defined by its size or ability to invest; instead, success is defined by its pace and ability to change and react. Each company needs to consider its strategy in relation to the new technology. As communication has become a factor that so powerfully defines what we do, companies now need to consider how they communicate with the outside world.

However, external change and the rate of messaging are outpacing organisations' ability to change or people's ability to react. When reading a piece of news or a post, we are usually already on a platform that expects us to react or comment in some way. This makes speed and the ability to react even more important.

Companies have traditionally preferred to think that they control their reputation and retain control. However, they cannot control their reputation in a disrupted world. There are simply too many messages and messengers. Topics change quickly, and anyone can speak since the gatekeepers of information have been bypassed. If a customer needs to talk to the company, they can send their message very loudly and publicly. You can no longer respond to public challenges with corporate communications; dialogue with customers and communities is required instead. As each person has become a distributor and interpreter of information, the core strategic choice that companies are now facing is how to view the communicational power of the common person.

We can also affect political decisions in entirely new ways. We are no longer content with voting every four years; instead, we influence decisions and actively and continuously communicate how we feel. Decisions have been traditionally advanced by lobbying the decision-makers, but lobbying can no longer guarantee an end

⁵²
Piha (2015)

result. If people turn against a political project or start defending it in public, lobbying in the background might become insignificant in contrast to mounting public pressure.

Communicational power can be seized. Most companies and organisations require attention to win over clients and fulfil their mission. The ability to see opportunities for communication and quickly seize them has become critical for companies. Companies and organisations must learn to seize opportunities to communicate their cause. The disruption can easily destroy a company or organisation that cannot change its attitude from authoritarian arrogance towards human dialogue with the customers it considers to be its peers. The change is here to stay, and it is likely to accelerate.

Data power

Data has been the major technology trend of the past few years. Collecting data has offered companies massive opportunities to boost their operations, understand their customers, train AI and operate smarter on the market. Data has been said to be the new oil, and companies who can harness it are at a competitive advantage. Data collection allows for helping people in preventive health care, or for offering better and more personalised service in an online store. At the same time, collecting and harnessing data raises concerns. Who is using data and how? The European Union's Data Strategy for 2020 aims to enable both ambitious business operations and fair use of data that is built on European values. The strategy is built around creating a European data space and a common market where all data is processed within the framework of European rules. In this space, personal and confidential data is protected, and it is processed in adherence to European rules throughout Europe. Open, high-quality cross-border data is available to those who commit to the data processing rules and wish to innovate better products and services, based on European data, across the entire common market.⁵³

53

European Commission:
European Data Strategy
(2020)

The future of social media is being built now

Social media has been suffering from a crisis of trust in recent years. There were suspicions of massive information influencing related to the US presidential election in 2016. It was revealed that Facebook had been selling customer data. The revelation forced the company's management to testify in front of politicians in the United States and Europe. In the Edelman Trust Barometer for 2019, trust in social media ranked very low.

Social media giants have suffered a series of setbacks. Germany, for example, has enacted a law that requires social media companies to investigate reported content within a set deadline, and to delete any illegal content. Companies failing to do this will face millions of euros in fines. This has led to Facebook removing hundreds of posts, for example.⁵⁴

At the same time, however, it is clear that the Internet, smartphones and social media are not about to disappear. Even though social media has been unable to make good on its promise of a democratic utopia, its revolutionary potential remains the same. We are in a unique position in human history where each citizen has the opportunity to publish anything they like and, if successful, reach an audience of thousands or millions. Despite its shortcomings and faults, social media has become the basic platform for organising, expressing opinions, establishing movements and people.

The age of the Internet and social media is only beginning. The first disruption that started at the turn of the 2010s is going strong and continuing. In order to survive, companies, organisations and politicians must learn to act in a disrupted world – while at the same time changing it for the better by being involved.

54
Pullinen (2019)

The Arab Spring, #MeToo, Brexit and images of the forest fires in Australia or Brazil are examples of phenomena that shook the world in recent years. Although their outcomes were far from unambiguous, all these phenomena would have

received substantially less attention without smartphones and social media. In an age of scandals, it is easy to overlook the positive sides of social media. We may forget its power to bring people together, simplify contacts with our families and offer peer support or easier access to aid. Although social media has torn people apart, it has also brought them together in ways never seen before.

An individual's basic needs remain the same in both physical and digital environments. Individuals want to be heard and seen. Individuals want to feel excited and inspired, they want to learn, enjoy themselves and experience strong emotions – and occasionally feel bored. They want to remain in contact with their relatives and loved ones, meet new people, belong somewhere and find their own group. People want recognition from people they know – and people they don't know – in matters that they consider important.

When cars became commonplace in the 1960s, the number of road casualties was many times higher than it is today. However, we learned to wear our seatbelts and to abstain from drinking before driving. Infrastructure improved, cars improved and, at some point, we stopped arguing about how cars and horses can share the same roads. Tarmac, bicycle lanes, driving licences, rules and fines were put in place to regulate traffic.

It would be a surprise if something similar did not happen to social media. It is hard to imagine that nearly 2 billion users would suddenly abandon the Internet and social media, unless something extremely serious were to happen. It is more likely that users will move from one platform to another. Those who can build services that genuinely meet people's needs will do well in the battle for users.

Social media and technology trends in the world of the double disruption

1 **As the rate of progress and stress increase, the ability to set your own limits is becoming increasingly important in terms of your personal digital safety.** It is also becoming a basic citizenship skill; being able to choose the types of interaction you want to participate in is important in a world of endless knowledge and communication.

2 **The balance between digital and physical work will be emphasised.** At the same time, technology is becoming invisible and commonplace. We are moving away from the keyboard and the two-dimensional screen into an interactive environment that utilises augmented reality, virtual reality, mixed reality and environmental sensor technology. Interaction between people and devices and the environment will become even more natural and seamless. An example of this is a fully cashierless supermarket where you can pick up your items and leave – and the cost will be automatically charged to your credit card.

3 **Digital skills, media reading skills** and the ability to assess sources and the quality of information will be emphasised further. You need to be able to observe and avoid information influencing. As technology develops, identifying reliable information is becoming increasingly difficult – but also more important than ever before. The deep fake videos are just the beginning.

4 **Digital ethics and privacy** will increase in value. Communication is heading from public to private. Topics are considered carefully, and more discussions move from public to private platforms.

5 **Instead of official actors, communicative power is increasingly wielded by individuals known as social media influencers.** Social media influencing will develop, become more professional and grow further in the future. There are several underlying trends contributing to this, from self-employment to data utilisation and the diffusion of power. The number of influencers will grow and the field will be fragmented further; some actors operate on a commercial basis, while others are strongly motivated by their values. A critical attitude towards consumption will inevitably cause the influencers to make more sustainable choices as part of their influencing.

6 **Companies will also need to be sustainable** – not only in marketing and production, but also in data processing. Legislation similar to the European Union's General Data Protection Regulation (GDPR) will also be enacted elsewhere in the world.

7 **Hyperautomation** is the next level of automation. It will leverage advanced technologies like artificial intelligence and machine learning to automate processes. Its impacts will revolutionise traditional automation, as it extends to increasingly complex functions and tasks.

The Earth's ecological capacity: the climate crisis and resource scarcity define the future

We are in a hurry to reduce emissions, as time is running out. Globally, greenhouse gas emissions have increased at an annual rate of 1.5% over the past decade. They temporarily stopped increasing between 2014 and 2016, only to continue later on. In order to limit global warming to 1.5 degrees, emissions would need to be cut by 55% from the 2018 figures by 2030.⁵⁵ The average consumer in the Nordic countries would need to cut their personal emissions by 90% by 2050. Cutting emissions needs to start immediately if we are to reach the target.⁵⁶ The rich G20 countries cause 78% of the

global greenhouse gas emissions and, therefore, they also bear the largest responsibility for reducing them.⁵⁷

However, no major cuts are being made. With the current production infrastructure, the amount of greenhouse gases will be doubled during the next 50 years, mainly as a result of carbon-intensive industry. Air pollution causes more than 7 million premature deaths each year. At the same time, we are struggling with the sufficiency of critical natural resources. By using water, cultivable land, clean air, various minerals and other natural resources unsustainably, we risk running out of them. Extreme weather conditions are becoming increasingly common.⁵⁸

Over the past decade, extreme weather conditions have forced 22.5 million people out of their homes.⁵⁹ In 2017, extreme weather was globally the number one reason for people leaving their homes. The causes included floods, storms, hurricanes and cyclones. Even conservative estimates state that cyclones and storms are now substantially more common and may force an average of 2 million people per year to leave their homes. The only long-term response to this phenomenon is to reduce greenhouse gases and human exposure to extreme natural phenomena. Varying estimates have been provided regarding the number of climate refugees in the future, and the overall complexity of the phenomenon makes them impossible to compile. Even though it is impossible to estimate how many people will become refugees in the end, the current trend sends a clear message. Large parts of the Earth are at risk of becoming uninhabitable by the end of the century. This alone predicts that millions of people will need to leave their current homes.⁶⁰

Research related to human mobility and the climate crisis is very difficult, since climate crisis-related mobility is also commonly linked to weak governance and regional conflicts. The question is more about the combined effects of different factors, such as the above, being concentrated in the same region.⁶¹

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United Nations Environment Programme (2018)

56
Institute for Global Environmental Strategies, Aalto University, and D-mat Ltd. (2019); Lettenmeier, Akenji, Toivio, Koide & Amellina (2019)

57
United Nations Environment Programme (2018)

58
Kiiski-Kataja (2016)

59
UNHCR: The UN Refugee Agency (2017)

60
International Organisation for Migration (2008)

61
International Organisation for Migration (2019)

What will the world be like when the first-graders of 2020 are OAPs?

By the end of the century, the climate crisis will make many parts of the world substantially less hospitable than they are now.⁶²

- 1** **If we are unable to reduce emissions** and continue along the present path, the world may be up to 4 degrees warmer than at present by 2099.
- 2** **Large areas are at risk of drought.** The share of land areas permanently affected by drought is estimated to grow from the current 2% to 10% by 2050. However, the share of land areas affected by extreme drought are estimated to grow from 1% to 30% by the end of the century. Rainfall will increase as torrential rain grows stronger. In humid areas, this will cause heavy rainfall that will rinse away the top layers of the soil as well as cause increased flooding. Extreme weather conditions, such as drought, rain, storms and floods will become more commonplace and harsher. For example, it is estimated that the monsoons in Southern Asia will become so much stronger that rainfall will increase by 20% in India and Bangladesh by 2050.
- 3** However, sub-Saharan countries can expect substantially less rain already in 2050, 30 years from now. This will have **catastrophic consequences on the food production** in these countries, as the area is already dry. The amount of grain grown in the area may fall by up to 30% by 2050.

4 **Fish populations are migrating** towards the Earth's poles and cooler waters. This will make fishing more difficult in warmer areas. Higher seawater temperature will lead to larger algal blooms and the disappearance of coral reefs. The climate crisis is predicted to lead to widespread malnutrition, diarrhoea diseases and the spread of some tropical diseases such as malaria.

5 **Melting glaciers will cause flooding** and reduce the dry seasons. One sixth of the world's population, such as those living in China and the Andes, are at risk of losing access to sufficient clean water. Melting glaciers increase the risk of glacier lakes flooding in mountainous areas such as Nepal, Peru and Bhutan. Rising sea levels increase the risk of flooding in low-lying areas. Coastal areas will be reduced in size due to the rising sea. If the emissions continue at these high levels, up to 25–42% of the world's coastal areas may disappear between 2050 and 2100. By 2100, up to 140 million people per year may be impacted by flooding if the emissions reductions fail.

Unless we can somehow reverse the current development, the ability of the Earth's ecosystem to provide food, clean water and shelter to humanity will be significantly affected by the climate crisis.

The limits of ecological capacity will be exceeded

On a global scale, humanity's ecological footprint is currently exceeding the limits of the Earth's capacity. A globally sustainable level of material consumption would be 8 tonnes per year per person – in Finland, the average consumption is currently approximately 40 tonnes. This means that the Finns' footprint is clearly unsustainable. Exceeding the Earth's capacity is simply not sustainable in the long term.

Earth Overshoot Day is an annual event. It refers to the calculated date when people have exhausted the Earth's renewable resources and its ability to absorb greenhouse gases from fossil fuels for the year in question. For the rest of the year, we are borrowing from future generations. Year after year, Earth Overshoot Day comes earlier: Consumption first exceeded the Earth's capacity in the 1970s, in 1995 the overshoot date was in November, in 2009 at the end of September – and, nowadays, we are already running out of natural resources in August.

Currently, the world's population is consuming the resources of 1.5 Earths, but if we all lived like people in Finland or the Nordic countries, we would need the resources from 3.5 Earths. The global situation keeps worsening, as the world's population is estimated to reach approximately 9 billion by 2050. At the same time, fewer natural resources will be available. The ecological footprint allows for a holistic analysis of humanity's impact on the environment, as it considers both emissions and the global issue of resource scarcity. The aim of the circular economy, for example, is to reuse materials as widely as possible and to reduce waste. At the individual level, your carbon footprint mainly consists of three items: mobility, housing and nutrition. Everyday life and consumption play a major role when determining your carbon footprint and resource consumption.⁶³

Do solutions exist?

Yes, plenty of them do. Solutions have been developed – they simply have not been introduced widely enough. A study that analysed the impacts of different technologies and solutions found that substantial and rapid global reductions in emissions would be possible solely by using the existing methods.⁶⁴ The methods being analysed were also chosen among those already found to be economically viable. The analysis focused on 17 existing technologies or solutions that have worked well under different conditions. They were related to renewable energy, traffic, construction and households, industry, farming and forests. One of the matters being analysed was the amount of renewable energy that Denmark is producing and whether the same level could be achieved in the other Nordic countries. The study also looked at the low-emission hotplates being used in China’s rural regions and how they could be utilised in other areas with similar levels of wealth. If these solutions, which have already been found to work, could be scaled at the same level to countries of similar wealth levels, emissions could be reduced by up to 25% by 2030. This equals the combined emissions of Japan and the EU, for example. We are in a hurry to take these actions.

Everyday solutions are also urgently required. People in the Nordics need to reduce their personal emissions by nearly 90% by 2050 in order for us to reach the climate targets.⁶⁵ Most of our emissions come from everyday life choices: how we eat, move and live. Innovations related to these areas of life and actions that increase their sustainability are in demand, and we may also see obligations related to them during the next decade. A good example of the carrot and stick mentality related to these areas is the increased competition around plant-based foods, where the demand has clearly been market-driven. On the other hand, the EU’s strict emissions regulations have been a burden on the automotive industry. The regulations are intended to guide the automotive industry towards producing low-emission vehicles, and to route investments towards cleaner mobility.

In addition to technological and market-driven solutions, advances in the legislation are also required. Finland is committed to an ambitious goal of being carbon neutral by 2035; the EU has set the same goal for 2050. Genuinely reaching solutions requires guiding legislation, taxation and regulation.

63
Kiiski-Kataja (2016)

64
Tynkkynen (toim.) (2015)

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Lettenmeier, Akenji, Toivio,
Koide
& Amellina (2019)

The next decade may see the following economic activities from the point of view of Earth's ecological capacity

1

Binding, ambitious climate targets: The signal to invest in solutions with low emissions has been reinforced from the energy industry's point of view. Politicians need to create a clear action plan for limiting global warming because, otherwise, companies will find it hard to invest in it. Binding and ambitious climate targets communicate which forms of production are worth investing in over the coming years.

2

Subsidies and incentives for low-carbon projects: There is a lot of public discussion regarding the costs of low-carbon solutions. However, the largest problem is that preference is given to fossil fuels over low-carbon alternatives. It is estimated that countries spend over 500 billion dollars per year on direct subsidies to fossil fuel production. At the same time, they are indirectly paying for the external impacts of the emissions. As long as fossil fuels have this privilege, alternative means of production are not on level ground in the race for investments. This mechanism can be dismantled by removing any subsidies that distort the market and by pricing coal use according to its external impacts.

3 **New financing models:** Investments into energy need to grow significantly in order for the global energy system to shift towards low-carbon solutions. Fossil-based energy generation has been very capital-intensive and centralised. This will change as the world shifts towards more decentralised, small-scale energy production, such as solar and wind power. The change requires action from the financing market in order to arrange financing in new ways. In households, this could include innovative service models such as leasing services for solar energy or energy efficiency. Due to their long investment horizons, institutional investors such as investment and pension funds and governmental investors are the most likely to create these models.

4 **Correct pricing for external impacts:** One of the largest obstacles to low-carbon investments is the emphasis on short-term gains and the underpricing of external impacts. This means that profits are generated immediately while the costs of the detrimental impacts are postponed far into the future. Criteria can be included in the investors' decision-making that provide a more realistic assessment of the long-term profits and risks. No pensions or dividends will be paid on a dead planet.

5 **An entirely new infrastructure:** Similarly to earlier revolutions in production, the shift to low-carbon will also likely mean that new types of platforms and infrastructure will be born. In our age, it could mean a global infrastructure that allows for measuring and verifying the amount of carbon in the atmosphere and creating an earnings logic for the parties reducing it.

6 **Ecological reconstruction:** the infrastructure and practices for housing, mobility, food and energy production will be reconstructed to operate without fossil fuels. A societal change of this scale would be comparable to the reconstruction after World War II which involved both a new physical infrastructure and the institutions of the welfare state. The government will have a central role in creating a collective vision and in coordinating and funding the operations.

1 Climate catastrophe

The Australian forest fires are an image of the age of catastrophes. Drought, made worse by the climate crisis, has laid the foundation for excessive fires on other continents as well. People and especially animals have been running for their lives, whenever possible. At the same time, efficient carbon sinks have gone up in smoke, further increasing the amount of carbon in the atmosphere, which in turn further accelerates global warming.

This phenomenon is a worrying example of a self-amplifying feedback loop that can trigger unforeseen chain reactions in natural systems. Their consequences will be felt on land and sea and in the air – in our landscapes, on our plates and in the breaths we take. Weather becomes harsher. Drought destroys crops on one side of the planet, while houses are swept away by floods on the other.

The decline in biodiversity is a strain on life across the ecosphere. Nearly half of the insect species on Earth are threatened by extinction. This trend is not only tragic for the insects. Some 75% of the currently grown plants, that is, our food, is ultimately dependent on pollinators.

One of the reasons for insect extinction is suspected to be industrial agriculture: single-species cultivation, ruthless landscaping and large-scale use of biocides. FAO, the Food and Agriculture Organization of the United Nations, estimates that fertile soil will run out by 2080 at the current rate. Estimates indicate that there will be 2 billion more people on Earth by that time. Plentiful nutrition, an advancement that we achieved after World War II, is leading global food production towards the edge.

Even though efforts are made to stop global warming at 1.5 degrees, we are already

approaching 2 degrees. According to an estimate by the esteemed Potsdam Institute, 2 degrees of warming would set in motion several unwanted and iterative natural phenomena.⁶⁶

It is obvious that the well-being of nature will inevitably be reflected in politics and the balances within and between societies. An estimate by Cornell University states that there may be 2 billion climate refugees by the end of the century.⁶⁷ In this sense, business as usual no longer exists. Resources are finite.

The latest emissions report by UNEP, the UN's Environment Programme, reveals that greenhouse gases are actually at record levels.⁶⁸ Emissions are currently growing at an annual rate of 1.5%. If we were to really target the safe limit of 1.5 degrees, emissions would need to decrease by 7.6% per year. A reduction of this magnitude has not been achieved in any country thus far – and the largest polluters are in a league of their own. The longer we delay the reductions, the sharper the drop needs to be. If we wanted to limit global warming to at most 2 degrees, the currently planned reductions would need to be tripled.

The past five years were the five warmest years in the history of measurements. The Earth is currently warming at a record rate. The current emissions path will easily take us to an average temperature increase of 3 or even 5 degrees by the end of this century. In this scenario, the Australian bushfires were only the beginning.

2

Green Deal

If the European Commission can follow through with its Green Deal programme, Europe will become the world's first carbon-neutral continent over the next 30 years.⁶⁹ In other words, Europe will not increase the amount of carbon in the atmosphere from 2050 onwards. This is an ambitious target for our time. The programme covers food, energy, traffic, construction, consumption and education. Climate politics become the politics of economic growth and employment. The time of fossil-fuelled growth is behind us.

The measures related to emissions will be paid for by the Just Transition Mechanism included in the Green Deal. Over the coming decade, the Commission will collect a total of more than EUR 1 trillion in funds from the EU budget, the EIB and the private sector. This money will be used to fund the transition away from coal-burning plants in countries like Poland and Germany.

The intention is to lower the financial threshold for low-emissions solutions for all member states. The same money will also be used to support projects such as expanding the charging infrastructure for electric vehicles, developing technologies for carbon absorption, eco-friendly renovation projects, reduction of fertiliser use in agriculture as well as railway construction projects to replace aviation. However, the EU member states are divided on how green nuclear power is, and it is currently not included in the Just Transition Mechanism's targets.

While one side of the deal gives, the other side takes away. Carbon tariffs are among its harshest tools. They are designed to prevent heavy industry from escaping into countries

with less strict environmental standards. The aim is to protect European, lower-carbon protection. There is growing concern about the carbon tariffs increasing international trade tensions with the United States and China, however. Dividing the carbon footprint correctly in globally distributed production chains is another problem.

There will be further restrictions on the emissions trading system. This means that there will be fewer free emissions rights provided to heavy industry in Finland. Alongside this, emissions trading will be extended to sea traffic and more broadly across the entire sector, including road traffic. Once the models are functional, they can also be adapted outside of the EU.

Ursula von der Leyen, President of the European Commission, has compared the package to walking on the Moon. If the Green Deal is realised to its full planned extent, it can very well be compared to one of humanity's most significant displays of power. The EU has already made commendable progress in terms of resource efficiency and the circular economy.

However, improvements are still required in many other areas. The European Environment Agency's (EEA) reminded in its recent annual report⁷⁰ that the current rate of progress is insufficient

for reaching the long-term climate targets.

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Stockholm Resilience Center
(2019)

67
Cornell Chronicle
(2017, June)

68
United Nations Environment
Programme (2019)

69
European Commission (2019)

70
European Environmental
Agency (2019)

3

Ecological reconstruction

The efforts required to counter the current environmental crisis have been confirmed to the reconstruction efforts following World War II.⁷¹ Fossil-fuelled capitalism has led societies into natural and cultural ruin, where living is no longer possible or sustainable. The fossil infrastructure and the life around it need to be renewed in terms of housing, transport, food and many other key areas of life. Similarly to post-war reconstruction, ecological reconstruction will also require wide-based, socially sustainable coordination that emphasises governmental responsibility.

The proposed construction targets and the required political tools share many features with the Green Deal. The proposals include actions to ramp down the production structure that creates emissions. These would include carbon tariffs, extension of the emissions trading system and tightening of emissions rights. On the other hand, there are also ramp-up proposals, such as support for ecologically sustainable innovations, funding for transitions in specific fields and retraining. In other words, more work and activity around renewable energy, rail traffic and mass transport, wood construction, more ethical treatment of animals, diverse and carbon-absorbing farming, reduction of food waste, waste management and the other building blocks of a sustainable future.

However, the idea of ecological reconstruction goes further and deeper than the Green Deal. The solutions cannot be based solely on markets and technology and minor adjustments to them. The paradigm shift will also impact culture: art, fashion, care, everyday values, consumption standards – renewing our entire world view. Reducing consumption becomes a virtue. Consumption is justified based on needs instead of the

economy. Similarly, our ideas of work need to be renewed.

Instead of material excess, the future will be focused on meeting people and finding non-material ways to meet human needs. Haste and excess will be replaced by time reserved for stepping back, spending time together and creating deeper meanings. On the individual level, this change is not likely to be very fundamental or unpleasant. However, the core of politics and the economy will undergo fundamental change. Economic forecasts cannot be used to define goals for society. Instead, the economy can be harnessed to serve society in the way that its members want it to be. The preconditions of societal activity are based more on natural sciences than the economy.

Bold political choices take a central role in a playing field with finite resources. The decisions need to support each other. Since wood, for example, is a finite resource, it cannot be used to simultaneously support construction, energy use, the pulp industry and carbon sinks. Boundaries must be drawn that will, in part, be mutually exclusive. From an ecological reconstruction point of view, the situation with wood is clear, for example: Primarily, we need to ensure sufficient carbon sinks and biodiversity. The utilisation of wood must be focused away from short-lived products, such as pulp and bioenergy, towards long-life products such as houses.

Comparing the reconstruction work to the post-war period is a good reminder of the scale of the necessary actions we must take. At the same time, it encourages us: this has been done before.

4

Absolute de-coupling

In a completely clean growth scenario, the economy and welfare must be completely disconnected from the environmental burdens of emissions and the overconsumption of natural resources. Ecologically sustainable economic growth is justified with the idea of a de-coupling. This idea typically relies on the market refocusing on services and the circular economy, which is considered to either reduce material intensive production or make it more efficient.

Discussions typically involve both absolute and relative de-coupling. Absolute de-coupling refers to a situation where the environmental burden is reduced even though the economy continues to grow. From an ecological capacity standpoint, absolute de-coupling is the only feasible means of de-coupling, especially when considering how urgent the emission reductions are. In a relative de-coupling, the environmental burden may continue to increase, but its rate of growth is slower than the economy's.

In a few of the well-off OECD countries, the economy has been growing with relatively lower emissions, especially as regards specific regions and fields of business. Similarly, absolute de-coupling has been observed in limited areas, involving specific emissions indicators and specific industry sectors, for example. However, this is primarily a question of accounting, as in these cases the polluting production has been outsourced to other countries via international trade. There is no empirical evidence of absolute de-coupling on a global scale.

In Finland, educated estimates state that a successful de-coupling would mean a 70% decrease in resource consumption

by the year 2050, while the material stream used would generate 6 times more gross domestic product.⁷² At the same time, an unprecedented emphasis on an efficient circular economy would be required; in other words, recycled materials should be used in manufacturing in place of virgin raw material. The circular economy rate of the world (and the EU) is currently around 10%, whereas it should be in the region of 90% in order to achieve the ideal of de-coupling. The European Environmental Bureau's report on the opportunities for and the level of de-coupling makes for daunting reading. Scientific research has produced no evidence that the scale of de-coupling is currently sufficient for achieving the climate targets.⁷³

This background makes it seem unlikely that the thought of absolute de-coupling alone would suffice to manage the consequences of the climate crisis quickly enough. This would require a rapid and significant adjustment in our actions.⁷⁴

A successful de-coupling would imply a sort of utopian technology society and an economy where energy is produced entirely without emissions, materials circulate completely without waste, and consumption and value creation among humans would be largely based on immaterial or completely emissions-free production and consumption.

71
BIOS (2019)

72
Vaden, Lähde, Majava, Toivanen, Eronen & Järvensivu (2019)

73
Parrique, Barth, Briens, Kerschner, Kraus-Polk, Kuokkanen & Spangenberg (2019)

74
Hickel & Kallis (2019)

Economy: companies with a purpose create sustainable value

2019 will be remembered as the year when discussion on the future of capitalism broke through. The highly respected Financial Times published a declaration in September 2019 which stated that capitalism has offered peace, prosperity and technological advances around the world for more than 50 years. However, the newspaper stated that the current model of capitalism had no way forward, and it had to renew itself in order to serve the world better and become more ecologically sustainable. According to the Financial Times, healthy, sustainable, entrepreneurship-based capitalism will be based on a new set of benchmarks instead of pure shareholder profit. Companies must be able to generate a profit based on the greater significance of their existence within society. This is the only way for companies to be healthy and profitable in the long term, and to genuinely serve their employees and customers.⁷⁵

The Financial Times was not alone in making its appeal. In autumn 2019, the same appeal was presented in different formats by Salesforce founder, billionaire **Marc Benioff**⁷⁶ and Business Roundtable⁷⁷, a collective of top us executives. The UN⁷⁸, the European Commission⁷⁹ and the World Economic Forum⁸⁰, for example, have expressed concern regarding the sustainability of the current financial system.

According to all the commentators, the most problematic aspect of modern capitalism is its obsession with primarily serving shareholders instead of people and communities on a larger scale. This distortion has created a massive divide between the richest and the poorest. At the moment, the 26 richest people in the world own as much as the poorest 3.8 billion. Income inequality has also reached its highest level in 50 years within the United States: 0.1% of Americans control 20% of the overall assets in the country. Alongside the social problems, ecological sustainability is another issue brought up in the criticism of the current form of capitalism. The current profit seeking is driving the planet towards an ecological disaster.

What are we actually talking about when discussing changes in the economic system? How could change be achieved? And why is the purpose of companies at the heart of this change?

What does a sustainable, growing economy mean?

75

The discussion around renewing capitalism is essentially related to questions of whether the economic system can increase prosperity and well-being in addition to the economic growth itself. At the moment, the key question becomes whether the economic system can operate within the boundaries of the Earth's ecological capacity.

Sustainable economy can be approached in many different ways, but it was particularly clearly described by **Markku Ollikainen**, Professor of Environmental and Resource Economics, and **Matti Pohjola**, Professor of Economics, in the Finnish science academy's comment *Talouskasvu ja kestävä kehitys (Economic growth and sustainable development)*.⁸¹

Economic growth refers to growth in the national economy's ability to produce goods and services. It is measured on the basis of gross domestic product, calculated per capita. Both average life expectancy and the Earth's population have doubled over the past 200 years.

In the 19th century, the world was still relatively equal as almost everyone was poor, save for a very small part of the population. The standard of living in rich countries was only about twice as high as in the poor countries. Now, the difference has grown to 30-fold. A tremendous number of people have escaped poverty in recent decades, as the rise of China and India benefited over 2 billion individuals.

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The Financial Times
(19.9.2019)

76
The New York Times
(14.10.2019)

77
Business Roundtable
(19.8.2019)

78
United Nations Sustainable
Development Goals (2016)

79
Ursula von der Leyen (2019)

80
World Economic Forum
(2019b)

81
Ollikainen & Pohjola (2013)

On the other hand, income inequality has increased within the developed countries while the poorer countries have reached a better financial standing. Extreme poverty has been globally cut in half over the past 20 years, and the current progress indicates that the next one billion people will be raised from poverty in a much shorter time, 15–20 years depending on the rate of progress.

Therefore, economic growth is a promise of a better tomorrow for the developing countries; for the developed countries, it is also a societal standard whose undoing would be likely to cause massive instability. However, can this system work if the environment is destroyed and resource scarcity increases? In order to answer this question, we need to look at the Earth's carrying capacity.

The Earth's carrying capacity refers to how much humanity impacts nature, both quantitatively by using natural resources and qualitatively by destroying the environment and degrading the state of the ecosystems. Economy has a key impact on carrying capacity, as humanity utilises nature to fulfil its everyday needs. Our nutrition and raw materials originate from nature. Nature, as such, is the basic requirement for sustaining life. It is also a source of aesthetic experiences and refreshment.

From an economics point of view, humanity utilises nature in roughly three different ways: as a source of raw materials for production, for dissolving and storing emissions and as a source of refreshment for final consumption. There is an unavoidable interdependency between nature's three economic utilisation types. The more raw materials which are used, the more emissions there will be. The more emissions which are generated, the lower amount of raw materials there will be or the less refreshment nature can offer. And the more that nature is reserved for refreshment and conservation, the more of it will remain outside of production. Society is tasked with finding a sensible balance between the different forms of use.

From an economics perspective, it is important to ask how well the market, or pricing system, reflects this balance. At the moment, the answer is very grim. The markets have not succeeded in setting a sufficiently high price for pollution, and the price will not be set without government intervention. This concerns what are known as free commodities; a lack of price results in their overuse. In addition to the price-setting, massive investments and innovations are required in the fields of technology, production and consumption.

However, from the perspective of economics and growth, economic growth essentially means growth in the number of ideas, not necessarily that more of a specific product is being made. As

there is no upper limit to the number of ideas, there is – in principle – no limit to economic growth.⁸² In this sense, the opportunities generated by new ideas are systematically underestimated in the discussion around growth. It is difficult to understand how many ideas have not yet been invented.

At the same time, there are various different means which, when scaled up, could be used to reduce emissions by up to one third by the year 2030. This would simply require taking into use the existing solutions, which have already been deemed economically viable.⁸³ This means that this is not actually a problem without a solution. Instead, it is a problem that involves so many interests and passions, so much economic and political power and so many everyday habits that it is difficult to solve. However, the transition will not happen if new ideas are not created and taken into use on a massive scale. At the same time, it remains clear that the market alone cannot solve the problem as long as coal is not priced according to its impact on climate and the environment. In order to really solve the climate crisis, we must also be honest as regards the price and external impacts.

Companies are waking up to the increasing pressure, however. Up to 84% of industrial companies in Finland consider carbon-neutrality and low-carbon products an important strategic competitive advantage either now or in the future. Nearly all large companies, 98%, see carbon neutrality as important for their competitiveness. 85% of companies consider the climate crisis to be a factor that affects their operating environment now or in the future. For both questions, a significant proportion of companies considered the matter to only be important in the future.⁸⁴ However, it is reasonable to expect that consumer behaviour may change rapidly as the effects of the climate crisis become more tangible. In spring 2019, 53% of Finns were concerned about the climate crisis and 78% felt that pursuing a sustainable lifestyle is important. 69% believed that the choices you make as a consumer have an effect in limiting the impacts of the climate crisis.⁸⁵

In light of scientific research, a balance between the current type of economic growth and preserving the Earth's ecological capacity is very unlikely, as actions have already been deferred for too long.⁸⁶ Remaining within the limits of the Earth's ecological capacity also requires other actions, such as redefining the economy. Therefore, it is worthwhile to discuss what actually is important for us.

82

Ollikainen & Pohjola (2013)

83

Tynkkynen (toim.) (2015)

84

Sitra: Hiilineutraalius ja vähähiilisyys suomalaisten teollisuusyritysten kilpailukyvyyn lähtenä (2019)

85

Sitra: Resurssiviisas kansalainen (2019)

86

Parrique, Barth, Briens, Kerschner, Kraus-Polk, Kuokkanen & Spangenberg (2019)

Where is value generated?

In the history of capitalism, the key question has been focused on what is considered to generate value and what is not.⁸⁷ During the past decades, the discussion around economics and society has adopted the view that whatever has a price also has value.⁸⁸ However, this view has been heavily criticised by the Italian-born economist **Mariana Mazzucato** who, in an age where capitalism is in crisis, calls for better and more thorough discussion on where value is created. How we define value has massive consequences for society as a whole.

Value can be defined in many ways, but in the end, it is a question of creating new products and services. Defining value requires knowing how products are made and distributed and how the profits from their production are used. At the moment, a major problem is that profits are largely routed to shareholders and not reinvested to create new value. The utility value of the produced items must also be assessed. Another thing to consider is whether the products and services increase or decrease the sustainability of the production system. For example, the construction of a new factory may be economically feasible, but if the pollution from the factory destroys the system around it, it cannot perhaps be considered valuable. This example can also be applied to the entire system.

A major problem with the current focus on businesses and financing is that value is sought on a relatively short time scale. Companies and financiers think ahead by a few years, at most. This creates short-sighted activity that does not serve the future of humanity or the Earth. Companies are not rewarded for avoiding problems, they are rewarded for reducing the size of the problems and cleaning up the messes that they created in the first place. Something is wrong if cleaning up your pollution is considered more productive than avoiding pollution from the beginning.

The financing sector needs to be developed towards a longer-term approach by linking it more strongly with the real world.

87

Mazzucato (2019)

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Mazzucato (2019)

In order to achieve real change, we need to create a framework that allows for designing a new type of economic system that is for the common good. Redefining the gross domestic product may help. How would the calculation change if you had to account for happiness, care that is provided free of charge, free access to information, training and communication enabled by the Internet? Changes in how wealth is taxed might also be helpful. According to Mazzucato, however, a system should be created for national accounting that also measures the share of the extensive group of actors that participate in value creation. The measured value should include public investments that provide the company with the prerequisites for operation, or training, which is a basic requirement for workforce.

The market is at the core of the renewal of capitalism. It is born as a result of the actions of various private and public actors. Markets should be thought of as a part of the societal process. Private and public sector partnerships should be thought of as a reciprocal ecosystem where both parties have an important task. Therefore, the market can be shaped to produce the desired outcomes, such as green growth or a more caring society that pays more attention to care work, for example. It is possible to aim at a situation where all economic activity promotes the desired end results.

In financing, this would mean favouring long-term investments despite a short-term cost increase. In order to create space for strategic long-term investments, research and experiments, we also need to create new financing institutions. Companies should be made to commit to increasing their investments if they wanted government support for their operations. The platform economy should be taxed appropriately. The Internet as a whole, and the technology required for the platform economy, were originally created as a result of massive public investments. In the future, similar massive development projects that combine the public and private sectors will be required in order to solve humanity's most difficult problems.

Instead of looking at the rate of economic change, we should be looking at its *direction*. A key question pertaining to the future of capitalism will be the types of narratives we connect with value creation. We are surrounded by value creation stories involving start-ups, for example, even though the category of the value itself is not discussed. In addition to the green infrastructure alone, transferring to an eco-friendly economy requires a clear vision of what an eco-friendly life or a fairer society mean.

Mazzucato reminds us that humanity has previously succeeded at ambitiously solving extremely demanding challenges. Sending people to the Moon is a much-used but nevertheless appropriate example. NASA and DARPA, who were assigned to the task, built their own operational capacity and core competences instead of outsourcing them. The Apollo project required cooperation between many different actors and sectors, from the aerospace and aviation industries to the textile industry. The implementation focused on shared problem solving instead of supporting a single sector. It required cooperation between several sectors and various private and public operators.

Similarly, we can consider that man-made environmental damage or capitalism itself cannot be fixed simply by increasing investments in specific areas. They require societal commitment to a new way of life and large-scale problem solving. The battle against the climate crisis requires clear goals and support from several sectors and actors. They need to be prepared to invest patiently in order to reach the long-term goals. For this to happen, we need to deeply and widely consider the things that we, as humankind, value above all else.

Purpose is at the core of future success

Large-scale economic discussion has led to questions about what role companies actually play in society. Do companies have tasks outside of generating profits for their shareholders and selling their products? Should companies, in fact, manage a societal task? Although the pandemic and surviving it will shift the focus of the discussion for a period of time, we will face the same questions when the new phase in our economy begins.

Although the discussion has only properly started, it is clear that something significant is happening. For example, in 2020, an entire 72% of the senior executives at large Finnish companies think that their companies have a duty to solve the current issues within society, such as questions related to the environment and

economy.⁸⁹ In 2019, only 56% of the executives responding to the same survey considered that companies should solve problems within society.

However, solving problems within society is a narrow way of looking at the future opportunities for a company. In a broader sense, we could envision that the company has formed a vision of the future as well as the challenges and opportunities it brings and has considered its place and purpose within this vision, preferably together with the employees. You need to look at the future and the present, examine the company's culture and the surrounding world. In the best case, the company finds the ways to develop its business by using its purpose and values as starting points, and carries it out in business in ways that accounts for both human capacity and the Earth's ecological capacity. This will be made visible by tangible actions and the manifestation of the company's culture. If the company deeply understands why it does what it is doing, it is likely to have a genuine purpose. Genuine purpose extends beyond describing what the company sells or how good its products are.⁹⁰ The question of why the company exists is at the heart of the purpose. Understanding purpose will help the company to find ways to succeed and work even when the operating environment or key technology affecting it changes.

Understanding the company's purpose is especially useful when the future outlook is unclear and the operating environment is undergoing major changes. The company needs to consider how it can fulfil its core task when the preconditions for its operation change radically. The challenge set by the Earth's ecological capacity makes it likely that a large number of companies will need to consider how they can succeed in the future. Companies will need to define how they intend to be genuinely purposeful without placing a burden on the Earth's ecological system.

⁸⁹
OP & Nordic Institute of
Business & Society (NIBS)
(2020)
⁹⁰
Sinek (2009)

Searching for purpose

You can start to define a company's purpose by creating a simple checklist of the discussions that the company should have:

- 1 Discussion concerning the future**
- 2 Discussion concerning the present**
- 3 Discussion concerning culture**
- 4 Discussion with the world**

Having an open, honest discussion of what the future and present look like from the company's perspective can open your eyes to matters that may remain hidden during everyday work. Discussion on the company's culture allows you to consider what is preventing or supporting the fulfilment of your purpose. Discussion with the world is necessary for the company's existence.

Therefore, future organisations may not necessarily be assessed on the basis of how sustainably they operate as part of the surrounding society in the field of corporate social responsibility; instead, the assessment is focused on innovations that are made

to improve future society. The question, therefore, is not one of charity; it is a question of substantial new innovations and, above all, overcoming the challenges that society faces.⁹¹

The traditional concept of corporate social responsibility involves adapting to the current environment and its standards, whereas pioneering companies aim to actively influence future developments and solve problems that are central to societies. These companies are choosing a strategy of impacting the direction of change and building the future that they want to see. This is a prime example of understanding purpose and implementing it as part of the core business.

Purpose means two things at the same time. It is an immaterial, ideological or philosophical statement of why the company exists. At the same time, it is a tangible product or service produced by the company. Purpose can be seen in how the company works in a difficult situation and in how it manages its daily operations, such as in a customer service situation or on social media. Purpose must be genuinely lived in order to be true. The company's products and undertakings are evidence of its purpose. As the social media and Internet have, in recent years, given people more power to hold companies accountable, the importance of the company's purpose and continuous communication relating to it have been emphasised further.

A survey covering more than 30,000 consumers globally found that up to 62% of customers want companies to have a

clear position on matters that are broadly considered relevant. These included sustainability, transparency and the treatment of employees, for example. The closer the company's values are to the customer's own values, the more likely the customer is to commit to the company and to purchase its products. Up to 53% of customers state that they will complain if they are disappointed with the company's actions or statements involving society. 47% say that they will reject a company or brand if they grow frustrated with it. Although it may be difficult for companies to meet consumers' expectations on purpose and value, it will also offer new opportunities to act and win people over.⁹³

This opportunity is related to the company's ability to build genuine and meaningful relationships with its customers

and employees. These relationships can be built if the dialogue between the company and customer shifts more towards thinking about the values that the company and customer share. People want to participate in a brand that is based on long-term customer relationships and shared values.⁹⁴ A brand in the 2020s, for its part, can only be built on genuine purpose and values, genuinely practising them and communicating them.

By acting in line with their purpose and values, companies can also earn something that is difficult to measure in money but that can be seen as trust. The global survey indicates that people want to support companies that evoke trust; this is visible in investments, employee loyalty and well-being, the tone the media uses when writing about trusted companies and, above all, in whose products the customers want to purchase.⁹⁵

Millennial values

Purpose and values are particularly emphasised in the employer views of the millennials, or people born between 1980 and 2001. A company's image will become increasingly important when competing for skilled labour. In a US study, 63% of millennials stated that a company's main task should be improving society instead of striving for maximum profit. 94% of millennials want to use their skills in working life for advancing a cause that they consider important. The causes that people want to spend their working hours advancing will become even more important as new generations choose their employers.⁹⁶

91
Maula & Maula (2019)

92
Sinek (2009)

93
Boston Consulting Group
(2017)

94
Accenture Strategy (2018)

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Harary (2019)

96
Korn Ferry Institute (2017)

Humanity: The limits of capacity are approaching

A lot has changed over a short period of time during the past decade. In addition to our way of communication, the smartphone disrupted public discussion, politics, business and earnings logic, working life, power and hierarchies. Constant communication, the digital transformation and a continuously changing, uncertain world are also likely to cause exhaustion. The climate crisis and reaching the Earth's ecological capacity, on the other hand, cause fear and conflict. The challenges that lie ahead of us may seem massive – and rightfully so.

At the moment, life in Finland and in much of the Western world is better than ever in many respects, as material well-being, long life expectancy, training, advanced health care and societal stability have made it possible to live a very good life in these areas. At the same time, however, a countertrend is also developing with regard to increasing work exhaustion and a rise in the occurrence of mental health issues, diseases of affluence and loneliness.

Simultaneously increasing demands in the working life, family life and leisure time may have affected people's abilities to cope. The higher visibility of mental health issues in the mainstream media and social media may have also affected their increased occurrence and recognition.⁹⁷

In part, this overload is caused by a flood of changes: the discussion regarding the climate crisis, the worsening age dependency ratio and the constantly increasing competence shortage and skills matching issues caused by the changing working life are causing uncertainty. These new threats may give rise to anxiety even if your everyday life is secure. Although the major part of the population has remained unaffected by the fragmentation of the working life and worsening work conditions, and although the majority of Finns are at least reasonably satisfied with their work, their work duties are likely to be under constant change. Within companies, the change projects pile up unless they are managed and prioritised correctly.

This is a worrying trend from the companies' point of view. Overload, exhaustion and mental health issues cause human suffering and grief in the affected person. At the same time, they pose a serious challenge to the working life, business and health care costs.

According to statistics from Kela, the Social Insurance Institution of Finland, work absence due to mental health reasons has increased sharply, by up to 43%, in recent years. Mental health issues were the basis for more than one third of all sickness benefits paid out in Finland in 2019.⁹⁸ In particular, this phenomenon can be seen among young people, and the need for youth mental health services has grown exponentially in recent years.⁹⁹ In 2019, the World Health Organisation (WHO) defined burnout as resulting from work-based stress.¹⁰⁰ How can companies and organisations affect this phenomenon that is so heavily tied to their most important asset, people?

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Blomgren (29.1.2020)

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Blomgren (29.1.2020)

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Itä-Suomen yliopisto
(30.7.2019)

100

World Health Organisation
(WHO) (28.5.2019)

Company culture is very important for the meaningfulness of work

Companies need to take this trend of exhaustion seriously. With suitable labour already in short supply, people's well-being and the meaningfulness of work become very important. Well-being at work is important for the operation of individual companies and for society and the economy as a whole.

Company culture can greatly influence how taxing work is for an individual. In the best case, company culture is directly at the core of the company's strategy. In this case, company culture will implement the strategy while offering people livelihoods as well as meaningful things to do, opportunities for using their talent meaningfully and an important community to belong to.

How is good company culture created? The importance of leadership is emphasised when changes are no longer projects and we are instead constantly living in change. It has been established that the work of immediate supervisors is most important in preventing work exhaustion. This means being seen on the individual level and correct prioritisation at the community level.

One of the answers is co-direction, a more collective and holistic approach to self-direction. Both ways of thinking are related to the growing amount of information and the world's change rate, making top-down hierarchical leadership impossible.

Let us first consider self-direction. Self-direction refers to a way of organising within companies that is based on trust in people and their willingness to work well. Trust means that people have a high degree of autonomy and permission to make even larger decisions independently. In this way of thinking, it is self-evident that not all wisdom is controlled by the management; instead, people across the organisation have the skill and competences to make good decisions. The faster the operating environment changes, the more useful self-direction is for an organisation, as decisions can be made flexibly across the organisation without a powerful hierarchy.

Roughly speaking, self-direction answers four challenges brought about by the change in the working life¹⁰¹:

- 1 **A top-down managed organisation is usually too slow and rigid to survive in rapidly changing industries.** Self-direction that develops through employee experimentation is more sensitive to change. This allows for the quicker adoption of new ways of working or business areas. In the digital economy, reacting to the customer's needs requires a quick response and continuous development of services and products.
- 2 Regardless of the field of industry or the work tasks, continuous development of work requires an increasing amount of **creative expertise and individual decisions**. Restricting professional expertise to mandated roles and rules is not sensible in terms of the company's ability to renew itself and compete with others. Experts should be given the freedom to do their work well.
- 3 **Finding business innovations and earnings models**, and generally developing everyday work to be more meaningful and fluent, are important prerequisites for companies renewing themselves. Hierarchical chains of command will slow down the innovative experiments and may even block them entirely.
- 4 **The generation now entering the working life values autonomy** and the opportunity to develop their competences. In more and more industries, companies need to compete for experts and applicants. Regardless of the nature of the work, a hierarchically led company may easily appear undesirable in the eyes of the applicants.

However, self-direction can fail if it is not supported properly, if the significance of leadership and situations requiring leadership have not been defined or if

the structures and priorities for work are lacking. When supported poorly, self-direction will often lead to unnecessary work, unclear priorities, a poor atmosphere, moping, dissatisfaction and, ultimately, exhaustion.

If the company does not know what it is doing or what the common direction is, the combination may be fatal. People can also feel too alone with all their autonomy. Therefore, even in self-direction, people require supporting structures, a common direction and leadership to guide them towards it.¹⁰² Individual responsibility and authority should be developed specifically for each company and in phases. What one company may see as a high level of freedom and authority might seem like very primitive self-direction to another.

Going forward, a more meaningful way to organise in the future will be co-direction, which strongly links autonomy to common goals, suitable supporting structures and a continuous dialogue that also involves learning together. Co-direction requires a company or organisation to have a clear vision of the purpose of its existence and a common direction that everyone is committed to. You need to have a clear, shared vision of what you are doing and the common values that the workplace culture rests on, and you need to accept that co-direction requires continuous communication and dialogue among the entire organisation. In co-direction, it is extremely important that the organisation's culture supports raising difficult issues and discussion on them. This means transitioning from hero leaders or heroes of self-direction towards identifying mutual dependency and working together.

In co-direction, strong employee autonomy rests on common, shared goals and a continuous shared dialogue. These combine to create the organisation's collective competence and ability to create change together. Learning is a shared effort, not anyone's sole responsibility. Co-direction requires the organisation to have a view of its people that emphasises trust and teamwork. In order to support co-direction, the common values must genuinely be ones that people want to commit to.

Even in this model, the management's presence, role, situational awareness and ability to prioritise work within the company and steer it towards the vision are very important, even more important than before.

More and more commonly, nonhierarchical organisations have adopted methods of coaching leadership that are based on

providing guidance towards answers, attention and presence. A coaching leader helps the company to implement its strategy in everyday work, according to the commonly agreed priorities, but not by issuing orders; instead, they inspire and support, increasing the value of the employees' own competence and decision-making abilities. Another term for this is servant leadership.

Shifting the principle of leadership from the model of “knows everything” to one of “supports and helps you to learn everything” requires the senior management to understand the change and significance of their role as regards the company's ability to renew itself and compete. Developing culture and ways of working should be seen as a strategic competitive advantage.

Focusing on people instead of processes

According to the State of the Global Workplace survey, only 10% of the working population in Western Europe feel excited and motivated by their work. Furthermore, up to 71% state that they are suffering from lack of motivation, and 19% have absolutely no enthusiasm or motivation towards their work.¹⁰³

The corresponding figures are better in Finland, but the above numbers regarding the rise in work exhaustion are perhaps a more Finnish way of reacting to the increasing feeling of complexity in everyday life.

There often appears to be a conflict between employee motivation, well-being at work, competence and atmosphere and a company's ability to compete and renew itself. In the management's view, the operating environment requires even more reinvention, innovations, flexibility and agility.

Therefore, you might imagine that developing leadership, culture, working methods, teamwork, competence and methods for self-leadership is extremely important for company management. This is true for pioneering companies: developing culture and ways of working is not seen as a separate project or as an activity for staff recreation; instead, it is considered to be an extensive foundation for competitiveness.

Technological solutions, process improvements and cost savings are commonly used to develop a company's competitiveness and its ability to renew itself. This situation is likely to change, however.

102
Savaspuro (2018)
103
Gallup (2019)

According to a recent survey conducted in the Nordic countries, 79% of organisations have developed management practices, 69% have developed their ability to self-direct and 60% have developed agile decision-making methods and teamwork. Employees have been encouraged to provide more and more feedback, and the emphasis has been laid on creating multisectoral teams. Despite this, the renovation projects at organisations are often point-form and unit-specific. Nevertheless, only 4.5% of respondents reported that those working in their organisation have the necessary capabilities for innovation at the organisation level. The survey suggests that the next step for organisations will be to focus on individuals: Up to 83% aim to develop the employees' "state of mind for change".¹⁰⁴

State of mind is most affected by culture. Culture consists of several matters that are intertwined and hard to define, such as trust, open interaction, view of people, values, working methods, leadership practices and view of the future. Above all, it refers to the common activities and practices across the entire community.

Companies have, in particular, noticed the importance of a shared view of the future and a publicly stated direction, referred to as the vision. The survey suggests that employees in companies with a clear vision take the initiative to develop their competence. What's more, communities with a higher than average understanding of the vision also show higher than average levels of innovation.

Culture will be the next substantial area of development in companies: 57% of respondents indicate that they want to change their organisation culture within the next 2–3 years in order to adapt to new opportunities and requirements.

What was considered "HR nonsense" only a little while ago has suddenly become a key factor in terms of competitiveness. It is essential to understand that changing the culture will only succeed if leadership is changed to genuinely serve the goals. Agile ways of

leadership that support renewal are scaled up into practices across the organisation.

The focus shifting from processes to people can also be seen in how the importance of the employer brand has been emphasised in recent years. Companies are even discussing their working culture more openly and in a more versatile manner when trying to attract new employees. People are not only interested in the company's ethics, the purpose of the work or how fun the work community is, but also in whether the company can talk about itself in authentic and bold ways instead of the usual jargon that sounds distant to most people.¹⁰⁵

The ability to learn will be emphasised in a rapidly changing world. Many companies will need to consider which types of learning opportunities and career progress paths make it an interesting workplace for the generations not used to staying still, now that there is less and less workforce available. Companies need to be able to see themselves as places that offer multiple opportunities for development and learning, not simply the possibility of being promoted to supervisor. If a company or organisation can offer a place where people feel like they are part of a community learning and developing together, they are also more likely to commit to the organisation. The feeling of your work helping you to stay up to date is likely to be a very important contributor to a person committing to a company.

104
EY (2019)
105
Heimans & Timms (2014)

Data load, digital flood and information overload? Not as straightforward as you might think

In recent years, the stress caused by information overload has been a topic of discussion, both in relation to expert work and in general. And for good reason, since in the year 2000, the main part of new information being generated in the world was still in analogue format, such as on paper, film, vinyl, audio tape and videotape. The amount of information recorded and generated by people was much smaller than currently.

The digitalisation of information and the data explosion occurred between 2000 and 2011, as the amount of new digital information grew by 60% each year.¹⁰⁶ The amount of digital information reached the amount of information in analogue form during 2002–2003. In 2007, digital information constituted 96% of all information generated that year. In 2011, the share of digital information was already 99%.

At the moment, humanity is creating as much new digital information every month as it created during the period from 10,000 BCE until the end of 2003.¹⁰⁷

If the amount of digital information continues to grow at the present rate, the volume of digital information will be nearly 127,000 times higher than at present by the year 2040. However, the rate of growth may very well increase by up to 100%. Therefore, in 2040, humanity could create the same amount of information in 12 seconds as it did from the beginning of time up to the end of 2003.

Digitalisation has been a massive change from the points of view of human activity, everyday life and work. We are talking about information overload and the digital flood. Workplaces are considering which data they need and how it should be utilised. During our time off, we use smart devices to measure our own lives. This means that we are not only using information, but also continuously participating in its creation, during our work and time off. This change that took place in only a couple of decades has raised many questions regarding how we can survive in the middle of this massive increase in the volume of information.

The pros and cons of digitalisation are not divided randomly between different users; instead, there are often other, underlying reasons. From a societal perspective, we should consider the different aspects that affect our digital well-being. Digital well-being refers to using digital equipment, or scheduling your screen time, in a manner that promotes the user's psychological, social and cognitive well-being. There are three research-backed trends closely related to digital well-being¹⁰⁸:

1 The connection between screen time, digital activity and well-being involves **the activities being replaced**. If screen time replaces the exercise, rest and face-to-face communication a person requires, it becomes problematic in terms of well-being.

2 **The relationship between online time and well-being appears to be non-linear**. This means that, while the first hour spent on social media on a specific day may bring more good than harm, the ratio will be reversed by the third hour.

3 **People are differently equipped** to utilise screen time for their well-being. This could be referred to as digital inequality. Factors affecting digital inequality include level of income, education and age as well as personality traits, such as extraversion, capacity for self-regulation and interest in technology. For example, people who were already more sociable and better networked will gain more from maintaining digital contact and surfing on social networks than people who find it harder to form social relationships. Digital addiction, on the other hand, is mostly a threat to people who have addictive tendencies and, possibly, are already addicted in other ways.

Therefore, the pros and cons of digitalisation and the information flood are not straightforward; instead, they are strongly connected to the person's well-being in general. Those who have their life in check are likely to handle the information flood, at home and at work. Those who already have other problems are likely to gain more of them from digitalisation and the Internet. Therefore, how people in general are doing and coping is relevant for the well-being of the digitalised society and the individuals therein.

¹⁰⁶
Hilbert & López (2011)

¹⁰⁷
Dahlberg (2015)

¹⁰⁸
Tammisalo (15.10.2019)

Also bear in mind: urbanisation, demographics and social change

Urbanisation

Estimates indicate that, by 2050, 70% of the world's population will be living in towns and cities. These urban areas will have a major impact on the future. Future megacities, a term that refers to cities with more than 10 million inhabitants, will be built in Asia and Africa.¹⁰⁹ Urbanisation is also proceeding at the highest rate in Africa and Asia.

How these megacities in the southern hemisphere will turn out is an important question. The cities are solving questions that will be extremely relevant in terms of the climate crisis: how we will move, eat and live. There will be global demand in the future for new services and business models related to these questions.

In Finland, the megatrend of urbanisation is strong. Estimates indicate that, in 2035, the only areas of population growth would be the provinces of Uusimaa, Pirkanmaa and Åland. In 2040, Uusimaa would be the only province in continental Finland seeing population growth and, even there, this would be due to immigration.¹⁰⁰

The megatrend of urbanisation may have the following impacts, for example:

1

New infrastructure. Migration into the cities will require new infrastructure and new services. For example, new innovations and implementations will be required in the fields of mobility and related services. Digitalisation and automation of traffic, seamless mobility, mobility as a service and clean mobility will become important trends.

2

Tensions between rural and urban areas. Which political steps are taken to defuse the tension between the countryside, with its declining population, and the cities? This juxtaposition may be seen as tensions and conflicts in both national and international politics.

3

The growing cities and lack of space will make using cars more difficult. In the future, it is possible that even fewer people will want to own a vehicle. According to the OECD's calculations, in a mid-sized European city, the number of cars required to cover current mobility needs could be approx. 80% lower than at present if all car and bus traffic were replaced by shared autonomous vehicles. With the addition of ride-sharing, the number could be reduced by up to 90%. Even though autonomous vehicles would reduce car ownership, they may substantially increase car use. Forecasting the impacts of automated car traffic on car ownership and use is made more difficult by the fact that it is very unsure how quickly and in which form the autonomous vehicles will be introduced.¹⁰¹

100
United Nations, Department
of Economic and Social
Affairs, Population
Division (2018)
110
Tilastokeskus (2019)
111
Helsingin seudun liikenne
(HSL) (2017)

- 4 Health care systems need to grow to meet the needs of the growing population in the cities. As population density increases, health care systems will be under high pressure in the growing cities. Arranging health care and services for the countryside and its declining population is clearly visible in Finland.
- 5 Navigating between security and surveillance. Cities around the world are deploying different surveillance technology in order to improve security. Increased data collection and facial recognition as well as people being constantly online may increase security. At the same time, this can lead to major questions regarding privacy and the right to your own data. Will we allow our every move to be recorded or not?
- 6 Smart cities are widely utilising technology in order to produce services and promote ecological sustainability. The interconnection of people, services and trade in densely populated areas may create completely new forms of business and ways of spending time. The revolution of the retail industry is closely connected to the megatrend of urbanisation. Changes in online shopping, home deliveries, automation of services and leisure time activities are all connected to the future of cities.

Demographics

The change in the age structure of the population is a massive global megatrend. It has both social and political implications as well as implications related to the Earth's ecological capacity. Age structure will also affect trends such as technological development and financial power, for example. These, in turn, will have a substantial impact on both the local and global markets. The change in the population's age structure involves the following, for example:

1 **The world's population will likely increase** to approximately 10 billion by 2100, after which the growth is likely to stop. This will be a significant moment in the history of humanity, as the world's population has increased at a rate of 1–2% per annum since 1950.¹¹²

2 **Most of the population growth will happen in developing countries**, such as in sub-Saharan Africa, where the proportion of young people is growing. The youth of Africa's population means that the continent has good opportunities for economic growth. On the other hand, the challenge is that the high birth rate may also hinder quality of life development in these countries.

112
Pew Research Centre
(17.6.2019)

3 **Europe is ageing.** Finland is at the frontlines of this development, immediately after Japan. In Japan, more than 30% of the population are already over 60 years old. An estimate from the UN indicates that, by 2050, 55 countries will be in a similar situation to Japan; most of them will be in Europe, the rest of the Western world and Asia. People living longer will affect the funding of the state economies, pension systems, health care, use of services, use of technology and culture.

4 **Diminishing young population.** In the Western world, Europe and Finland, the age structure will have a major impact on the size of the younger population. Low birth rates and small generations mean that change is likely to have a major cultural impact. How will societies with very few young people look like? How will technologies or new ideas and thoughts be adopted? Will young people be given access to democratic power?

Social change

Both urbanisation and the changing age structure will also have major impacts on people spending time together. Social changes will, of course, happen otherwise as well. Urbanisation and reduced family sizes are changing the social fabric that we are used to building our lives on. Immigration is changing the concept of a traditional national identity. This will also cause arguments and division lines. Diversity and understanding it will become an even more important theme.

1 Small families. In Finland, the average size of families is 2.75, whereas in 1990, families had on average 3 people. Families include 73% of the population. The share of people belonging to families has declined steadily. In 1990, 82% of the population belonged to families. Finland, for example, had 1,469,000 families at the end of 2018. This was 2,800 families less than in the previous year. The number of families continues to decline.¹¹³

2 The trends of living alone and loneliness are a consequence of the reduction of family sizes, on the one hand, and the increase in life expectancy, on the other hand. In 2018, Finland had 1.2 million people living alone, amounting to 44% of all households.¹¹⁴ In Helsinki, the most common household type was a single-person household¹¹⁵, which accounted for 49% of all households at the end of 2018. The next most common household type was two-person households, accounting for 30% of all households. Three-person households accounted for 10%, four-person households for 7% and five-person households for 2%. When viewed from a longer, historical perspective, living alone is a fairly recent trend. It will be interesting to see how the social fabric will develop when family sizes are small and people are less connected to others through their families.

3 Gentrification is proceeding globally. It is, at the same time, both a massive win for humanity and a challenge for the Earth's ecological capacity. In 2018, we saw quite a leap in the history of humanity: for the first time ever, most humans are no longer poor or in a vulnerable position. According to calculations from the Brookings Institute, the income and consumption of some 3.8 billion people could be classified as wealthy or middle-class in 2018.¹¹⁶ In 2030, an entire 66% of the global middle class will be in Asia.

¹¹³
Tilastokeskus: Perheet (2019)

¹¹⁴
Tilastokeskus: Asunnot ja asuinolot (2019)

¹¹⁵
Asumisen ja rakentamisen tilastotietoa Helsingistä (2019)

¹¹⁶
Kharas & Hamel (27.9.2018)

4

The middle class is both growing and diminishing in the Western world.

Studies have found that there are geographical differences between the size of the Western middle class and the change it is subjected to. In the United States, the middle class seems to be worse off than the Western European middle class. This is due to growing income inequality and people being increasingly placed along the upper and lower limits of the middle class. In Europe, the middle class is faring better than in the United States, and it has also grown steadily in many countries such as France, the Netherlands, Norway and Denmark. However, in Italy and Spain, for example, the middle class has shrunk in size. The size of the middle class is clearly connected to income inequality: the smaller the inequality, the larger the middle class.¹⁷

5

In Finland, we have both bad news and good news regarding the middle class.

The size of the middle class has reduced by approximately 115,000 people. At the same time, the median available monetary income of middle-class individuals has increased by 45–46% between 1995 and 2016. The median income growth of the middle class has been only slightly below the high-income individuals, whose median income grew by approximately 49% during the same period. There are now clearly more low-income individuals than in 1995. The majority of this can be explained by the increase in the number of pensioners and other people outside of the workforce. Therefore, demographics and employment are the top two factors affecting the size of the Finnish middle class.¹⁸

6 **Wealth inequality has grown.** This refers to the concentration of ownership and wealth. At the moment, the 26 richest people in the world own as much as the poorest 3.8 billion. Income inequality has also reached its highest level in 50 years within the United States: 0.1% of Americans control 20% of the overall assets in the country. In Finland, the wealthiest 10% owned some 47% of the total net wealth.¹¹⁹ **Thomas Piketty's** research on the concentration of capital has created global discussion on wealth inequality. Whereas the post-war period was exceptionally equal in Western Europe and the United States, wealth inequality has been growing since the 1970s. Inequality is created because capital tends to outgrow GDP.¹²⁰

7 **Diversity is both advancing and creating political juxtaposition.** Longer life expectancy, low birth rates and immigration are changing the structure of the population. New technology has also created a new way to address problems. Prior to the introduction of social media and the Internet, there might have been no channels for drawing attention to and discussing matters such as structural gender inequality, racism at the workplace, in education and societal participation, and the position of sexual minorities, for example. Discussing the problems and intervening will increase equality, but also create juxtapositions that were previously left unseen due to a lack of public discussion platforms.

117

Pew Research Centre
(24.4.2017)

118

Elinkeinoelämän valtuuskunta
(EVA) (2018)

119

Tilastokeskus: Kotitalouksien
varallisuus (2016)

120

Piketty (2014)

Double disruption challenges companies and organisations

Companies, organisations and societies are affected by the different change drivers and megatrends listed hereinabove. The combined effect of the double disruption and change drivers will make the operating environment unpredictable and unstable for companies. For this reason, the most significant megatrend for companies and organisations in the 2020s will be *change*.

The world as we know it has been operating on different terms within the context of the continued, post-World War II growth. As the preconditions change, companies also need to prepare for holistic change, as hard as it seems. Someone has compared the change pressure to repairing an aircraft mid-flight: the work is hard but it needs to be done in order to avoid a crash. The companies need to discard their prejudices and simultaneously develop means of value creation, the organisation and leadership.

How will strategy work for companies need to change in the age of the double disruption?

The fate of companies will be decided by their ability to renew themselves in the middle of an unpredictable operating environment, a climate crisis threatening the Earth's ecological capacity and other global change dynamics. Renewal requires that the company reassesses the purpose of its existence, constructs a bold vision of the future and ensures that the entire organisation is committed to the change.

In order to change, you first need to know what is happening in the world, right now and in the future. This report aims to provide some answers. In addition to this, the company needs to decide its place in a changing world. In the double disrupted world, strategies cannot be carved in stone; it needs to be based on a constantly updated vision of the future. Ellun Kanat Company can help you formulate and update your strategy.

According to the book *Voittajan strategia*, published in 2019, Finnish companies are not yet spending much of their time creating visions of the future or engaging in strategic anticipation. The authors reviewed the strategy processes of 50 well-known Finnish companies and found that most strategies are focused on improving the current business in the short term.¹²¹

Wanting to hold on to what you already know is a human reaction in a rapidly changing world. Focusing on the current business and forgetting about strategies for the future is human, but risky to say the least. In his 2018 book *Paranoidi optimisti*, **Risto Siilasmaa** gave an accurate description of the significance of scenario work anticipating possible futures: *those who do not prepare for the future will fall victim to it*. Anticipation allows you to be in the driver's seat when building the company's future.¹²²

¹²¹
Mitronen & Raikaslehto
(2019)

Some estimates state that over 70% of change projects will fail. This is likely caused by the way change projects are planned as well as the way they are implemented.¹²³ Committing to change is difficult if you've had no part in its preparation. Therefore, a company or organisation should involve everyone in observing and analysing the future and in implementing the changes and experiments. Weak signals are often visible to those who are involved with customers and the everyday work of the company, away from the management floors. Customer needs are undergoing constant change. In order for the changes to be observed in time, the entire organisation needs to be sensitive to changes on the market and in the world. Involving the company's employees in anticipating the future creates an ability to change and see different opportunities. In the 2020s, future thinking should be an inseparable part of any strategy or change process. Anticipation does not mean predicting the future; instead, it means considering the possible futures and preparing for them. At its best, anticipation will concretely create the desired future.

Strategy and change projects will not happen unless they are prioritised, staged and continuously developed. Implementing the changes requires tenacity, trust, experimentation and scaling what you have learned together. This will not succeed without a strong culture that the senior management also values. Regardless of the organisation model, the management's understanding of their own role will be crucial. A manager cannot create change alone, but they can stop it alone.

In the world of the double disruption, developing business and rooting change is a holistic process of learning together. Companies are already awakening to the significance of working together and

creating a culture. The degree of the required changes will be harder to accept. In the complex era of the double disruption, a wider understanding of the future and the operating environment, clarifying the company's significance, problem solving within multisectoral teams and working towards the strategy together across the entire organisation will be emphasised further in strategy work.

Rita McGrath, a professor from Columbia University who has been studying strategy work in companies for a long time, refers to this strategic continuous development approach as *discovery-driven* thinking.¹²⁴ It means a culture that promotes shared and continuous learning which will, by itself, create value for the company. Innovation aiming towards change will be continuous, and the company will not be caught with its pants down in a rapidly changing world.

Communication is the world's most efficient tool for change

Power, politics, earnings logic for companies, discussion culture and the volume of information are examples of things where the change is in full effect even though, historically, it has only just started. Some parts of the business world have followed the change into the 2020s, while the majority has not. A massive share of the change pressures that companies face originate from the outside, while obstacles to change are internal. The old theories of change leadership no longer apply in the age of the double disruption. Communication can no longer be a separate function; it is a necessity and a prerequisite for the company's existence.

¹²²
Siilasmaa (2018)

¹²³
Anand & Barsoux (2017)

¹²⁴
McGrath (2019)

Communication

Change
in society

Making
change
visible

Living
with
change

Purpose

The company needs to recreate itself. It needs to create a sustainable purpose and an identity that matters. Its purpose needs to be appropriate for the world of the double disruption. The company also needs to be able to communicate its purpose in an open dialogue with its environment. The organisation must be able to use communication as a strategic tool, it must be a part of the organisation's core activities and it must gather attention rather than avoiding it.

All of this also means that, in a transparent world of continuous dialogue, you cannot talk about something that is not true. The purpose of the company's existence must be clear to the company itself. Purpose must be visible in the company's everyday activities and culture. If the purpose is unclear to the company itself, it will surely remain unclear to everyone else.

In the age of the double disruption and the information flood, those who understand that communication is the world's most efficient tool for change will succeed. Communication is the world's most efficient tool for change, regardless of whether the company wants to find its own purpose, verify this purpose internally, make it visible, or enter into dialogue with society and the environment.

Eyes on the horizon and towards the change journey

Although the world is struggling with the COVID-19 pandemic as this report is being published, it remains clear that the double disruption will challenge companies and organisations on a fundamental level. Therefore, once the acute crisis is behind us, we need to look forward, clarify our purpose in the world, set goals, study the change from our own field's point of view, create the change together with people, and root the change in the organisation. Both internal and external communication will need to be an inseparable part of the change if we want it to succeed.

Change will not always be attractive, especially since many companies have been forced into survival mode in 2020. Change will also often instil fear, as failure is always an option. Inevitably, some projects will fail. However, the chances of success are much higher when you start your change journey of your own free will and feel curious and bold about it, instead of burying your head in the sand and hoping that the stars remain aligned.

Companies and organisations that prepare for the future can boldly set off on their change journey and take advantage of the opportunities offered by the change.

As the limits of the Earth's ecological capacity are approaching, we can expect massive changes to the operating environment of companies and organisations. This will remain true even after the pandemic. The average person in the Nordic countries is a good example of the scale of the change. If we are serious about limiting global warming to 1.5 or even 2 degrees, this

means that we would need to reduce our current consumption by nearly 90% from the current level by 2050. Most of the emissions we cause every day result from our way of life. If we want to make the turn towards a cleaner future, this will mean massive changes in almost every industry.

It is, of course, possible that the required changes will not take place

during the coming decade. Even in this case, however, we will be facing changes. The choice to allow the deterioration of natural conditions and to lead the world along a path of extremely unpredictable consequences is both morally unsustainable and strategically very poor. There is no successful business on a planet being destroyed. It could be that the pandemic gives humanity a new kind of energy to avoid a crisis whose effects are already known.

We want to challenge companies to broaden their views and observe the different change dynamics. Changes will more and more commonly originate from surprising directions. Therefore, companies need to remain awake, monitor their surroundings while remaining curious and bold, and keep asking what is going on in the world.

We at Ellun Kanat Company want to help companies. Therefore, we have compiled this report that contains our view and interpretation of the double

disruption and the change drivers, or dynamics, that warrant special attention right now. We believe that the matters discussed in this report are useful to everyone. However, they are especially useful to those who aim to understand what is happening in the world and how change can be anticipated.

We are also facing enormous opportunities that we may not even be able to imagine. We at Ellun Kanat Company believe that the pioneers are those who dare to imagine a better future. Believing in the future and doing things differently will allow companies to survive, differentiate themselves and succeed in the age of the double disruption.

The aim of this report is to shake companies and organisations out of their sleep, prepare them for the change and to better explain the change we are experiencing. At the same time, we believe that embracing change and looking forward are also tools for changing the world for the better. 🌍

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Expert interviews

Antero Vartia, CEO, Compensate

Antto Vihma, Senior Researcher, Finnish Institute of International Affairs

Hanna Nikkanen, non-fiction author

Henna Keränen, Head of Partnerships, Stockholm Innovation & Growth STING

Mika Sutinen, capital investor, Chairman of the Board, Ellun Kanat

Paula Laine, CEO, Finnish State Development Company Vake

Reijo Karhinen, honorary mining counsellor, professional board member

Sari Arho-Havrén, consul, Business Finland Hong Kong

Suvi Auvinen, changemaker, Ellun Kanat

Teppo Turkki, science, technology and innovation counsellor, innovation expert, Business Finland

Tuija Talvitie, Executive Director, Crisis Management Initiative (deceased in 2019)

Ellun Kanat workgroup and experts

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Anna Storå, senior expert,
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Anni Laurikka, changemaker

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