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Business Finland scenarios

Covid-19 update June 2020

THE CORONAVIRUS PANDEMIC AND BUSINESS FINLAND SCENARIOS

Introduction and instructions for reading

Business Finland executed an extensive scenario work examining the future of Finland's competitiveness in the fall of 2019. The sights were set towards year 2030 in order to understand alternative progressions of the global operating environment from the viewpoints of Finnish business and innovation ecosystems.

However, the Covid-19 pandemic changed the global operational environment more than we could imagine. The scenarios have thus been re-examined in midst of the transformations taking place, accounting for the potential effects of the pandemic on the global operating environment. The scenario update was produced between April and May of 2020 by utilising a broad team of Business Finland experts.

This report considers how the original scenarios appear in the light of the current situation. Will the Corona crisis accelerate certain developments and do some of the scenarios now appear more likely than the others?

This material consists of the original descriptions of each scenario, complemented with timely signals related both to the scenario in question, and to the corona crisis, alongside possible developments, which could steer the world towards the one depicted in the scenario. The original scenario timelines have also been updated with developments related to the Corona crisis.

The scenarios presented here are descriptions of plausible future scenarios of the external operating environment concerning Finland's competitiveness from the present until 2030. Rather than being aimed at predicting the future, they are aimed at developing insight.

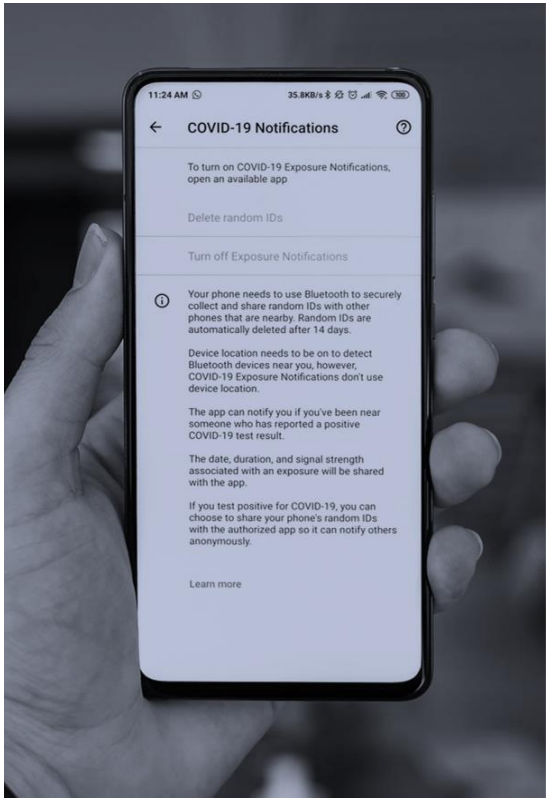
THE CORONAVIRUS PANDEMIC AND BUSINESS FINLAND SCENARIOS

Key effects

The Corona crisis swiftly brought the global economic system on to its knees. Its effects on societies and economic renewal are profound and uncertain all over the world. Finland and Europe's other economies are drifting into recession, and covering for the accrued expenses presents them with great challenges even at a short timespan. Individuals and the societies have taken a remarkable digital leap, but it's difficult to predict, whether the shift will be permanent.

On a longer review period it is anticipated that the crisis will affect many identified transitions already in progress, enhancing them. Uncertainty about the direction and speed of changes still exists, making scenarios retain their topicality in analysing them. The Corona crisis has especially brought forward the following themes:

- → The global balance of power in politics and the global political economy is in transition.
- → The future of the European Union grows more uncertain in the midst of the crisis.
- → The role of cooperation in solving global problems is changing.
- → Digitalization and the utilisation of new technologies are taking leaps forward.
- → Consumerism and value chains are in transition.
- → Future of work-related developments are amplified.
- → The increased role of the State in the crisis is seen as an opportunity for security, but a threat to privacy.
- → Issues of safety and reliability rise to the forefront of politics.
- → The exposed vulnerabilities of crisis-stricken global supply chains bring their functionality into question.



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SUMMARY OF SCENARIOS

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POWER GAMES IN A DIVIDED WORLD

The trade war intensifies and **the world becomes divided** into two digital blocs and trade areas.

China's economic growth accelerates and **China dictates the rules of international trade and cooperation.**

China spreads surveillance capitalism and introduces a strict system of social & climate credit.

China uses climate policy to promote its interests and increase its influence internationally.

The focus of climate policy shifts to Asia.

The European economy becomes recessionary, rifts within the EU deepen further, its global position is weakened and international investments decline dramatically.

Increase in cyber attacks and information warfare.

DATA SAVES AND ENSLAVES

Trust in the existing international institutions wavers and people call for opportunities to exercise global influence on global challenges.

A forum for global citizens' initiatives is established and there is a shift towards AI and algorithm-driven decision-making.

The need for labor is reduced as a result of radical technological progress and traditional paid employment loses significance.

Earning income from the use of personal data becomes possible. Only a few people have the luxury and opportunity of breaking away from digital devices.

A new class division based on **digital competence.**

Cryptocurrencies replace traditional money issued by central banks.

DIGITAL PATRONS OF A NEW ERA

Responsible capitalism is emphasised in corporate activities.

The sizes of major corporations increase radically and giant conglomerates are formed across the boundaries of existing sectors and industries.

Giant corporations assume a growing role in decision-making as the relative significance of nation-states diminishes.

Giant corporations own and govern their own cities, where they **provide services to their employees and the broader community, ranging from education and healthcare to housing.** People strongly identify themselves with their employer.

Regions and populations become polarised between the members of the giants and the non-members.

Energy transformation and a revolution in energy storage.

FROM CRISES TO AGREEMENTS

Major crises shake up the world and global agreements assume an increasingly important role in responding to the challenges. **Global climate policy control instruments are introduced.**

Technology giants and the use of data are regulated internationally and the significance of digital ethics is highlighted through crises.

China's international bargaining power is reduced when the Chinese economy stalls and internal crises are exacerbated.

The strong mutual dependence within the EU leads to a shift towards a federal state.

The democratic contract society becomes stronger and the popularity of representative democracy increases, particularly in the Western world.

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POWER GAMES IN A DIVIDED WORLD

Original scenario summary

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Climate	**China as an authoritarian climate leader**
Technology	**Diverged blocs, the focus of technological innovation is in Asia**
Power	**A bipolar world divided into blocs. Growth of China's power.**

The trade war accelerates and the world is divided into two digital blocs and trade areas.

China's economic growth accelerates and **China lays out the rules of international trade and cooperation.**

Surveillance capitalism spreads from China, along with a strict system of social & climate credit. China uses climate politics to advance its interests and increase its influence internationally.

The focus of climate policy is in Asia.

Europe's economy is in recession and the European union in internal division, its global stature deteriorating. International investments in the area decreases.

Information warfare, cyber attacks and increasing lack of trust.

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POWER GAMES IN A DIVIDED WORLD

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New findings

Signals

The power and role of nation states in responses to the crisis have been highlighted.

China is looking to attain international leadership in thwarting the pandemic. Xi Jingping has called for coordinated economic crisis management in his speeches.

The United States has simultaneously withdrawn its funding from the WHO, while receiving harsh criticism for its lackluster crisis measures.

China is exporting medicine and other supplies to states combating the Corona virus. China has also sought to increasingly influence western news outlets and social media in order to portray itself as the global leader in the crisis. **China is using its purchasing power as leverage** in extorting Australia with import bans on wheat and meat products, after the latter demanded clarification on the origins of the pandemic.

The epidemic has presented China with an opportunity to expand its state-organised surveillance apparatus. Installing applications tracking health and location data are mandatory in many cities.

Moving supply chains away from Asia in case of further crises is considered in Western countries.

The utilisation of propaganda and disinformation have increased in the use of major actors, including China and the United States.

Possible developments

Tackling the Corona crisis becomes the decisive battle in the global leadership bid between China and the United States.

China's economy recovers from the crisis quicker than the United States' and European economies', and China's governance model allows for long-term geopolitical strategies, which give it the upper hand in recovering from the crisis. **China's role in building international cooperation is emphasized, while the status of the United States in international politics is permanently weakened.**

Surveillance applications are used to monitor the spread of the virus, and they become more common outside of China. Their use is continued after the crisis in most states. Facial recognition technologies spread in payments, first due to hygienic considerations, then more permanently.

Health, medicine and research sectors become regionally divided, same as e-commerce platforms.

Differences regarding proper crisis management lead to disputes and conflicts within the European union. Plans for common economic stimulus fail. EU countries, like Italy, withdraw from the EU.

The rediscovered impact and power of nation states stay substantially high after the crisis. The relevance of international institutions withers.

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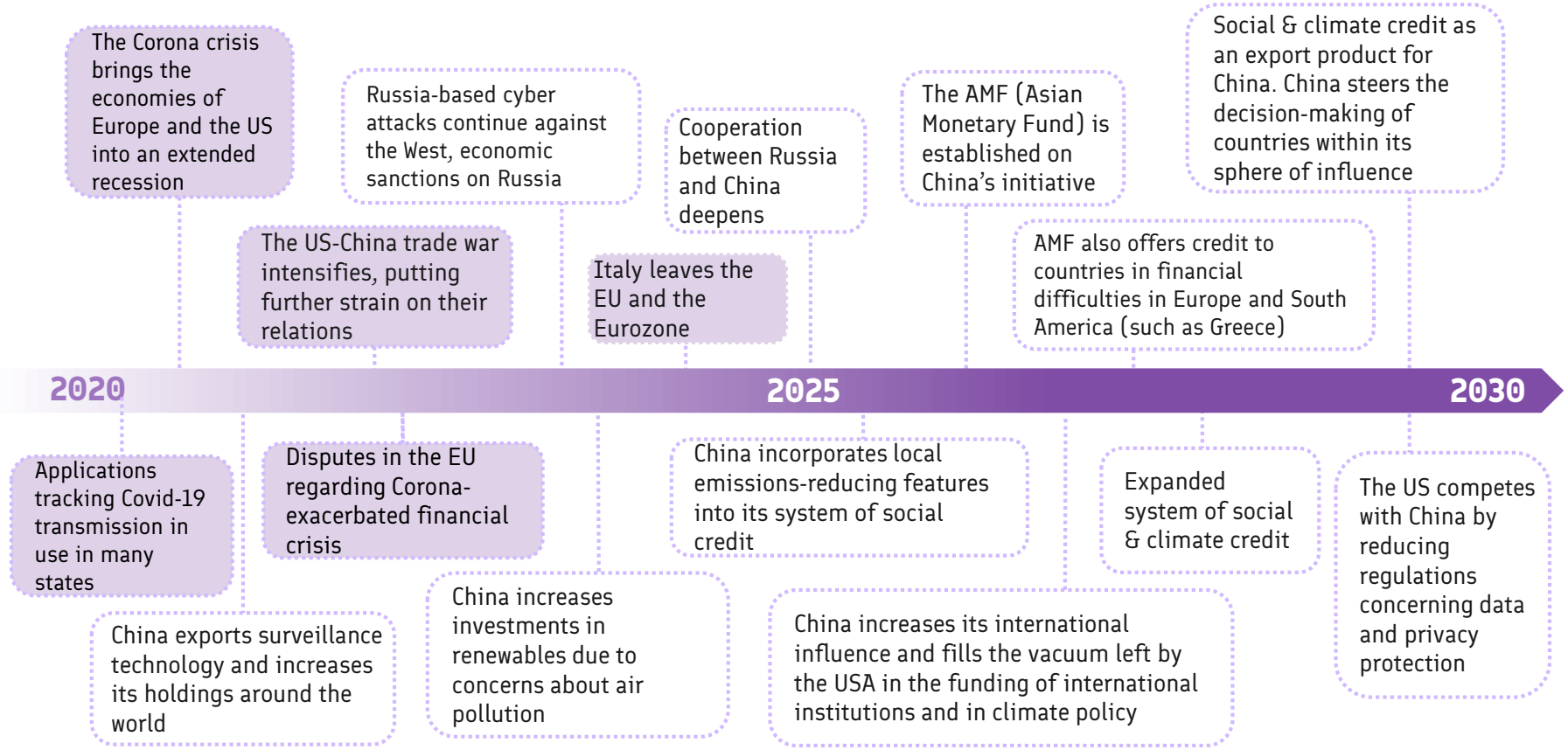
HOW DID THE WORLD GET DIVIDED?



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DATA SAVES AND ENSLAVES

Original scenario summary

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Climate	**Multi-local global civil movements helm the climate actions**
Technology	**No regulation, swift development of AI**
Power	**Fragmented on many levels, role of AI in decision-making increases**

Trust in existing international institutions falters and global influencing methods are required to tackle global challenges.

A global citizen's initiative forum, aiming towards artificial intelligence and algorithm-assisted decision-making, is created.

Labour demand decreases due to rapid technological change and traditional forms of employment lose their relevance.

Earning via utilisation of personal data becomes possible and only a few can afford to break free from digital devices.

A new class divide based on **digital competences** emerges.

Crypto currencies take precedence over traditional central bank money.

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DATA SAVES AND ENSLAVES

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New findings

Signals

International organisations formed to combat pandemics, humanitarian crises and economic collapses fail reaching their objectives and lose funding.

The world has taken a swift digital leap. Digital devices are broadly utilised in work, studying, consuming and on free time. **Disparity in digital competences results in inequality between people during the Corona crisis.**

Many companies invest in developing digital applications and utilisation of AI regardless of their core business. Technology giants like Twitter make the opportunity for remote working permanent. **Tele-education and healthcare take leaps forward.** These developments may decrease regional inequality, but in turn increase inequality based on digital competences.

Freelance and platform employment increase. States introduce more flexible labour laws.

The shift in the financial system accelerates, as the increase in cashless and online payments result in the growth of e-commerce. China introduces the digital renminbi as a contender for the dollar.

3D-printing creates new production opportunities to production bottlenecks (e.g. oxygen valves needed in hospitals)**.**

Local Covid-19 tests for entire communities have become more common regardless of federal or state actions as a result of crowdfunding, volunteer work and social media (e.g. in California).

Possible developments

”Digital globalisation” replaces traditional industrial and political globalisation. Simultaneous developments in localisation coincide with digital globalisation. **Digitally linked activist networks and movements are being increasingly introduced.**

Humans are increasingly seen as the most vulnerable part of supply chains. The development of automation makes large strides, causing the demand for human labour to decrease. Industrial automation develops swiftly, while production is being transferred back into countries with high labour costs.

Transformation of work accelerates. Platform work and self-employment increase, as companies develop flexibility and readiness for quick capacity changes. **Remote working becomes more common,** making working locations less of a factor in choosing ones place of residence.

A significant share of retail and commercial premises (20 % - 30 %) becomes obsolete due to the rise in e-commerce, affecting the whole economy.

Elections coinciding with the pandemic period lead to development of electronic voting systems. This is supported by increasing development and introduction of facial recognition technologies.

Dynamic coalitions seeking to mitigate the economic losses incurred by the crisis are formed within the EU, and the union is renewed.

Bank write-offs increase and systemic risk controls collapse, causing a financial crisis. As the banking sector collapses, new actors and service providers appear in the financial sector. **The industry fragments, greatly mitigating the roles of traditional banks and central banks. Cryptocurrencies proliferate.**

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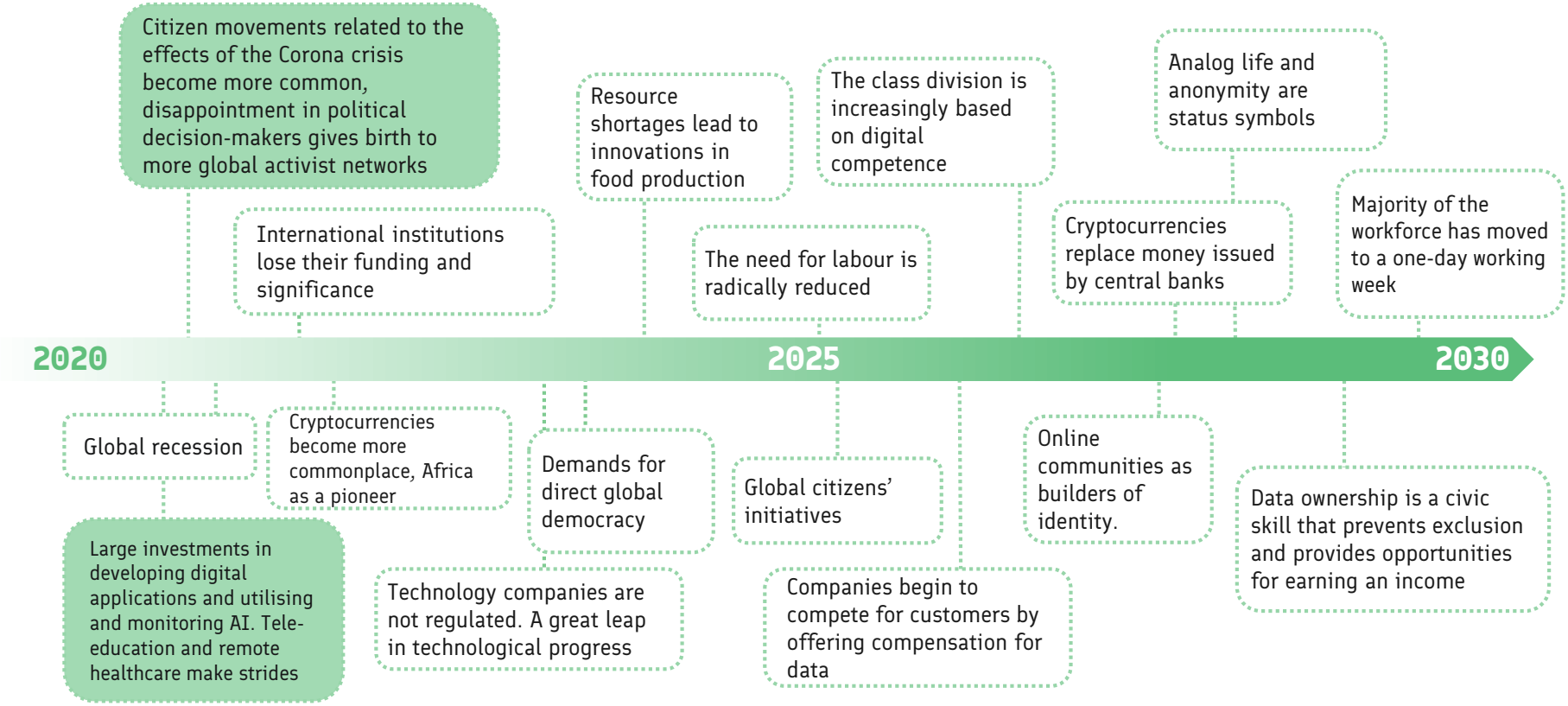
HOW DID WE END UP IN A RADICAL DATA ECONOMY?



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DIGITAL PATRONS OF A NEW ERA

Original scenario summary

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Climate	**Major companies as global climate actors, smart renewable energy**
Technology	**Technological advancement and innovations stem from corporations, no regulation**
Power	**Power is centralized to ever greater technology giants and metropolitan areas**

Responsible capitalism is emphasised in corporate activity.

The size of major companies rises radically, giants encompassing various industries and sectors are formed.

The role of giants in decision-making increases, as the role of nation states is mitigated.

Giants own and control their own cities and offer services like education and healthcare to employees and communities in exchange for labour. People identify themselves with their employer.

Regions and populations become polarised between the members of the giants and the non-members.

Great investments and advantages of scale in energy technology lead to **a revolution in energy storage and development towards free energy.**

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DIGITAL PATRONS OF A NEW ERA

New findings

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Signals

Major corporations have adopted a role in solving the crisis by producing personal safety equipment, respirators and other care equipment, and by donating to vaccine research.

Due to the swift digital leap individuals spend an increasing amount of time on the services of platform giants, and companies strive to integrate their digital activities with platforms to achieve growth. The size and power of technology giants increases.

Google and Apple develop Covid-19 tracing technology in cooperation. The NHS has partnered with large technology companies in tackling the epidemic and ensuring availability of care equipment.

SME's struggle to survive the financial crisis and end up in bankruptcy in many industries, while large corporations like Amazon are hiring considerable amounts of new labour. Financial difficulties of smaller actors facilitate technology buys and consolidation.

The Sars epicemic in the 2000's was a catalyst for the rise of large Chinese e-commerce actors like Alibaba. Corresponding developments are likely in the case of Corona crisis.

Uber is granting its drivers paid sick leave in the United States.

Possible developments

The financial and economic crisis following the pandemic leads to increased austerity measures and cuts in the public sector. **Public services are weakened, opening up opportunities for private companies.**

Solutions to the crisis developed by large technology corporations increase in importance. Large companies aggressively expand their activities in social and healthcare sectors, and on other traditional public sector service sectors like education.

States in weak economic situations cut their funding from international organisations. **Large corporations funnel funding to the WHO and other international organisations in order to make up for lost funding.**

Large corporations rebound from the crisis well, while SME's go bankrupt or are forced to join larger companies. This results in mergers, market consolidation and rising company sizes.

In near future the most successful companies are the ones able to design sustainable, reliable and safe products and services.

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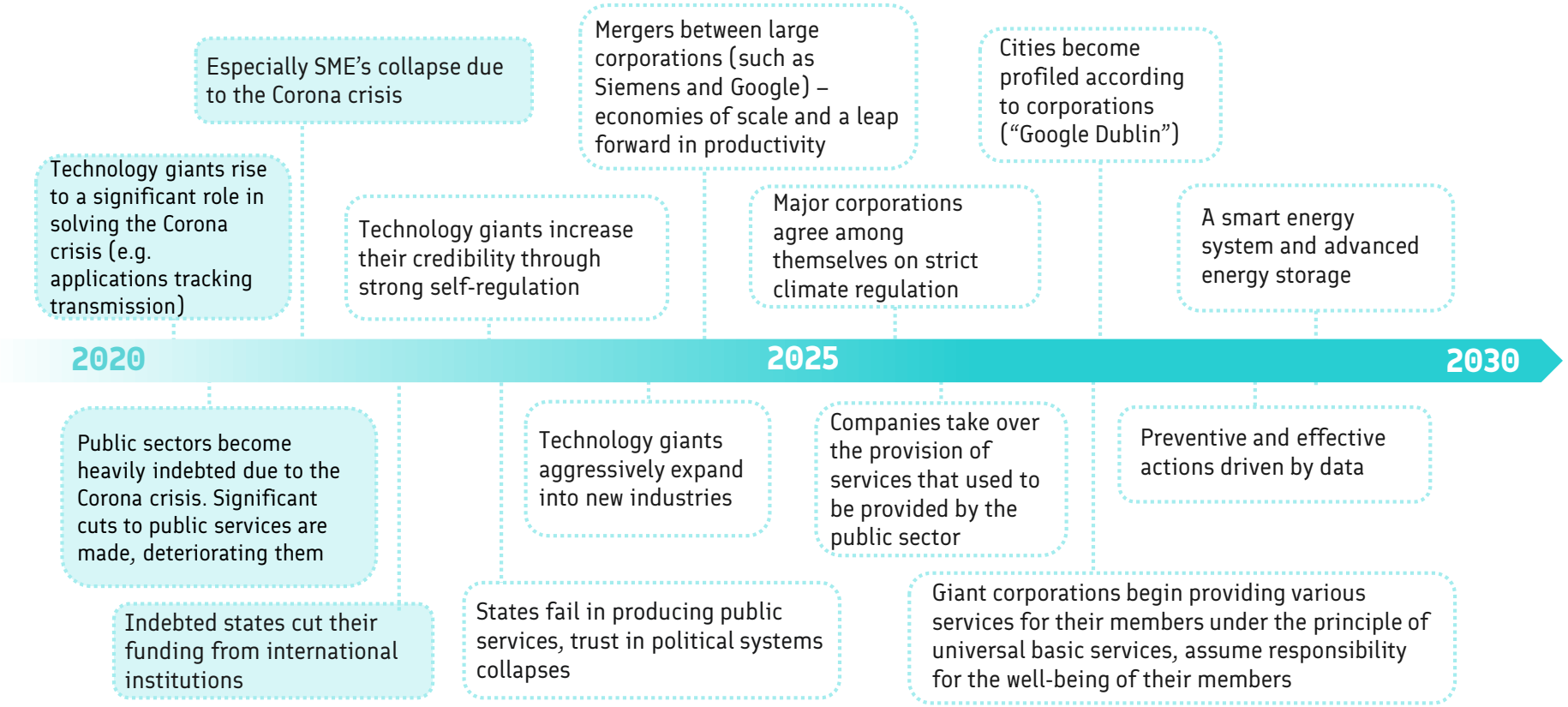
HOW DID THE GIANTS TAKE OVER?



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FROM CRISES TO AGREEMENTS

Original scenario summary

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Climate	**International institutions, tight regulation and adaptation to climate change**
Technology	**Tight regulation, technology giants are split up**
Power	**Within international institutions**

Great crises shake the world and the role of global agreements increases in answering to challenges. **Global climate policy steering mechanisms are implemented.**

The relevance of digital ethics is emphasized due to privacy **crises. Technology giants and data use are regulated at the international level.**

The democratic contract society strengthens, and the popularity of representative democracy rises especially in the West.

China's negotiating power wanes as the state's economy falters and its inner crises are exacerbated.

The strong interdependence of the European Union leads to progress towards federalism.

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FROM CRISES TO AGREEMENTS

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New findings

Signals

Governments have taken an active role in economic policy to solve the crisis (e.g. increased emergency funding for companies)

Discussion about the future of the European union is heated and increased common solidarity through Eurobonds creates new foundations for deepening cooperation.

Social policy has partly transferred towards universal social security systems in Europe (e.g. unemployment benefits for entrepreneurs)

The United States is executing a new form of social and health policy (HR6201) and discussion about basic income is on the rise in Europe (Spain) and the United States.

Regulation and development of a fair data economy progresses, as the need for ethical data use rises to the forefront as governments collect location and health data during the crisis.

Employees demand better safety regulation and equipment during the crisis (e.g. Amazon, McDonalds). This may lead to stronger government intervention and increased occupational safety standards.

The pandemic has been seen by governments as an opportunity to make strides in sustainability, as allotted bailouts have been linked to, for example, achieving climate goals (e.g. the terms of Air France's Corona assistance package, terms of all of Canada's Corona assistance packages).

Possible developments

States come to a common understanding of the importance of international cooperation in dealing with pandemics and the climate crisis. The cooperation is at first based on a "coalition of the willing" model, which then evolves into a new forum of global cooperation, while old institutions are dismantled.

The agenda of the new organisation is highly specific. Cooperation is based on, for example, tackling climate change, without the undertones of advancing Western values or specific ideologies. Questions related to human rights are set aside, so that planetary problems may be addressed.

Wartime economics lead to unprecedented economic policies, which might earlier have been deemed unimaginable in liberal economies. Basic income and high income and property taxes become reality in Europe. A Democrat president is elected in the United States, and **health and economic policies from the crisis period become permanent.**

An EU rebuilding fund financed by common debt is established in order to cover for the economic damage incurred by the crisis. EU members increase common preparedness and establish a common preparedness center. EU member states have achieved common green and sustainable recovery, and the foundations of EU's ambitious climate goals have remained in place. EU is successfully advancing its ambitious green development program.

Western states transfer their production back into Europe and the United States in order to decrease their dependency of China.

As a result of the Corona crisis it becomes easier to affect harmful consumption with regulation, and, for example, flying becomes drastically less common. Locality and sustainability are highlighted in consumerism.

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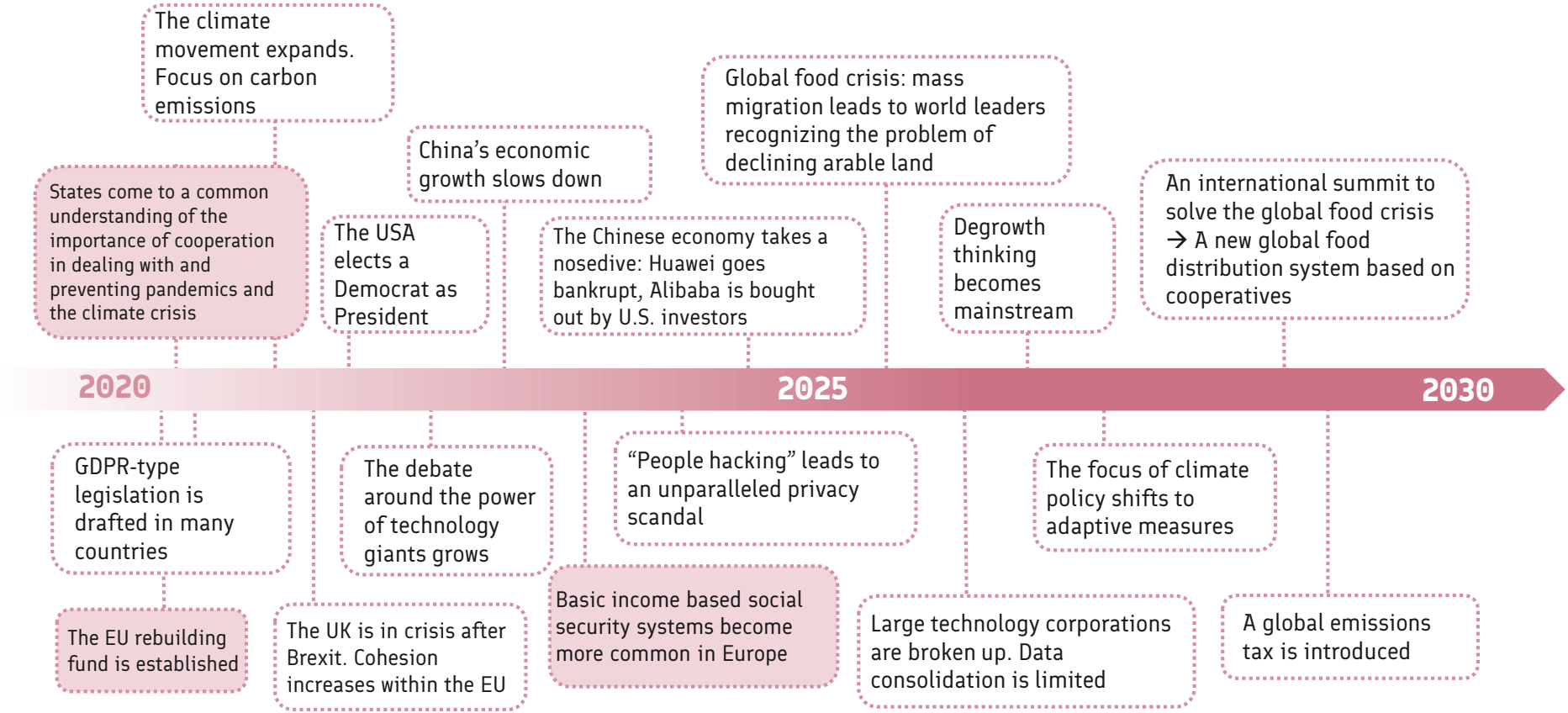
HOW WAS THE COMMON GROUND FOUND?



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EFFECTS OF CORONA CRISIS ON FINLAND

What are the new opportunities for Finnish industries?

In the aftermath of the Covid-19 crisis Finland must prepare to act in a world which may continue to develop as a flat line, rather than following a continuous growth curve. Broad indebtedness of nation states has longstanding effects on Finland's industries and societal cohesion. The economic shift and digital leap following the crisis, on the other hand, offer Finland opportunities for developing new business models and competitiveness, when, for example, Finland's remote location ceases to be a factor of competitive disadvantage. Reorganisation following the crisis provides Finland with a position of global leadership in welfare investments and in introducing new welfare indicators.

→ **In a rapidly changing operating environment Finland's industries and businesses are required to embody change agility and quick reaction capabilities, while possessing a pinch of risk-taking capacity.**

- → **Virtuality:** Solutions replacing physical interaction, virtual interaction and experiences grow both on the b2b and b2c sides. The competitive disadvantage posed by Finland's remote location decreases.
- → **Consumer activities transfer online:** Speed and ease are highlighted in buying and delivery. Sharing and recycling solutions may become more common.
- → **Technological competences may become even more valuable.** Remote maintenance of machines and equipment, 3D-printing, e-commerce solutions, AI and platforms, industrial automation and robotics may scale up with the crisis.
- → The relevance of **clean and non-antibiotic foods** increases.
- → **Remote health and welfare services** along with tele-education, and the corresponding technologies become more common. This presents the healthcare sector with a broad range of new possibilities.
- → **The meaning of home and living is in flux,** as homes are increasingly utilised for, for example, working, exercising, and cooking. An increasingly diverse range of products and services is being demanded for ones home. Communal living and moving to rural areas may increase their popularity.
- → **The trends of domestic and nature tourism** are on the rise.
- → Demand towards **traditional and safe solutions** may increase alongside new trends in the crisis.