



## Talks, Reports, reviews

During 2021 we attended various talks and seminars, online and in person, read a number of reports and wrote a selection of reviews which are collated here for reference.

### “Raising our game”: the EU’s new Strategic Foresight Network



*Image by Brockenhexe from Pixabay*

On 18 and 19 November last year, the European Strategy and Policy Analysis System (ESPAS) held its annual conference. “Thinking about the Future: Europe’s Road to 2030” took place entirely online – a shame for those of us who enjoy the opportunity to travel to Brussels and meet colleagues from around Europe, but a real proof that these events, when properly thought through and managed, can be just as effective from attendees’ respective bedrooms.

The list of speakers was pretty stellar – the President of the European Parliament, the former Prime Minister of Finland, the Prime Minister of Spain, Madeline Albright, senior members of the European Action Service, the High Representative of the Union for Foreign Affairs and Security Policy, the DG of the Council of the EU, and many more.

There has been a change that feels seismic for our field in the EU since Ursula von der Leyen assumed the Presidency: raising foresight to a named, vice presidential responsibility. Maroš Šefčovič is “Vice President for Interinstitutional Relations and Foresight”.



It's perhaps difficult to overestimate the importance of this simple title change. Foresight has been an essential part of policy work in Brussels for many years. Indeed, SAMI has undertaken some of this work and has recently completed an 18-month project for the Commission's Directorate General of Research and Innovation. There has, though, been a feeling that whilst foresight is important, it is not central; a "good to have" rather than a "must-have".

Vice-President Šefčovič's appointment, terms of reference, and his announcements at ESPAS move futures thinking into the "must-have" bracket. We'll have an opportunity in these blogs to look in more detail at some of the initiatives, especially the first annual Strategic Foresight Report, "Charting the course towards a more resilient Europe".

One of Šefčovič's other announcements is, though, a good place to start this series of blogs.

In almost his penultimate paragraph, he announced: "I am **launching an EU-wide Strategic Foresight Network**, which will see EU institutions, Member States, think tanks, academia, civil society, and international organisations joining forces."

Foresight is a relatively small profession. There are 'communities of interest' in government (such as the UK government's Heads of Horizon Scanning Network) and organisations such as the Association of Professional Futurists, the recently launched Futures Space, and SAMI's Cohort of futures practitioners.

But the promise of the Strategic Foresight Network is different. With support at the vice-presidential level and an extensive membership across society and government, the potential is enormous. One can imagine projects of real range and depth; a determination to tie foresight to policy development; and inclusiveness which sometimes government foresight projects have failed to find.

We have been here before, of course. Exciting, multi-actor initiatives are difficult to sustain; challenging to maintain coherently, and prone to bursts of action followed by long periods of stasis. Subsequent EC presidencies can change vice-presidential portfolios' and roles as quickly as President von der Leyen has done. Nothing, as we always remind people, is permanent.

So we – by which I mean Europe in its broadest sense – now need to take this by both hands. Orienting futures thinking in the heart of policymaking in the EU will drive it into the hearts of governments within and beyond the EU. And that will make better policy, and perhaps help us better deal with a future which remains desperately uncertain. During the conference, a throwaway line – that there might be a network of "Ministers for the Future" – offers the possibility of a crucial development, which we shall be watching closely.

This blog is the first of a series on the state of foresight in government. Subsequent articles will cover the first EC's Annual Strategic Foresight Report. We shall examine the concept of "open strategic autonomy" in the EU's thinking; and compare government foresight initiatives. We will look at how the triple shocks of Brexit, the



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Trump administration, and the pandemic, have forced governments to think hard about the future. And we will look at what they need to do next.

*Written by Jonathan Blanchard Smith, SAMI Fellow and Director. Published 21 Jan 2021.*



## World Economic Forum Global Risks Report 2021



Image by [Wokandapix](#) from [Pixabay](#)

Although the usual festival of the rich didn't happen at Davos this year, the WEF did produce its usual annual report on [global risks](#) – the 16<sup>th</sup> edition. The analysis of risks is compiled from a survey of “extensive network of business, government, civil society and thought leaders” – not futurists as such. Respondents were asked their views on a list of 35 global risks, categorised by STEEP, 12 of which were newly identified this year. The new risks included “digital inequality” and “digital power concentration”, “fracture of interstate relations”, and “prolonged economic stagnation”.

For 35 global risks Respondents were asked to identify:

- The time horizon for the risks, short/medium/long within 10 years;
- Impact and Likelihood within 10 years
- The most to least concerning, and which were drivers of other risks
- Blind spots and opportunities

Unsurprisingly, “Infectious diseases” headed the list of short-term risks (“clear and present dangers”), closely followed by “livelihood crises”. “Weapons of mass destruction” and “state collapse” were marked as the top long-term “existential” risks.

The “Global Risks Landscape” was also fairly predictable, with environmental risks and infectious diseases featured in the top right corner.



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Personally, I would have rated “Mental health deterioration” and “Backlash against science” higher on both dimensions than the bottom left position rated by respondents. I would also have rated the importance of “Digital inequality” higher – respondents did rate it as “likely”.

Respondents did include mental health in their list of top “blind spots”, along with “youth disillusionment” and, remarkably, “climate action failure”.

Tracking the most likely risks over the years is more revealing.

Top Global Risks by Likelihood



Environmental risks around climate change have climbed to the top of the lists, interrupted only by the pandemic – which many would argue is a linked environmental risk itself.

In his analysis of the WEF report, [Andrew Curry](#) pointed out that “When WEF says something, you can know that this is a view that mainstream business opinion feels





comfortable moving towards. It's a signal of an idea's maturity." So this is not the place to look for weak signals or novel threats.

Drawing on the survey, the WEF Report analyses "growing social, economic and industrial divisions, their interconnections, and their implications on our ability to resolve major global risks requiring societal cohesion and global cooperation". They identify five key areas, mostly focussing on the effects of the pandemic:

- Economic fragility and societal divisions are set to increase: the pandemic's economic effect will increase inequality and the risk of "social cohesion erosion".
- Growing digital divides and technology adoption pose concerns: progress towards digital inclusivity is threatened by growing digital dependency, rapidly accelerating automation, information suppression and manipulation, gaps in technology regulation and gaps in technology skills and capabilities.
- A doubly disrupted generation of youth is emerging in an age of lost opportunity: hard-fought societal wins could be obliterated if the current generation lacks adequate pathways to future opportunities
- Climate continues to be a looming risk as global cooperation weakens: the survey was conducted in September/October 2020, so respondents could not know that the new US President would sign up to the Paris accord again and appear to take the issue seriously. Respondents were more pessimistic and foresaw a reduction in international co-operation as states focused internally to re-boot their economies.
- A polarised industrial landscape may emerge in the post-pandemic economy: stagnation in advanced economies and lost potential in emerging and developing markets.

Looking to the positive, the report concludes with a view on "better pathways ... to manage risks and enhance resilience". They suggest that the response to COVID-19 offers four governance opportunities:

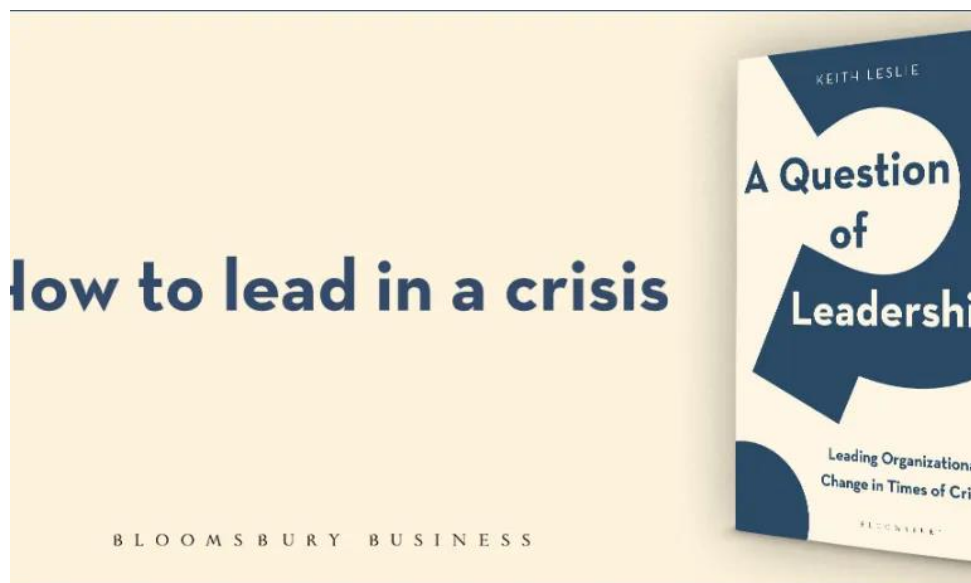
- formulating analytical frameworks that take a holistic and systems-based view of risk impacts;
- investing in high-profile "risk champions" to encourage national leadership and international co-operation;
- improving risk communications and combating misinformation; and
- exploring new forms of public-private partnership on risk preparedness.

It is understandable that the pandemic dominates immediate planning and people use it to justify their pre-existing preferences for action. Nonetheless it is right to suggest that this is a time when organisations may be more than usually open to the idea that the future is inherently uncertain. If sights can be raised beyond immediate economic re-construction, opportunities for more resilient development do exist.

*Written by Huw Williams, SAMI Principal, Published 10 Feb 2021*



## What next?



One of the most beguiling moments for a leader is when he (for, too often, the leader is still a he) is asked “so what happens next?” Pause for that moment – and think very hard. How you answer that question will condition your organisation’s actions going forward ... and your own actions are likely to become more constrained. The temptation is to have all the answers as a leader and to play games as an organisation. The trick is to keep asking powerful questions and encourage the organisation into real work.

“What happens next?” comes in many flavours:

- Literally, what does the future hold?
- How will this change programme work?
- What do you want me to do differently?
- What does my job or bonus depend on being seen to do?

Psychology and pragmatism both tempt leaders to have all the answers. Their career has been about applying experience accumulated in a succession of largely successful actions that sifted them from colleagues – they *know* what works – or at least they think they do. Leaders also want – need – quick actions from their organisation. Why wouldn’t you just tell people what happens next?

In *A Question of Leadership – leading organizational change in times of crisis*, I describe how even the smallest organisation is a complex system but, all too often, leaders are so time-bereft that they short-circuit the conversations and understanding that are essential for success. Senior leaders often under-estimate the impact of central initiatives – say a new IT system – on frontline leaders who make daily trade-offs to keep operational routines happening. Instead, they rely on their own (limited) experience of what worked for them before and they fall into the ‘optimism trap’ and the ‘planning fallacy’ of believing that ‘the plan’ will somehow pull them through. In many



cases, all that activity is merely leaders and organisations ‘playing games’ that pretend to deliver change but are, in reality, avoiding the real work of change and end up undermining the organisation. Change is truly an accident waiting to happen.

The pandemic of 2020 made these leadership accidents visible to us all because none of us were mere bystanders in a complex period of change for all of society. All of us experienced new threats, a new language of change and observed good and bad leadership in a way remembered only by the few who had experienced war or shortage or disease. The pandemic saw a flourishing of leadership among 750,000 volunteers in the NHS, local food charities – and our own 22,000 Samaritans volunteers. Government had successes with initiatives that play to central strengths, such as the Nightingale hospitals and vaccine funding, while struggling when intervening centrally in complex local systems, such as care homes and schools. Successful leadership was evident in new ways as we worked from home, as we led our families or schooling or street or community, or managed new risks in care homes or customer service. The clue to our Public Health emergency was always in the title – the public response.

*A Question of Leadership* highlights what it takes to succeed. First, asking powerful questions:

- What does it take to keep the operation going?
- Where are we already succeeding with a new approach?
- What is it that keeps you putting in this extra effort?
- What will it take to adapt to these new behaviours?

Then, doing what only leaders can do:

- Balancing immediate tasks with the ultimate goal.
- Focussing on the real work rather than gaming the system.
- Building a sense of belonging, inclusion and mental health.

“What happens next?” is a complex question, as we all know from the pandemic. Forecasts of being “back to normal by ...” are still being blithely offered by politicians who should have learned from their experience of 2020. At the very least, the SAMI techniques of scenarios and future-scanning should be in play. Leaders who pretend to have all the answers are likely to leave us disappointed and to miss their target. Doing the real work of framing powerful questions will leave you satisfied with your leadership and your organisation more successful.

*Keith Leslie is the author of A Question of Leadership and Chair of Samaritans in the UK & Ireland and an associate of SAMI. He is also Chair of Mental Health At Work CIC, former Chair of the Mental Health Foundation, and a former partner at McKinsey and Deloitte. Published 18 February 2021*





## Futures Literacy and Anticipation



*Image by Garik Barseghyan from Pixabay*

Anticipation is a growing trend. In January, Jonathan Blanchard Smith reviewed the [European Strategy and Policy Analysis System \(ESPAS\) Conference in November 2020](#), which launched the EU-wide strategic foresight network. Hard on the heels of the ESPAS Conference came the UNESCO Futures Literacy Summit 8th-12 December 2020. The conference followed the creation of a UNESCO Chair in Anticipatory Systems, and the First International Symposium of UNESCO Chairs in Anticipatory Systems, Futures Studies and Futures Literacy in 2019 – and this itself followed the publication of the book, “Transforming the Future – Anticipation in the 21st Century” edited by Riel Miller, the Head of Futures Literacy at UNESCO in 2018.

### Transforming the Future – Anticipation in the 21st Century

The central thesis of Miller’s book runs as follows. Futures Literacy matters because people often make assumptions that the future will run on from the past in the same old way. In other words, there is “an assumption of no change in the conditions of change,” and this is the approach used to prepare and plan. An analysis of the assumptions would give a better understanding of the present from which to start. The environment is too complex to understand comprehensively. A more fluid approach is appropriate for the imagination of different possibilities and novelty to be taken into account in what might emerge or happen in the future.

In a nutshell, that’s it. What is more, it takes over a hundred pages of academic jargon and the repeated use of intricate acronyms to say it. I did feel at times that it was a rather big sledgehammer to crack a rather small walnut. I couldn’t help coming back to the question – is it saying anything very new?



Miller lays great stress on the need to understand “anticipatory assumptions” and make assumptions explicit. But in the twenty-first century, it is well understood that much of what we do happens at the unconscious level. We all have to make assumptions in real life, or nothing would get done. Even if an assumption is made explicit and accepted, it doesn’t mean that it is correct. To say that over time no-one questions any assumptions based on experience is facile.

The limits of forecasting based on quantitative methods and statistics – where assumptions have to be specific – have been recognised and are well discussed. The contributors do acknowledge that anticipation is studied within many other disciplines (including anthropology, biology, ethnography, history, and cognitive and social sciences). They even go so far as “noting that much of our understanding of anticipation remains cursory and fragmentary”. Surely it would be better to incorporate the “state of the art” from these other disciplines into foresight work and accept that the current frontier is a long way from the end of the journey. Foresight is a practical activity that has to be applied in situations of incomplete knowledge.

The approach which uses imagination to generate novel futures faces a similar problem.

Suppose we take the example (this author’s example) of searching for a vaccine for covid-19 at the outset of the pandemic. Given that some people could clear the virus without treatment, and some exhibited no symptoms at all, it was likely that a vaccine could be found. But what would turn out to work could not be established in advance. Therefore, a massive amount of different research was undertaken worldwide. Any procedures that would typically happen sequentially were run in parallel, and everything was sped up as much as possible. At the time of writing, this has led to the “emergence” of at least six vaccines of varying efficacy. But no-one could have predicted that at the outset. This hasn’t come about because of foresight but because of a common-sense approach recognising the urgency of the situation following – arguably – earlier failures of foresight.

It’s as if the authors thought that no-one had ever used their imagination before. Miller extols “the power of FL [Futures Literacy] to overcome poverty of the imagination,” as if it was the only way. If the problem is that serious, it is undoubtedly better addressed by improvements in education systems as a whole.

However, it is clear that some of the reasoning behind this takes into account less developed countries and traditional societies that feature in the case studies. One “Futures Literacy Laboratory” run for the Organisation de la Francophonie (OIF), used the topic “Africa Horizon 2035” – a particularly relevant issue because most of the programmes of the OIF’s four-year plan focussed on Africa. Astonishingly, before the workshop, 30% of the participants indicated that information about the future would be unlikely to help address the challenges of our time, and 29% denied that it would even assist with the invention of new possibilities. At the end, the majority of the participants acknowledged that the exercise had helped them rethink how they approached the future and given them a new strategic tool that they could develop and employ.



Reviewing what had happened at another “All Africa Futures Forum” themed “Transforming Africa’s Futures” attended by professionals from a wide range of organisations including ministries, Karuri-Sebina and Miller wrote:

“In theory and practice, the African narrative is being transformed from a conventional story of growth through industrialisation and catch-up to a story of local economic and cultural empowerment.”

While all this is to the good, these isolated exercises need to be part of a much bigger developmental and educational effort at the national level presided over by well-informed leaders and politicians.

Stuart Candy, another contributor, writes in a later chapter:

“It has been observed that humans’ native, everyday foresight capacity serves as the basis, duly ramified and amplified, for the professional and pedagogical activity of futurists. The development of a social capacity for foresight is perhaps the ultimate promise of a futures practice that does not hoard or guard its insights and tools as the preserve of a class of experts ...”

This perhaps gets to the heart of the matter in a way Mr Candy didn’t intend. To the present writer the problem is not futurists hoarding their tools and insights but despite their best efforts, too few people wanting to share in their riches.

This applies particularly to people at senior government level who should be most interested in addressing the future. Of course, there needs to be an informed general public as well. Still, I suggest that what the ordinary man in the street wants is to see with his “native everyday foresight capacity” and that the government is competent in its forward thinking and its ability to look ahead.

Be that as it may, one consequential activity was the UNESCO Futures Literacy Summit 2020 which was held virtually. The “virtual” aspect meant that a much greater number could participate than would normally have been the case with a “face-to-face” conference. Some 8,000 people attended more than 225 events, 40 plenary videos and 97 content-rich on-line booths made possible by a major effort from the global futures community. The organisers claimed that it was “the biggest gathering of people thinking about the future in the history of future studies”.

For anyone concerned about the development of futures and futures literacy, this was a visible stepping-stone in the right direction.

*Written by Tony Diggle, SAMI Associate. Published 24 March 2021*



## Technologies for 2021- MIT Technology Review



*Image by [Sambeet D](#) from [Pixabay](#)*

Back in February 2021 [MIT Technology Review](#) marked the 20th anniversary of their annual selection of the important technologies of the year. They presented this year's list with a short review of each technology and provided a link to a more in-depth article.

There were ten 'breakthrough' technologies identified for 2021.

Firstly, one we've all become familiar with since the beginning of the COVID-19 pandemic – the use of messenger RNA vaccines. Research and development in mRNA has been ongoing for the last twenty years or so but the pandemic spurred some fast action and rapid development of at least two effective vaccines. This heralds a future transformation of medicine as the technique holds out great hope for vaccines against diseases such as malaria and also for treatments for HIV and sickle cell disease and the possibility of helping us fight off cancers.

Two other technologies that may support, or encourage, societal changes are lithium-metal batteries and green hydrogen.

Quantumscape, a Silicon Valley startup with a deal with VW, claims the development of a battery that will support the wider adoption of electric vehicles by enabling a greater range and faster recharging. These lithium-metal batteries promise much for successful electric vehicles and may help support wider usage of them – although there is an increasing awareness that lithium supply could eventually become an issue.

This may be offset by the use of green hydrogen as a replacement for fossil fuels. Until the recent falls in cost for solar and wind power making hydrogen fuel has been an energy intensive and expensive process. With this no longer being the



case, the supporting infrastructure is beginning to be built and will bring a network of electrolysis plants making clean hydrogen so enabling the manufacture of liquid synthetic fuels that are direct replacements for petrol and diesel.

The remainder of the list deals with a variety of IT related themes, from GPT-3 to hyper-accurate positioning to multi-skilled AI.

GPT-3 is the largest, and most literate, of natural language computer models that can write and speak. And whilst it can mimic human written text, as yet what it produces can sometimes be downright bizarre. This can probably be amended but will use vast amounts on computational power, need a large carbon footprint and an extraordinary amount of resources. So, yes, a technology 'breakthrough' but will, perhaps, take much longer to become mainstream.

The algorithms of TikTok's recommendations have changed how influencers become famous by enabling new creators of online content to get large numbers of views far more quickly than other social media platforms. This encouraged the other platforms to try to follow suit and may lead to improvements in how we all access new and different kinds of online content. Will this broaden the range of media and views that we consume online?

Thinking about social media leads us to think about privacy and another 'breakthrough' technology in the list is that of Data Trusts which is alternative approach that is now being explored. Such trusts collect and manage your data and offer potential solutions to privacy and security although many details are still being worked out.

Other pandemic-induced digital solutions like digital contact tracing and remote everything also make the list. Contact tracing has not, so far, been very successful despite available technology but the lessons learnt may well pave the way for future success. And certainly the last year has speeded up the acceptance of 'remote everything'. Online learning has had remarkable success in Asia – and perhaps there are lessons to be learnt in other parts of the world to help this type of learning be more successful elsewhere. In Africa, the pandemic has encouraged the use of telehealth care and it has been a life saver for many. There will be many lessons in both these areas for the future use of technology.

The final two points on the list are hyper-accurate GPS and multi-skilled AI. The completion last June of China's global navigation system enables provision of positioning accuracy of 1.5 to two metres to everyone in the world and four new satellites for GPS III were launched in November 2020 will enable an upgrade of the GPS system that has been with us since the early 1990s. Pinpoint accuracy of GPS is opening up new possibilities for delivery robots, landslide warnings and more accurate self-driving cars.

Improvement in AI systems is premised through the use of multi-sensory inputs which would help robots gain a more flexible intelligence regarding the world around them. This could enable them to react to new situations and begin to generalise their learning similar to that learning found in humans.





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These technologies are all in existence now and will, undoubtedly, affect us as they evolve and develop. What aspects of these will 'breakthrough' to our daily life in 2021 or maybe it will be something else that completely surprises us?

*Written by Cathy Dunn, SAMI Principal, Published 21 April 2021*



## 4th Industrial Revolution – trends



*Image by Gerd Altmann from Pixabay*

Last month we were pleased to have the opportunity to talk at a symposium on Technology Roadmaps to Promote Industry 4.0 in Developing APEC (Asia-Pacific Economic Cooperation) Economies. Our session covered trends underpinning the 4th Industrial Revolution. This is the text of that talk, given by SAMI Director and Fellow, Jonathan Blanchard Smith.

We've heard a lot about Industry 4.0 which futurists also call the "Fourth Industrial Revolution". For us, it means:

- Increasing sophistication of machine learning and adaptive IT systems
  - face recognition, AI, robotics, cobots, AI journalists, automated trading, etc.
  - and pervasiveness of IT and IoT/smart infrastructure
- 3D printing and decentralised, localised 'just-in-time' goods production
  - emphasising design/IPR profits rather than production profits

The fourth industrial revolution is what we call a "megatrend". A megatrend is going to happen, whether we like it or not. It includes things like demographic change, climate breakdown, the shift in global power from the north to the south, from the west to the east. And it includes technological advance – starting with Industry 4.0.

But as we can tell, the fourth industrial revolution, Industry 4.0, is already here. It's happening, now: face recognition is pervasive not only on your laptop and mobile phone but also in use by the state and the police; websites are using artificial intelligence to write articles; people are printing objects using 3D printing ranging from components to houses. On the space station, a 3D printer produces components and tools using files sent up from NASA ground control.



As William Gibson says, “The future is already here. It’s just unevenly distributed”.

Industry 4.0 is an example of the uneven distribution of the future. You cannot have the internet of things when you do not have reliable electricity or pervasive smart technology (ranging from mobile phones to smart electricity meters). You cannot have wifi if you do not have a telecoms infrastructure. Even if we don’t have those things, though, it’s wise to look at Industry 4.0 now, and we should also note that it is, in some ways, already the present. What futurists are interested in is what happens after the present.

What happens after the fourth industrial revolution? As has been said, “Industry 4.0 is just the first step”.

The next couple of phases are being called Industry 5.0, and Industry 6.0. The distinction is that Industry 5.0 integrates more fully developed AI into industrial processes.

Industry 6.0 gives us “Ubiquitous, customer-driven, virtualized, antifragile manufacturing”. Those four elements are key – it’s everywhere, individualised rather than cookie-cutter, the tech lives on the cloud, and it’s very, very robust. Inevitably, perhaps, then, we move onto Industry X: where everything that has been developing to date is brought together: the junction point of industry, AI, biotechnology, and the internet of things: green, circular, cognitive manufacturing. There is already work being done on Industry X, in places like the European Commission, and in companies like Accenture.

This is where the real power lies – when you can bring trends together, and in the interface between them new opportunities arise.

And we must not forget about biotechnology. This is one of the key developments of the future – and we have seen very recent examples of its power in the speed of the development of a wide range of vaccines in the pandemic. But where could it take us?

Let me give you some examples. Futurists talk about “pockets of the future in the present”, and so these things are ones for which there is already evidence: where research is already happening.

- ‘Internet of energy’ – use of microgeneration, decentralised microgrids
- Alternative financial, contracting and governance structures via software innovations like blockchain
- AI used for governance (Big Data, smart cities, evidence-based policy-making)
- Human performance enhancement including mechanical assists, embedded digital technologies, pharmacological assists, and genetic re-design of human capabilities



- Geo-engineering ('geo-hacking') to address extreme climate breakdown impacts

These are not forecasts. Futurists do not make forecasts, or predictions. We look at what is happening, and see where it might take us. But they are some examples of where we might be going.

All companies – for example Uber, Zoom, Twitter, BioNtech – start out as SMEs, and in these cases, all were two-person teams. Although they started small, they are now changing the world. What might Industry 4.0 mean for those that are SMEs now? How might they be the motor of, and gain the most benefit from, Industry 4.0 and its future?

- SMEs are the disruptors of change
- They have the ability and flexibility to redesign processes and platforms
- They can upend the perceived way of doing things.
- SMEs can move technology into the real world.

In summary, Small and Medium sized Enterprises can take the benefits of the present, and anticipate the changes in the future, flexibly and fast. They are the engines of the future – of Industry 4.0 right through to Industry X.

*Written by Jonathan Blanchard Smith, SAMI Fellow and Director. Published 7 July 2021*



## Beyond the Hoover Institute Report on China-US Relations: What are the headwinds facing China?



A new report published by the Hoover Institute sheds a bright light on the principles that guide the Chinese Communist Party – effectively the Chinese Government – in the strategic and policy direction it is setting for the first half of the century.

The author, Cai Xia was for many years a professor at the Chinese Communist Party's Central Party School, and taught high-ranking officials. She was expelled from the CCP in 2020 for criticising Xi Jinping's rule. She now lives in the USA. The article is 25 pages long, and well worth the read for China watchers.

She argues that China is totalitarian (rather than merely autocratic) and its foreign engagements are an extension of a domestic policy which aims to secure the hegemony of the CCP.

She identifies two possible scenarios for China-US relations:

- Competition and co-operation;
- Standoff and confrontation.

She sees the latter as most likely, but does not rule out an implosion within the CCP due to economic stress, high levels of debt, and unhappiness within the CCP at Xi's autocratic style and frequent purges of middle and senior officials.

However the prospect of China and the US as – at best – competitors, and – at worst, in confrontation, leads to other thoughts. Is the 21<sup>st</sup> century to be “the Chinese century”, as the 20<sup>th</sup> was American?





## Economic weather warnings

The economic prospects for China seem strong, but they are far from certain. China seems to have been the first major power to emerge from the Covid Pandemic – although the pandemic may well have more surprises in store for us all. China's economy is the biggest in the world, based on PPP (purchasing power parity). But the US still leads in terms of nominal GDP, by over \$6 trillion.

Economists differ about whether China will surpass the US. Based on past and current trends – including its post-Covid recovery, and robust export performance – a straight modelling projection would see China overtake the US nominal GDP in 2033, according to the global chief economist of the Economist Intelligence Unit, but will not overtake it in terms of GDP per capita for the next 50 years, if ever.

Others question a modelled forecast of this sort. China has high levels of unproductive debt. World Bank analysis suggests that China's Total Factor Productivity has fallen from 3% in the early 2000s – the expected sort of level for an emerging economy – to 0.7%, which is close to the level of developed Western economies. To a great extent it has already consumed the low-hanging fruit of a developing economic power.

There are also other headwinds that will have an impact on China's future growth. President Biden seems resolved to continue to impose targeted trade sanctions on China, and will seek to encourage his allies in Europe and Asia to do the same. It remains to be seen how comprehensive and effective these sanctions will be (and whether they backfire upon the US and its allies). But China remains a middle-income country, and thus dependent on exports as the main driver of its growth. If the world is becoming more protectionist, how will that affect China's prospects in the years ahead?

## China in the World

China has been active in supplying Covid vaccines around the world. But there are questions over their effectiveness. Chile, the Seychelles and Mongolia have all reported high rates of infection with the Delta variant of the Covid coronavirus, despite having vaccinated around two thirds of their populations. Again, the emergence of new variants is a constant risk of a coronavirus such as Covid, but for now questions about the efficacy of its two main vaccines, along with apparent foot-dragging over giving the World Health Organisation access to information about the origins of the pandemic, may cause reputational damage and lack of trust in China. Of course the problem of new variants could arise in relation to Western vaccines as well.

China's oppression of its dissenters and minorities has so far passed with remarkably scant global attention. But there are "weak signals" that this may be changing. A report this week of the killing of Chinese engineers in an explosion in Pakistan strongly suggests that it was the result of terrorism.



If it was terrorism, it would not be the first attack on Chinese personnel in Pakistan. It is not hard to envisage the plight of the mostly Muslim Uighurs becoming a rallying point for radical Islamic groups, leading to action against Chinese interests internationally, and support for Muslims in China.

The same signals can be detected elsewhere. The popular resistance to the military coup in Myanmar has seen attacks on Chinese-owned businesses, because China is believed to have decided to support the coup.

## Environment: Big Problems Ahead

An Environmental Risk Outlook of the world's 576 largest urban centres published this summer found that 99 of the world's 100 riskiest cities are in Asia, including 37 in China. Looking specifically at natural hazards such as flooding, Guangzhou, Dongguan and Shenzhen are in the top 5 riskiest.

NASA warns us to expect higher risks of coastal flooding in the 2030s, due to a "Lunar wobble", which is a normal part of the lunar cycle, interacting with global warming, which is very much man-made. Taken with the impact of rising temperatures across the cities of China, there is a major risk of major environmental damage and disruption to China's intended economic progress.

## China's Population Pressures

Last, but not least, China faces demographic challenges. The changes in China's population have stolen the headlines. China's birth rate has been predicted to slow down, but the evidence from the most recent years is that this is happening faster than predicted. In 2020, Chinese mothers gave birth to just 12 million babies – the lowest total since the Great Famine of 1961. The birth rate is just 1.3, well below the 2.1 needed to maintain a stable population. The figures, published by China's National Bureau of Statistics, were only released after two delays, confirming that the statistics are of concern to the Government.

This brings China's birth rate into alignment with that of Japan and other East Asian countries. Having already relaxed its one child only policy, China is moving to a three-child policy. There is evidence of resistance among Chinese women to injunctions to have more children. The State New Agency Xinhua set up an online poll asking, "*Are you ready for the three-child policy?*" 20,000 of the 22,000 who responded chose the answer, "*I won't consider it at all*". The comment with the most likes said:

*"I recommend you first resolve the fundamental problem of child support plus the unfair treatment of women in the workplace before asking them to have [more] children".*

The Chinese census also shows that the number of Chinese people aged 60 or more has reached 18.7% of the population – an increase of 5.4 percentage points over the 2010 census. 63.35% of the population are of working age (15-59), a reduction of 6.79 percentage points from 2010. The increase in people of retirement age is placing increasing pressure on China's pensions, health and welfare systems – and



it remains a middle-income country. A 2019 report by the Chinese Academy of Sciences projected that China's state pension fund would run out of money by 2035 due to a rise in the number of retirees and a decline in the workforce contributing to the fund.

Apart from Chinese women resisting encouragement to have more children, there are other signals of changing attitudes among workers, with some rejecting the high-pressure work environment to pursue a less acquisitive life – “tangping”, or lying flat. This is a reaction against the “996” work culture that many Chinese companies have promoted.

## Conclusion

The headwinds facing China are important ones. They are likely to have an adverse impact on China's future prospects. In doing so, they may lead China's leadership to re-evaluate the current direction of policy, as touched on in Cai Xia's paper for the Hoover Institute. They are not enough to mean that China will not continue to challenge the USA's position as the economic and military superpower. But they probably are enough to lead to thinking within the CCP about whether an adjustment of its current course is required.

*Written By David Lye, SAMI Fellow. Published 21 July 2021*



## Alternative Future Views



This summer saw the publication of an interesting range of futures work, with different approaches and perspectives.

### **OECD: Global Scenarios 2035: exploring implications for the future of global collaboration and the OECD**

This is a classic scenario exercise, conducted over a long period and involving many people. It recognises the disruption and uncertainty created by the pandemic before identifying drivers of change and building three scenarios of the future. They then explore the strategic considerations and their implications for the organisation's purpose, values and relationships.

Their drivers of global change – and the key uncertainties – are:

- Effectiveness and alliances of states: balance of states vs markets post-Covid; shift of power West to East and developed to emerging economies;
- Common risks to humanity: environmental change; existential threats from AI, pandemics
- Shift in value and values: deflationary effects of digitalisation; broader measures of well-being than GDP
- Influence of non-state actors: power of “big tech”; highly networked social movements (eg BLM, XR)
- Digital interconnectedness across borders: technology drawn into geo-politics; death of distance
- Resource management: renewables vs fossil fuels; risks and opportunities of increased activity in space



The three structured scenarios they explore (they don't explain how they arrived at them) are:

	<b>Multitrack World</b>	<b>Virtual Worlds</b>	<b>Vulnerable World</b>
<b>Description</b>	The world has formed into several separate digital clusters with distinct ecosystems/economic systems and standards	Life has gone virtual on a global, interoperable digital platform run by tech companies and managed with state intervention	Humanity faces new existential risks following rapid technology-driven, progress on reducing emissions
<b>How it happened</b>	Digital decoupling led to proliferation of competing ecosystems that solidified as country clusters	Citizens demanded global connection and interoperability in virtual space	An innovation boom and government inaction resulted in the private sector leading the energy transition
<b>Assumptions challenged</b>	That globalisation will continue, or the world will become bipolar with OECD countries in the same digital ecosystem and trade bloc	That growth of virtual life will be modest and marginal, and platform companies will remain subsidiary actors in the multilateral system	That future global challenges will be similar to those of the past, and the world can muddle through with limited global cooperation
<b>Dominant narrative</b>	Different Ideas of Better Lives	Different Policies for Different Worlds	Better Collaboration for Bigger Challenges

As one would expect from the OECD, this is a deep, solid piece of foresight work.

### **Imperial College Foresight: The World in 2050**

Imperial Tech Foresight is a futures practice at Imperial College London. Their foresight thinking “spans the possible, probable and plausible, researching the fringes of disruption and [breakthrough technologies](#) assessing their potential impact on humans and society at large.”

Their vision is for a “cleaner, greener, fairer future for us all” based on positive views of technological development. Their approach is to construct a series of optimistic “day in the life” stories relating to different technologies or applications that they have identified as leading-edge developments.





**Retrofitting housing for improved heat performance:** heatmaps showing leakage, robotic insulation fitting, insulation material from waste, windows from carbon capture materials.

**Self-aware buildings:** Artificial photosynthesis technology using algae for carbon capture and storage; solar-thermal cells with advanced battery technology and micro-grids sharing energy around local communities; light-activated coatings on the windows purify pollutants from the air.

**Transport and urban planning:** flexible living/working; urban design encouraging cycling and walking, e-scooters and e-bikes; on-demand multimodal transport payments; mapping and sensors for a flexible EV charging network.

**Fresh, local food:** aquaponic farms in buildings and underground areas, allowing people to produce fish and vegetables at scale in city centres; algae-based packaging with sensors to assess freshness virtually eliminates waste.

**Precision farming:** sensors to improve soil quality; regenerative farming as an ecosystem service; solar-thermal desalination technology to overcome summer droughts; climate-adapted strains of plants.

**Waste is wealth:** a circular economy that re-purposes almost everything; organisational accountability; surplus solar energy traded or converted into hydrogen for storage.

**Seagriculture:** seaweed farms for food and packaging; self-cleaning systems extract plastic pollution; drones and robots to recycle waste.

Imperial took a deliberately optimistic, technology-based view. They may well be close to the peak of the Gartner hype cycle – the “peak of inflated expectations”. They pay little attention to socio-political dynamics, other than to assume a continued drive towards a greener world.

On the other hand several of the future views are not that futuristic, certainly for 2050, as many of the technologies are already being used.

Two other projects focused on the future of energy.

**Shell’s “Energy Transformation” scenarios** work firstly identified four fundamental conclusions about the energy market to 2050:

- Energy needs will continue to grow: the growing needs of developing countries will exceed energy efficiencies
- The energy system will be transformed – the issue is speed, depending on socio-political decisions
- Transformation will have costs and benefits: costs are manageable, and Covid presents an opportunity for change



- Action accelerators are necessary to meet climate aspirations: Society is not on course to meet Paris targets, but it is still technically possible.

Shell explored three scenarios:

**“Waves – late but fast decarbonisation”** is a scenario that prioritises economic recovery from the pandemic, though there are repeated waves of infection. Moving quickly but starting later “net zero” is not reached until 2100.

**“Islands – late and slow decarbonisation”** sees a new emphasis on nationalism, autonomy and self-sufficiency, frictions in international trade and stagnating global growth. The Paris agreement unravels, and despite incremental technological advances, “net zero” is not reached until beyond 2100.

**“Sky 1.5 – fast decarbonisation now”** is a more ambitious scenario where advanced economies target green technologies as an economic goal and a way of recovering from the pandemic. There is rapid and deep electrification led by renewable resources, with biofuels and hydrogen used extensively in hard to electrify sectors.

The climate implications of these are shown below. Not encouraging!

Figure 2: Pace of decarbonisation in the three scenarios



The International Energy Authority took a more prescriptive approach in their report: **“Net Zero by 2050 – a roadmap for the global energy sector”**. Another substantial piece of work, this report identifies key policy priorities that governments must take if the 1.5°C target is to be met. It is targeting COP26 to get agreements. But they accept that this pathway to net zero “remains narrow and extremely challenging” and “requires vast amount of investment”. Commitments made to date fall far short of what is required – net-zero pledges are not supported by policies, and even if met would imply a path to a 2.1°C rise.

The pathway includes some 400 sectoral and technology milestones. Early ones include:

2021:



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- no new unabated coal plants approved
- no new coal mines approved; no more new oil or gas fields

2025:

- no new sales of fossil fuel boilers

2030:

- improvement in energy efficiency so that a 40% larger economy uses 7% less energy – a rate of improvement three times that achieved over the last two decades
- installing solar PV at a rate equivalent to installing the world's current largest solar park every day
- electric vehicles to go from 5% to more than 60% of new car sales.
- providing electricity to around 785 million people who currently have no access; and providing clean cooking solutions to 2.6 billion people

Their top priority action is to “make the 2020s the decade of massive clear energy expansion”. This entails a wide range of policy initiatives, incentives and disincentives around existing technology. But it also requires innovation in heavy industry and long-distance transport, advanced batteries, hydrogen electrolyzers and direct air capture and storage. Massive investment is needed in publicly financed R&D and demonstrator projects to encourage private sector research.

Above all, the pathway requires new heights of international co-operation, tackling global challenges through co-ordinated action.

## CONCLUDING THOUGHTS

The four reports demonstrate quite different approaches to thinking about the future, reflecting the organisations' differing objectives and situations. As such they illustrate different ways you could consider your own futures needs:

- How wide is the scope? All-encompassing like OECD or focused on technology or a particular sector?
- Are you trying to persuade – like IEA – or explore alternatives?
- How qualitatively different are the futures? Both OECD and Shell scenarios are effectively “High, Medium, Low”, though with some added colour.
- Are scenarios what you want? Or “back-casting” like IEA? Or stimulating imagination like Imperial?

SAMI most often works through a set of scenarios and their implications, but we can help you think through what sort of “futures” you want to explore.

*Written by Huw Williams, SAMI Principal, 15 Sept 2021*



## Lessons from ESPAS 2021



Image by Hurca from [www.pixabay.com](https://www.pixabay.com)

SAMI Fellows David Lye and Jonathan Blanchard Smith attended ESPAS 2021, the annual meeting of the European Strategy and Policy Analysis System, on 18-19 November. The second day of the conference was essential. David Lye noted the key elements from each session, which we share with you below.

### Europe and the world in 2040: What kind of new international order?

- China is not necessarily homogeneous; Chairman Xi has centralised more power, but there is push-back from some businesses/sectors and some regions. China is looking more inward – focussing on common prosperity and building resilience. There is a lot of resentment internally. China is alarmed and knows it needs to address this. It won't want war over Taiwan. It is also diluting its Belt & Road commitments. However, it continues to engage with the developing world more than USA and EU are doing. China will remain a superpower.
- The EU needs to decide whether it is a Union of Values or wants to exercise power. The view from ESPAS is that it needs to go towards greater federalism to do the latter. If the EU is divided, it loses credibility. China should be the EU's number 1 priority, with Russia number 2.
- Japan seeks to be indispensable globally and strategically more autonomous, playing off the USA and China. It aims to build alliances with the US, EU and other democratic blocs.
- In 2040, the world may be heading to a set of bifurcated worlds, e.g. different tech standards and ethics/values.



## Future World Order?

- The EU is inter-governmental – seen as technocratic; it underplays social policy and welfare, leaving those to nation-states.
- China sees the European “Enlightenment” order as coming to an end. It has overplayed its hand on “wolf warrior” diplomacy, but even if it has moderated its approach slightly, it remains hostile to enlightenment values.
- EU democratic values are contentious to many other states and regions. China could face its own “crisis of legitimacy”.

## How will AI Change Humanity, and how can we manage our future?

- We are just scratching the surface. 80% of the decisions humans make are affected by emotion – AI will affect, and be affected by, our emotions.
- In a fast-changing world, AI based on historical data may be inadequate and wrong.
- AI may help us to simulate different futures.
- It may help decisions to be made faster, e.g. achieving the 1.5 degrees maximum.
- We need to help people to understand AI and its potential effects on jobs and society. Difficult when there are many “unknown unknowns”.
- Social scoring is NOT acceptable in Europe, but elsewhere it may well be.

## Tomorrow’s world – and its risks, opportunities and choices for Europe

- Acceleration of trends – global heating, sea-level rise; effect of the pandemic on how we work
- Young people say, “in 40 years, we’ll all be dead.”
- EU could be a “smart” power, setting norms and standards worldwide, but must get better at risk preparation and management.
- EU needs strategic autonomy to aid resilience in the future. It needs to understand the world and the EU’s place – even if it is not as the EU would want it to be. It needs to work across silos, involving think tanks, the private sector etc.

## How best to build back better? Towards a greener, fairer recovery

- There’s a lot of good foresight work but no “road to action”. Ukraine and Crimea are examples. We all saw it coming but did nothing.
- Democracies need to work together but need variable geometry for different problem areas. **But** can’t address big global problems without non-democracies, like China, being involved. Carbon pricing is an example; no agreed principles.





- Other Regions look to the EU – when Africa asked for help with the pandemic, nothing much happened. Need fairness and equity, e.g. helping Africa achieve sustainable energy will involve some baseload energy.
- We no longer understand how economics works due to digital transformation, green transformation, China's rise, etc. Will demand for green capital increase or lower the price of capital? We don't know.
- How to replace revenue from carbon-based taxes?

## ESPAS FORESIGHT REPORT

- Global Heating has accelerated (IPCC)
- Accelerating demographic change – China's population model at 1.3 shows population **halving** by 2066. The same must apply to other East Asian countries.
- Changes in the energy market, which includes the impact of climate change on renewables.
- The world will recover from the pandemic by 2024, but Africa is the hardest hit and may struggle the most.
- China will be the #1 economy in 2028.
- We anticipate more cyberattacks, especially from China.
- Use of migrants in asymmetric war.
- Is Europe afraid? Can it show leadership?

## Europe, America and The Indo-Pacific: the geopolitics of the future

- Geopolitics went out of fashion after the Cold War; now, they are back.
- In the 70s and 80s, the USA separated China from Russia, which weakened Russia, and turned out to be one of the critical drivers of Chinese success.
- The rivalry between US and China will determine whether democratic values prevail.
- 70% of the world's semiconductors are produced in China.
- Security will be the dominant concern. National security could lead to isolation – e.g. Trump's USA, Brexit.

## A US View: General HR McMaster. Former Chief Security Adviser

- The West needs to stop doing things that feed its decline
- China has its own problems: economic pressures and demographic change. It is driven by ambition and fear, making it fixated on "control", leading to exclusion in crucial areas such as supply chains, technology and trade (Australia, Sri Lanka).
- This creates debt traps for weak governments that do business with China.
- There are many examples of Chinese aggression: The Himalayas, S China Sea, Taiwan; also cyber-attacks and subversion of international bodies, such as WHO.



- The West's response should be self-confident. It should stop pouring money into China and stop believing Chinese hegemony is inevitable.
- Suppression of critics is a sign of weakness in Russia and China.
- The USA is frustrated with Europe, e.g. Germany and Nordstream2. But we are bound together.
- India is potentially a powerful ally: potentially Brexit removes from the EU a colonial blot on relations with India.
- We need to be more assertive economically and strategically and in defence of IPR.

## ESPAS Takeaways and Next Steps

- Involve other regions, e.g. Asia, in the EU's foresight work.
- And involve other sectors, e.g. business.
- Explore alternative scenarios, including unwelcome ones.
- Europe needs to be better prepared: defence, trade, technology and health.

## In conclusion

The second day of the conference was precisely what ESPAS was designed to do – raising difficult and complex issues in an open, collaborative environment. We noted that there were few Asian contributors and only one from Africa. Whilst the pandemic makes things difficult, the absence of other global views was very striking. A more comprehensive range of contributors would have added to what was already a lively discussion.

*Written by David Lye, SAMI Fellow and Jonathan Blanchard Smith SAMI Fellow and Director. Published 3 Dec 2021*



## Opportunities and risks for 2022



*Image by Gerd Altman on [Pixabay](#)*

This week's blog post captures the results of an online workshop session of SAMI Principals, brainstorming potential radical events in 2022. We worked through a basic PESTLE format to generate a range of disturbingly likely shocks to the global system.

### Why workshops?

Workshops are a fundamental part of good futures practice. Ideas can be seeded and built upon, good ones developed, and bad ones discarded. Individual experience and learnings are played back to the broader group and further improved upon. The traditional elements of whiteboards and post-it notes transfer well to the virtual world (we like Miro, but there are plenty of others). Fact-checking can be done in real-time. Our team members specialise in geographical regions or business sectors within the firm. This experience also feeds directly into the process.

At SAMI, we use workshops as a fundamental part of our client practice. They introduce direct, lived experience into the foresight process. They also engage our clients with the range of possible futures they will have to face, beginning the process of understanding and preparing for them whilst the project is underway. We tend to find that this way, our final reports are received as groundwork for immediate action rather than being placed on the shelf.

We also use workshops internally: both behind the scenes, developing scenarios before they get incorporated in client projects or, equally importantly, brainstorming new ideas and approaches, such as in our Journey Game for the European Commission.



Our end of year workshop tends to focus on the short term future – the next year and slightly beyond. Here, we are looking for those strong and weak signals which will soon produce significant systemic changes. Here's some of what we discussed.

### Some future shocks

Geopolitically, we are closely watching both Ukraine and Taiwan. Both are potential flashpoints between nuclear-armed powers, and both have serious potential knock-on effects.

In **Ukraine**, following the Russian invasion of 2014 and its subsequent seizure of Crimea, a “frozen war” may thaw rapidly. Though Ukraine’s western allies are making strong diplomatic moves and readying sanctions, they have said they will not engage in combat should Russia decide to invade. NATO countries would respond with increased military spending, just in case they are next. Should a ground war develop, the immediate destabilising effects in Europe range from humanitarian catastrophe to refugee crises. European gas supply is at risk from reciprocal sanctions from the Russian side: Russia supplies 47% of EU gas, and is the largest supplier of petrol. Whilst this may be an impetus for Europe to move to renewables, the short-term effect on growth, and social order, would be extreme.

America’s support for **Taiwan**, where President Biden has been more explicit, could lead to a very different situation – American forces directly opposing those from China. China’s military buildup has been astonishingly swift, and Taiwan is on its doorstep. The US military remains the most capable globally, but its expectations for conflict with China are poor. The US needs two things to succeed in Taiwan: domestic support and getting there. Neither is guaranteed. Taiwan would fight, but absent American support, be overwhelmed, and incorporated into China.

And what if both of these events happen at the same time?

We also wondered about the implications of a significant **cyberattack**. The Colonial Pipeline hack prompted higher pump prices, panic buying, and gas stations running out of fuel. It was resolved reasonably quickly but highlighted the real-world impacts of cyber-attacks. The recent ransomware attack on SPAR supermarkets in the north of England made us consider the implications of a significant cyberattack on, say, three supermarket chains within the UK. Covid has shown it is easy to provoke panic buying. How would the supermarkets cope? What would the government do?

**Climate change** features in all of our scenarios for clients. Here, we posited the impact of the early collapse of an ice shelf. We were less concerned about the immediate effect than what it would mean. The problem with tipping points is that it is too late by the time they have tipped; they are trailing indicators of a crisis. Our ice shelf collapse means the crisis is here and gone, and the second-order differential effects are kicking in. Climate change effects will inevitably continue – floods, tornadoes, and climate migration. We’d use a “futures wheel” exercise here to plot the second- and third-order changes in depth.



The **midterm elections** in the US may hamstring the Biden administration. Unless precedent is no guide, power will transfer back to the increasingly radical Republican party.

And in **Europe**, facing the first year without Merkel, presidential elections in France, rule of law issues with Hungary and Poland, and a drive for “strategic autonomy”, stability seems far away. Unity against the increasing demands of the UK as the Brexit process crawls along provides a welcome point of cross-EU strength.

### Some developing trends

We maintain a regular watch on megatrends and what we know as “meta-megatrends” – our internal brief on the range of megatrends studied by others. You can find our current brief here.

We see the development of **biotechnology** as an unambiguous good that has come out of the pandemic. The sheer speed with which the virus was sequenced and then a vaccine produced is astonishing. As *Nature* says, “The speedy approach used to tackle SARS-CoV-2 could change the future of vaccine science.” James Carthew at QuotedData says, “The industry is in something of a golden age as new advances in technology, our understanding of the genome and our ability to manipulate genes open up new territory.” A slight nigger, though – when will this technology move out of the lab and into the garage? In other words, when will it be possible for bad actors to manipulate viruses themselves? After all, it’s already happening with CRISPr. DNA sequencing could “home-brew lethal pathogens like smallpox”; what we fear is the manufacture of novel viruses outside of government laboratories.

The **widening gap between rich and poor**, or between the megarich and the rest of us, is a concern. In the US, “the top 1% now own more wealth than the bottom 92%”. This gap – between landlord and renter, bourgeois and peasant, assets versus poverty, is getting out of control. The children of generation rent will not inherit since, for the first time, their parents will have no property to leave them. There will be consequences as political parties align themselves with the have-nots – and the haves do their best to preserve their wealth and the power which stems from it. There will be a tipping point when the majority have enough of the few taking all the assets. Whilst we are not there yet, it feels as if pressure is building up.

Having suffered a brief setback, we may see a resurgence of those forces which led to Trump, Brexit, Bolsonaro and Duterte. Some troubling signs of a return to **1950’s social attitudes** are evident. In the US, the challenges to Roe vs Wade are coupled with assaults on anti-discrimination laws. In the UK, projected reforms to the human rights act aim to counter “wokery and political correctness.” In conjunction with the policing and crime bill, the UK administration seeks to control public protest, limit the rights of refugees and others, as well as reducing the power of the judiciary.





## And that's just a sample

We hope that 2022 brings you peace, joy and success. As the above makes clear, there are opportunities for all three. There are also many opportunities for their counterparts. SAMI's work is about understanding the future to prepare for it; we look forward to helping you do exactly that in the new year.

*Written by Jonathan Blanchard Smith, SAMI Fellow and Director. Published 16 Dec 2021.*