

## **F&S March 2022**

### ***Good news on Energy***

Europe's demand for energy has always been more than it can provide internally. With the notable exception of France, nuclear power has been deprecated; coal is dirty, and gas has always come from Russia. The last few weeks have shown the dangers of becoming dependent on external sources for strategic requirements. So two good, recent pieces of news give some hope.

On Thursday 17 March, Denmark's wind turbines provided 100% of Denmark's electricity needs. Its power plants - still running - were entirely dedicated to export, to Germany, the Netherlands, Norway and Sweden. On 16 March, Ukraine and Moldova's energy grid was synchronised with the Continental European Power System.

Attaching Ukraine and Moldova to the CEPS is, in our minds, a weak signal - that Europe is confident enough to consider energy export as being viable. That's quite a change in thinking. Europe's not there yet, by a long way, but its ambition has changed, substantially. And yes, Denmark is windy, and yes, it's very advanced in its renewables technology. But where it leads, others can follow. And that is a strong signal - of energy security, of meeting net zero commitments, and of the power of technology and future preparedness to transform a whole continent.

### ***SAMI Cohort***

The Cohort is a small group of professionals working with foresight and scenario planning, who gather every couple of months to learn from each other and SAMI staffers in a mutually supportive online environment. Further members are welcome. For further information contact [Jane.Dowsett@samiconsulting.co.uk](mailto:Jane.Dowsett@samiconsulting.co.uk).

### ***Talks and blogs***

Huw Williams gave a talk to the Derby and Nottingham branch of CQI on "Beyond Resilience", based on the [SAMI Working Paper](#). He has also written an article on the Future of Paper Industries for an anniversary edition of the journal of the Confederation of Paper Industries due to be published next month.

Jonathan Blanchard Smith gave a talk to the APEC Conference "Industry 4.0: on "Artificial Intelligence - The Future" and covered Industry 5 - Industry X; future developments in AI in various sectors; ethical issues with AI and AI as a service (AlaaS).

Patricia Lustig and Gill Ringland have recently written two blogposts for Radix Opinion:

- ["Does Generation Z Change the Prospects for Global Warming?"](#)
- ["A World of Few Children?"](#)

and one for Long Finance

- [Shifting Overton Windows](#)

## Executive Education

Our online course “Understanding the Future” will be run again on May 16<sup>th</sup> to 20<sup>th</sup>. The course fee is £490 + VAT, and discounts may be available for self-funded individuals. For more information, please email us at [training@samiconsulting.co.uk](mailto:training@samiconsulting.co.uk). We also organise bespoke courses to suit specific clients’ needs.

A range of information on various [futures techniques](#) – the basis of the GOS Futures Toolkit - is available on our website.

## Futures Issues

[Bacteria](#) can convert waste gases from steel plants and other industrial processes to produce acetone and isopropanol (IPA), a colorless liquid found in disinfectants and cleaners.

“[Alexa I want to talk to a doctor](#)”. A new service uses Amazon Echo to connect to a tele-health provider to provide support, at least for non-emergency cases.

[Artificial intelligence](#) technologies for drug discovery could be misused for de novo design of biochemical weapons. Researchers built an AI for discovering less toxic drug compounds. Then they retrained it to do the opposite. Within six hours it generated 40,000 toxic molecules, including VX nerve agent and "many other known chemical warfare agents."

[Virtual Reality \(VR\)](#) technology is enabling surgeons to plan and prepare for heart surgery using a 3D digital image of the patient’s heart. This can shorten operation times, reduce the need for multiple surgeries and lead to better outcomes and experiences for patients.

Researchers have developed an [acoustic fibre](#) that can be woven into fabrics to create a sensitive microphone. This fabric microphone is capable of detecting human speech and heartbeats, and the team think it could be used to develop new, wearable sensors for long-term health monitoring.

[Light detection and ranging \(lidar\)](#) sensors in your smartphone can determine fluid properties. Applications include testing blood for coagulation and determining the fat properties of milk and whether the liquid had been adulterated.

## Our Blogs

This month we have published two more blogs in our series in the EC SAFIRE scenarios. Firstly we looked at [Sub-Saharan Africa and the trends](#) that are affecting them. We then moved closer to home and examined the impact of trends on the [scenarios for the Middle East and North Africa](#). Other blogs in this series will be published over the coming weeks although, given recent events, there may be some

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delay as we wait to see how the current situation develops. In the meantime, our latest blog is a re-publication of a blog written late last year which looks at [some of the reasons to be optimistic](#) for the future.