

## F&S January 2023

### Happy New Year

We hope you managed to get some time off over the break and are starting the year well and successfully.

There's a tendency at the turn of the year to look forwards. It's not as simple as New Year's Resolutions – the sheer number of “Risks and Opportunities for 2023” papers shows that, as the world becomes no less certain, the possibilities of the future become more complex and more varied. SAMI Fellow David Lye reviewed the World Economic Forum's “Global Risks Report” in a recent blog.

**But it's not all risks. The future never is. What will, may and might happen in the next year** builds on past events and creates the groundwork for the future. While some may range from worrying to downright terrifying, we must never forget the positives. And they range from the encouraging to the potentially wonderful.

So when you're reading reports on “Risks and Opportunities for 2023”, remember to read the opportunities section – and better, place more weight on it than the risks. You could look for opportunities within the risks. The world is going to continue to be odd. It will inevitably continue to be scary. But there are opportunities there to be taken.

(If, incidentally, this seems over-optimistic, speak with us. It's an integral part of our futures practice to find future opportunities as well as risks. We help our clients understand and mitigate the risks and take advantage of the opportunities. And sometimes, turn the former into the latter. Just ask us how).

### ***Government Futures Framework***

The current GO-Science Futures Framework contract has been extended to the end of March 2023. This framework enables public sector bodies to commission futures research from a list of pre-vetted companies with the budget covered by GO-Science. SAMI is proud to be one of those companies. Proposals up to £50,000 can be made by direct purchasing, simplifying the whole procurement process. Go to [Futures Procurement Framework - GOV.UK \(www.gov.uk\)](#) to find out more, or get in touch with us.

### ***Sustainable Innovation Pathways Framework***

This innovative approach to combining qualitative and quantitative approaches covers:

- Technology readiness and adoption velocity
- Futures and foresight thinking
- Financial modelling

Contact Jonathan at [jbs@samiconsulting.co.uk](mailto:jbs@samiconsulting.co.uk) to receive a copy of the Framework and to discuss how it could be applied.

### ***Climate crisis risks to the financial sector***

In a fast-changing Climate and Environmental regulatory and risk environment, financial institutions must take action. Compliance requirements around the understanding and

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reporting of climate risk are increasing worldwide. Banks and financial institutions need to respond to those requirements in the face of increasing impacts of the climate crisis as well as a changing regulatory and legal framework. Yet banks and finance institutions that have signed up to net zero pledges are [still investing heavily in fossil fuels](#). SAMI have put together a proposal to help. Contact [jbs@samiconsulting.co.uk](mailto:jbs@samiconsulting.co.uk)

### ***Drivers of Change***

Following a series of blogposts, Huw Williams has produced a new Working Paper, an update of SAMI's six Drivers of Change. If you are interested in a presentation on the topic to your team, please contact [huw.williams@samiconsulting.co.uk](mailto:huw.williams@samiconsulting.co.uk).

### ***Association of Professional Futurists***

SAMI Principal Patricia Lustig is the programme director for the APF [emerging fellows](#) programme, designed to recognize emerging futurists and mentor them to develop their Foresight capabilities. Another of our Principals Wendy Schultz is one of the speakers.

### ***Talks, papers and blogs***

Huw Williams have been invited by the Institute of Environmental Sciences to talk on "Megatrends" to kick-off a series of horizon scanning and foresight events in February.

### ***Correction***

In the last Foresight and Strategy we unfortunately referred to Patricia Lustig's book as "Strategic Planning". It is of course entitled ["Strategy Foresight – Learning from the Future"](#). Apologies to Patricia and anyone who was confused.

### ***Word of the month***

[Dunkelflaute](#) or "anticyclonic gloom": a climatic condition when neither wind-power nor solar power is able to generate energy because there is no wind and no sunlight. A key reason for the need to improve energy storage solutions. Does anyone have any other favourite words?

## **Executive Education**



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We will be running our online course **“Understanding the Future”** again on 22<sup>nd</sup> and 23<sup>rd</sup> February. The course fee is £490 + VAT - discounts may be available for self-funded individuals. We also organise bespoke courses to suit specific clients’ needs.

For more information, please email us at [training@samiconsulting.co.uk](mailto:training@samiconsulting.co.uk).

## Futures Issues



There have been several renewable power stories of note recently, including one addressing Dunkelflaute:

- [Underground Gravity Energy Storage](#) can turn decommissioned mines into long-term energy storage solutions. UGES generates electricity when the price is high by lowering sand into an underground mine and converting the potential energy of the sand into electricity, and then lifting the sand from the mine to an upper reservoir when electricity is cheap.
- Powerful tiny batteries are needed to power microscale devices like insect-size microrobots, but simply scaling down standard batteries is inefficient. A new design for [micro-batteries](#) used novel packaging technology that made the positive and negative terminal current collectors part of the packaging itself.
- With competing demands on land use, [floating solar panels](#) on reservoirs could be a solution. Proximity to water keeps them cool, making them 5% more efficient than land-based ones. Arrays shield the surface from the sun and reduce evaporation, retaining water for hydropower, drinking and irrigation.

[Ocean liming](#) aims to reset the chemistry of sea-water which has excessive dissolved CO<sub>2</sub>. Excess hydrogen ions lower the pH of the water, harming marine life, and CO<sub>2</sub> uptake slows. The approach both improves the environment and enables greater CO<sub>2</sub> absorption.

Mimetic techniques are being applied to flying robots.

- Birds fly more efficiently by folding their wings during the upstroke. Now a Swedish-Swiss team has constructed a [flapping robotic wing](#) that can achieve just that.
- Other researchers have developed a method that allows a flapping-wing robot to [land autonomously on a horizontal perch](#) using a claw-like mechanism as birds do.

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Experiments with large language models have moved into the field of Healthcare, with Google introducing [MedPaLM](#). The tool provides diagnostic answers to questions such as “how can you tell if ear pain is serious?” its performance has been judged as being on a par with clinician-generated answers.

## Our Blogs



Recent blogs have looked at:

- How [the failure of boards to identify risks can undermine their processes for making risk-based decisions](#) and, in doing so, threaten the effectiveness of their decisions.
- At the end of 2022 we [reflected on the year and how our early thoughts about opportunities have stood the test of time](#) and looked forward to what 2023 might bring.
- To start 2023, we explored how the [hype cycle can affect the development and adoption of technology and ideas](#).
- The [World Economic Forum Risks Report 2023 was recently published](#) and our blog took a look at this and discussed some of the emerging themes.

If you'd like to receive reminders when our blogs are published, then [check the link on our website](#) or if you would like to write a blog for us, then please [contact us here](#).