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SUSTAINABLE FINANCE

SPRINGWISE FUTURE NOW

THE TOP 10 **NEAR-HORIZON** IDEAS SHAPING THE WORLD AND YOUR INDUSTRY THIS MONTH

JANUARY 2024

Ideas to inspire post COP28 and Davos

The Financial Services industry was left with several key takeaways from COP28 in Dubai at the end of 2023. The policy landscape globally will require agility as countries interpret the final agreement to 'transition away from' (vs definitively phase out) fossil fuels differently, plus fossil fuel companies will require transition finance. Other firms will need investment to meet the pledge to triple global renewable energy capacity by 2030. And then there are the actions for financial organisations, as the regulatory landscape develops and greater transparency around decarbonisation is required. The launch of the Net-Zero Data Public Utility (NZDPU) at COP28 will be a valuable resource once it is out of the pilot stage. Underpinned by data from the CDP, it should provide greater transparency for financial institutions and their clients, showing who are the leaders and who are the laggards.

Hot on the heels of COP28, the annual World Economic Forum meeting at Davos covers more than climate. However, ahead of this year's meeting, the Forum's latest Global Risks Report, which explores some of the most severe risks the world faces, put extreme weather events as the number one risk in the next 10 years, followed by 'critical change to Earth systems', 'biodiversity loss and ecosystem collapse,' and 'natural resource shortages'.

As the finance sector grapples with the requirements of regulation and geopolitics, the good news is that innovators around the world are developing solutions that could provide some of the building blocks to tackle the big picture. These include technology that helps to forecast climate risk, tools that quantify the risks to biodiversity of investment decisions, and methods for live modelling of extreme weather events. And it's vital that organisations don't forget the customer: sustainable finance is also about people, and this report offers a snapshot of consumer-facing innovations that could help financial institutions make a positive impact on the world. The selection isn't exhaustive, it can't be, but the following pages offer an inspiring snapshot of what's possible.

Angela Everitt,
Content Director, Springwise

ABOUT FUTURE NOW AND SPRINGWISE

Solutions require innovation, and the hunt for those that make a real impact is the lifeblood of Springwise. We publish three new innovations every day across our ecosystem and every month, we compile a list of 10 of the most exciting and impactful innovations in our report, Future Now.

If you have any requests for what you'd like to see covered in a future edition of Future Now, get in touch! We'd love to hear your feedback. Email our Content Director at angela@springwise.com

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FRESH IDEAS AND INSPIRATION FOR FINANCIAL INSTITUTIONS

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CLIMATE DATA AND RISK ASSESSMENT

1

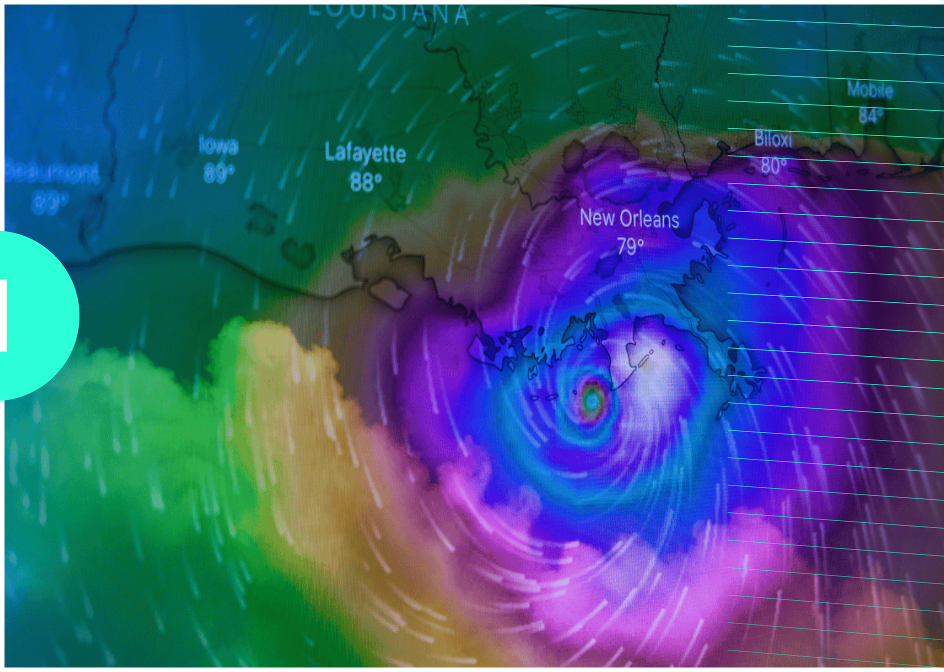

Photo credit: Unsplash

A new platform that could help financial institutions forecast climate risk

This solution promises a way to manage the financial, social, and economic impacts of extreme weather events

The climate crisis is a threat to global financial stability. A 2019 study by the CDP (formerly the Carbon Disclosure Project) has found that 215 of the world's biggest companies face $1 trillion in climate change risks. And, as the potential scale of economic losses becomes clear, banks and other financial institutions need to shift from seeing climate change through the lens of corporate social responsibility, and put it at the heart of their financial risk management strategies.

But, in order to effectively track climate risk, institutions need new technological tools and risk frameworks.

Italian fintech startup Eoliann uses satellite data and machine learning to help insurance companies, banks, and consultancies forecast the probability of specific climate risk events down to a granular level of detail.

For insurers, the startup's insights can help to inform decisions about policy creation and pricing.

Meanwhile, banks can use the technology to meet regulatory requirements to report on environmental, social, and governance (ESG) risk exposure, such as the European Banking Authority rules that came into force in 2023. Eoliann can help with the production of the required ESG risk disclosures.

The company claims that its technology offers 'real-time analysis' and 'street-level' granularity and can be used to aggregate multiple risks, providing clients with a comprehensive view of the risk to their portfolios.

Takeaway

Eoliann points to the fact that extreme weather events increased by 345 per cent between the 1970s and 2010s as evidence of the need to update traditional risk management models. And the NOAA reports that, in 2023, weather and climate disasters caused $92.9 billion in damages – in the US alone.

The startup's ultimate goal is to make the unpredictable predictable by leveraging advanced technologies to make climate analytics accurate and accessible for the financial institutions that sit at the heart of the global economy.

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Photo credit: © Camera-man via Canva.com

Biodiversity analytics for investment decision-makers

A UK startup has developed more than 135 metrics for assessing biodiversity risks, opportunities, and dependencies

Around the world, biodiversity is being lost at an alarming rate, with the WWF reporting that world wildlife populations have declined by an average of 69 per cent since 1970. And this is not only an environmental catastrophe, but a potential economic crisis. The World Bank estimates that, by 2030, the loss of key eco-system services could cost the global economy $2.7 trillion in GDP each year.

Financial institutions can play an important role in protecting the natural world through the capital allocation decisions they make. But, to do so, they need reliable and accurate data to inform their decision-making. This is the challenge that UK company NatureAlpha is tackling.

The London-based startup provides investment decision-makers with location-specific insights into how their portfolios impact biodiversity through analysis that helps them understand their nature footprint, biodiversity risks, and natural capital impacts. This analysis combines geolocation data (satellite data paired with company location data) and reputation signals via news and intelligence-gathering.

In total, NatureAlpha provides more than 135 metrics on risks and opportunities related to the natural world, and these insights are made available to financial institutions either through a user-friendly interface or an API.

Takeaway

Recent years have seen the adoption of a range of industry-led and regulatory frameworks that outline how organisations should report on the impact they have on biodiversity. And chief among these are the Taskforce for Nature-Related Financial Disclosures, (TNFD) – a market-led disclosure and risk management framework – and The Sustainable Finance Disclosure Regulation (SFDR), an EU regulation. These initiatives aim to provide financial institutions with the biodiversity information they need to effectively manage the risks associated with biodiversity loss. NatureAlpha is at the forefront of this trend.

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A new way to exchange and analyse carbon data

Goodbye spreadsheet, hello digital platform

Around the world, investors are demanding greater transparency from companies on their climate-related risks, with reporting frameworks like the Partnership for Carbon Accounting Financials (PCAF) gaining traction. Many of the regulatory initiatives for climate transparency have so far focused largely on public companies whose securities are traded on regulated markets like stock exchanges. However, there are also increasing calls for climate reporting in the private market – where capital is invested in privately owned companies.

This market is the focus of Australian startup Pathzero, which has created a platform that allows organisations to securely exchange and analyse carbon information, which could help firms when disclosing greenhouse gas emissions data.

The company's Navigator platform allows investment managers to quickly access and share a high-level overview of their financed emissions that highlights areas of concern and providing a risk-based approach to reducing emissions.

Up to now, this type of investment emissions tracking has most often been done on spreadsheets by specially trained consultants. Pathzero scales this process. The platform tracks scope 1, 2, and 3 carbon emissions (direct emissions, indirect emissions from purchased energy, and indirect value chain emissions) based on global standards like the GHG Protocol and PCAF. Financial institutions can then use the platform to identify carbon hotspots, set carbon emissions targets, and perform analysis to ensure their activities are in accordance with the Paris Agreement.

The company states: "We are creating software that empowers company employees who may never have done this before, to gain knowledge and drive real change within their organisation, supported by trusted carbon experts to help every step of the way."

4

Flood alerts for insurers and property

Live modelling aids proactive mitigation

The environmental, humanitarian, and financial threat flooding poses is growing. For example, a 2022 report found that water-related disasters including floods, torrential rain, and drought could cost the world economy $5.6 trillion in lost GDP by 2050. Surface water, or 'urban', flooding occurs when rainfall overwhelms the local stormwater drainage capacity of a densely populated area. It is difficult to predict and therefore difficult to mitigate, with flood prevention efforts.

To help insurers and building owners, Loughborough University spin-out Previsico has developed a real-time forecasting technology that models flooding at a granular level. The company's models are updated every three hours using a combination of rainfall nowcasts and forecasts. Using high-quality topographic and hydrological data, the company's flood simulation software produces fast and accurate representations of how water will flow across flood plains.

The platform also supports the delivery of email warnings and offers a flood dashboard to enable users to visualise how a flood situation evolves over time. Flood forecasts can even be integrated into existing warning systems.

Takeaway

Last year, authorities in Pakistan had to evacuate more than 100,000 people, after torrential rain caused the Sutlej river in the Punjab region to swell to dangerously high levels, a year after floods had killed more than 1,700 people.

For Muslim countries such as Pakistan, conventional insurance to manage climate risks are not Shari'ah compliant. A recent paper launched at COP28, by the UNDP, The Islamic Development Bank and the Islamic Development Bank Institute highlights the opportunities, challenges and recommendations for Takaful, a Shari'ah-compliant alternative to conventional insurance.

Photo credit: © haagsa from pixabay via Canva.com

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Real-time carbon footprint tracking for banks and employers

Customers want clarity on sustainability – this innovation offers it

One way to provide consumers with information that could prompt sustainable choices is by estimating a consumer's carbon footprint through analysis of their transactions. And over the past two years, this idea has gained traction, with Mastercard, NatWest, and Klarna all adding carbon footprint calculations to their products in 2021. Now, startup ekko is aiming to make this type of carbon monitoring standard for the industry. In February 2023, the company announced the launch of two new products aimed at banks and employers.

For banks, 'ekko API' offers a ready-made piece of carbon-tracking software that can be plugged into existing apps or websites. It also enables carbon offset purchases.

For employers, 'ekko Incentives' is a card and technology platform that lets businesses create incentive packages that 'nudge' employees to make more sustainable choices. These programmes harness the power of gamification by encouraging teams to compete on the positive impact of their spending decisions resulting in a 'feel-good factor'.

What makes ekko's approach noteworthy is its scalability. Any bank, card issuer, or payment provider can add ekko's functionality through a single integration that takes just days to complete. As a result, carbon footprint tracking could soon become a hygiene factor for the industry.

Takeaway

In a survey by Deloitte, 50 per cent of UK adults reported that a lack of information was preventing them from adopting a more sustainable lifestyle. The products ekko has developed make it easy for banks, employers, and payment providers to help close this information gap by providing an off-the-shelf solution for carbon monitoring and offsetting of transactions.

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Cashback for shoppers who make climate-friendly choices

A climate-friendly reward card that doesn't just offset emissions by planting trees

Many payment card reward programmes incentivise high-carbon activities such as flying and filling up cars with petrol. As a result, they can actively encourage consumers to make less sustainable choices.

Looking to flip this dynamic on its head is startup Future, which has released the FutureCard – a Visa debit card that rewards shoppers when they choose to purchase sustainable alternatives to everyday items.

Cardholders receive six per cent cashback when they purchase products from the company's partners, called FuturePartners. These include sustainable brands such as Back Market and Everlasting Wardrobe.

The card also offers five per cent cashback on purchases that peer-reviewed research has confirmed have a lower carbon footprint than common alternatives. Such sustainable purchases include public transport, electric vehicle charging, bikes and scooters, recycled clothes, restored electronics, and plant-based meat, dairy, and eggs.

The card has no fees and does not require a credit check, just a linked bank account. And unlike other 'green' debit card reward programmes that claim to offset emissions from day-to-day transactions, Future doesn't use customer's points to invest in carbon credits and initiatives such as tree planting. Instead, FutureCard attempts to influence consumer's basic habits by using cashback to incentivise more sustainable choices.

One of the best ways to reduce the amount of carbon we use is to buy less. But that is not always possible – everyday items like clothing, food and toiletries will always be needed. However, it is possible to make greener choices when purchasing these essentials. By partnering with brands offering green alternatives to everyday items, FutureCard is emphasising the value of reducing carbon emissions.

7

Spending that supports science

A debit card that contributes to funding research

For citizens interested in science, a new bank card offers a way to get involved in the latest research. Called the Science Card, the current account and Mastercard debit card allows members to round-up everyday expenditure to support research projects.

There are two levels of membership available. The Standard account is free, while the premium 'Fusion' account costs £19.90 per month.

Fusion account holders become partial owners of the intellectual property of a new project, which, depending on the project's commercial success, could earn them passive income for an extended period of time.

Cardholders use the app to explore available research projects and choose which ones to support, either with a direct payment or via micro-grants from rounding up common expenses. The company itself dedicates 10 per cent of its profits to scientific research.

More conventional benefits, such as immersive spending data, are also available to cardholders, and the company plans to offer cashback on certain sales, including books, coffee, and software.

Takeaway

Innovation is emerging that will allow financial institutions to seamlessly integrate new technology into their banking apps or platforms that use Open Banking services. Another fintech company, Doconomy, announced a new partnership this month (Jan 2024) with sustainability platform AWorld to "expand and accelerate capabilities for banks to engage their users". The solution will combine Doconomy's real-time transactional CO2 monitoring with AWorld's AI-powered actionable suggestions designed to encourage behaviour change. Consumers will be able to calculate the environmental impact of every transaction.

FRESH PRODUCTS AND APPROACHES

8

Photo credit: Nicolas Réméné

INSURANCE PAYOUTS BASED ON WEATHER DATA

A startup is protecting farmers from financial hardship and insurance fraud

Operating in Mali, Côte d'Ivoire, and Uganda, Oko (which is the name of an African deity who protects harvests), uses the concept of index insurance to provide low-cost cover for small farmers.

The company's approach leverages data analysis and risk calculation, rather than onsite inspections, to keep costs down and maximise accessibility.

Farmers sign up and manage their plans using their mobile phone. They pay around $20 for one season's coverage of approximately 1.7 hectares.

Oko analyses costs and the risk to each plot using historical and weather data. The company then uses satellites and rainfall measurements to monitor flooding and check that there has been sufficient precipitation for a good harvest. If there is a flood, or if rainfall drops below a certain level, a payment to the farmers is triggered.

Because farmers only need to sign up once to receive future payouts automatically, the system reduces the chances that they will fall victim to fraud and fake insurance scams every time a drought hits.

The simplicity and automated nature of the process means that financially vulnerable farmers do not have to wait to get payouts. They can also use their payments to buy other goods to sell in town, such as fuel, helping them weather the crisis. And because farmers are insured, they can qualify for microloans to help them grow their farms.

Takeaway

Agriculture is highly vulnerable to climate changes and extreme weather events, and as global warming heats the planet, this vulnerability will get worse. Seasonal climate variability already frequently undermines farm yields, reduces food availability, and lowers income. Small-scale agricultural producers, who often feed themselves from their farms as well as others, are especially affected by unpredictable rainfall. Oko was created to help farmers deal with this uncertainty.

9

Helping SMEs in Africa gain access to green financing

One fintech startup is working to improve investment flows using an AI scoring system

Small- and medium-sized enterprises (SMEs) provide around 90 per cent of Africa's employment. Yet, few qualify for traditional forms of credit. This has left African businesses with a huge financing gap – hampering investment and slowing growth and productivity. Changing this could unlock Africa's true growth potential, but will require new types of financing.

One company working to solve this problem is Melanin Kapital, a Kenyan fintech platform that connects African SMEs with green financing. The startup combines a proprietary AI climate scoring system with a digital lending platform that helps lenders and businesses to effectively track climate-related key performance indicators. The system not only directs climate financing to SMEs, but assists them with cash management and CO2 tracking.

Since its founding in 2020 in Kenya, Melanin Kapital has onboarded more than 500 businesses, processed over $1.5 million in green financing applications, and even expanded its reach to Europe by opening in Germany.

Melanin Kapital has recently announced a strategic investment from Adaverse, an ecosystem accelerator focused on Africa and Asia. Adaverse has joined Melanin's ongoing pre-seed funding round. The company will also be growing their product suite and developing further standardisation of real-time data collection on CO2 savings.

There is tremendous potential in African business, but without better access to capital investments, it is very difficult for these businesses to grow and achieve their full potential. By providing transparent data collection and making it easier to connect investors in green finance and SMEs, Melanin Kapital is in a position to make real improvements.

10

Fossil-fuel-free pension savings

A sustainable fund that is cost-competitive with traditional pensions

Most employees in the United States with a 401(k) – a type of company-sponsored retirement account – are invested in fossil fuels, something US startup Sphere hopes to change.

The company's Sphere 500 Climate Fund (SPFFX) is a fossil-fuel-free investment fund designed specifically to work with the most common North American retirement plans.

Because it was created to fit within existing financial structures, employers can include the fund in their retirement portfolios without any additional work or processes.

The SPFFX tracks the Sphere 500 Fossil-Free Index, which is composed of the top 500 US companies minus 84 fossil fuel companies.

Previously, one of the main reasons that employers were unable to offer sustainable funds as an option to employees was the higher costs of those investments. The SPFFX however is priced around 8.5 times lower than other climate-friendly funds, which is at a level more in line with standard investment costs.

Takeaway

In August last year, the Australian government agreed to settle a class action law suit brought by Melbourne university student Katta O'Donnell in 2020. She accused the government of failing to inform investors in sovereign bonds of the climate risks to investors. In total, 2,485 climate lawsuits have been filed globally to date.

According to new Oxford Sustainable Law Programme research, investors and regulators are still not taking climate-related financial risks into account, despite polluting companies potentially being liable for trillions in damages.

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FEATURED INNOVATIONS

1 Eoliann
eoliann.com

2 NatureAlpha
naturealpha.ai

3 Pathzero
pathzero.com

4 Previsico
previsico.com

5 ekko
ekko.earth

6 Future
future.green

7 Science Card
science-card.com

8 Oko
oko.finance

9 Melanin Kapital
melaninkapital.com

10 Sphere
oursphere.org

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