



ACCELERATING CLIMATE INNOVATION FOR A NET ZERO FUTURE

Fuelled by a consensus on the urgency of achieving net-zero emissions, entrepreneurs and investors are increasingly focused on scaling up innovations for decarbonising the economy. However, existing financial systems are struggling to keep up, as highlighted by a roundtable convened by the Zayed Sustainability Prize during London Climate Action Week. Accelerating climate innovation demands a much-needed overhaul in financial approaches.

Yonatan Beck, Partner at Global Innovation Technology Ventures; Emily Bartlett, Sustainable Innovation Lead at Anthesis; Sophie Gallois, Founder of The Climate Agency; Marcela Flores, CEO of Tierra-Foods Ltd; Henry Pescod, Programme Manager at Challenge Works; Nassin Watson, Assistant Programme Manager at Challenge Works; and Belinda Valledy, Partner at ERM: Environmental Resources Management.

Exploring the opportunities and challenges of climate innovation, the panel chaired by Michael Liebreich, CEO of Liebreich Associates, featured Stuart Brocklehurst, Deputy Vice-Chancellor for Business Engagement and Innovation at University of Exeter; Christopher Baker-Brian, Co-Founder and Chief Technology Officer of Bboxx; Kino Kinoshita, Co-Founder and Managing Partner at Global Innovation Technology Ventures;

Liebreich opened the discussion by noting that the vast majority of global governments now have a target to reach net zero emissions by either 2050 or 2070. With the previous two COP summits in Glasgow and Sharm El-Sheikh galvanising more nations to sign up to the goal, most of the world economy is now headed for climate neutrality.



OVERCOMING CHALLENGES ON THE PATH TO NET ZERO

To get there will be an uphill battle. The International Energy Agency has estimated that only 25% of the technologies that will be required for the transition to net zero are already mature, including wind and solar power. Around 40% are in the early adoption stage, with another third only available in prototype or demonstration projects. "That should give us an idea of the importance of innovation. Basically 25% is mature and the rest is innovation," Liebreich said.

The panel next considered several innovative solutions that tackle the question of how to become net zero or even carbon negative. Kinoshita, whose venture capital fund invests in deep-tech startups, said one recent investment in the company's portfolio supported an ocean-based solution—highlighting the value of natural processes that can have a positive climate impact.

However, he added, innovation is not just a question of inventing the next groundbreaking technology. It can involve innovation in business models, as well as expanding financial services and even adapting existing technologies into new geographies. "Right now, one of the biggest problems that we've got is innovation to lower the cost of capital in the developing world," Liebreich noted.

Flores, of Tierra-Foods, provided another example. The company's mission is to use regenerative practices to protect and restore nature, capture carbon, and promote local economic development in forest communities. Its first product is a flour derived from the South American ramón tree, which can be used as a substitute for wheat and corn flour. "If we take the food industry right now, we rely on three crops which are very high in carbon. So, we asked, 'can we do something different?'" Flores said.

Considering which types of innovation played the biggest role in the success of Bboxx--2019 winner of the Zayed Sustainability Prize-- Baker-Brian said technology was actually least important in scaling up the company, which provides sustainable technology solutions and financing to millions of Africans. Still, the growing affordability of solar and battery technology over the past decade has been a boon for the business, alongside better access to mobile money solutions in Africa. "I think the biggest thing that happened for us over the last decade in business is genuinely the affordability of those products and services," Baker-Brian said.

DECARBONISING — A QUESTION OF DE-GROWTH?

More broadly, the panel was told that start-ups in the sustainability space often suffer from a persistent focus on returns, with investors relying on solutions that have the highest potential of becoming profitable. "The objective should be to make the biggest impact," Flores said. "What we really need at this point in time is collaboration." Providing another example of an area underserved by traditional finance, Gallois, of The Climate Agency, highlighted innovative companies that are using Al and satellite technology to spotlight the dangers of methane for the climate. "It's not very complicated, but we have very few companies that are invested in it as the system focuses on profit," she explained.

Considering the wider question of whether decarbonising would necessarily involve slowing or even reversing economic growth, Brocklehurst offered Tesla as an example, explaining that founder Elon Musk succeeded because he took the "dull and virtuous" image of electric cars and turned them into a desirable object. "We're not going to succeed if the message to everyone is, 'Your life is going to be worse.' It's simply not going to happen. So, we have to create a positive future," Brocklehurst said. "It's simply not the case to say that we need, overall, in terms of GDP, to de-grow in order to decarbonise."

Asked whether all companies with a carbon footprint can find a profitable transition to net zero, Brocklehurst added that, like in any transition, some will survive and some will struggle. In his view, government intervention has a subtle but important role to play in shepherding the switch. "I don't think doing it through massive government regulation will work, partly because of the economy and partly because I think voters are unlikely to bear it. So, I think it's the subtle bit of regulation, which helps create the environments for sustainable innovations to flourish."





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