INTERNATIONAL SYMPOSIUM
"INVENTING THE FUTURE"

Environmental tipping points drive future technologies

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MANAGING EXECUTIVE: CONSERVATION
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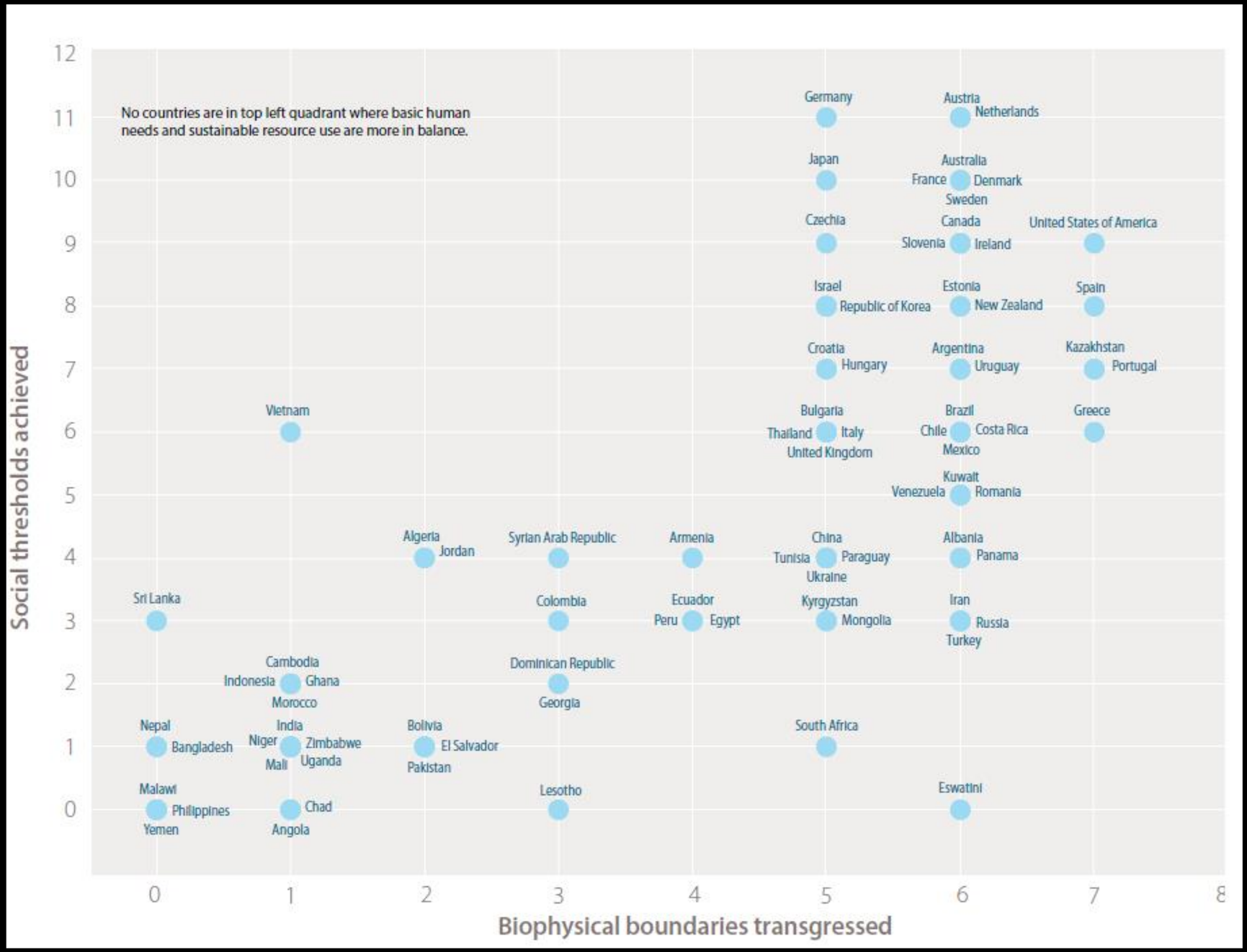
TECHNOLOGIES TO ADDRESS GLOBAL ENVIRONMENTAL CHALLENGES

ESG Agenda

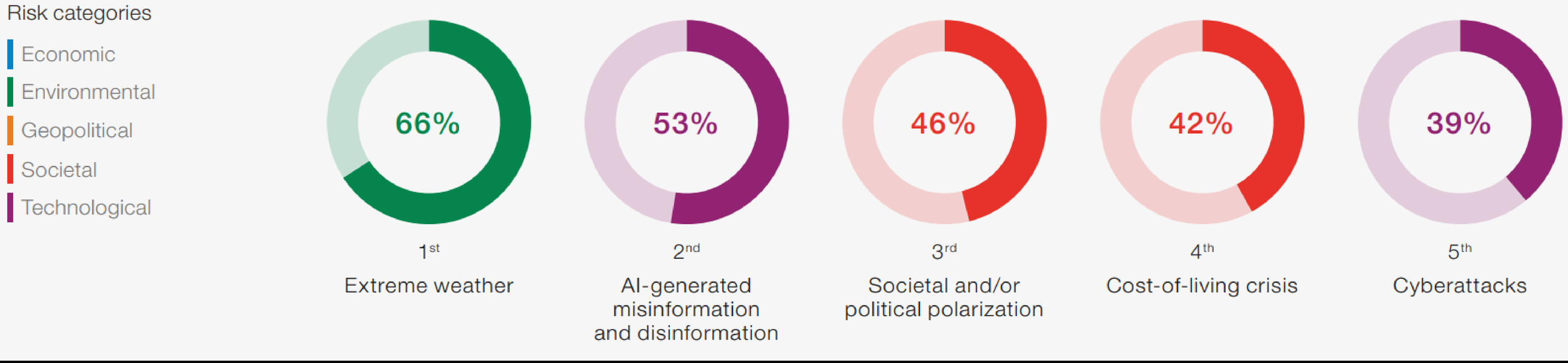
No country is meeting basic human goals within biophysical boundaries!



Global Sustainable Development Report 2019

Environmental challenges - current

FIGURE B **Current risk landscape**



Source
World Economic Forum Global Risks Perception Survey 2023-2024.

Environmental challenges - future

FIGURE C | **Global risks ranked by severity over the short and long term**

Source
World Economic Forum Global Risks Perception Survey 2023-2024.

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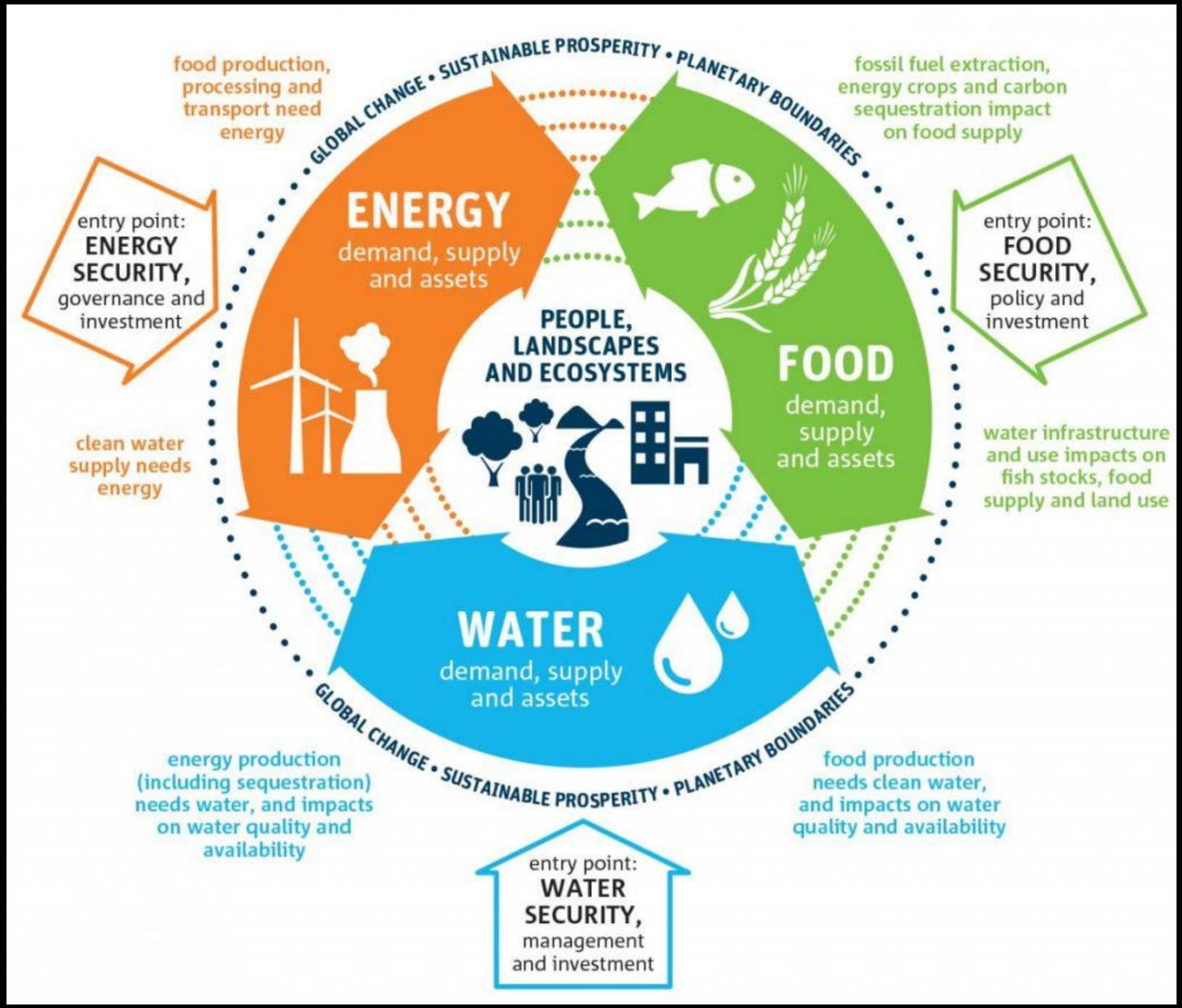
The need to balance the environment and social wellbeing



10 years

1st	Extreme weather events
2nd	Critical change to Earth systems
3rd	Biodiversity loss and ecosystem collapse
4th	Natural resource shortages
5th	Misinformation and disinformation
6th	Adverse outcomes of AI technologies
7th	Involuntary migration
8th	Cyber insecurity
9th	Societal polarization
10th	Pollution

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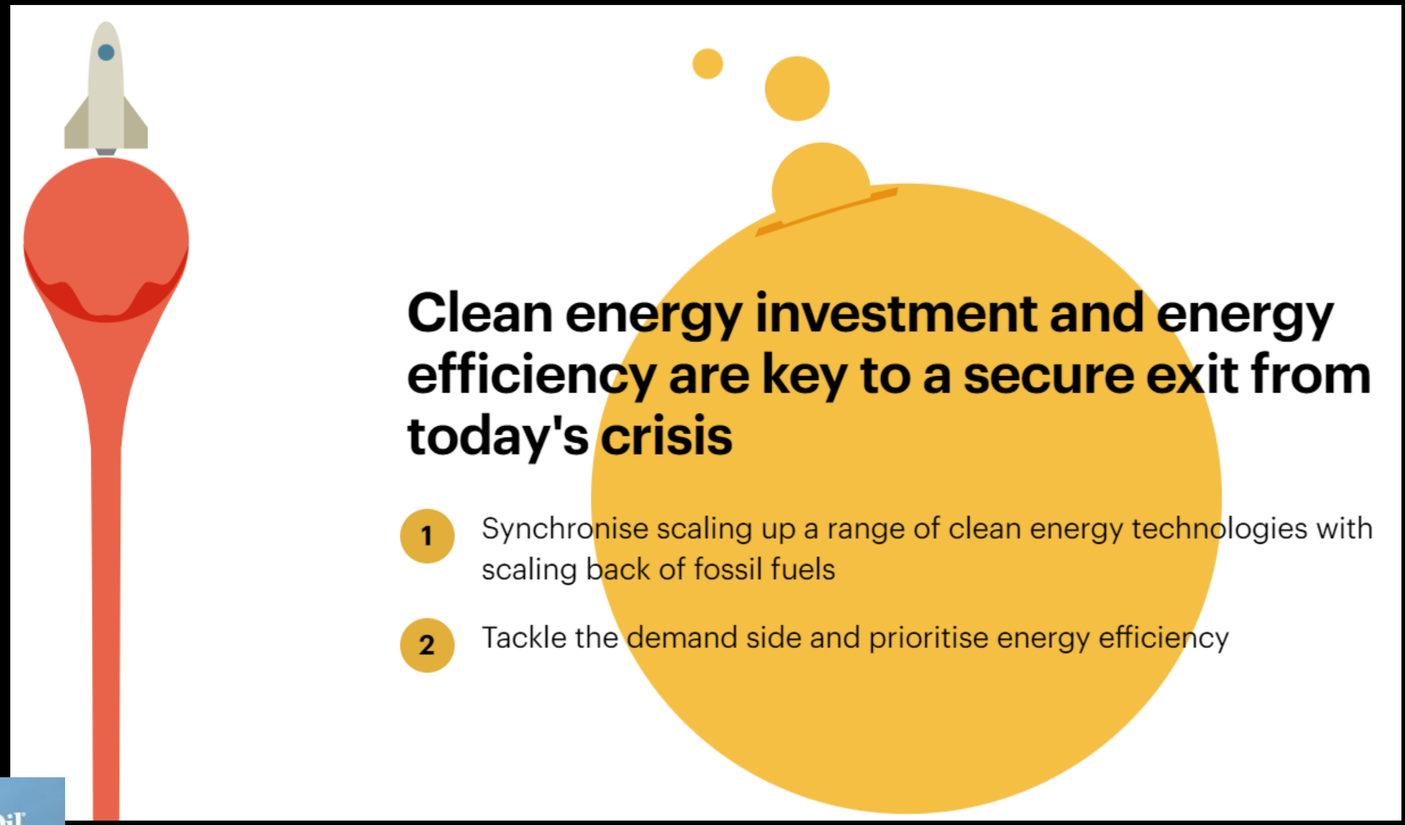
Energy security is not just about having uninterrupted access to energy, but also about securing energy supplies at an affordable price. It is a topic of perennial importance as a result of the global energy crisis.

ENERGY SECURITY



With the rapid escalation of energy prices and geopolitical risk in world, energy security has moved to center stage.. Digital solutions are emerging as a strategic tool to help organizations navigate volatility, both short and long term.

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FOOD SECURITY

As of 2023, an estimated 2.5 billion people are either moderately or severely food insecure – many households with children up to the age of 5years old. Yet, for the global population, every third meal goes to waste.

The world needs innovations and new approaches to help achieve the UN's Sustainable Development Goal 2 of Zero hunger by 2030

- Innovation in agriculture will be key to solving food security problems.
- Promising areas include emerging production technologies such as regenerative methods and vertical farming.
- Digital and data-driven solutions can also allow more informed decision-making.

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WATER SECURITY

By 2030, the global demand for water will exceed sustainable supply by an alarming 40%. (source: www.unep.org/resourcepanel)

- Advances in sensor technology, computing, artificial intelligence, and big data management, can help monitor water quantity and quality and inform operational decisions by the policy makers and water management companies.

- Also, innovations in nature-based systems to manage water can contribute to resilient water management.

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LOOKING TO THE FUTURE

If correctly contextualised, focusing technology on environmental tipping points could make the difference between significant environmental deterioration versus a more sustainability driven and thriving path for the future.

Some key areas in terms of the future of technology are emerging. Innovation in the food-water-energy nexus will help to avoid crossing certain environmental thresholds