



**International
Science Council**



Navigating New Horizons

A Global Foresight report on planetary health and human wellbeing

Jason Jabbour, Office of the Chief Scientist, UNEP
Andrea Hinwood, Chief Scientist

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Navigating New Horizons

- **New operating context** – technological advances, rapid rate of change, new extremes, frequent and devastating shocks, geopolitical tensions rising.
- **Multiple crises are converging** – critical shifts are working in concert – global polycrisis now a feature of the times.

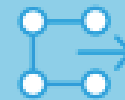


- The **solutions** are also **interlinked**.
- Adoption of **new tools** and approaches can help us anticipate and prepare for future changes.



UN2.0

Quintet of Change



STRATEGIC FORESIGHT

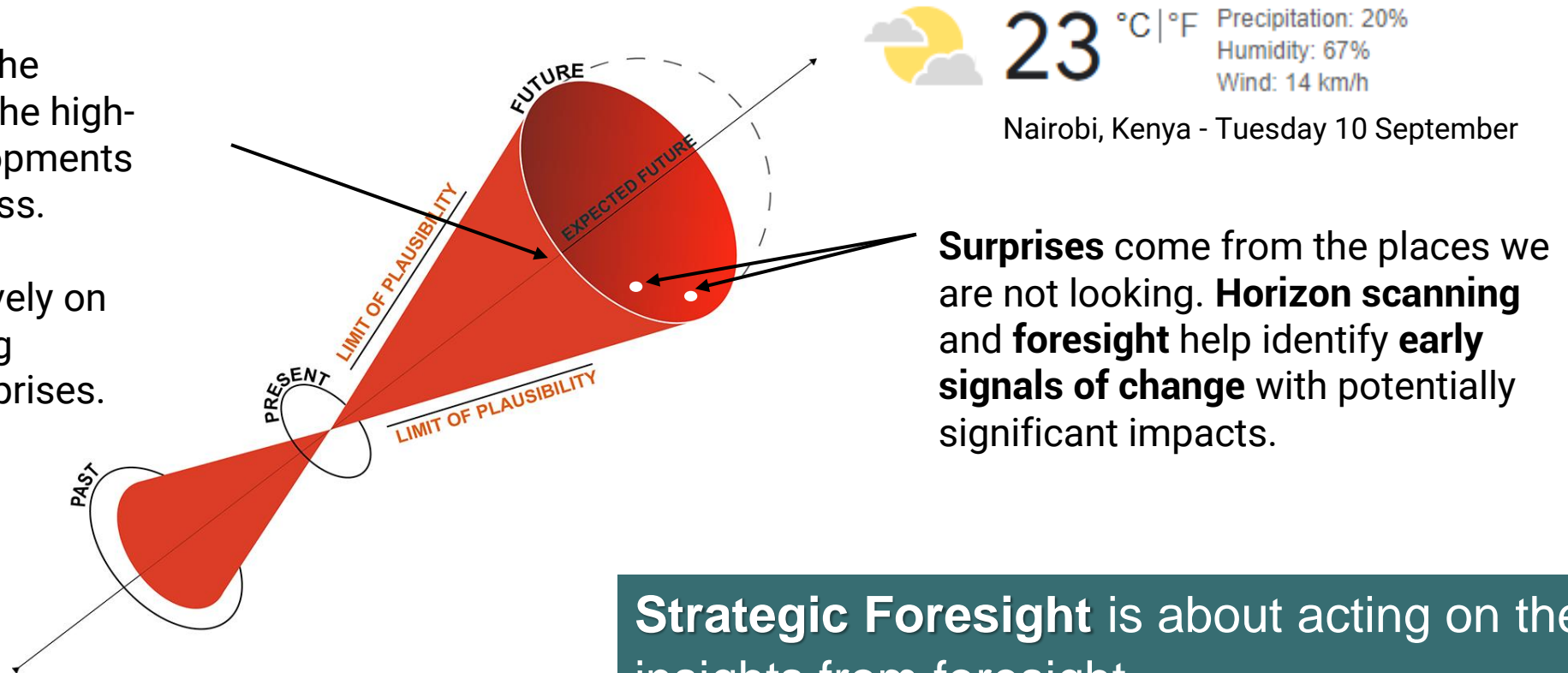
Engaging in strategic foresight, linking up with other entities around the world to enable anticipatory action and the design of more forward-looking policies and programmes.

Foresight and horizon scanning

Foresight is a structured collective intelligence approach to think about the future and explore emerging changes within the limits of what is plausible.

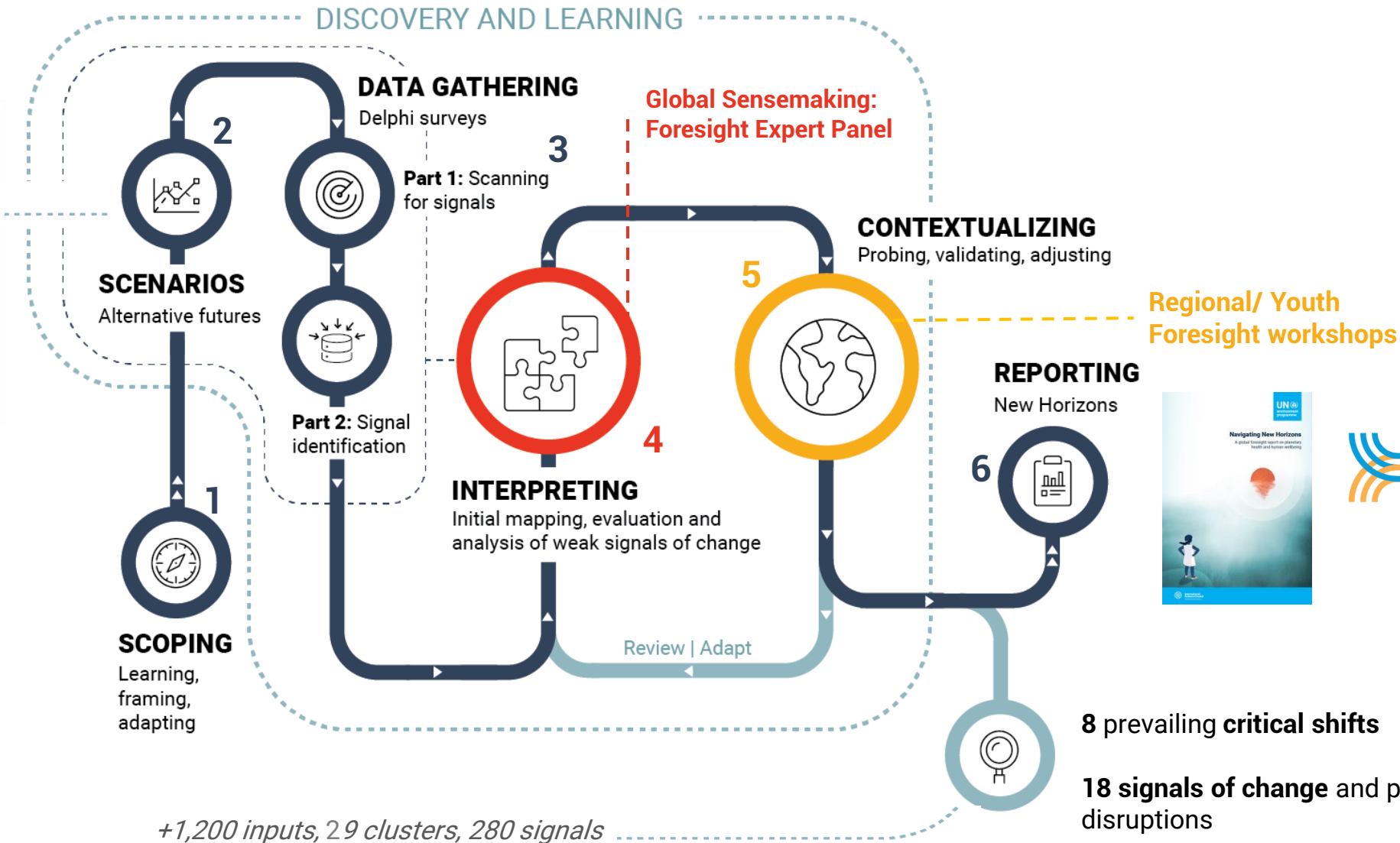
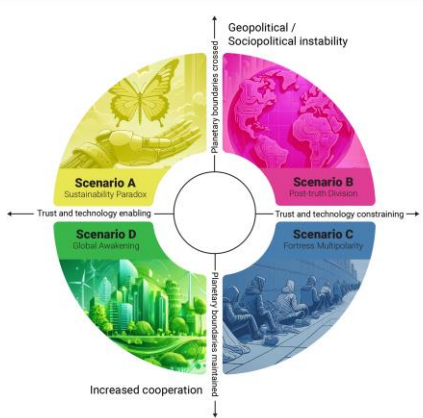
Trends describe the expected future, the high-probability developments we need to address.

Focusing exclusively on trends, risks being blindsided by surprises.



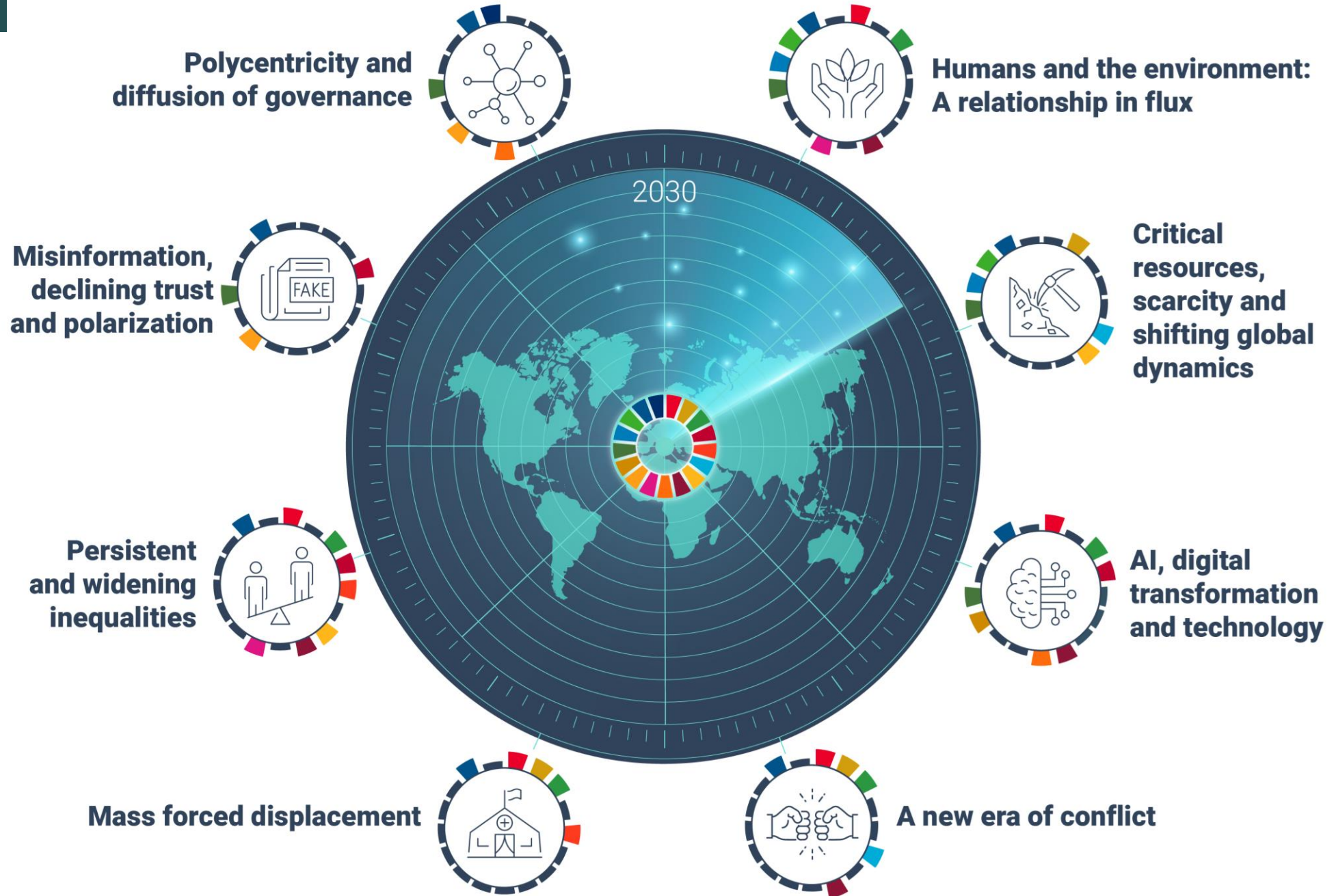
Strategic Foresight is about acting on the insights from foresight.

The foresight approach: A snapshot



+1,200 inputs, 29 clusters, 280 signals

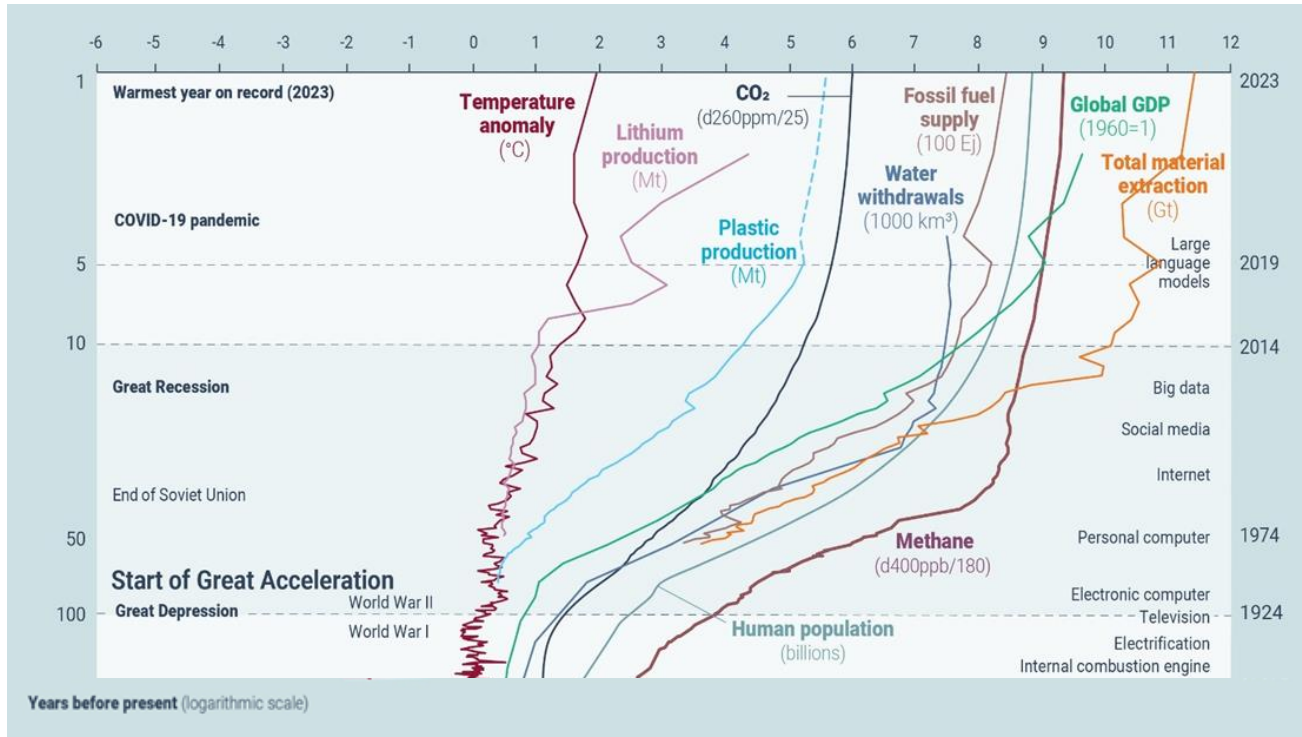
Critical Shifts





CRITICAL SHIFT

Humans and the environment: A relationship in flux

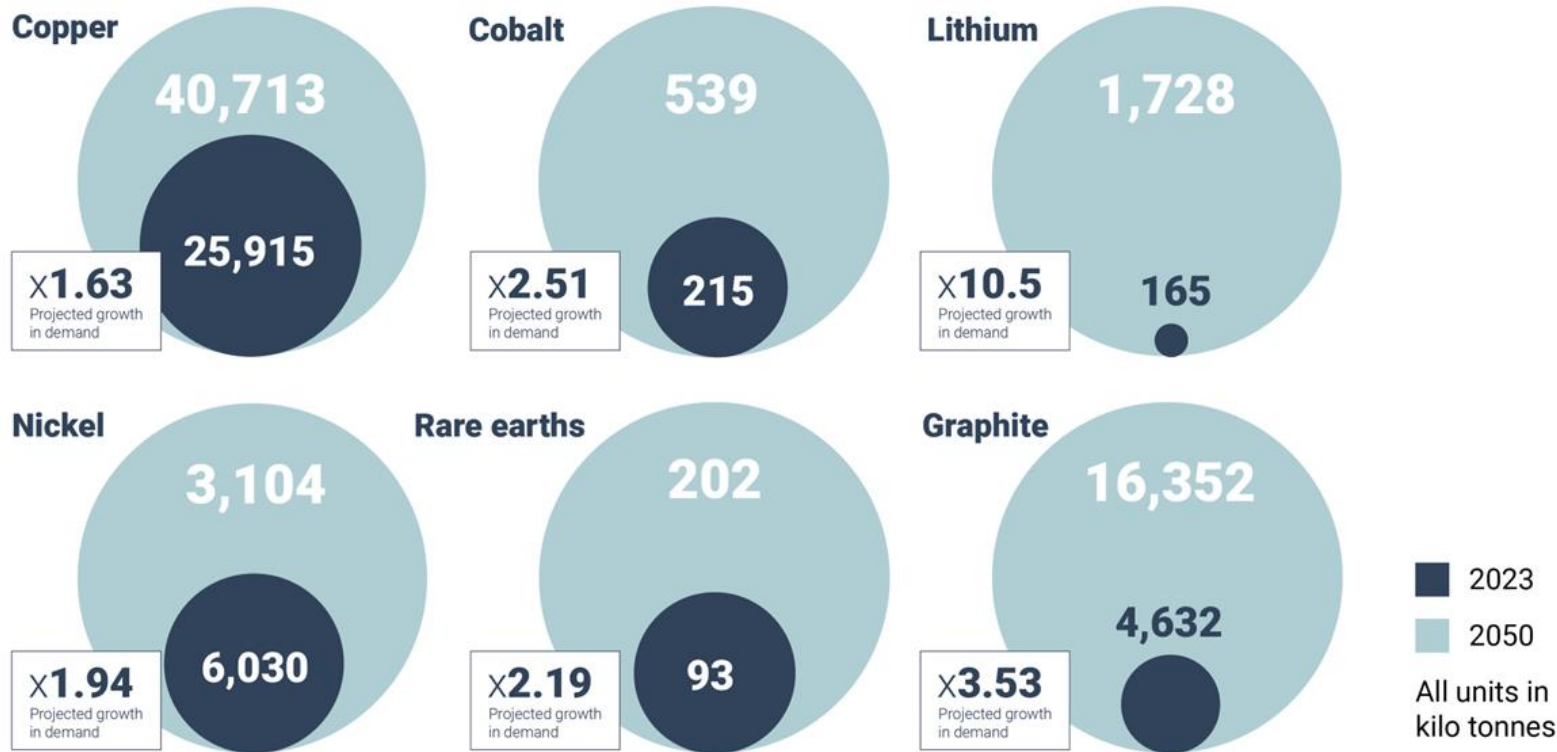


- The human condition and the health of **our planet** are inextricably linked.
- **Accelerating climate crises:** record-breaking climate events surge in number, velocity and scale, wreaking havoc across the globe.
- By 2050, ~**25%** of the **global population of adults** will be exposed to chronic and acute dangerous heat extremes, putting up to 246M older people at risk—largely in Africa and Asia.
- Continuing **environmental degradation** and cascading shocks are pushing natural ecosystems and humans to limits.

The Great Acceleration – human-driven social, technological and environmental changes have surged dramatically since the mid-20th century, representing the start of a major shift in our collective relationship to each other and to the Earth system.



Resources, scarcity and competition shifting global dynamics



Global transition to clean energy expected to create massive demand increase for critical minerals, especially those used in manufacturing batteries and electricity networks, key inputs in emerging technologies and markets

Projected growth in demand for critical minerals in 2050 to achieve net zero emissions

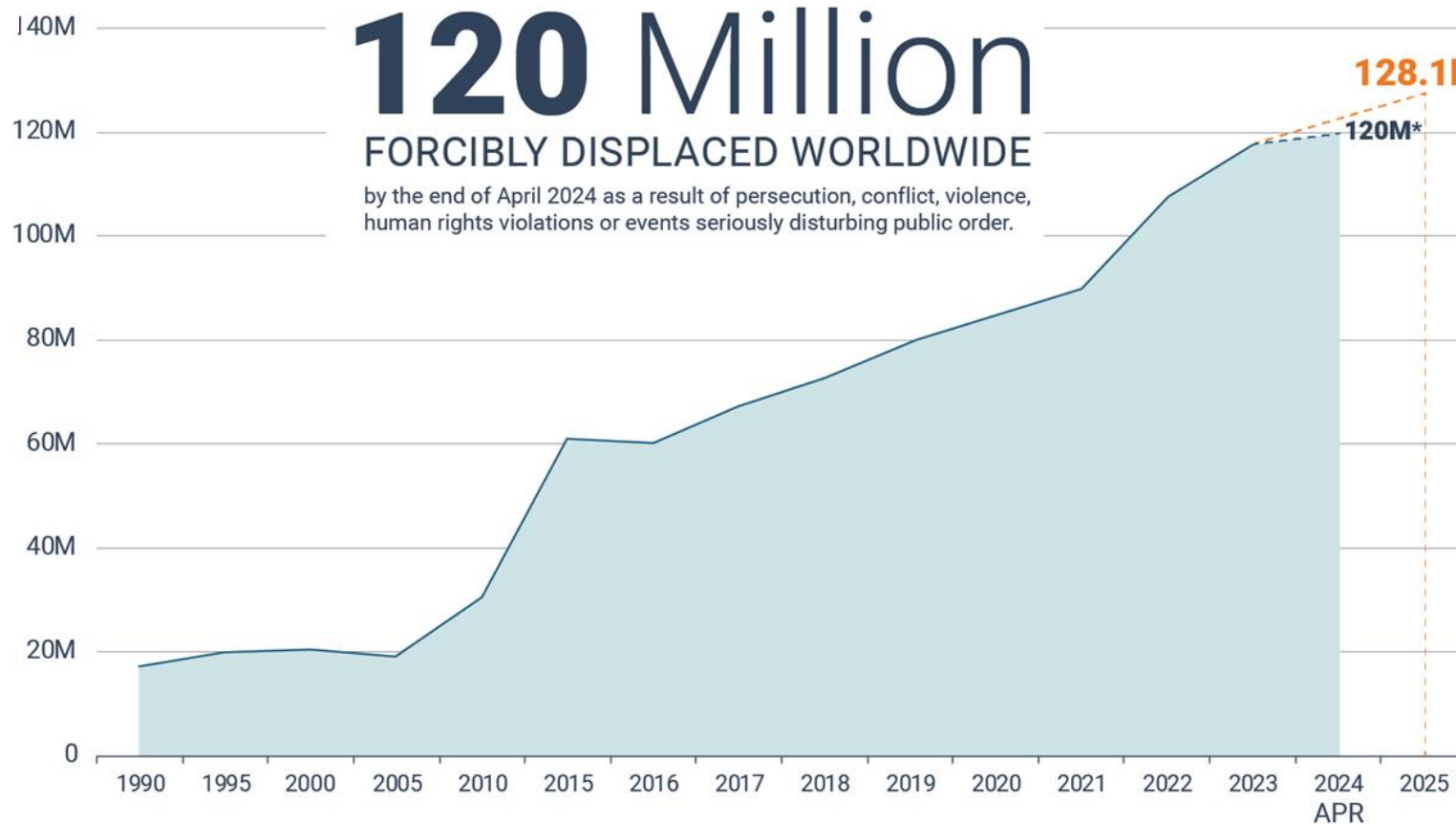
Source: IEA 2024

- As countries discover more sources for materials, **competition** and potential **confrontation** likely to increase.



CRITICAL SHIFT

Mass forced displacement



- One in every 69 people is now forcibly displaced; the highest on record in the modern age.
- The number of internally displaced persons (71.4M) has risen by 340% in just two decades.
- This contributes to and is worsened by environmental and climate impacts.
- Climate-related disasters have triggered a surge in large-scale, prolonged and repeated displacements worldwide in last two years.

31.6 million refugees

under UNHCR's mandate

1.4 million stateless persons

63.3 million

internally displaced people

6.7 million

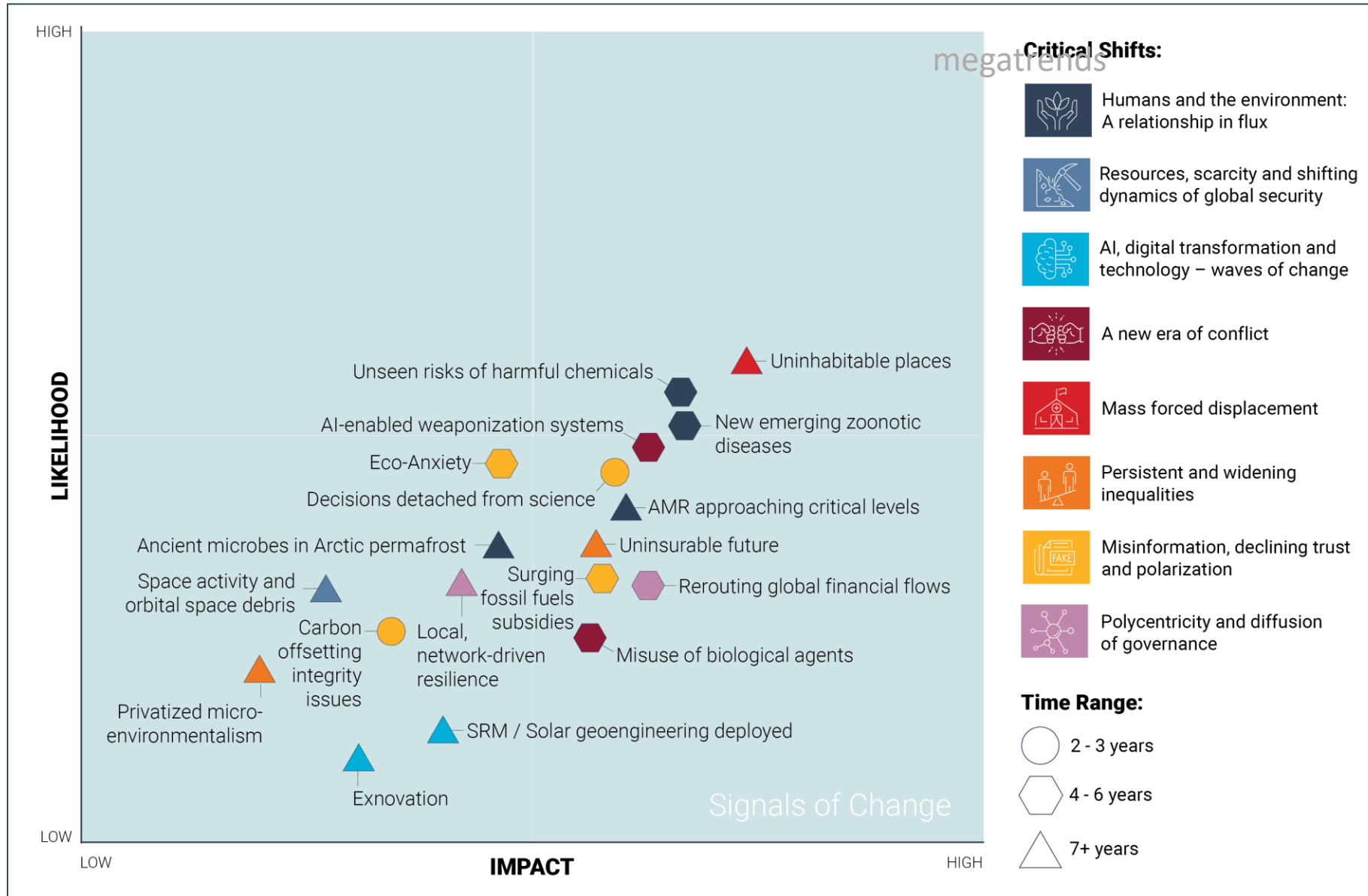
asylum-seekers

11.7 million

other people in need of international protection

* Based on operational data. ** Projected annual increase of 8.1M extrapolating existing 2024 operational data.

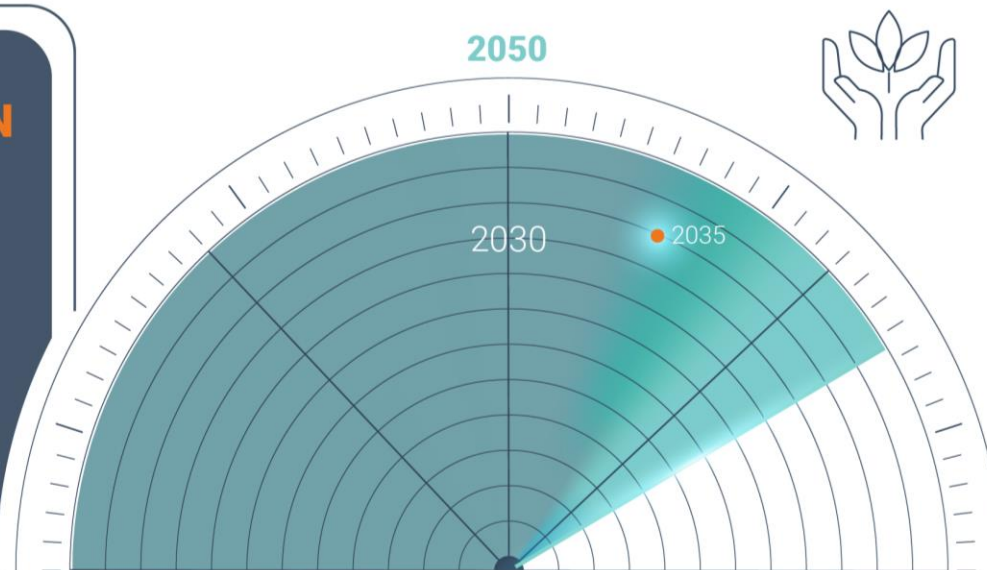
18 Signals of change



Ancient microbes hidden in thawing Arctic permafrost

POTENTIAL DISRUPTION

Ancient lethal virus frozen in the arctic permafrost is released by Earth's warming climate unleashing a catastrophic global health emergency.



PERCEPTION SCORE **11**

REGIONAL VARIATION



INTENSITY OF IMPACT (positive or negative)



EXPECTED TIMEFRAME **7+ years**

LIKELIHOOD OF OCCURRENCE

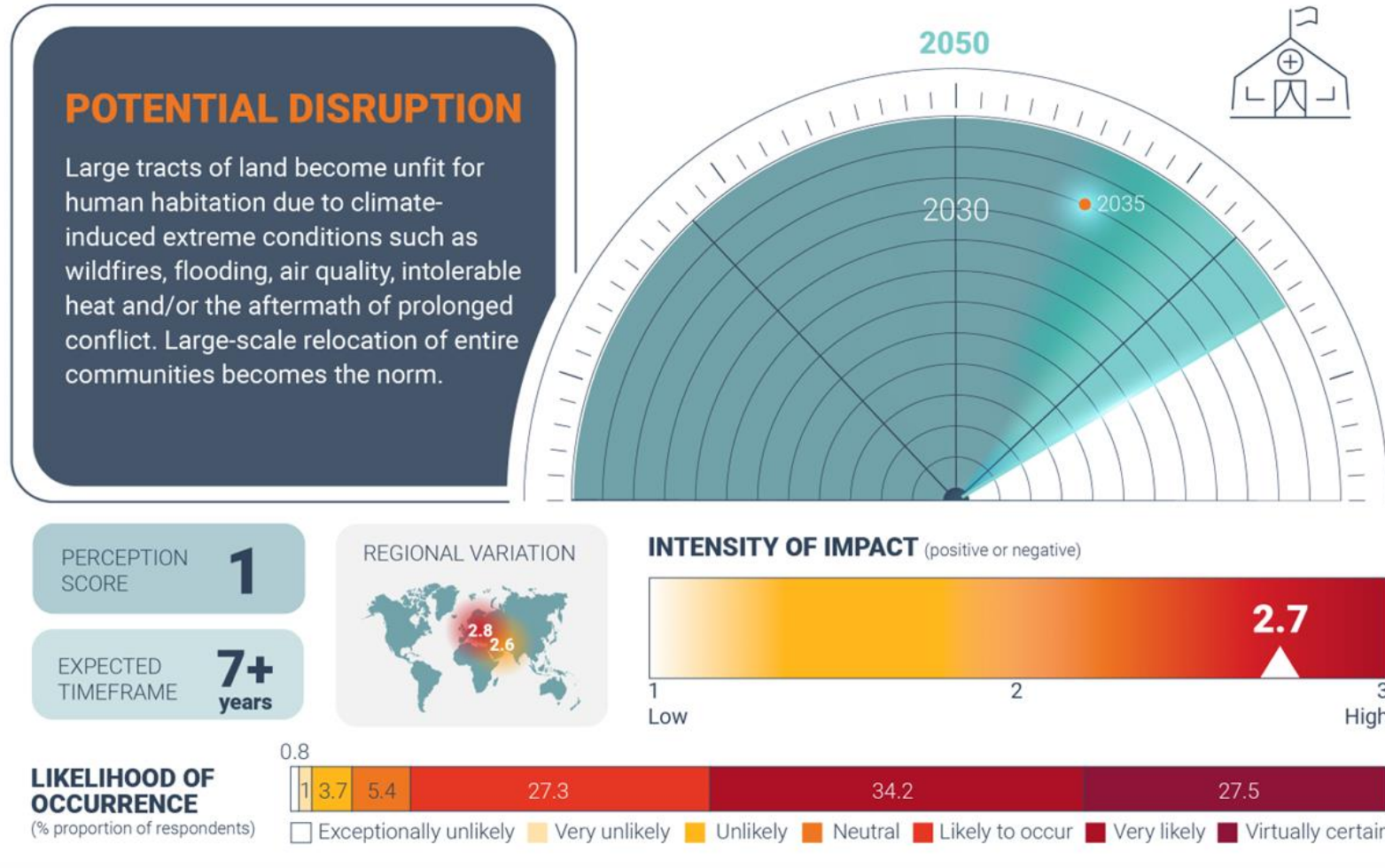
(% proportion of respondents)



- Large number of microbes released from thawing permafrost, including pathogens, pose new risks to all modern ecosystems.
- Using radiocarbon dating, scientists have estimated that revived ancient viruses dormant for at least 30,000 years – became infectious once again after thawing.
- Recent outbreak of anthrax in western Siberia killing thousands of reindeer and affecting dozens of people is cause for concern.

SIGNAL OF CHANGE (No.10)

Uninhabitable Spaces



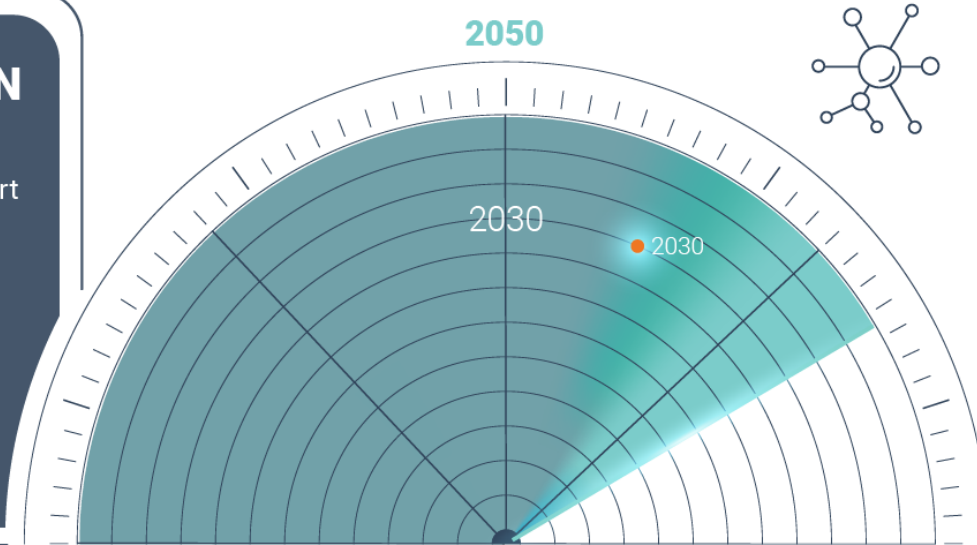
- Climate change is affecting the future availability of habitable environments. Low-lying island nations and coastal communities are particularly vulnerable and face potential displacement.
- Scientists project that over the next 50 years, up to three billion people could be living well outside tolerable climate conditions.
- By 2070, certain regions (e.g., India, central Africa, Northern South America, and northern Australia) could become too hot for human life.

SIGNAL OF CHANGE (No.17)

New tools for rerouting global financial flows

POTENTIAL DISRUPTION

Governments in the world's biggest economies require businesses to report on the social and environmental impacts of all their operations and stringently penalise firms for harms caused. Declining share prices and investments in unsustainable businesses lead to a paradigm shift in corporate governance.



PERCEPTION SCORE

7

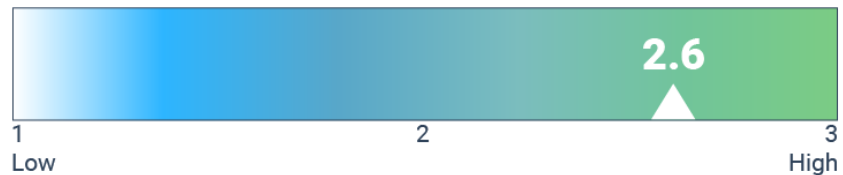
REGIONAL VARIATION



EXPECTED TIMEFRAME

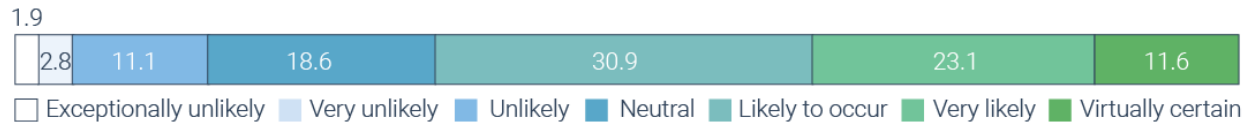
3-4 years

INTENSITY OF IMPACT (positive or negative)



LIKELIHOOD OF OCCURRENCE

(% proportion of respondents)



SEC Adopts Rules to Enhance and Standardize Climate-Related Disclosures for Investors



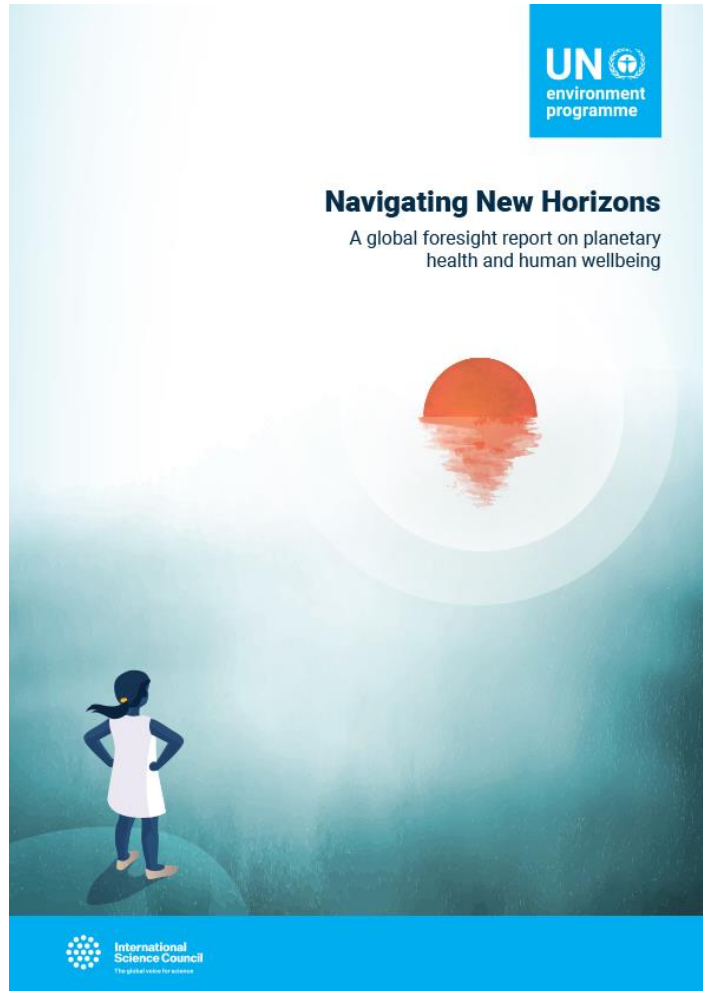
- 135 countries have agreed to a global minimum corporate tax rate of 15% (start of 2024)

- By reorienting financial flows, promoting sustainable business practices, and demanding greater transparency, environmentally responsible decision-making can be incentivized throughout global value chains.

Global Foresight Report – The Way Forward

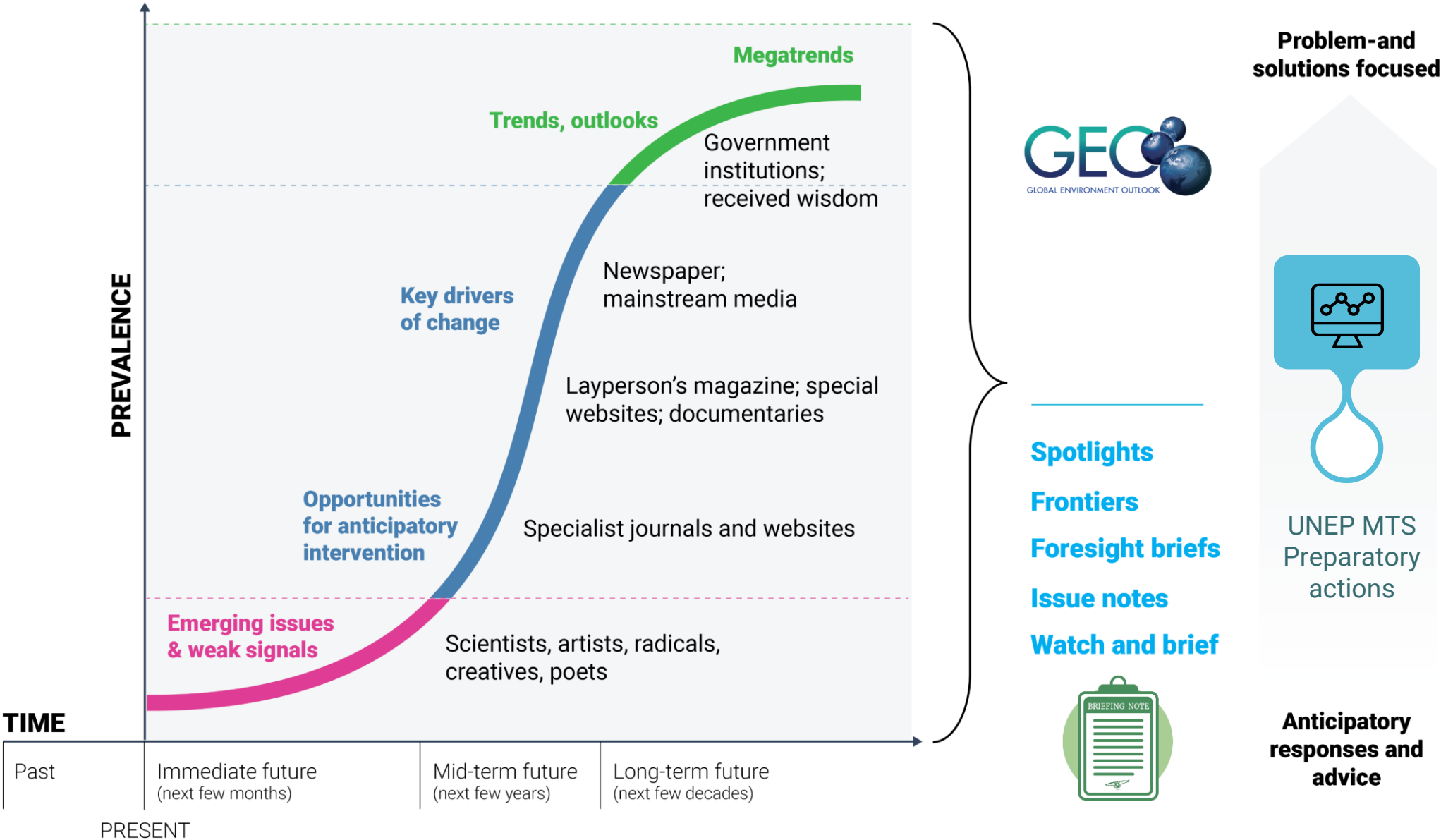
- The signals of change point to major opportunities to advance progress towards the SDGs, and particularly the environmental dimension.
- Renew the global approach to addressing environmental concerns and increase society's resilience by a **New Social Contract**.
- Importance of **engaging a broader and diverse range of stakeholders**, including indigenous and local peoples; **giving young people a stronger voice**; intergenerational equity and rethinking measures of progress.

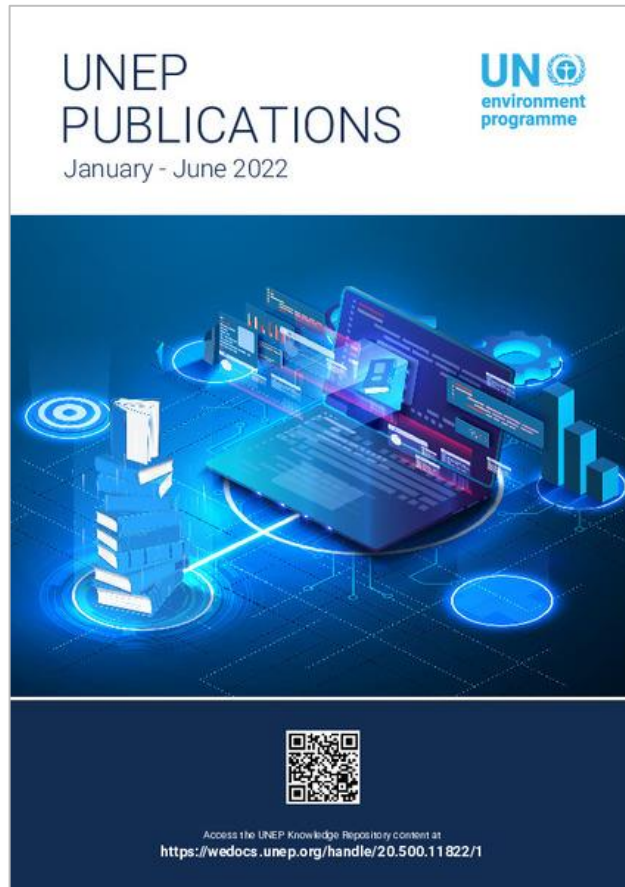
Navigating New Horizons



- Promoting **more agile and adaptive** or flexible governance measures: shorter-term or interim targets and indicators
- Open accessible, integrated data information and knowledge across portfolios to accelerate measurement of progress, horizon scanning to address drivers of environmental degradation and to achieve a joined-up approach.

Foresight informing key outputs





1. To identify new and emerging topics.
2. To prioritize efforts.
3. To identify vehicles (products) to expand on topics that emerge.
4. For Stress testing work programmes and solutions
5. Strategic planning

Thank you!



www.unep.org/ocs/strategicforesightatunep

Andrea Hinwood, Chief Scientist UNEP
Jason Jabbour, Senior Program Coordinator, Strategic Foresight

United Nations Avenue, Gigiri
PO Box 30552 – 00100 GPO Nairobi, Kenya

www.unep.org

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