

Developing and implementing a foresight trajectory for UNEP: An update

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Strategic Foresight CPR Update
18 April 2024



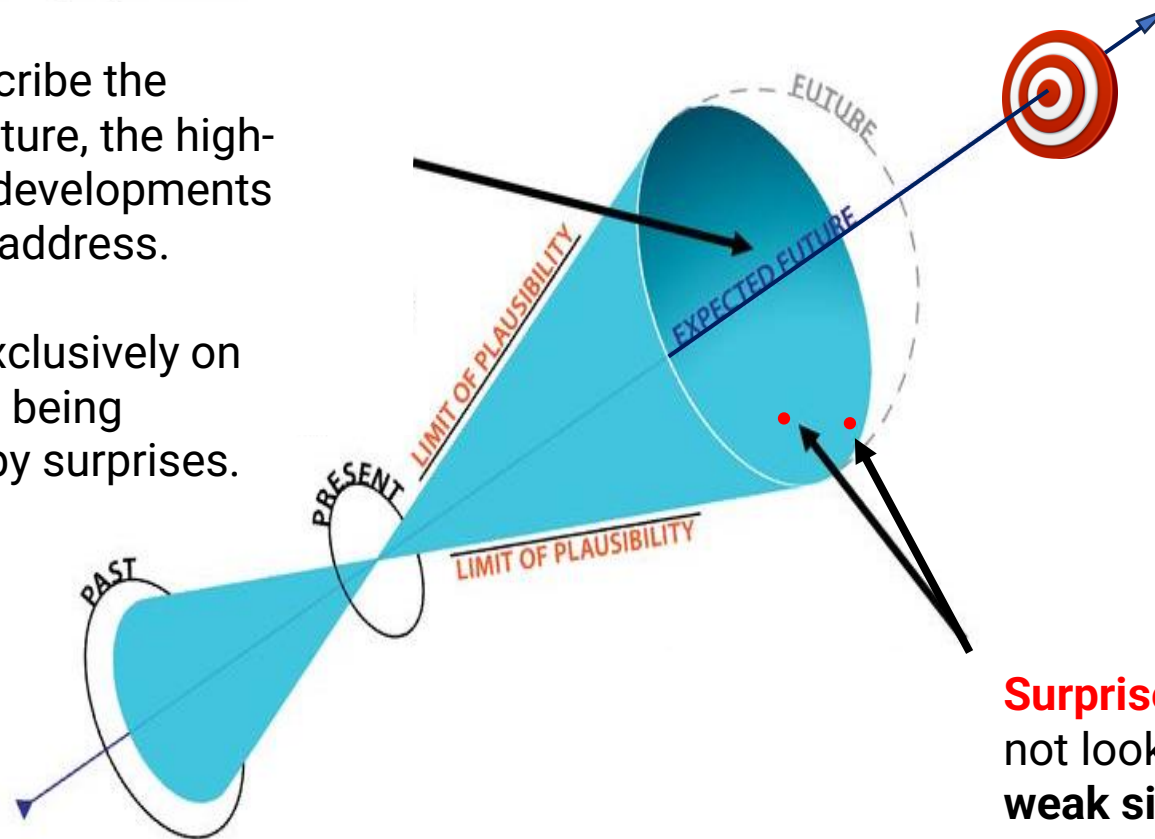
What is exactly foresight?

- **Foresight** is a structured, multi-disciplinary approach to think systematically and explore trends, emerging changes and to inform decision-making and priority-setting today. Foresight is not about forecasting or predicting the future, nor is it intended to entirely replace traditional forms of analysis and policy-making.
- **Horizon Scanning** is the foundation of a Strategic Foresight process and is the systematic outlook to detect early signs of potentially important developments. It involved a set of methods and assumes ongoing monitoring of changes as they mature into trends.
- **Futures** is the broad academic and professional field developing globally as well as research, methods and tools that are available to be used to develop a foresight capacity.
- **Strategic Foresight** is an organisational capacity that informs the development of strategy. It allows decision-makers and stakeholders to look outside, above and beyond, and have structured strategic conversations about change, uncertainty and complexity, and take its impacts into account.

Horizon Scanning and Foresight (HSF)

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

Focusing exclusively on trends risks being blindsided by surprises.



Forecast, Nairobi

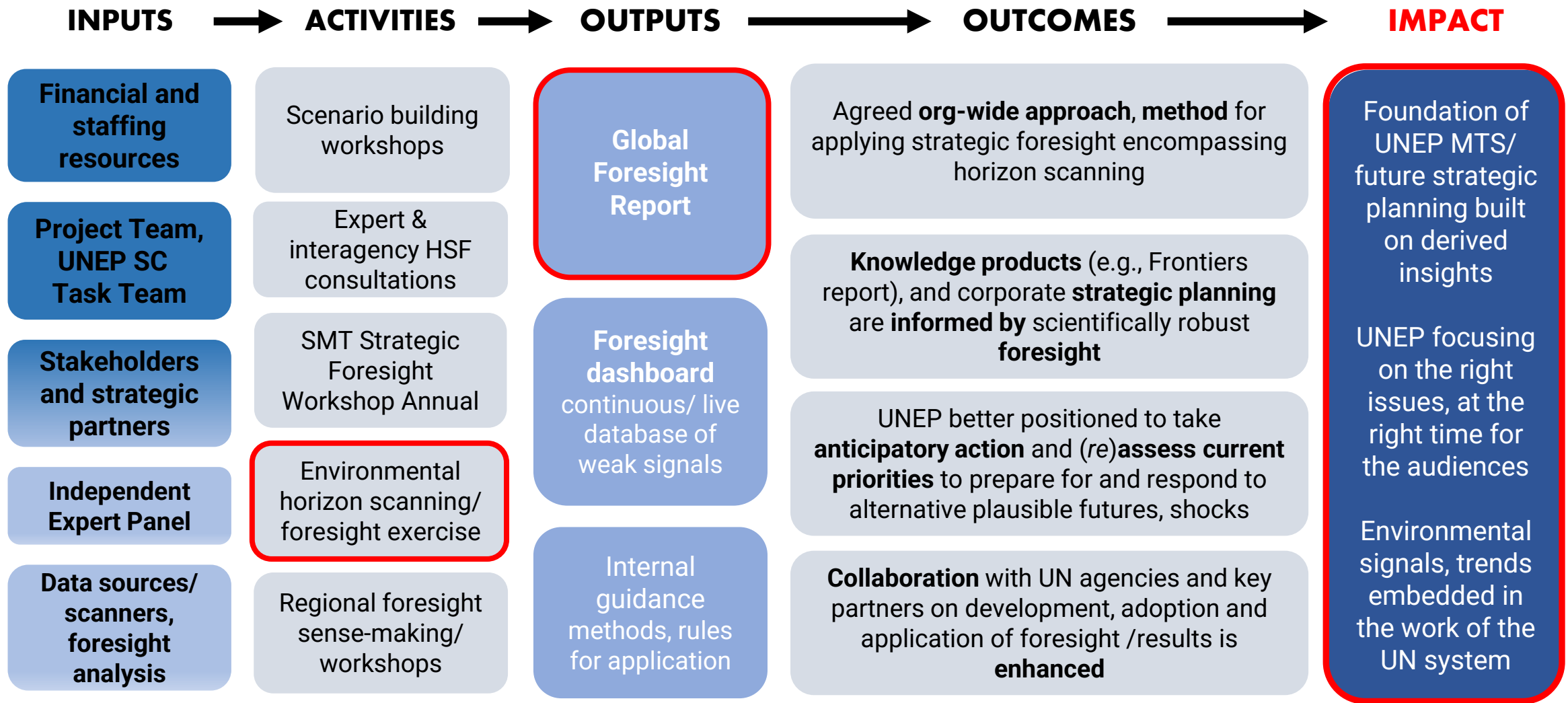


24 °C | °F

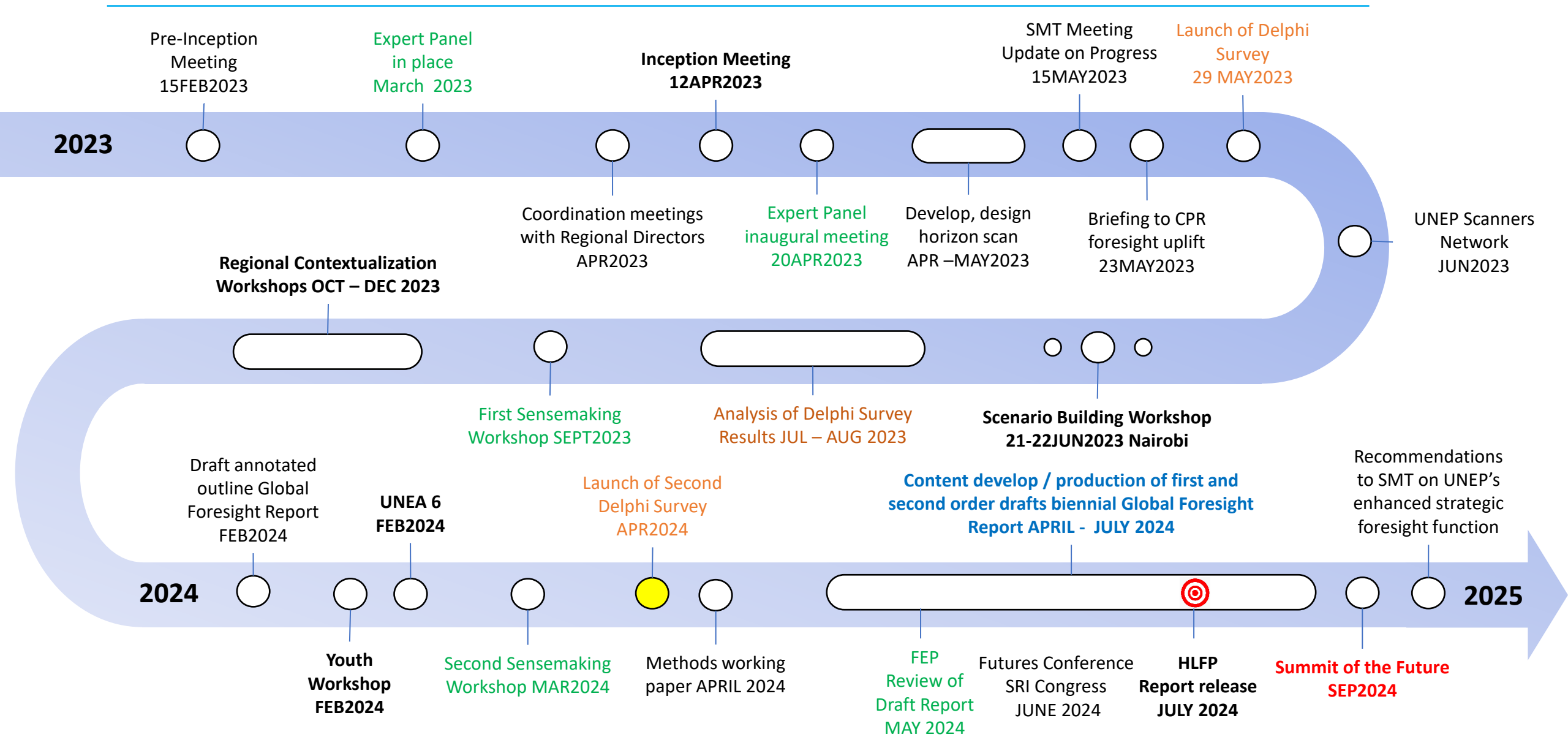
Precipitation: 60%
Humidity: 70%
Wind: 18 km/h

Surprises come from the places we are not looking. **Horizon scanning** identifies **weak signals** with potentially significant impact

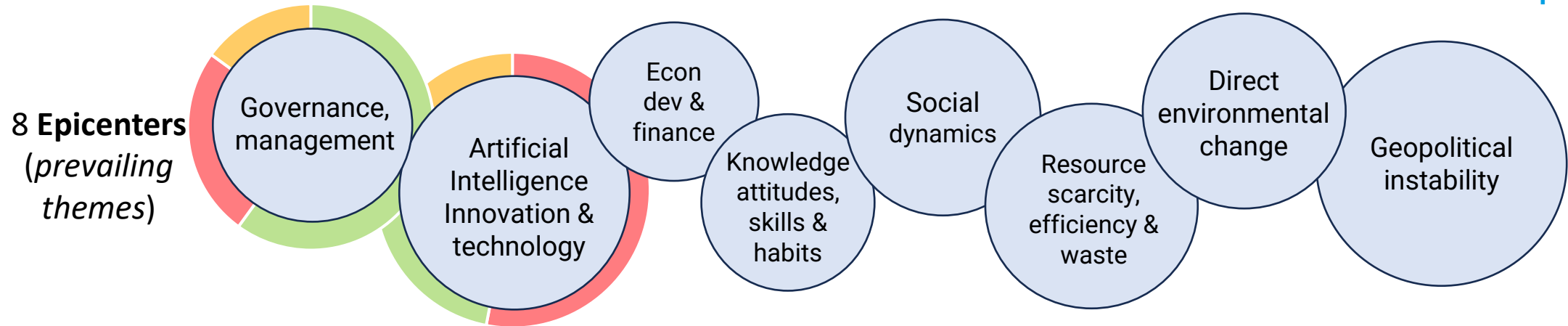
UNEP's Strategic Foresight Trajectory



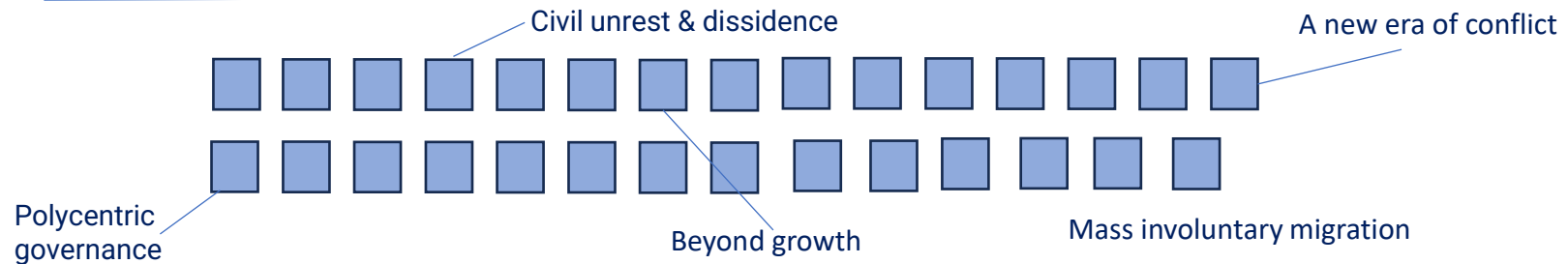
Road map and next steps



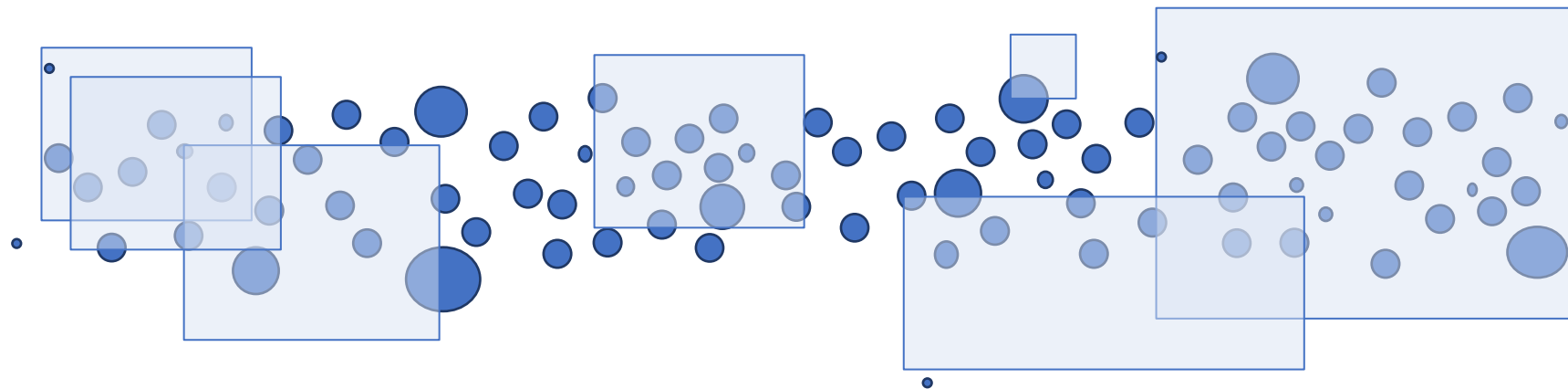
Delphi Survey: Prevailing themes and signals of change



29
Emerging Changes
(clusters)

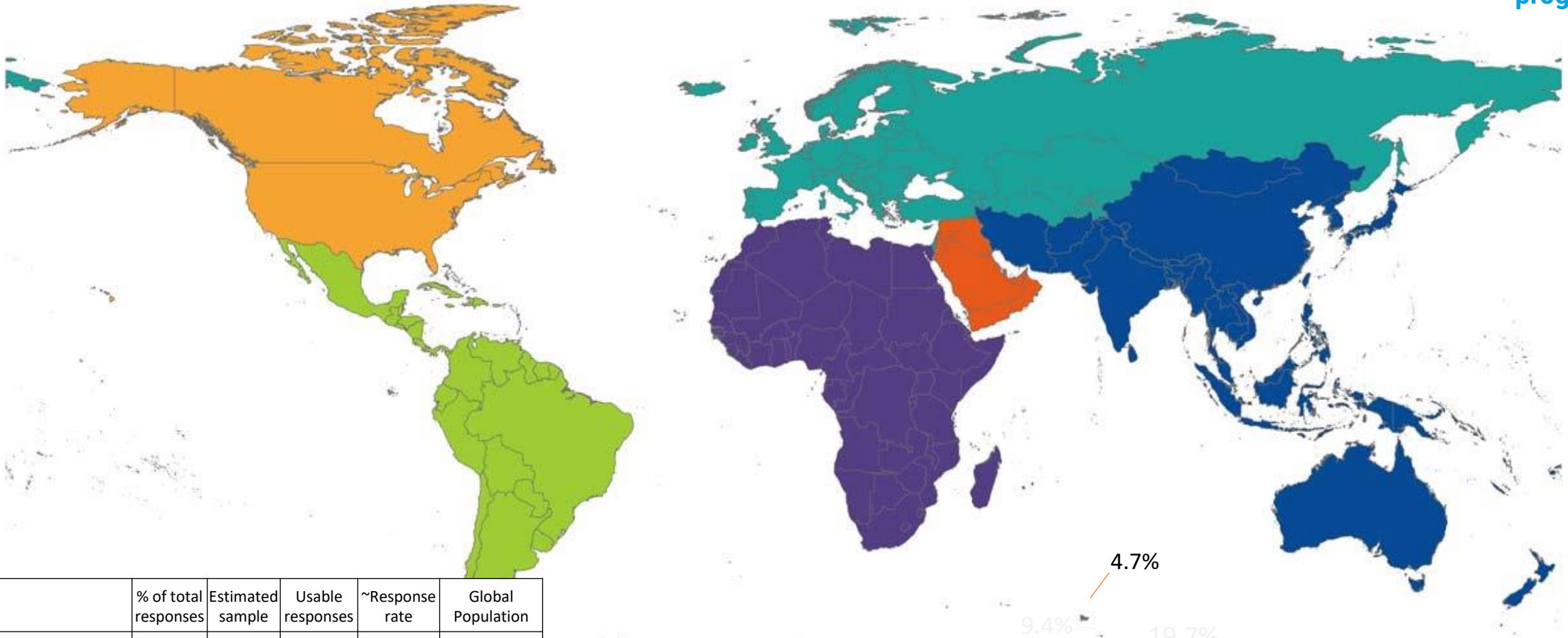


259
Weak Signals

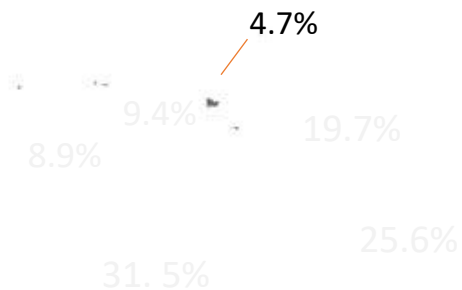


~1260
Submissions

Regional distribution of responses

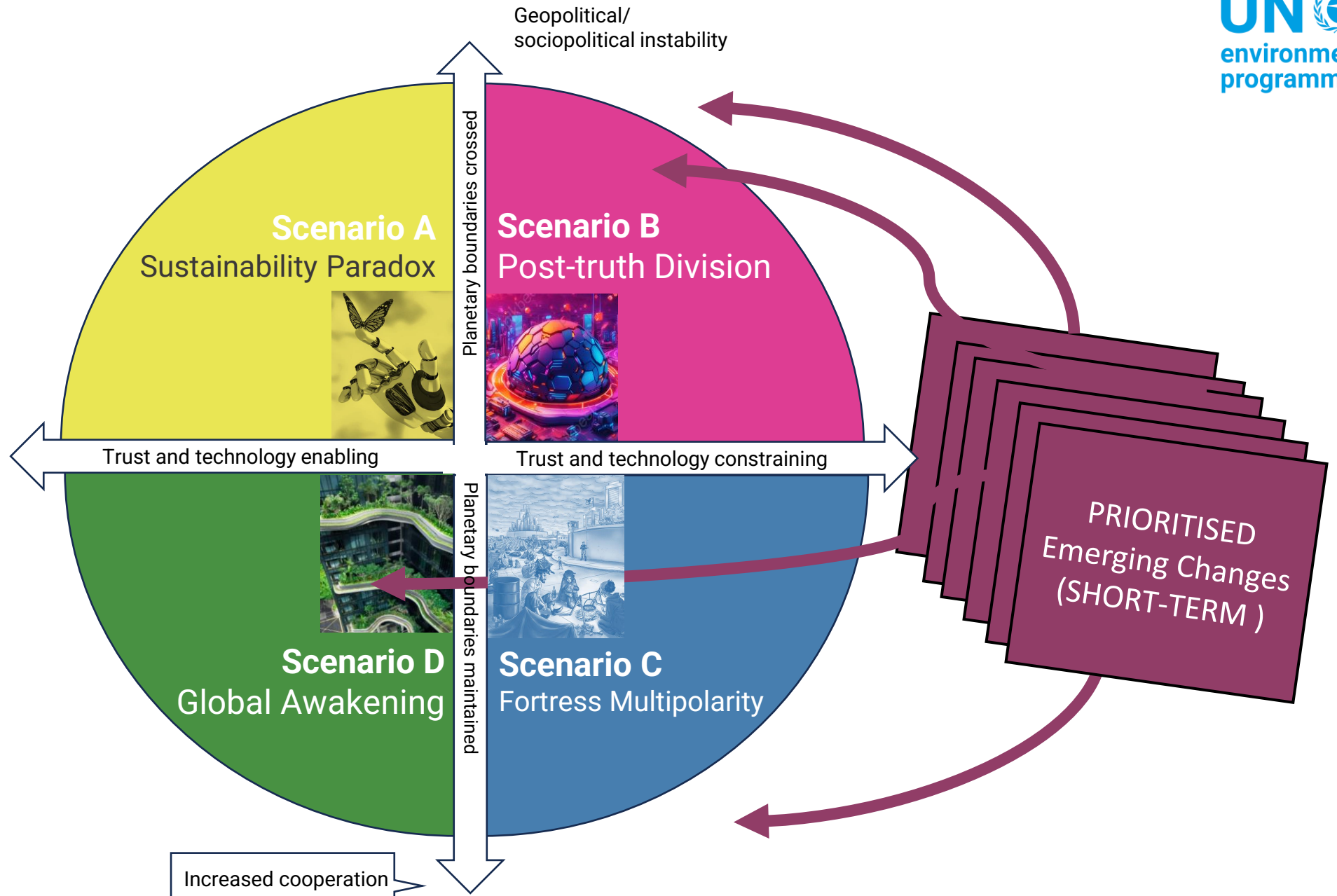


	% of total responses	Estimated sample	Usable responses	~Response rate	Global Population
Africa	19.74	599	156	26.04%	17.9
Asia Pacific	25.56	2255	202	8.95%	52.7
Europe	31.51	747	249	33.34%	9.5
LAC	8.98	1226	71	5.79%	8.5
North America	9.49	399	75	18.79%	7.6
West Asia	4.68	668	37	5.53%	3.8
Total		5894	790	13.40%	



(N=790)

Four scenarios for 2050

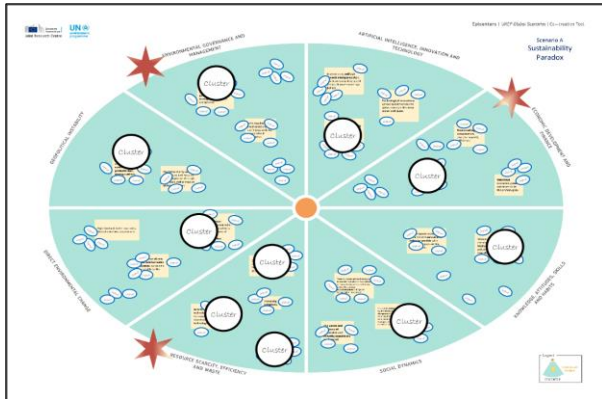


The scenario set is qualitative and seek to describe alternative futures in the year 2050

Regional workshops: Approach

Day 1

Morning



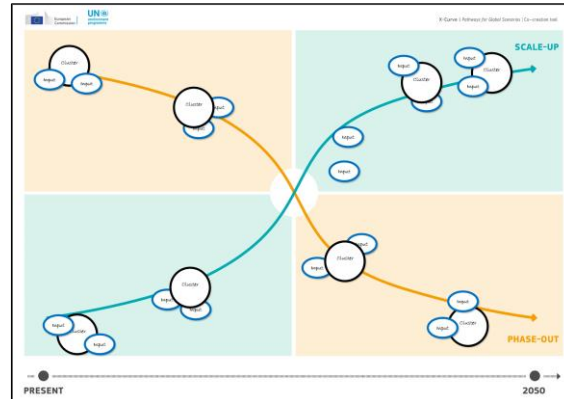
STEP 1 - Global Scenarios x4
Sensemaking

World café format

Expected outcome

- *Contextualization to regional aspects*
- *Identification of most disruptive changes – Key Epicentres*

Afternoon



STEP 2 - Pathways x4 (changes)
Co-creation

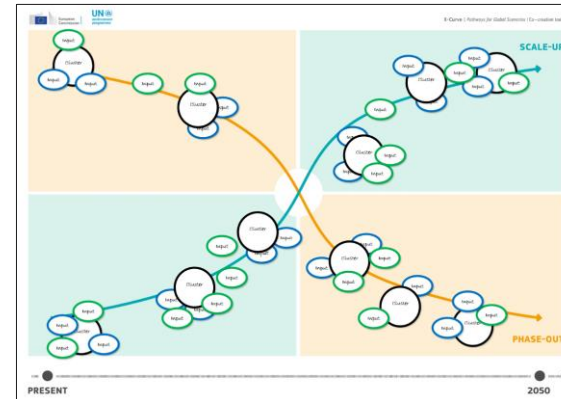
World café format

Expected outcome

- *Patterns of change (X-Curve)*
- *Mapping changes according to Key Epicentres*

Day 2

Morning



STEP 3 - Pathways x4 (Actions)
Co-creation

World café format

Expected outcome

- *Patterns of change (X-Curve)*
- *New layer. Mapping actions*

Afternoon

WHAT (List of interventions)	HOW (Strategy, resources, activities)	WHO (Key actors, leaders, beneficiaries)
1) ABC		
2) DEF		
...		
3) XYZ		

STEP 4 - Intervention strategies
Co-creation

Group work

Expected outcome

WHAT, HOW and WHO descriptive elements for defining areas of intervention

Regional Workshops: Factors effecting planetary health

Europe	Africa	North America	West Asia	Asia / Pacific	LAC	Youth
Top 3 clusters emerging from the Delphi Survey by Region / Youth Group						
Climate Volatility and Extreme events	Climate Volatility and Extreme Events	Climate Volatility and extreme Events	Climate Volatility and Extreme Events	Climate Volatility and Extreme Events	Climate Volatility and Extreme Events	Resource Exploitation
Quantum computing and AI	Resource Exploitation	Polycrisis and cascading impacts	Public and environmental Health	Quantum computing and AI	Resource Exploitation	Climate Volatility and Extreme Events
CATM, energy transition and decarbonization	Quantum computing and AI	Loss of Ecosystems and biodiversity	Consciousness and Behavioral dynamics	Consciousness and Behavioral dynamics	Consciousness and Behavioral dynamics	Changing nature of work
Top 5 clusters emerging from Regional / Youth Workshops (no particular order)						
Deteriorating social contract	Leadership and Governance	Policy and governance	Social Dynamics	Governance structures	Climate volatility	Social dynamics
Capitalistic approaches to economic growth and the impact of debt	Finance and Economics	Political will and public demand	Health Concerns	Unsustainable economic models	Resource exploitation	Unsustainable economic models
Misinformation, lack of trust and accountability	Geopolitical conflicts	Issues related to behavior	Policy and Governance Structures	Role of Indigenous knowledge	Consciousness and behavioral dynamics	Dominance & pervasive influence of AI
Community response to planetary health	Increasing Science Capacity	Learning and human cognition	Behaviour changes	Technology and AI advances	Natural resource depletion and scarcity	Resource sovereignty and decentralized trade
Inequality and consideration of vulnerable populations	Cultural erosion and Shifting Values	Societal inequalities and uneven vulnerability to extreme impacts		Resource exploitation and scarcity	Public environmental health	

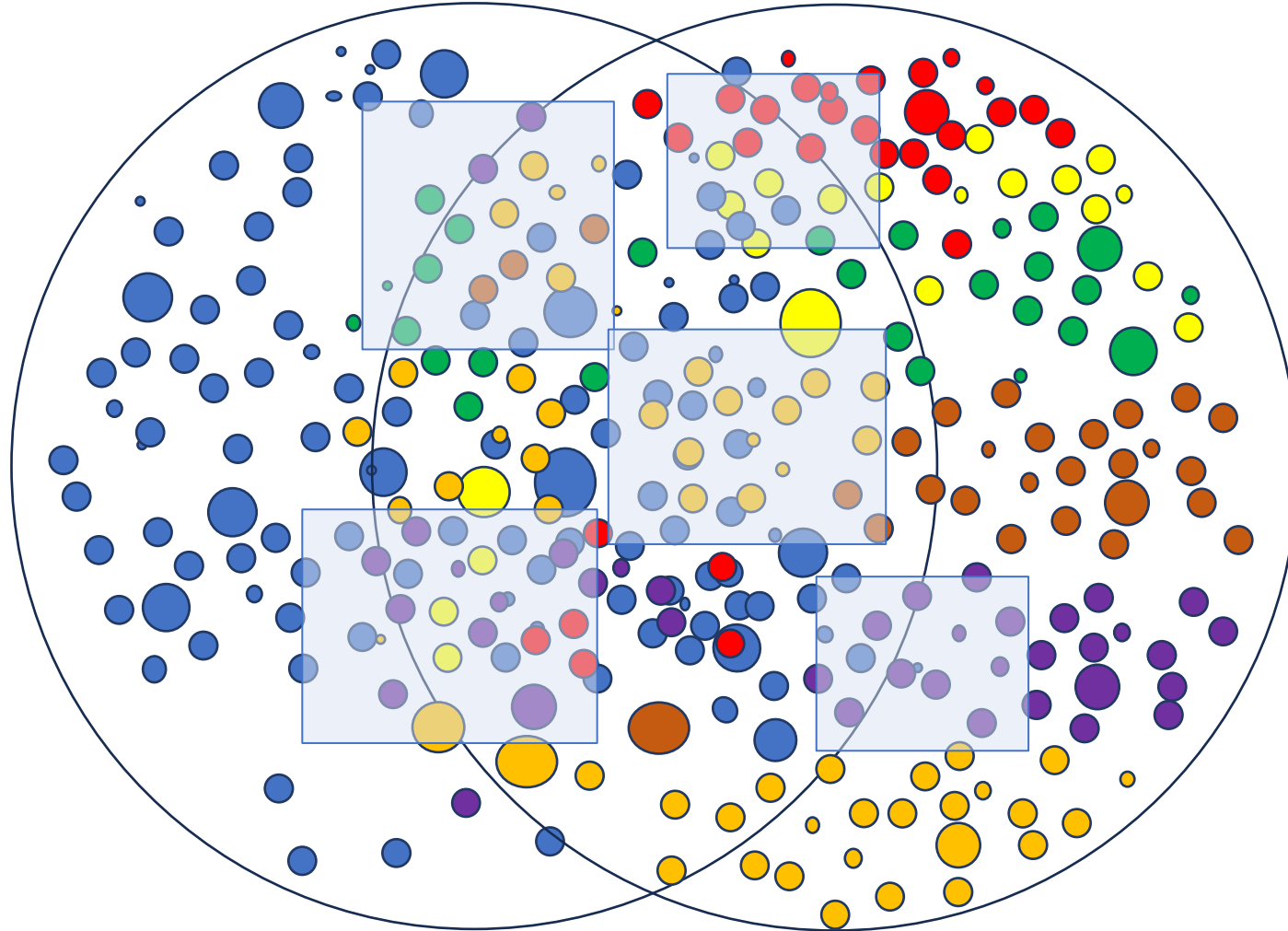
Regional Workshops: Key Areas of intervention

Europe	Africa	North America	West Asia	Asia / Pacific	LAC	Youth
Governance and business models Regulatory and democratic reform	Strengthening Governance Approaches in the Region	Support for inclusive, polycentric governance	Promoting Improved Governance Structures and Trust	Effective governance with embedded environmental justice	Urgent need to implement multilateral agreements, particularly the Escazú Agreement	
Governance of technology	Unlocking the Potential of Youth	Education reform	Social Values, Education and Culture	Education and behavioral change	Strengthening social fabric and recognizing local knowledge.	Total health index (in lieu of GDP)
Public services and social contract Social & labour dynamics	A new economic model	Economic systems shift	Economic and Financial Resiliency and Social Safeguards	Economic and fiscal transformation	Management of the use and handling of technology and artificial intelligence.	Global economic model to balance essential human needs & planetary health.
Education and social interventions	Technology development and transfer	Democratization and broader societal engagement in policy-making	Innovation and Technology Governance	Restructuring debt finance and fiscal strategies	Promotion of nature-based solutions	Regulate and foster ethical AI inclusive of indigenous knowledge/ voices
Global trade, economic structures, and geopolitics A new economic model	Decentralization trade, finance and business	Combating misinformation		Deploy and regulate AI to strengthen justice/ governance systems		Embracing youth/ more diverse range of stakeholders in decisions
Global cooperation and multilateralism	Public health and wellbeing	Implementation of UNDRIP and legal systems change				Major UN Reform, 3.0 conceptual model: No veto

Bringing it all together (signals of change)

signs to signals

Signals from
Delphi Survey

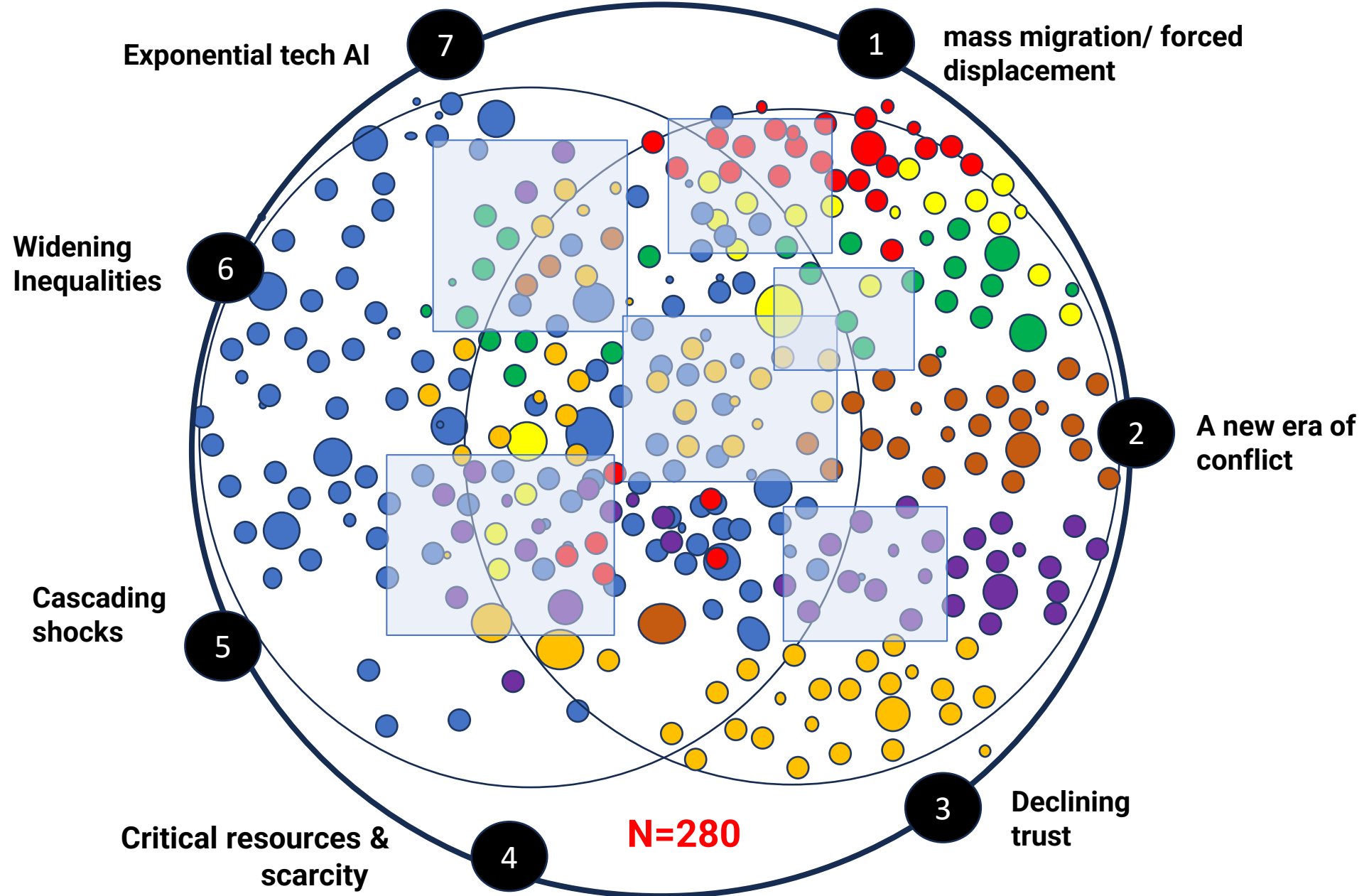


Signals from
Regionals



From signals to significance

Bringing it all together



Delphi Survey (phase 2) weak signals of change

UN
environment
programme

International
Science Council

**A Future for Planetary Health and
Human Wellbeing 2050**

Delphi Survey Part two

<https://sprw.io/stt-rXTM7S2G3RkhgLx4EmYiMY>

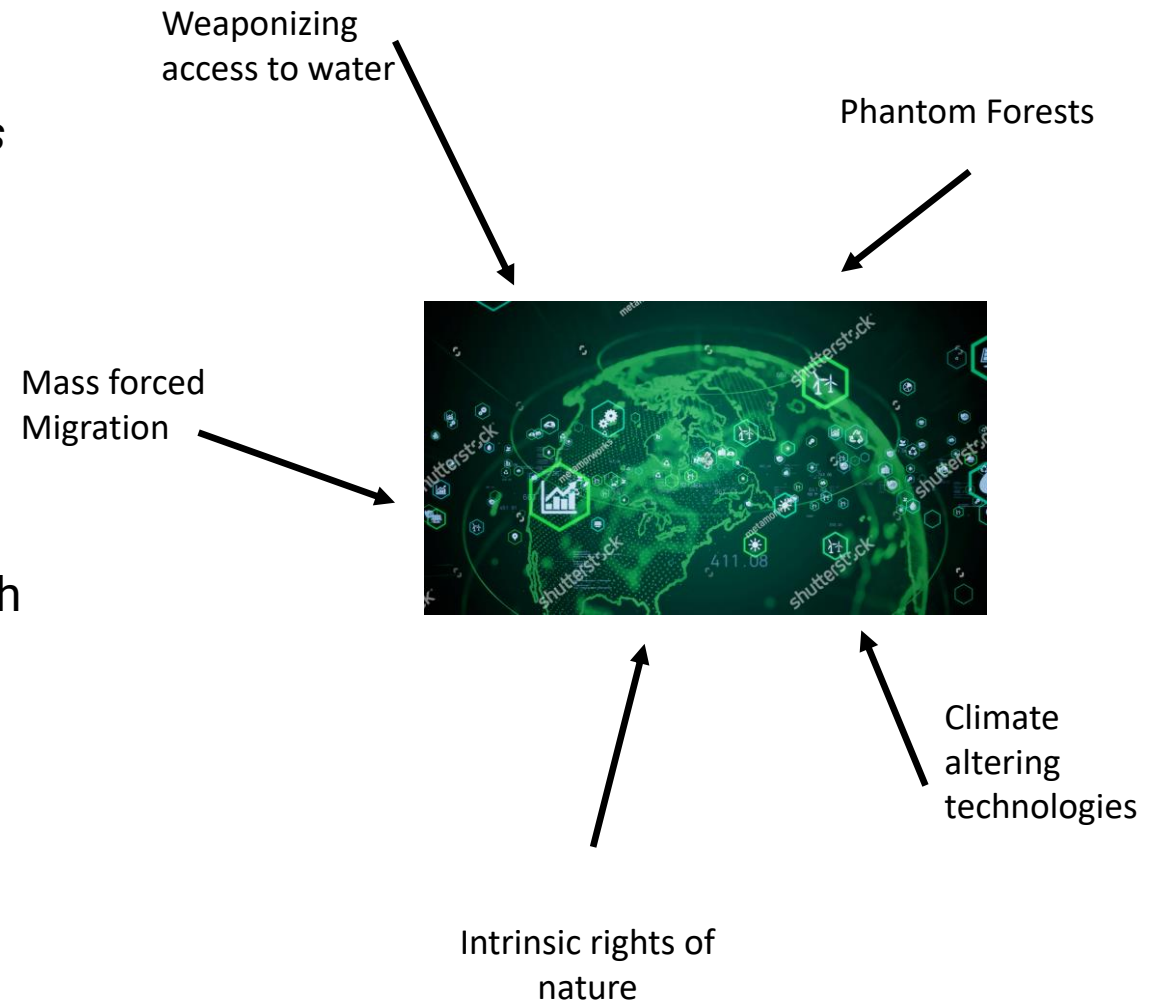
List for 2nd Delphi 'Signals of Change' - Prioritised from 280 to 20

1. Uninsurable future
2. Local, network-driven resilience
3. Autonomous and AI-enabled weaponization systems
4. Deployment of Solar Radiation Modification
5. Surging fossil fuels subsidies
6. Antimicrobial resistance: a global threat
7. Navigating AI-enabled technologies and human agency
8. Rapid expansion of space activity and orbital space debris
9. Privatized micro-environmentalism
10. An emerging unlearning and "exnovation" mindset
11. Philanthropy undermining democratic values
12. Increased exposure and unforeseen impact of toxic, hazardous chemicals and materials
13. Uninhabitable places
14. New emerging zoonotic diseases
15. Unintended consequences of nature-based solutions
16. Mental health crisis and existential threats
17. New health risks associated with thawing permafrost
18. New technologies amplifying risk of biological warfare
19. True costs of decisions increasingly detached from scientific evidence
20. Broadening support for major reforms to global finance systems

Current situation is leading to a cascading global **polycrisis** -the compound impact of multiple and overlapping crises is greater than the sum of each crisis individually.

Key Trends evident

- Mass forced displacement and migration
- A new era of conflict
- Declining trust in science and Institutions
- Navigating the Avalanche of AI and exponential tech
- Critical resources and scarcity
- Increasing inequality within and between countries
- Cascading shocks



Thank you!



www.unep.org/ocs/strategicforesightatunep

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Advancing methods



Evolution of the field of foresight

Existing tools and methods: **A literature review**

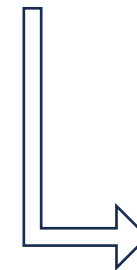
Essay 1. **Improving our capacity to map and integrate complexity and uncertainty in scenarios**

Essay 2. **Non-Western perspectives on the future**

Essay 3. **New frontiers in enhancing the impact of foresight on decision-making: How does foresight become action?**



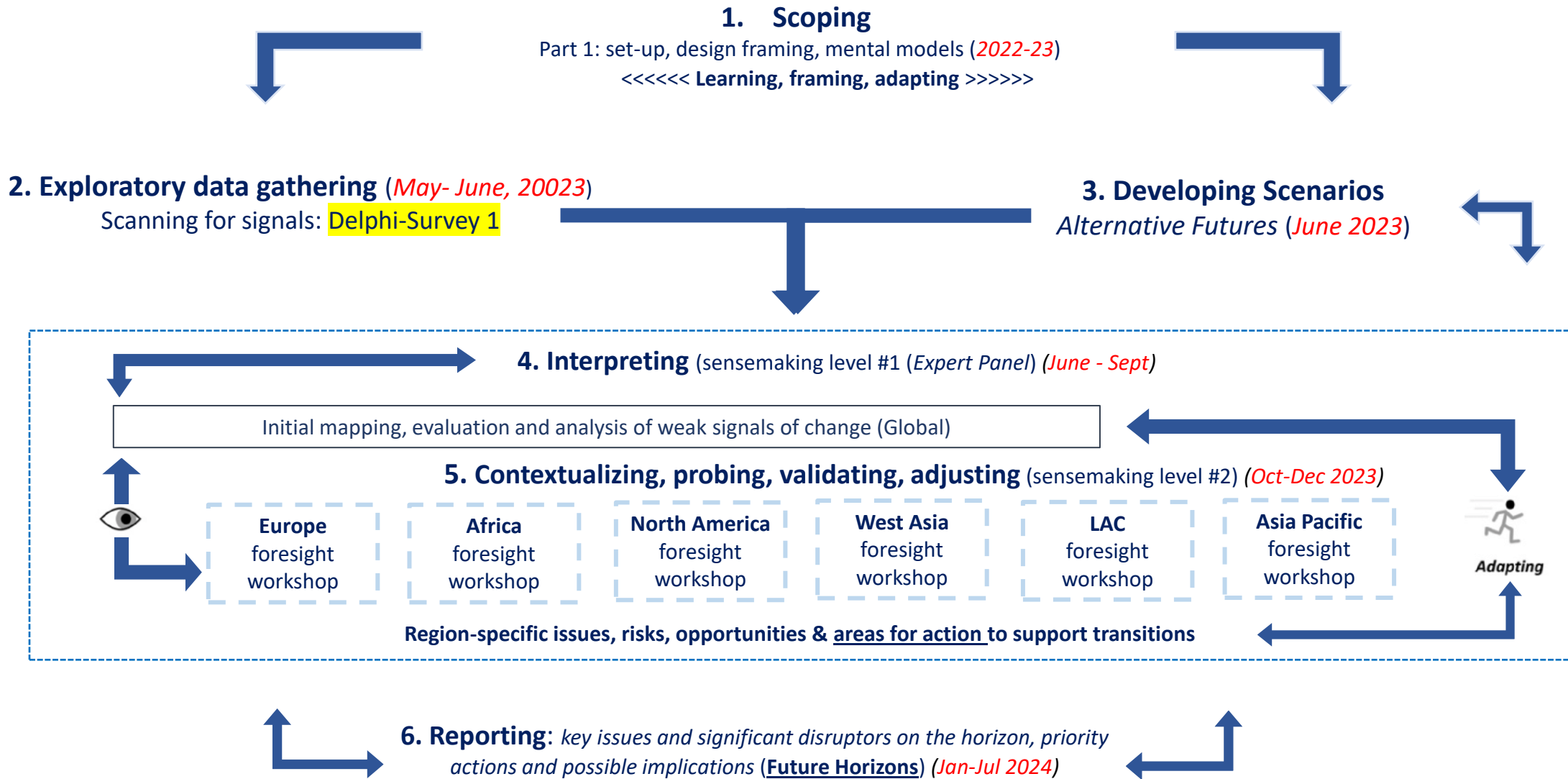
Methodological reflections from implementing a 'foresight trajectory' at UNEP



Future Conference 2024



The foresight process for UNEP



Scenario A: Sustainability Paradox



- **Market forces dominate** sociopolitical agendas.
- Further globalization, liberalization of trade flows and capitalization **concentrates wealth** of elites.
- Innovation in **artificial general intelligence** and technology speed ahead.
- Investments in **energy decarbonisation** surge.
- Technological innovations spread quickly.
- Nations compete for **scarce resources**: protectionism driving conflicts.
- Benefits of “green technologies” are offset by **mass consumption** / intensive resources use.
- **Worsening impacts** of climate change, pollution and biodiversity loss force **massive migrations**.

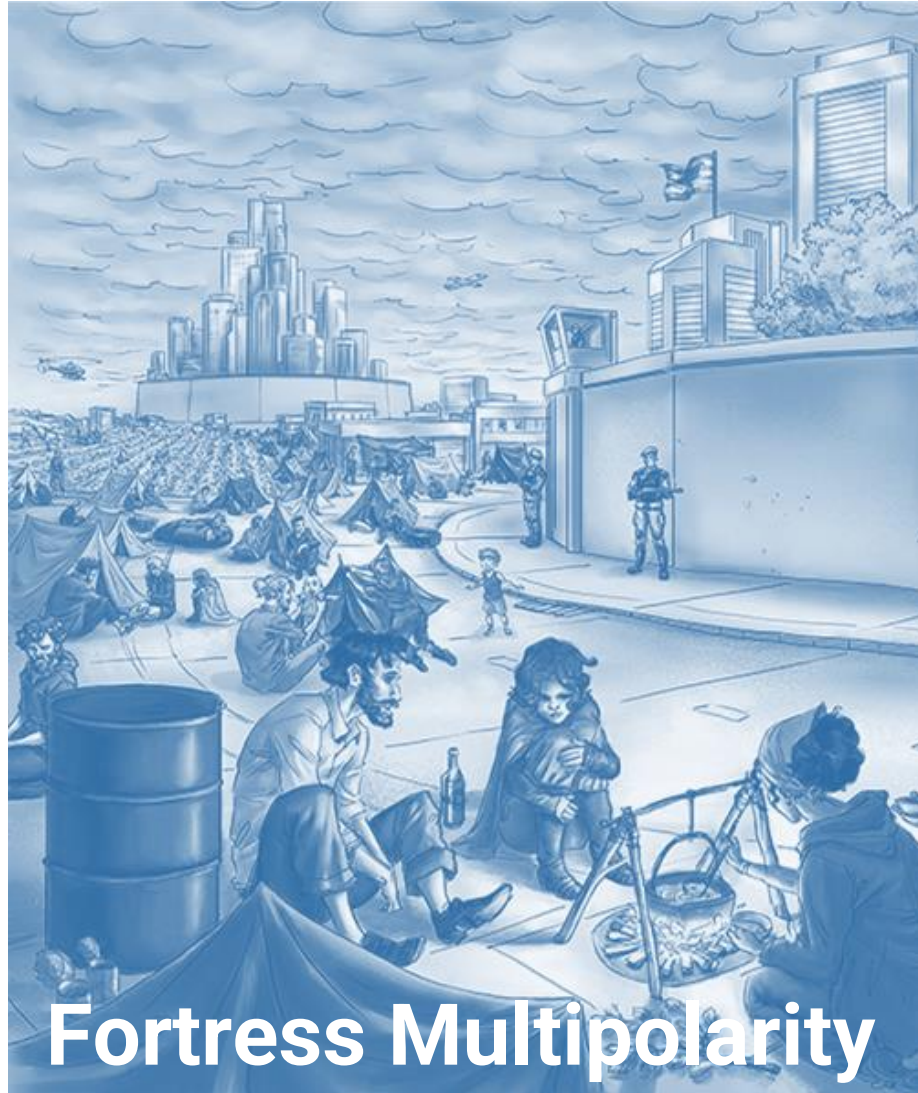
Scenario B: Post Truth Division



Post Truth Division

- The promise of **artificial intelligence** and technology **has failed** humanity.
- Societies fragment and localize further, each in their own bubble.
- **Trust in science is eroded** and, many different truths are propagated through self-organizing communities.
- Global environmental governance has collapsed.
- **Failed globalization** leads to **massive economic disruptions**.
- Communities forced to be self-sufficient: localised economies, barter, local currencies.
- **Planetary boundaries are breached**.
- Mass migration as people flee devastated areas.

Scenario C: Fortress Multipolarity



©greattransition

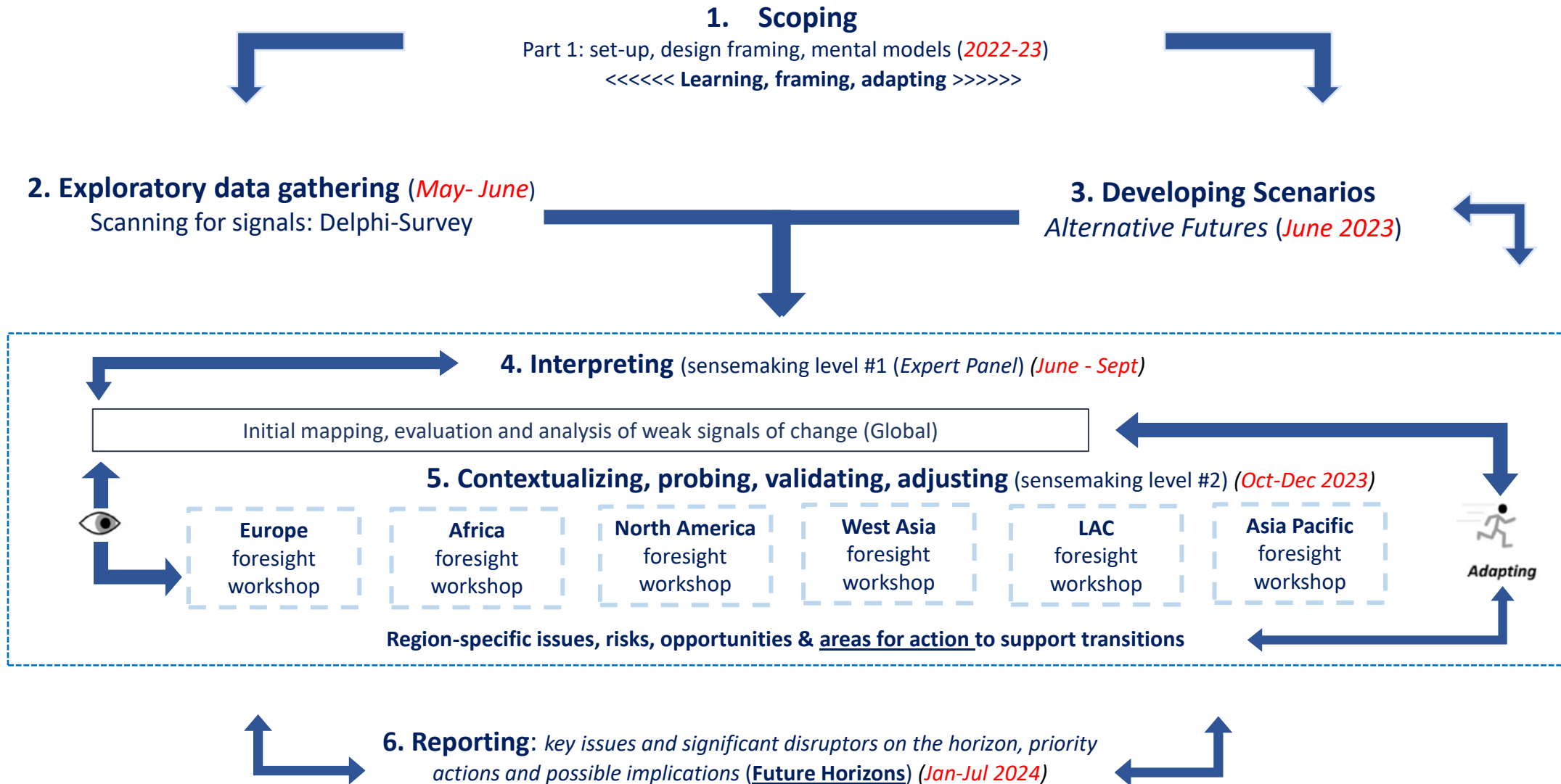
- A future shaped by **polycrisis**
- Authoritarian, **fortified enclaves** with **mega-cities**, security & surveillance.
- New, **regional governance systems** replace existing multilateral system.
- Authorities stifle creative thinking for **fear of uprisings and social unrest**.
- The boundaries between public and private sectors are blurred.
- Wealth in the hands of a few.
- **Information manipulated** to prevent conflicts, exert control.

Scenario D: Global Awakening

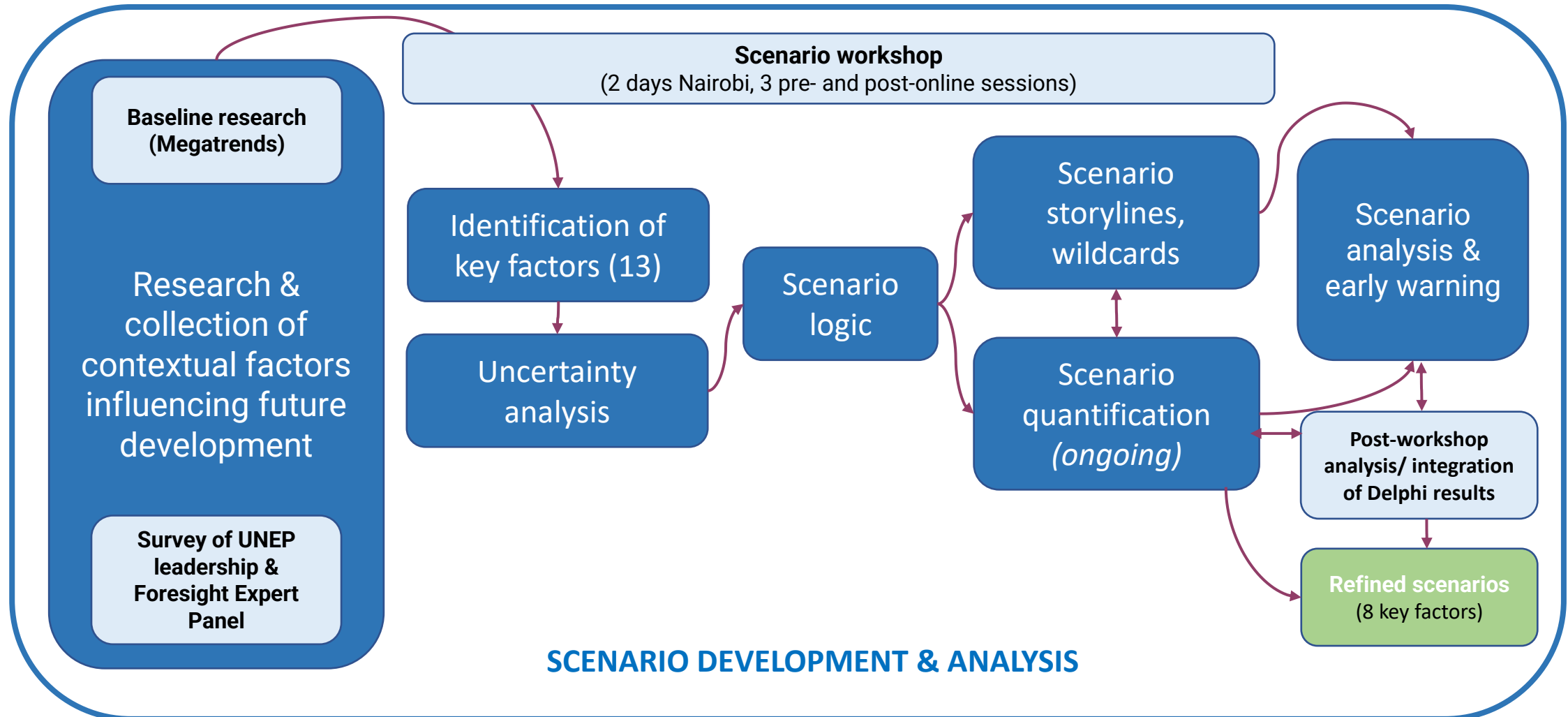


- New **awareness** of the **interconnectedness** of our actions and impact on the planet.
- New, **polycentric approach** to environmental governance.
- **AI-based technologies** help to radically reduce energy and resource use.
- **Beyond** (economic) **growth** policies.
- Unity with nature and **social justice** in society.
- Major shift away from consumption behaviour.
- Addressing needs of the most vulnerable.
- The world is moving back towards an **equilibrium of planetary health**.

The foresight process for UNEP



UNEP Scenarios development



Scenarios are used to explore disruptions and uncertainties using plausible stories

The structure for Regional Foresight Workshops was co-designed by UNEP's Office of the Chief Scientist and the European Commission Joint Research Centre (JRC) Foresight team in partnership with the International Science Council.

The process included 4 key exercises:

- 1. *Ice breaker Exercise:*** each participant was asked to share *one factor which, in their opinion, is affecting planetary health and/or human well being but is underestimated in public discussion.*
- 2. *Reviewing Scenarios:*** Participants were presented with the four UNEP scenarios and invited to consider how to contextualize each of the thematic areas for the region as well as to refine and validate the scenarios.
- 3. *Exploring Changes:*** a second discussion on exploring emerging changes under each of the four scenarios with the view to analyzing the potential for disruption of the state of the environment, planetary health and human well-being.
- 4. *Identifying Policy Interventions:*** Action oriented strategic reflection to identify how each of the main changes impact sustainable development in the region and to propose specific policy interventions that could be implemented to address changes that could negatively impact sustainable development.

