BUILIDNG CLIMATE AND ECONOMIC RESILIENCE

# STRATEGIC FORESIGHT FOR SUCCESSFUL NET-ZERO TRANSITIONS

## PROJECT OVERVIEW



OECD

# Strategic foresight for successful net-zero transitions

## OECD Horizontal Project on Building Climate and Economic Resilience
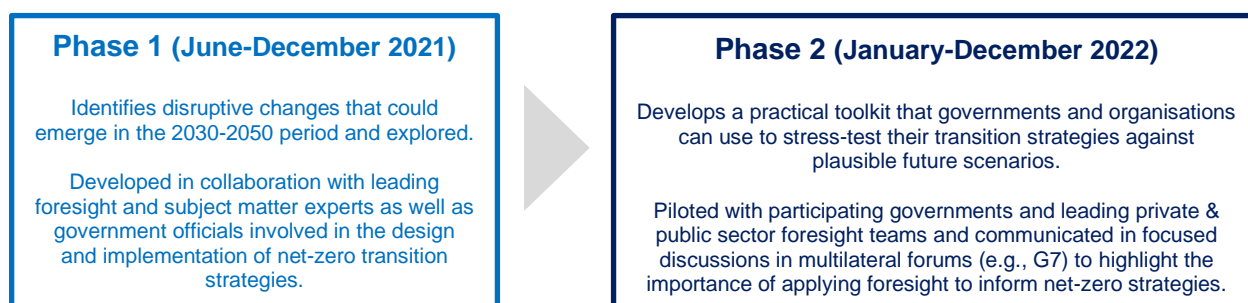
## OECD Strategic Foresight Unit

The Strategic Foresight Unit leads the adoption of futures thinking across the OECD, strengthening the ability of Directorates and Committees to provide Members with future-ready policy advice. The Strategic Foresight Unit is leading a collaborative strategic foresight project, Strategic Foresight for Successful Net-Zero Transitions, which forms part of a broader OECD Horizontal Project on Building Climate and Economic Resilience.

## Strategic foresight for net-zero transitions

Strategic Foresight for Successful Net-Zero Transitions is a collaborative foresight project that is designed to support global and national efforts to design future-ready net-zero transition strategies in a context of high uncertainty. The project aims to strengthen the effectiveness and efficiency of net-zero transition strategies by reducing the risk of costly misguided investments, counterproductive efforts or missed opportunities.

The ultimate aim of this project is to contribute to global success in transitioning to net-zero greenhouse gas emissions by mid-century while simultaneously improving resilience. This will depend on (i) the ability to design well-considered and future-ready transition strategies today, and (ii) a capacity to continually anticipate, prepare for, and adapt to change over the years and decades ahead. Thus, this project is as much about stress-testing transition strategies as it is about building momentum to strengthen the lasting foresight habits that governments will need to address the climate crisis and other global challenges.

### Figure 1. Project delivery phases

**Phase 1 (June-December 2021)**

Identifies disruptive changes that could emerge in the 2030-2050 period and explored.

Developed in collaboration with leading foresight and subject matter experts as well as government officials involved in the design and implementation of net-zero transition strategies.

**Phase 2 (January-December 2022)**

Develops a practical toolkit that governments and organisations can use to stress-test their transition strategies against plausible future scenarios.

Piloted with participating governments and leading private & public sector foresight teams and communicated in focused discussions in multilateral forums (e.g., G7) to highlight the importance of applying foresight to inform net-zero strategies.

This first phase of this project is the development of an initial summary of possible disruptions that could emerge in the 2030-2050 period and an exploration of what might be their most significant policy implications. These have been developed via a series of workshops with leading foresight and subject matter experts as well as government officials involved in the design and implementation of net-zero transition strategies (see Figure 1).

A second phase, due in late 2022, will revise and refine key disruptions and their policy implications. Phase two aims to develop and pilot a practical toolkit that governments and organisations can use to stress-test their transition strategies against a range of plausible future scenarios. The toolkit will include guidelines on how to strengthen foresight as part of an ongoing process of designing and implementing net-zero strategies that are based on the practical lessons learned from the pilots and development process.

The following are a preliminary list of 25 possible disruptions that may emerge in the 2030-2050 period. The disruptions are not predictions or prescriptions, but possibilities, typically representing one plausible extreme of a current key uncertainty about the future. These are intended to be used by decision makers

to broaden perspectives of decisions makers and highlight the policy implications that may arise as a result of future disruptions. The disruptions are intended to serve as building blocks and may be combined with each other and with locally specific changes to construct more complex and multidimensional scenarios for use in broadening thinking and stress-testing net-zero transition strategies. Full descriptions of these disruptions will be published in 2022.

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### Preliminary list of disruptions

*Social*

1. **Conspiracy chaos**: Conspiracy theories grow substantially in uptake, undermining democratic functioning

2. **Cruelty free society:** A major ethical shift in humanity's relationship to animals occurs, leading to large-scale shifts in food consumption, production, and land use.

3. **Indigenous reimagining**: Indigenous-led social movements change philosophical paradigms in several countries, including giving nature equal status to humans under law

4. **Green radicalisation**: disenchanted environmental activists undertake escalating disruptive actions globally, including targeted destruction of property and occasional violence

*Technology*

5. **AI Leap:** larger training datasets enable more rapid than expected advancement in artificial intelligence

6. **Bioeconomy breakthroughs**: advances in biotechnology alter scarcity dynamics, means of production and dependence on fossil fuels

7. **Cyberslowdown**: cyberattacks and other factors lead to a general distrust and rejection of technology

8. **Virtual worlds**: the metaverse goes mainstream and most people's waking lives now take place in virtual reality

*Green Technology*

9. **Transparent environment**: large volumes of environmental data from real-time sensors are made publicly available globally, enabling far reaching oversight

10. **Heavy transport and aviation breakthroughs**: faster than expected decarbonisation of trucking, shipping, and flight

11. **Captured Carbon**: carbon capture, use and storage technology advances faster than expected, changing carbon reduction dynamics

12. **Green tech failure**: technological progress on green tech disappoints, placing greater pressure on behaviour changes to address climate crisis

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*Environment*

13. **Hot house earth**: multiple cascading environmental tipping points are crossed, shifting the focus from climate mitigation to emergency adaptation

14. **Heat waves**: hundreds of millions of people experience deadly heatwaves on a nearly annual basis, making some regions uninhabitable

15. **Sea level rise**: runaway ice sheet collapse leads to significant sea-level rise and the displacement of millions of coastal and island residents

16. **Silent spring**: large-scale species loss and ecosystem collapse occurs

*Economy*

17. **Accelerated convergence**: the diffusion of technological infrastructure leads to global upskilling and significant leap frogging by low and middle-income countries, closing the gap in incomes with the developed world

18. **Artificial invisible hands**: digital technologies like AI and blockchain break down the advantages of large organisations and enable highly decentralized forms of governance and value chains

19. **Environmental-industrial complex**: the global economy becomes inseparably linked to green technology companies, which have become the world's largest

20. **Well-being economies**: development models focusing on psychological well-being supplant those based on material consumption while youth select life paths that prioritize fulfilment over personal profit

*Geopolitics*

21. **Authoritarian rising**: Popular anxiety at the state of the world, exacerbated by social media, sees authoritarians rise to power in multiple Western democracies

22. **Tech titans**: a small number of global technology companies function as one-stop shops for every aspect of life and play a central role in global governance

23. **Divided world**: US-China tensions accelerate dramatically and split the world into two separate digital and economic ecosystems which the rest of the world must choose one side of

24. **Multitrack world**: several parallel country clusters emerge each with their own digital, social, and economic ecosystems and a leading to a large-scale movement away from globalization

25. **Regional conflicts**: several regional conflicts flare up on multiple continents simultaneously in the 2020s and 2030s and require urgent global action to resolve