

Contribution to the Global Digital Compact

About Future Earth

Future Earth is a global network of scientists, researchers, and innovators collaborating for a more sustainable planet. Our mission is to advance research in support of transformations to global sustainability. Our vision is of a sustainable and equitable world for all, where societal decisions are informed by openly-accessible and shared knowledge.

Focus Area: Digital Sustainability

Process followed to collect, consult, and prepare input

This input reflects insights from:

- The Re-imagining Climate Governance in the Digital Age project, which was developed with input from expert consultations convened by Sustainability in the Digital Age, Future Earth, and ClimateWorks Foundation,
- The Coalition for Digital Environmental Sustainability's (CODES) Action Plan for a Sustainable Planet in the Digital Age, which was developed by United Nations Environment Programme, the United Nations Development Programme, the International Science Council, the German Environment Agency, the Kenya Ministry of Environment and Forestry, Future Earth, and Sustainability in the Digital Age, with input from over a 1,000 stakeholders,
- The Digital Disruptions for Sustainability Research, Innovation, and Action Agenda (the D²S Agenda), which was launched in 2020 with input from over 250 individuals around the world, and
- Future Earth - a global network of scientists, researchers, and innovators collaborating for a more sustainable planet.

Core principles that all governments, companies, civil society organisations and other stakeholders should adhere to

- Digital innovations such as unprecedented transparency, intelligent systems, mass collaboration, and mixed reality are rapidly transforming all aspects of society. These transformations present many opportunities to address environmental crises such as climate change, biodiversity loss, land degradation, food insecurity, pollution, planetary health, and more. However, there is a risk that issues around social inequalities, privacy concerns, poverty, and more, can be exacerbated if there is no effort to govern digital technologies in a safe and sustainable manner.



- Public and private institutions, academia, and civil society must work together to align regulations, policies, and actions within the digital space with those of sustainable development in order to leverage digital technologies in a safe, just, and inclusive manner to accelerate transformations towards the Sustainable Development Goals (SDGs).
- All actors must adopt agile governance mechanisms that foster co-learning and are built on inclusivity, trust, transparency, sharing of lessons learnt, and failing forward.
- Existing open data policies and working groups (e.g. Belmont Forum Open Data Policy and Principles; FAIR Guiding Principles for Scientific Data Management and Stewardship; CARE Principles for Indigenous Data Governance; Committee on Data of the International Science Council) should continue to guide governments, companies, civil society, and other stakeholders in their commitments to enhance the transparency and sharing of data.

Key commitments, pledges, or actions that different stakeholders – governments, private sector, civil society, and others can adopt to realize the above-mentioned principles

- Governments and funders must incentivize (for example through tax concessions, subsidies, risks, and costs reduction) the design and development of sustainable digital solutions that focus on tackling present environmental and social crises and meeting the SDGs.
- Funders and researchers must prioritize and accelerate research to further identify and quantify the direct and indirect environmental and social impacts of digital technologies. In particular, potential impacts on human health, land and coastal ecosystems, food systems, species biodiversity, global warming, inequality and poverty, education, and climate change mitigation and adaptation - including regional variances, must be explored.
- Scientific evidence, Indigenous knowledge systems, and other recognized forms of knowledge must inform the development of consistent standards for the environmentally and socially responsible use of digital tools. Standards should adopt the precautionary principle in the absence of such evidence.
- Governments should regularly enforce, update, and ensure compliance of evidence-based standards, laws, and policies that provide regulations and guidelines on the sustainable and ethical design, production, procurement, adoption, and use of digital technologies.
- Civil society and academia should pursue transdisciplinary research with the goal of co-producing guidelines and frameworks that promote best practices in the sustainable and inclusive design, development, and adoption of digital solutions towards environmental sustainability.
- Intermediaries must convene actors from digital innovation, finance, civil society, policy making, and sustainability and social scientific domains and create enabling conditions to help build trust, exchange knowledge, and experiment with digital solutions to make progress towards commonly identified environmental and societal goals.



- All actors should openly share lessons learnt across disciplines and sectors to help destigmatize failure and encourage failing forward.
- Digital innovators, private sector actors, and others must ensure that local actors are central in the design and implementation of digital solutions, to ensure inclusive access to benefits as well as ethical data ownership.

Other comments on the Global Digital Compact

Digital sustainability must be a central element in the Global Digital Compact (GDC). We urge Member states, the Office of the Secretary General's Envoy on Technology, and other key actors to ensure that digital sustainability, in particular environmental sustainability, is considered as a key requirement in the development of principles for an open, free, and secure digital future for all.

We call for a specific thematic session at the GDC discussions at the Summit of the Future dedicated to the environment – including in particular the interrelated issues of climate change and biodiversity conservation – to ensure that environmental sustainability remains an essential consideration in the GDP process. Farther down the line, including a dedicated chapter on environment in the Global Digital Compact itself and ensuring that there is scope for identifying specific action points related to environmental sustainability will also be important.

Useful resources

- Coalition for Digital Environmental Sustainability (CODES). 2022. Action Plan for a Sustainable Planet in the Digital Age. <https://doi.org/10.5281/zenodo.6573509>
- Luers, A., Garard, J., St. Clair, A. L., Gaffney, O., Hassenboehler, T., Langlois, L., . . . Luccioni, S. (2020). Leveraging digital disruptions for a climate-safe and Equitable World: The D²S Agenda: [Commentary]. IEEE Technology and Society Magazine, 39(2), 18-31. <https://ieeexplore.ieee.org/document/9123469>
- Sustainability in the Digital Age, Future Earth, and ClimateWorks Foundation. 2022. Dynamic Philanthropy – A Framework for Supporting Transformative Climate Governance in the Digital Age. <https://doi.org/10.5281/zenodo.5764443>

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In collaboration with:

