

Joint Statement Endorsing Principles for 6G: SECURE, OPEN & RESILIENT BY DESIGN

The Governments of the United States, Australia, Canada, the Czech Republic, Finland, France, Japan, the Republic of Korea, Sweden, and the United Kingdom concur on these shared principles for the research and development of 6G wireless communication systems; and recognize that by working together we can support open, free, global, interoperable, reliable, resilient, and secure connectivity. We believe this to be an indispensable contribution towards building a more inclusive, sustainable, secure, and peaceful future for all, and call upon other governments, organizations, and stakeholders to join us in supporting and upholding these principles. Collaboration and unity are key to resolving pressing challenges in the development of 6G, and we hereby declare our intention to adopt relevant policies to this end in our countries, to encourage the adoption of such policies in third countries, and to advance research and development and standardization of 6G networks that fulfill the following shared principles:

1. Trusted Technology and Protective of National Security

- 6G technologies that are supported by secure and resilient technology as part of a wider secure trusted communications ecosystem, facilitating the ability of participating governments and partners to protect national security.

2. Secure, Resilient, and Protective of Privacy

- 6G technologies developed by organizations that have systematic approaches to cybersecurity, including through the use of technical standards, interfaces, and specifications; approaches such as security-by-design, able to ensure the availability of essential services; and systems designed to fail safely and recover quickly.
- 6G technologies that are reliable, resilient, safe, and protect the privacy of individuals.
- 6G technologies and architectures that provide a high level of security on communication networks, including by mitigating potential risks posed by greater network complexity or larger attack surfaces.

3. Global Industry-led and Inclusive Standard Setting & International Collaborations

- 6G technologies that are built on global standards, interfaces, and specifications that are developed through open, transparent, impartial and consensus-based decision-making processes.
- 6G technologies that are built on global standards that respect intellectual property rights, that promote sustainability, accessibility, inclusive participation, interoperability, competitiveness, openness, and security.

4. Cooperation to Enable Open and Interoperable Innovation

- 6G technologies that use standards in line with principles laid down under the Global Industry-led and Inclusive Standard Setting & International Collaborations principle and interfaces to enable seamless interoperability between products from different suppliers, including software and hardware.

- 6G technologies that recognize the importance of international cooperation in promoting open, secure, resilient, inclusive, interoperable networks, such as Open Radio Access Networks, and safe, resilient, inclusive, and sustainable 6G ecosystem.
- 6G technologies that benefit from joint research, development and testing, and which leverage innovative technologies such as virtualization, software-defined networking, artificial intelligence.

5. Affordability, Sustainability, and Global Connectivity

- 6G technologies that allow for energy-efficient deployments and operation, improving both environmental sustainability, reparability and recyclability of equipment, and the affordability necessary to support social sustainability.
- 6G technologies that are accessible through mechanisms such as economies of scale, enabled by standardization and competitive environment, and able to bridge digital divides, delivering reliable coverage and consistent quality of experience, minimizing disparity in service levels wherever possible while allowing for innovative use cases.
- 6G technologies that contribute towards empowering other industries and sectors to reduce their environmental impacts by promoting digital transformation.
- 6G technologies that are widely available and accessible to developing nations.
- 6G technologies that leverage non-terrestrial networks (NTN) such as satellite and High-Altitude Platform Station (HAPS).

6. Spectrum and Manufacturing

- 6G technologies that have secure and resilient supply chains.
- 6G technologies that promote a globally competitive market along the ICT value chain and in all elements of the compute and connectivity continuum, with multiple software and hardware suppliers.
- 6G technologies that could make use of new spectrum allocations or spectrum that has already been allocated for wireless services.
- 6G technologies that use spectrum efficiently and incorporate spectrum sharing mechanisms by design to coexist with incumbent service providers.