

Quad Principles on Critical and Emerging Technology Standards

At the Quad Leaders' Summit on 24 September 2021, the Quad countries (Australia, India, Japan and the United States of America) launched the [Quad Principles on Technology Design, Development, Governance and Use](#). We recognized and affirmed the importance of industry-led¹, consensus-based multi-stakeholder approaches to international standards development that foster interoperability, compatibility, and inclusiveness. We affirmed that critical and emerging technologies should be shaped by our shared democratic values and respect for universal human rights, and we underscored our commitment to fostering an open, accessible and secure technology ecosystem, based on mutual trust and confidence.

In recognition of the importance of technology standards for meeting these shared objectives, we release these *Principles on Critical and Emerging Technology Standards*. Technology standards should foster the development of critical and emerging technologies that make the lives of our citizens more secure, prosperous and rewarding. They should promote interoperability, innovation, trust, transparency, diverse markets, security-by-design, compatibility, inclusiveness and free and fair market competition. We are committed to supporting industry-led, consensus-based multi-stakeholder approaches to the development of technology standards, and we recognise the importance of procedures that ensure trust, transparency, openness, impartiality and consensus.

We affirm our support for the following principles:

Support industry led, consensus-based multi-stakeholder approaches.

- We recognise the role of the industry at the forefront of developing standards for critical and emerging technologies and seek to actively encourage their participation. Critical and emerging technologies are strengthened by industry and private sector research and development: technology standards should reflect that experience and expertise.
- The multi-stakeholder model of standards development encourages technology standards that take into account the views of all parties concerned. Technology standards should be developed with a view to reaching consensus amongst these affected parties, including governments, industry and citizens.
- To aid this model, forums developing technology standards should be open and accessible, transparent, and include the appropriate technical expertise. In this regard, we support inclusiveness and encourage the development of programs to reduce barriers to participation of relevant parties in standards development activities.
- We affirm our support for the development and adoption of international standards for technology in line with the WTO Agreement on Technical Barriers to Trade (TBT) [Committee Decision on Principles for the Development of International Standards](#), as well as the [TBT Code of Good Practice for the Preparation, Adoption and Application of Standards](#).

Support technology standards that promote interoperability, competition, inclusiveness and innovation.

- We welcome a vibrant technology ecosystem with healthy competition and a diversity of participation.
- Technology standards should champion openness and interoperability, fostering competitive markets and encouraging innovation.

¹ Which includes: the private sector, academia, non-governmental organizations, civil society, and standards developing organizations.

- We advocate for a transparent approach to technology standards development and encourage that technology standards development organisations coordinate their efforts to ensure that work on international technology standards does not diverge, overlap or result in duplication.
- We affirm our support for inclusive practices such as the use of diverse and inclusive data sets in the field of artificial intelligence, to encourage the development of technology standards that take into account diverse views and voices.

Foster technology standards that support safety, security and resilience.

- Technology standards shape the design, development and use of technologies that underpin our economies and societies.
- Technologies developed without proper security safeguards create vulnerabilities that can cause cascading consequences across our societies.
- Technology standards should be set in such a way that technology is not misused or abused and should not facilitate or encourage activities that harm end users.
- Technology standards, including voluntary ones, should not be used for the purpose of any forms of forced technology transfer.
- Furthering trustworthy characteristics such as security and safety in the products that underpin our economies can be supported through the development process of technology standards. For example, furthering cybersecurity priorities in the development of technology standards can uplift the resilience of technology against future cybersecurity risks and protect end users from potential threats and vulnerabilities.
- We affirm that technology standards should prioritise trustworthy characteristics including managing unwanted bias, security-by-design, privacy and safety into the development of critical and emerging technologies.

We commend these voluntary principles to assist government and organisations, including standards development organisations, to consider and follow them during the development of standards for critical and emerging technology. We welcome all other nations to join us in pursuit of this shared vision for the development of technology standards, guided by these principles.