

ETSI proposal for a contribution to GSR-25

The future of standardisation in regulation within the context of advancing digital transitions at European and international levels.

The world – and the European Single Market - is experiencing the biggest shifts happening in global economy and technological landscape. Cybersecurity, Quantum Computing, secure connectivity, digital governance (platforms, data), Artificial Intelligence (AI) and dual-use technologies supporting the defence sector, form the “digital nervous system” of the new economy and new mass market being fast, smart, resilient, secure, and scalable.

European standards and technical specifications for Artificial Intelligence, Quantum Technologies, Cybersecurity, and other digital technologies are often deals with digital products that will play a vital role in enhancing the decision-making process, compliance monitoring, and regulatory ability.

Regulators can benefit from enhanced decision-making process and compliance monitoring by using standards. The regulators can leverage on standards, namely:

- Standards provide clear definitions, metrics, and methodologies that regulators can use to assess technologies consistently.
- AI and cybersecurity standards include risk classification frameworks, helping regulators identify high-risk applications or systems.
- Interoperability: Standards ensure that data from multiple sources (e.g., IoT sensors, AI models) can be seamlessly integrated. This allows regulators to gain a holistic view of the ecosystem they monitor.
- Standards ensure systems are interoperable and expose relevant internal metrics or controls, improving regulatory visibility. This is particularly important in areas like AI model transparency or quantum communication protocols.
- Standard-based certification schemes (e.g., ISO/IEC, ETSI) allow regulators to rely on third-party assessments of compliance, reducing regulatory burden while maintaining oversight.
- Standards reflect best practices and global consensus, helping regulators stay informed in fast-evolving technological landscapes. This reduces reliance on ad hoc or outdated decision-making models.
- Globally applicable digital standards and technical specifications facilitate cross-border regulatory cooperation, reducing fragmentation and enabling joint enforcement actions or mutual recognition agreements.
- Standards support the design of regulatory sandboxes with predefined technical and ethical requirements, allowing regulators to experiment and refine regulations before full-scale implementation.
- With clear standards, regulators can shift from reactive to proactive governance—anticipating issues and setting thresholds for acceptable performance or risk.

Acting both as a European Standardisation Organisation (ESO) and a globally recognised Standards Development Organisation (SDO) at the heart of digital standardisation, ETSI bridges European and international efforts, and help align European interests with global initiatives.

ETSI would be pleased to present the latest developments at European levels and its activities – especially those developed with a strong international dimension in strategic digital areas like cybersecurity, digital identities, quantum technology and data exchange, which are better suited to promoting innovation and competitiveness and global technological deployment.

ETSI would remind the instrumental benefit of its longstanding cooperation with the ITU as the leading UN Agency and intergovernmental body with significant influence at both political and regulatory levels in Europe and around the world.

ETSI's key activities and strategic focus:

■ Quantum Technologies:

- Standards in quantum cryptography (e.g., ETSI QKD) ensure safe implementation, enabling early regulatory alignment with emerging threats and solutions.

■ Cybersecurity:

- Cybersecurity standards guide enforcement of technical controls and incident response strategies.

■ Digital Identity and Data Governance:

- Standards support verifiability and trust in digital transactions.

Standards are critical enablers for regulators, offering a structured, interoperable, and evidence-based framework for overseeing complex and evolving technologies. They serve as a common language between stakeholders, bridging the gap between innovation and governance, and significantly enhancing regulators' ability to make informed decisions, monitor compliance efficiently, and enforce rules consistently.