



Quantum computing and technical standardization



- National level -



ILNAS/NSC 03 – Quantum technologies

Scope	NSC 03 is a national standardization commission that offers Luxembourgish market players a unique platform to follow and participate in standardization work in the field of quantum technologies. Through the Commission, national organizations are able to access and participate in the work of IEC/ISO JTC 3 and CEN/CLC/JTC 22.	
Committee information	National delegates	14

- European level -



CEN/CLC/JTC 22 – Quantum technologies

Scope	The JTC shall produce standardization deliverables in the field of quantum technologies. This field includes quantum enabling technologies, quantum sub-systems, quantum platforms & systems, quantum composite systems and applications. The standardization deliverables cover but are not limited to the following areas: quantum metrology, sensing and enhanced imaging; quantum computing and simulation; quantum communication and quantum cryptography. The JTC will provide guidance to other technical committees concerned with quantum technologies. The JTC shall also consider the adoption of and contribution to relevant international standards and standards from other organizations, like ISO/IEC JTC 1 and its subcommittees. The JTC shall produce standardization deliverables to address European market and societal needs, as well as underpinning EU legislation, policies, principles, and values.	
Committee information	Published standards	4
	Standards under development	18

Major “CEN/CLC/JTC 22 ” standards

Published standards	<u>CEN/CLC/TR 18202:2025</u>	Layer model of Quantum Computing
	<u>EAS 18433:2026</u>	Quantum Computing - High-Level Programming Language
	<u>EAS 18435-1:2026</u>	Quantum Computing - Hardware Abstraction Layer - Part 1: Descriptions and functional requirements
Standards under development	<u>prEN 18470</u>	Quantum technologies – quantum computing - Hybridization of High-Performance Computing and Quantum Computing
	<u>prCEN/CLC/TS 18438-1</u>	Cryogenic Solid-State Quantum Computing; Part 1: Descriptions and functional requirements of modules
	<u>prCEN/CLC/TR 18437</u>	Performance benchmarks of quantum computing applications
	<u>prEN XXX</u>	Characterization methods for ion traps used in quantum computing and sensing

- International level -



IEC/ISO JTC 3 – Quantum technologies

Scope	Standardization in the field of quantum technologies. The scope includes standardization in the field of quantum technologies, including quantum information technologies (quantum computing and quantum simulation), quantum metrology, quantum sources, quantum detectors, quantum communications, and fundamental quantum technologies.	
Committee information	Published standards	1
	Standards under development	14

Major “IEC/ISO JTC 3” standards

Published standards	<u>ISO/IEC 4879:2024</u>	Information technology — Quantum computing — Vocabulary
Standards under development	<u>PWI TR JTC3-5</u>	Quantum technologies – Quantum computing – Technical requirement and testing method of control and measurement system
	<u>IEC/ISO TR 18157 ED1</u>	Information technology — Introduction to quantum computing
	<u>IEC/ISO TS 63687 ED1</u>	Quantum technologies - Cross-cutting and enabling devices and technologies: Hanbury-Brown-Twiss interferometry for the characterization of photonic quantum sources
	<u>IEC/ISO 63712 ED1</u>	Quantum technologies – Quantum computing – Hardware benchmarking