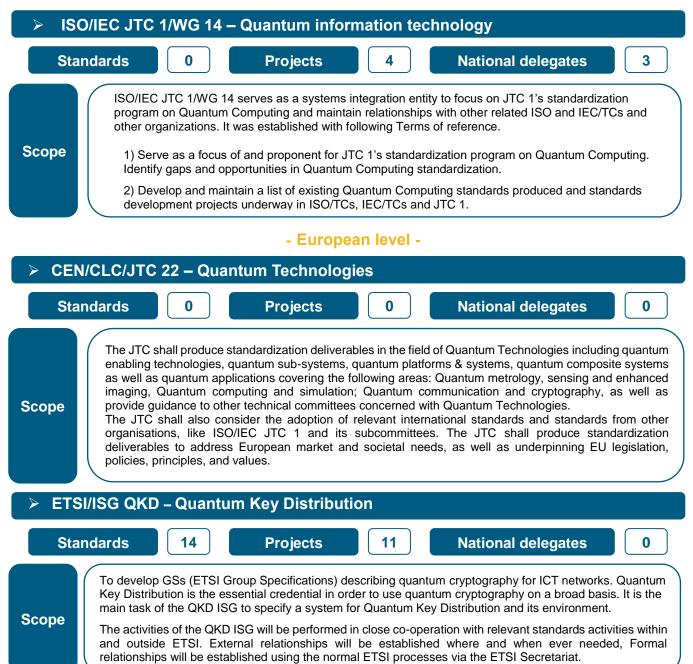
QUANTUM INFORMATION TECHNOLOGY

Quantum information technology is a rapidly growing field that leverages the principles of quantum mechanics to process, store, and transmit information. This interdisciplinary field gather experts from various disciplines, including physics, computer science, mathematics, and engineering, to develop new technologies that exploit the unique properties of quantum systems. Quantum information technology encompasses several subfields, such as quantum computing, quantum key distribution, quantum cryptography, and quantum communication, all of which have significant potential for solving some of the most challenging problems in science and technology. Although still in the early stages of development, quantum information technology is already showing promising results in various application domains. In this context, many standards organizations have initiated the work in this field to contribute to the development of this technology.



MAIN TECHNICAL COMMITTEES ON QUANTUM TECHNOLOGY STANDARDIZATION

- International level -



MAIN PUBLISHED STANDARDS ON QUANTUM TECHNOLOGY

ETSI/ISG QKD Quantum Key Distribution	
ETSI GS QKD 018 V1.1.1 (2022-04)	Quantum Key Distribution (QKD); Orchestration Interface for Software Defined Networks
ETSI GS QKD 015 V2.1.1 (2022-04)	Quantum Key Distribution (QKD); Control Interface for Software Defined Networks
ETSI GS QKD 015 V1.1.1 (2021-03)	Quantum Key Distribution (QKD); Control Interface for Software Defined Networks
ETSI GS QKD 014 V1.1.1 (2019-02)	Quantum Key Distribution (QKD); Protocol and data format of REST-based key delivery API
ETSI GS QKD 012 V1.1.1 (2019-02)	Quantum Key Distribution (QKD); Device and Communication Channel Parameters for QKD Deployment
ETSI GS QKD 011 V1.1.1 (2016-05)	Quantum Key Distribution (QKD); Component characterization: characterizing optical components for QKD systems

MAIN ONGOING PROJECTS ON QUANTUM TECHNOLOGY

ISO/IEC JTC 1/ WG 14		
ISO/IEC DIS 4879	Quantum computing — Terminology and vocabulary	
ISO/IEC TR 18157	Information technology — Introduction to quantum computing	
ISO/IEC PWI 18670	Information technology — General requirements for quantum resource simulation platform	
ISO/IEC PWI 18660	Information technology — Quantum machine learning datasets	
ETSI/ISG QKD Quantum Key Distribution		
ETSI GS QKD 005	Quantum Key Distribution; Protocols and Security Proofs	
ETSI GS QKD 010	Quantum Key Distribution (QKD) Implementation security: protection against Trojan horse attacks in one-way QKD systems	
ETSI GS QKD 013	Quantum Key Distribution (QKD) Characterisation of Optical Output of QKD transmitter modules	
ETSI GS QKD 015	Quantum Key Distribution (QKD) Control Interface of Software Defined Networks	
ETSI GS QKD 016	Quantum Key Distribution (QKD); Common Criteria Protection Profile - Pair of Prepare and Measure Quantum Key Distribution Modules	
ETSI GS QKD 017	Quantum Key Distribution (QKD); Network architectures	
ETSI GS QKD 020	Quantum Key Distribution (QKD); Protocol and data format of REST-based Interoperable Key Management System API	
ETSI GS QKD 021	Quantum Key Distribution (QKD); Orchestration Interface of Software Defined Networks for Interoperable key management system	

