



# Security Conference

## Security Standardization in ETSI – Overview

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# Bringing people together at ETSI ...



ETSI is an Independent, non-profit organization

More than 900 member organizations worldwide

Drawn from over 60 countries and on five continents

30+ years track record of technical excellence in the ICT sector

Strong community of experts and innovators

Diverse community: SMEs, micro-enterprises, large companies, research entities, academia, government and public bodies, societal stakeholders

Large and small member organizations



## ... in TC CYBER...



### Technical Committee on Cybersecurity (TC CYBER)

- ETSI's Centre of Excellence for Cyber Security created in 2014
- Works on a range of problems – from device security to privacy, to network security, to cybersecurity tools and guides, with a Working Group on quantum-safe cryptography
- Works on both industry security challenges and security policies and legislation to address global cyber security problems



## ... and in many other groups...



<b>3GPP SA3</b>	Security of mobile networks
<b>ISG NFV</b>	Securing network function virtualization
<b>TC ITS</b>	Intelligent Transport Systems
<b>ISG ETI</b>	Encrypted Traffic Integration
<b>TC SAI</b>	Securing Artificial Intelligence
<b>TC ESI</b>	Digital signatures and trust services
<b>TC SET</b>	Smart cards and secure elements
<b>ISG QKD</b>	Quantum key distribution
<b>TC LI</b>	Lawful interception and retained data
<b>ISG PDL</b>	Permissioned Distributed Ledgers

# ... to work collectively...



Openly

Transparently

Based on Consensus



**Collective work**

- ETSI standards are the result of the work of and reviews from many different ETSI members

## ... using a wholistic approach...



Threat Analysis / Risk Assessment



Definition of security requirements



Test/assessment specification

# ... and collaborating with others (1)



Radio Equipment Directive  
Cybersecurity Act  
NIS Directive  
GDPR  
eIDAS  
Cyber Resilience Act



CEN/CLC/JTC 13  
CLC/TC 65x



Generic cybersecurity matters  
eIDAS  
Certification scheme (e.g. 5G)  
Security of AI



ISO/IEC JTC 1 SC 27

# ... and collaborating with others (2)





# .. to develop world class standards for ...



## CROSS-DOMAIN CYBERSECURITY (TC CYBER)

- Cybersecurity ecosystem
- Protection of personal data & communications
- Consumer IoT security and privacy
- Security of critical infrastructures
- Enterprise and individual cybersecurity
- Forensics
- Cybersecurity tools and guides

## SECURING TECHNOLOGIES & SYSTEMS

- Mobile / wireless systems (5G, TETRA, DECT, RRS, RFID...)
- Network functions virtualization
- Intelligent Transports Systems
- Broadcasting
- Artificial Intelligence
- IoT (oneM2M)



## EVOLVING SECURITY TOOLS & TECHNIQUES

- Lawful interception & retained data
- Digital signatures & trust services
- Permissioned distributed ledgers
- Smart cards / secure elements
- Security algorithms
- Quantum key distribution
- Quantum-safe cryptography
- Encrypted Traffic Integration

# ... and in ETSI TC CYBER Key areas of Work



Cybersecurity ecosystem



Consumer IoT and Mobile Security and Privacy



Protection of personal data and communication



Network Security



Cybersecurity for Critical Infrastructures



Enterprise/organization and individual cybersecurity



Forensic activities



Cybersecurity tools



Direct support to EU legislation



Quantum-Safe Cryptography

# Addressing new technologies



## Quantum technologies

- Quantum Key Distribution
- Quantum-safe cryptography

## Artificial Intelligence

- Securing AI from attacks
- Mitigating against AI
- Using AI to enhance security measures against attack from other things

...



# Supporting new policies and legislation



Cybersecurity Act 5G scheme

Proposed revised Directive on Security of Network and Information Systems (NIS 2)

Proposed AI Act

Proposed Regulation on a framework for a European Digital Identity (eIDAS 2)

Proposed Cyber Resilience Act



# Any further questions?

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