



Telecommunications  
Standards Development  
Society, India

# TECH DEEP DIVE

TTDD 2025 CONFERENCE (8<sup>th</sup> EDITION)

## STANDARDISING 6G:

ARCHITECTING INTELLIGENT, SECURE AND SUSTAINABLE NETWORKS & SERVICES

 **Date:** 15-18 July 2025

Media Partner

COMMUNICATIONS TODAY

**Workshop on  
New Network & Services ecosystems for 6G: Services Aspects  
18 July 2025**



**ETSI, Innovation in Standards for a Digital World**

*by*

**David Boswarthick, ETSI Director of Strategy and Innovation**



**Gold Partner**

# The ICT World is changing...



Software

Micro  
Services

Artificial  
Intelligence

Open  
Source

Edge /  
Cloud

Quantum  
Tech.

Cyber  
Security

Open  
APIs

Cloud  
Native

# ... and ETSI is evolving to lead the change



- Technology Radar, tracking 'disruptive' Technology Evolutions
- Interactions with ETSI members and non-members on their future plans
- Dialogue with EC Policy Makers, providing the right standards for Europe
- Interactions with partner regions on strategic roadmaps and collaborations
- Modernizing ETSI to be a future-proof Standards Body, fit for 2030 and beyond



# ETSI Overview



## At the heart of Digital

5G/6G, IoT, Cybersecurity, Network virtualisation, Artificial Intelligence, Quantum, Radio... and many more emerging technologies

## Designing tomorrow's world

Leading the development of ICT standards that enable a sustainable and securely connected society

## Over 900 members

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

## Over 35 years

Track record of technical excellence in the ICT sector

## European roots

ETSI is a European Standards Organization (ESO) officially recognized by the EU

## Independent & Inclusive

ETSI operates independently, ensuring neutrality and trustworthiness, and is committed to driving inclusion in global standards

## Global Partnerships

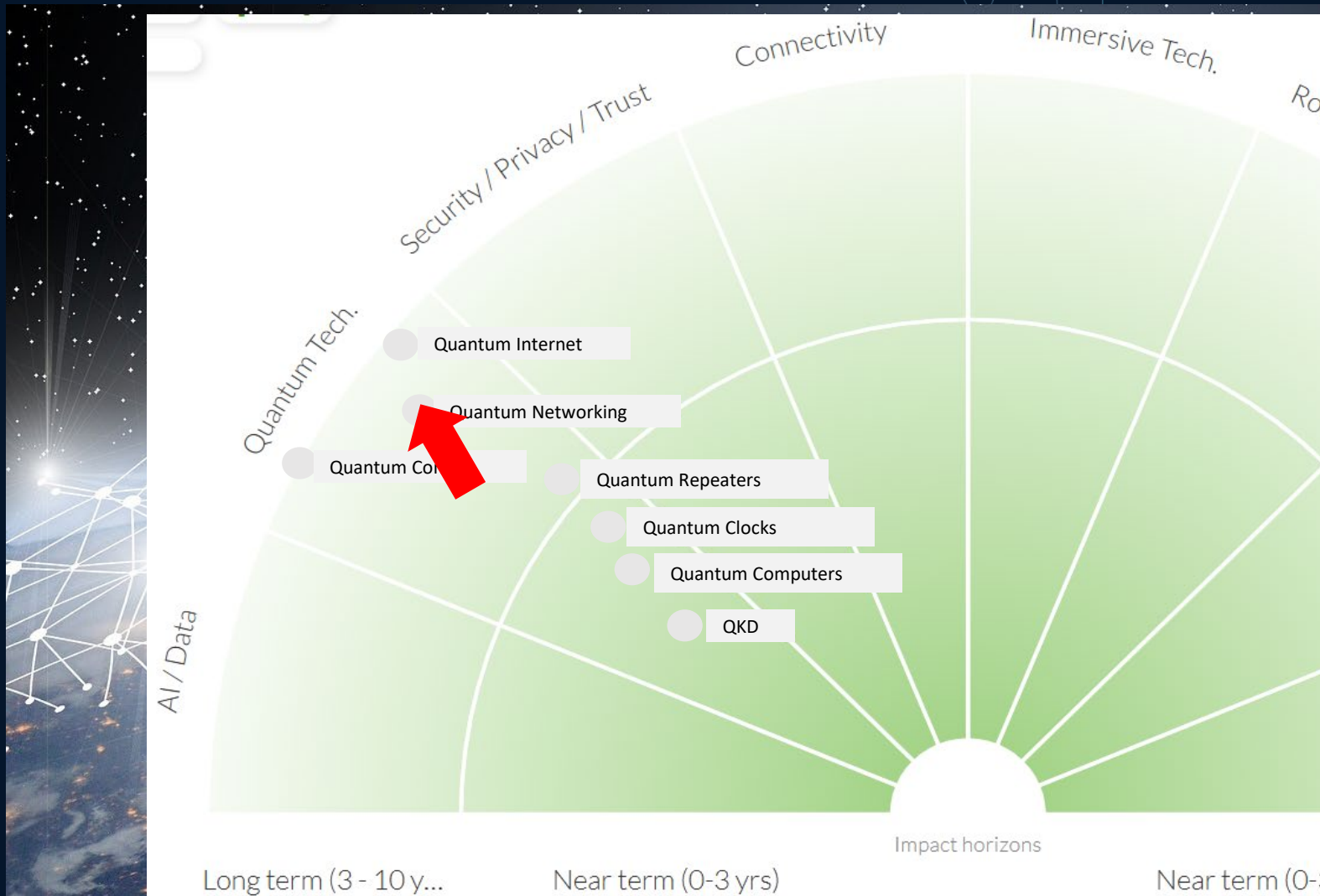
More than 100 strategic partnership agreements, ETSI is a founding partner of 3GPP & oneM2M

## Global reach

ETSI standards are used globally, more than 60 000 standards currently published overall with more than 20 million downloads yearly.



# ETSI Technology Radar – Provides Insights



Trend Public Jun 26th 2024 1 year ago

## [ETR] Quantum Networking

B I H1 H2 H3 H4 H5 H6 H7 H8 H9 H10

Quantum networks are going to change the world. Just like the internet led to a revolution in computing and society more broadly, experts expect the quantum internet to have a profound impact on how we live our lives. Countries around the world are already [racing to lead the pack](#) in the emerging field. Despite all this excitement around quantum networking technology, few know what it all actually means. So, what is a quantum network and how does it work?

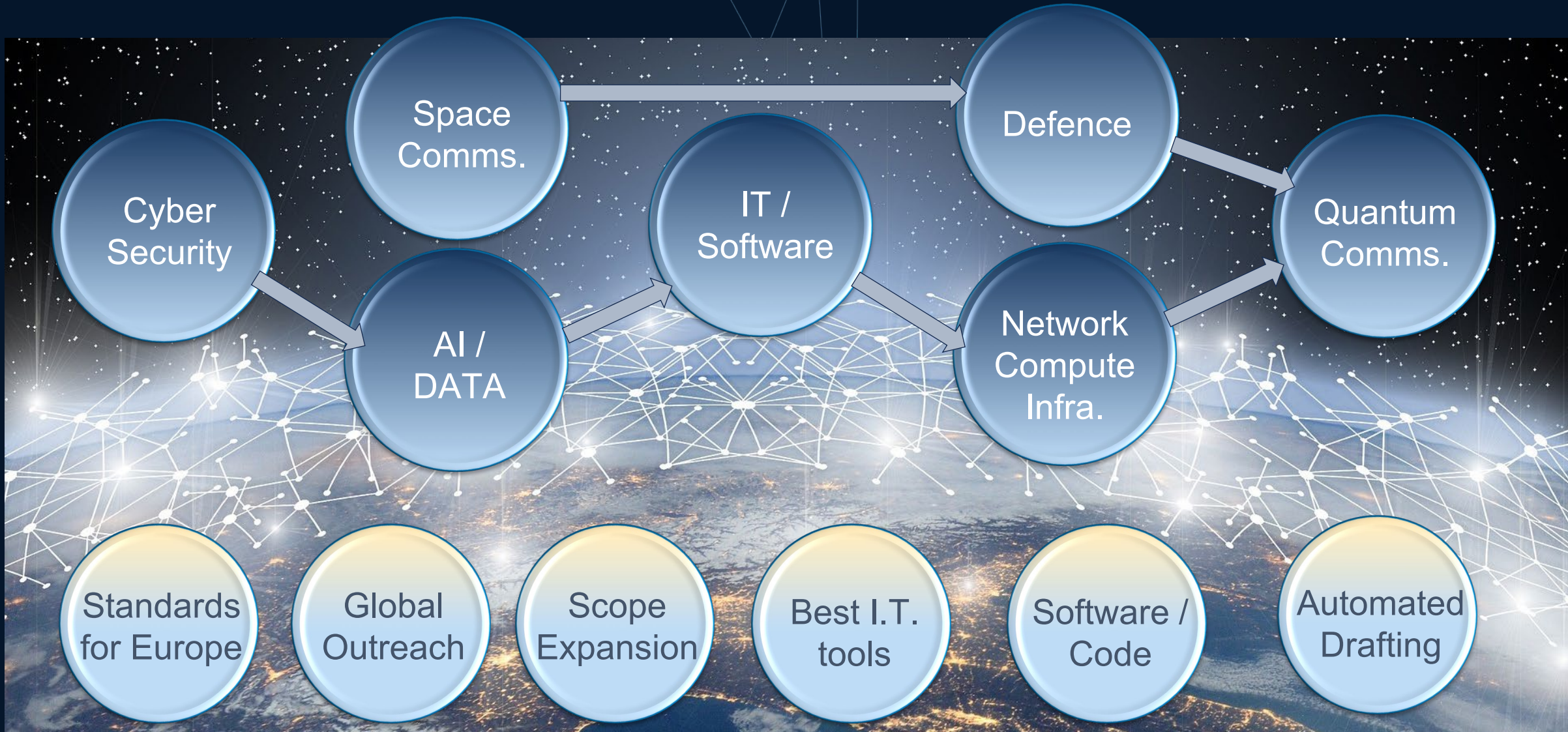
### What is a quantum network?

Quantum networks communicate quantum data, usually stored in the form of individual photons. By using the power inherent in quantum states, quantum networks can enable new applications like physics-based unhackable security, more powerful quantum computers that can [solve tasks in minutes that would otherwise take years](#), and networks of entangled quantum sensors.

### How does a quantum network work?

Show more

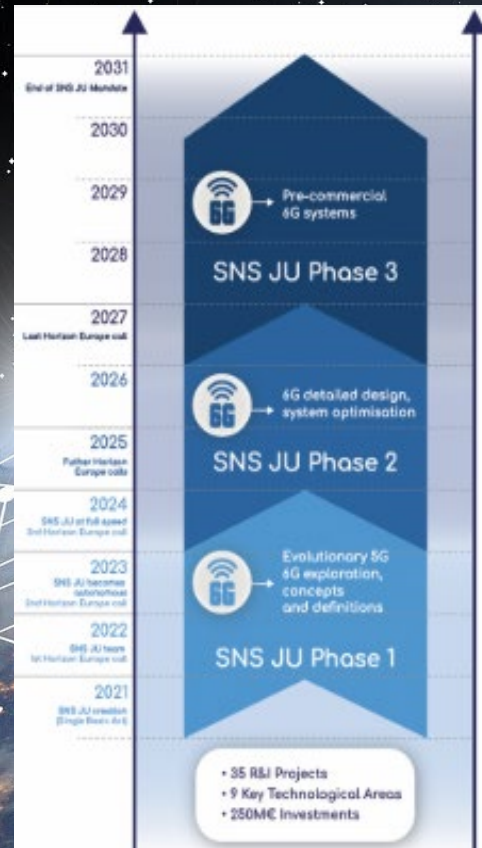
# Insights Drive Developments in ETSI



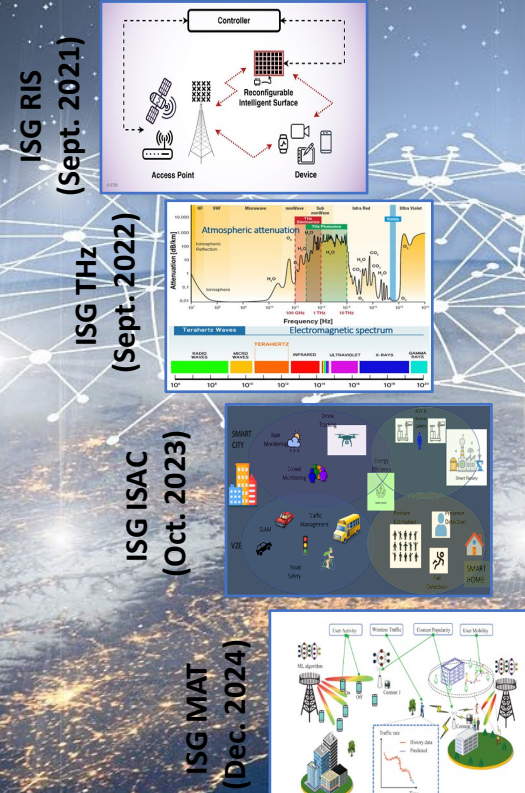
# ETSI, Linking Research to Standards



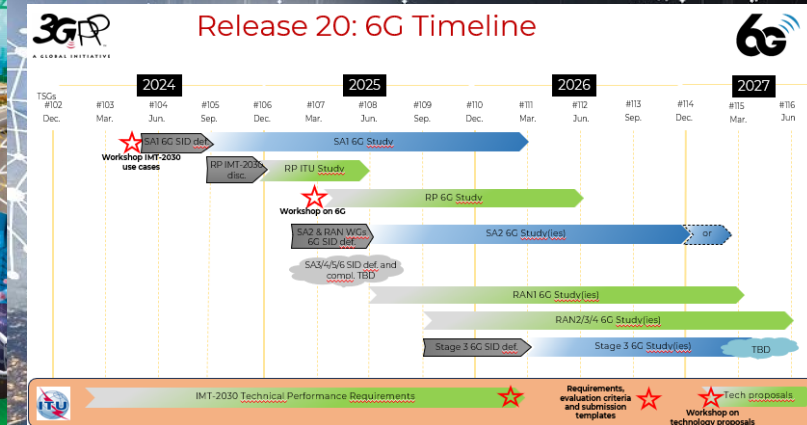
## EU Research



## ETSI pre-standards



## 3GPP Global Standards



# Pre-standards in ISGs, CODE in SDGs



## ETSI Industry Specification Groups (ISGs)

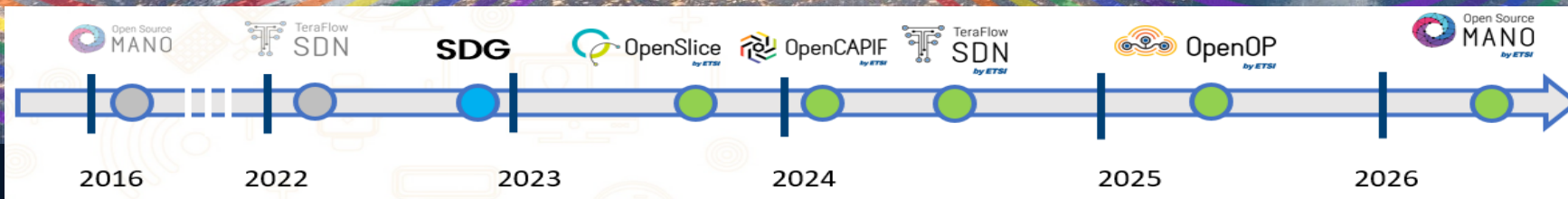
A pre-normative incubator for Research

## ETSI Software Development Groups (SDGs)

A toolbox for Research and Standardization

STANDARDS

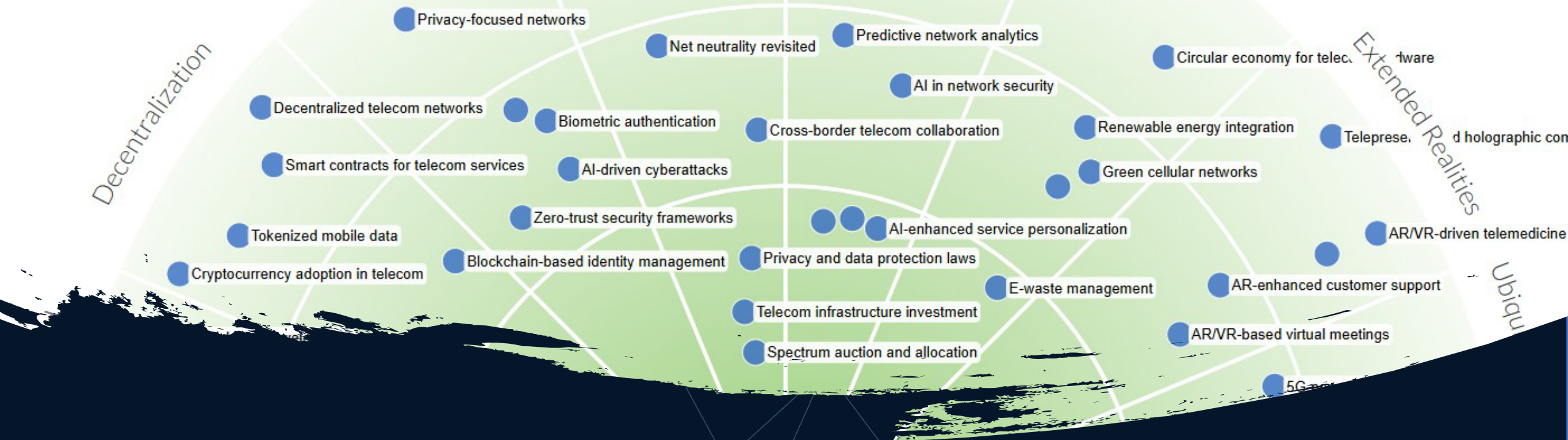
CODE



# Conclusions

1. Telecoms is evolving
2. Standardization must also evolve
3. Essential to plan for the change
4. Research feeds standardization
5. Make standards and code together





# Thank you for your attention

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