



The Standards People

Testing Activities at ETSI

CTI Core activities at a glance

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For: La soirée du Test, Sophia-Antipolis



What is ETSI?

ETSI is a not-for-profit European Standards Organization, recognised by the EU alongside CEN and CENELEC, producing globally applicable standards for ICT. Created in 1988 and based in Sophia Antipolis, France, ETSI is member-driven and makes all of its standards available free of charge.

GLOBAL VISION & CORE MISSION



Providing an open, inclusive, and consensus-driven environment to develop, test, and maintain globally applicable standards for ICT-enabled systems, services, and digital technologies that industry, citizens, and society depend on daily.



950+ Member Organizations



60+ Countries Worldwide



60,000+ Published Standards



60+ Technical Groups (TC, ISG & SDG)



Setting Global Standards

Defines foundational specifications shaping the future of global connectivity and emerging digital technologies.

Connectivity: 5G/6G mobile networks, IoT/M2M, non-terrestrial networks, broadcasting, and T transport.

Frontier Tech: Artificial Intelligence, Data Quantum-safe cryptography, cybersecurity, and edge computing.



EU Policy & Compliance

Creates official Harmonised Standards supporting EU legislative directives, facilitating seamless single-market access.

Market Access: Presumption of conformity under RED, Cyber Resilience Act (CRA), and EU AI Act.

Trusted Frameworks: Direct alignment with European Commission standardization requests.



Interoperability & Alliances

Secures end-to-end multi-vendor interoperability and drives global technology harmonization across ecosystems.

ETSI Plugtests™: Industry validation events verifying compatibility and speeding time-to-market.

Global Alliances: Founding partner of 3GPP and oneM2M; 100+ worldwide international partnerships.

ETSI TC MTS – Methods for Testing and Specification



CORE MANDATE & STRATEGIC PURPOSE

Developing globally recognized testing methodologies, standardized notations, and validation frameworks to ensure high-quality standards, trusted conformance, and seamless interoperability across the global ICT ecosystem.



Standardized Test Languages

Maintains internationally standardized, domain-independent languages that bridge test design and execution.

- **TTCN-3:** Universal test specification language for conformance, interoperability, and real-time testing.
- **TDL:** High-level notation capturing test intent to accelerate consistency and reuse.



Trustworthy AI & Auditing

Defines systematic methodologies to validate, audit, and document AI-enabled systems for trustworthiness.

- **MTS AI WG:** Standards for AI testing techniques, transparency, and structured documentation.
- **CABCA Framework:** Continuous compliance auditing aligned directly with the EU AI Act.

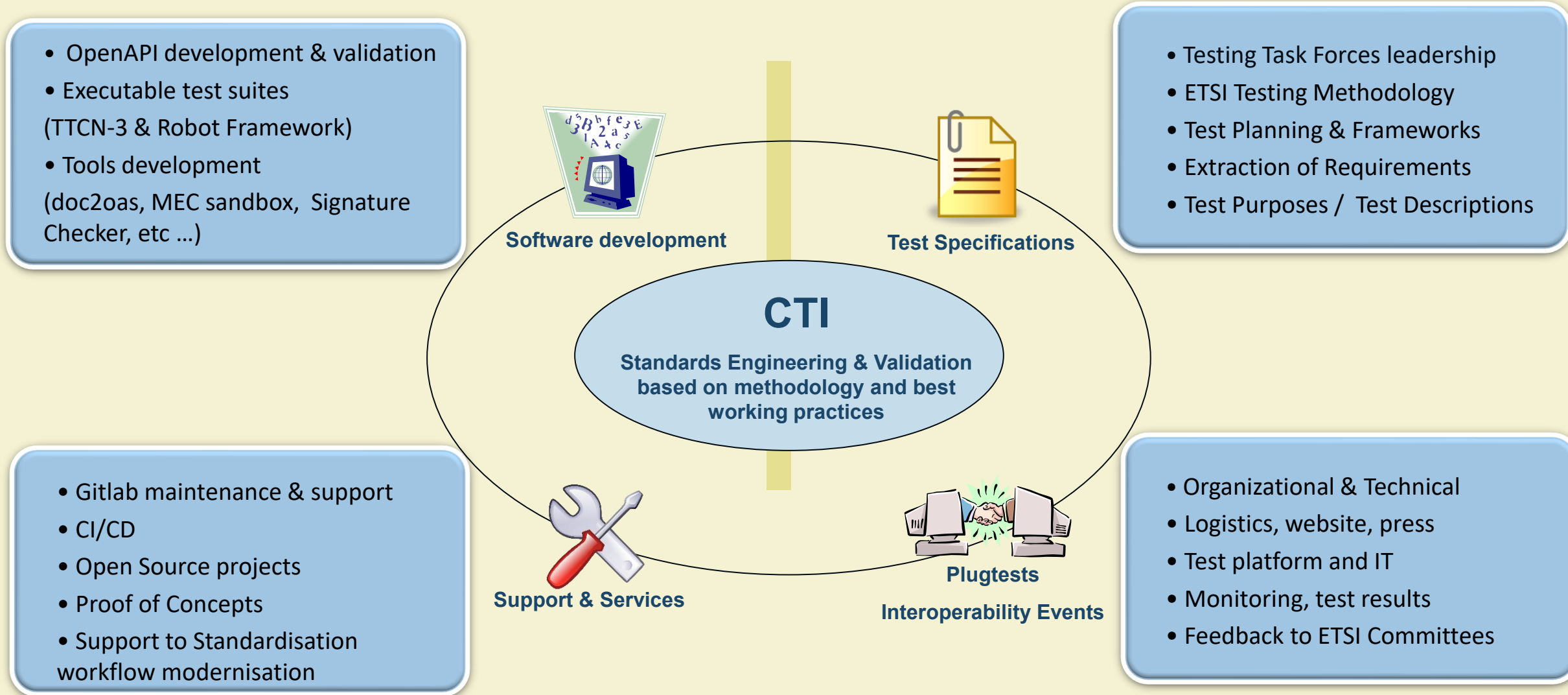


Security & Emerging ICT

Provides comprehensive testing frameworks and security validation for fast-evolving technological domains.

- **IoT & Security:** Device Security Passports and digital transformation of security standards.
- **ETSI UCAAT:** Flagship annual conference advancing automated testing best practices worldwide.





Test Specifications

- Testing methodology and support
 - planning, development and validation of test specifications and frameworks for:
 - conformance testing;
 - interoperability testing;
- ETSI Testing Task Force
 - Testing STF
 - CTI manages the technical aspects and the roadmap for Y+1 for the TTFs
 - The 2026 TTF roadmap contains 11 projects for a budget of 721 k€
 - leadership and provision of expertise to TTF;
- Special Testing Task force
 - oneM2M Conformance Testing
 - TF 160 in support to 3GPP RAN 5

3GPP – The Mobile Broadband Standard Eco-system

3GPP Organizational Partners (OPs)

850+ companies



- The 3GPP Organizational Partners (OPs) = 7 SDOs from China, Europe, India, Japan, Korea and the United States.
- Participation in 3GPP by companies and organizations becoming Members of one of these 7 OPs.
- Inputs on market requirements may come into 3GPP via Market Representation Partners (MRP).
- There is a lot of additional external liaison activity: SDOs, Industry bodies, projects...

3GPP Market Representation Partners (MRPs)



6G Projects

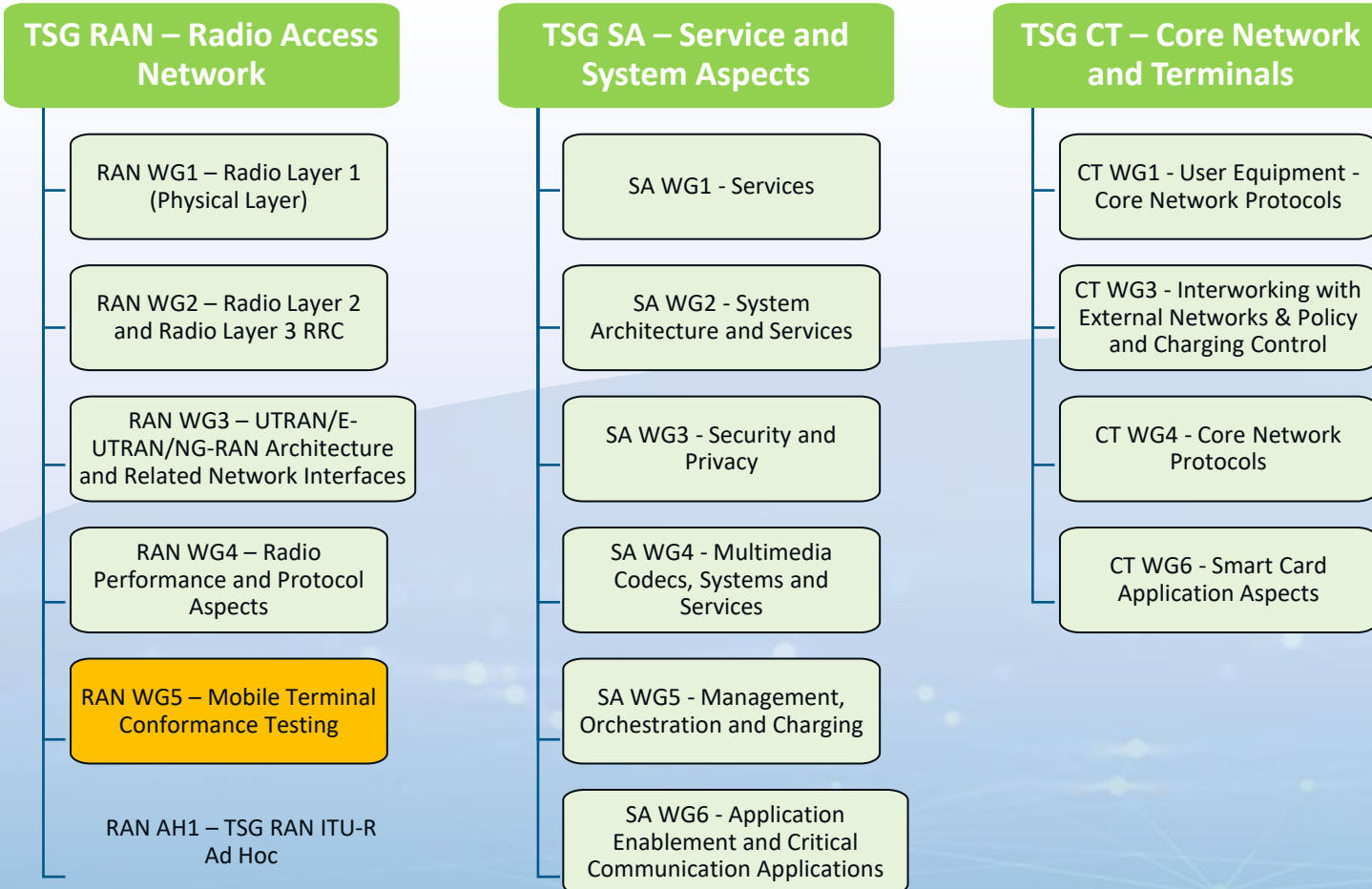


Certification Bodies



3GPP – The Mobile Broadband Standard

Organisation structure



- 3 Technical Specification Groups (TSGs)
- 16 active Working Groups (WGs)
 - 15 Core WGs, and
 - 1 dedicated Test WG: RAN WG5 = RAN5
- Several 1000s of participants

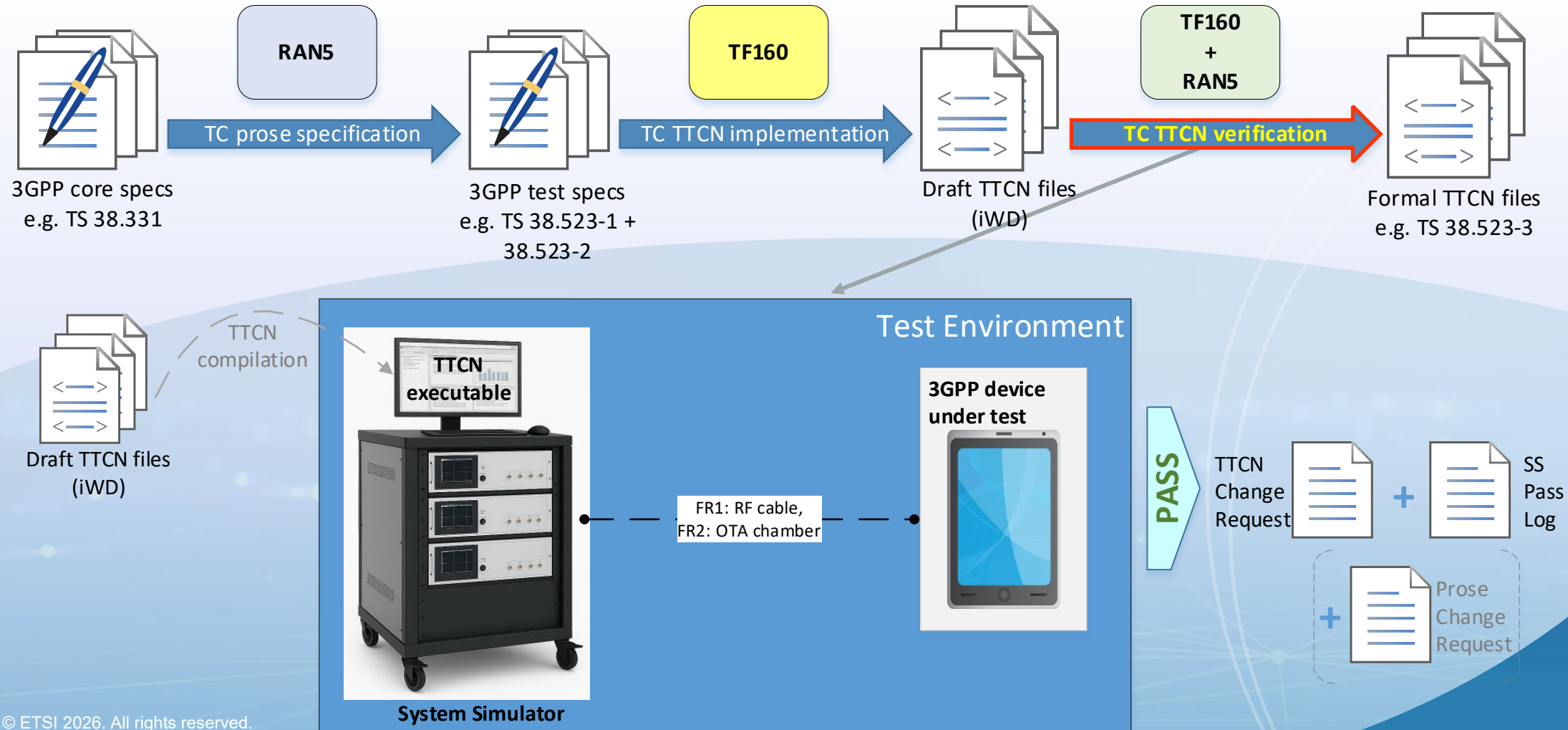


RAN1, Goteborg Feb. 2026

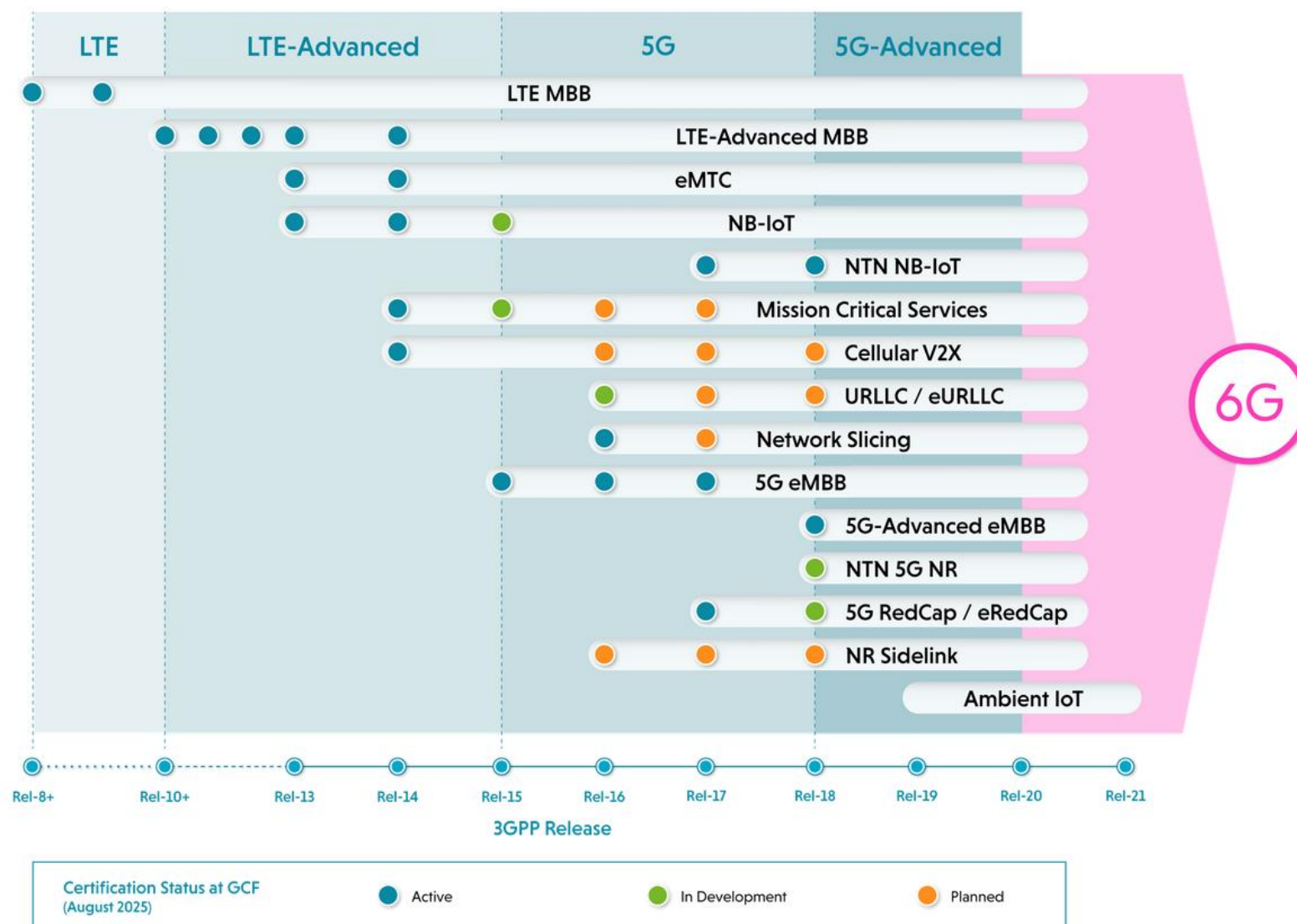
3GPP – TF160 + RAN5

RAN5 verification of a TTCN-3 test case

- RAN5 verification: TTCN executed on a System Simulator (SS), against a real 3GPP device implementation (i.e. intended to be used in real deployments).

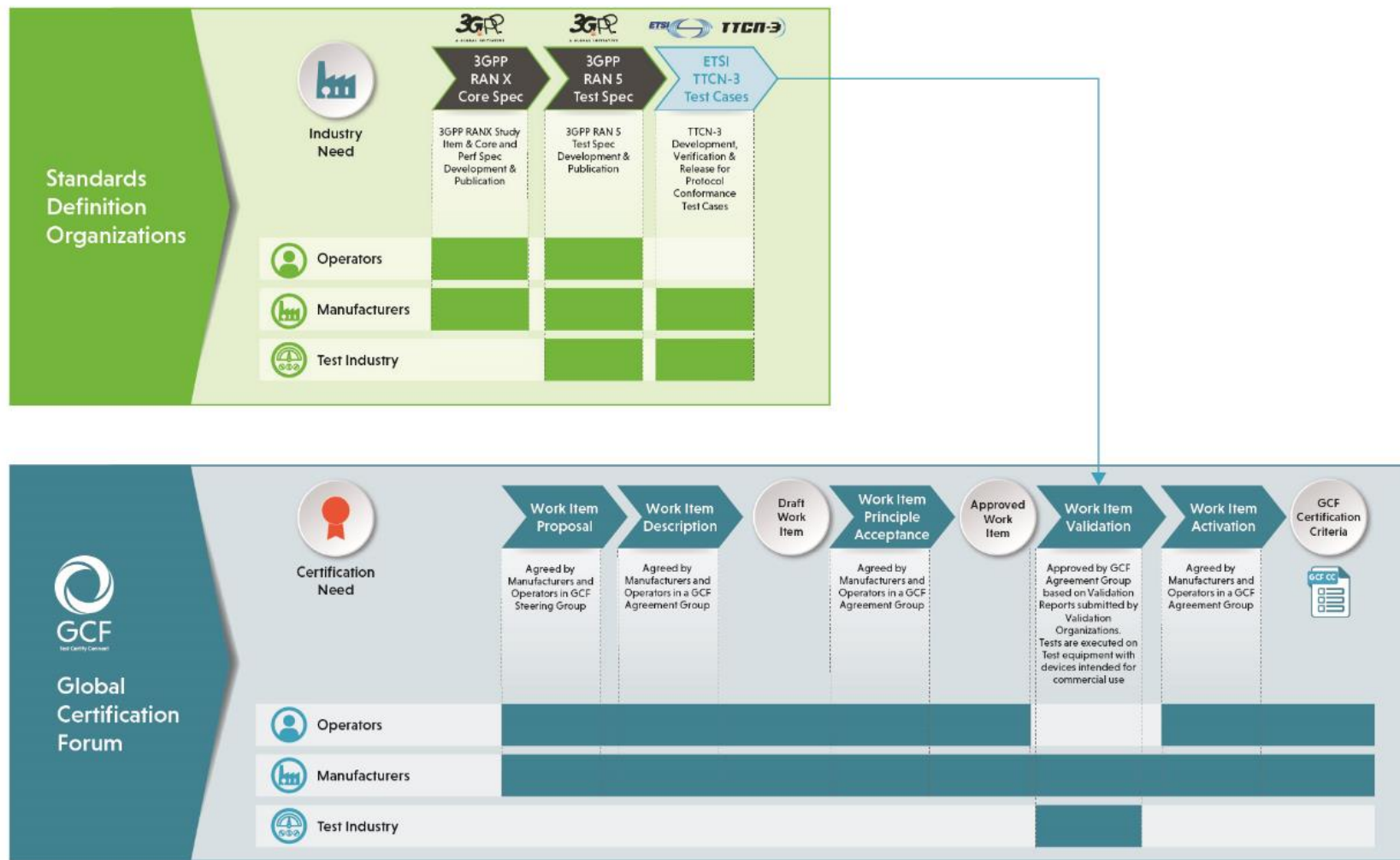


TF 160 roadmap



Source : GCF

GCF Technology Introduction process



Source : GCF

Plugtests

- 3 Main types of events
 - Interoperability testing events
 - Hackathon
 - Hackfest / Developer events
- Usually funded by EC/EFTA under Grant Agreement signed after a reply to EISMEA Call
 - The current contract has been signed in Dec 2024 for 3 years for a budget of 700 K€ and includes 17 interoperability events
- When required, ETSI can also organise events funded by its own budget, for some technologies which are important for our members but not in the scope of the EC at the time of the EISMEA calls.



Plugtests

- Aim is to validate standards
 - A tool to develop and mature standards
 - Feedback (Change Requests) to relevant related ETSI technical bodies
- But testing and debugging are useful by-products
 - Vendors validate their understanding of standards and their implementation
 - Achieve in one week what would otherwise take months
- Open to all companies with implementation to test (members and non-members of ETSI) - Participants sign an NDA
- CTI responsible of the event with strong collaboration with EVE, ITC and COM
- Promote technology and community
 - Develop new ideas, confirm existing ones

NG eCall Plugtests 2025



NG eCall Plugtests 2025







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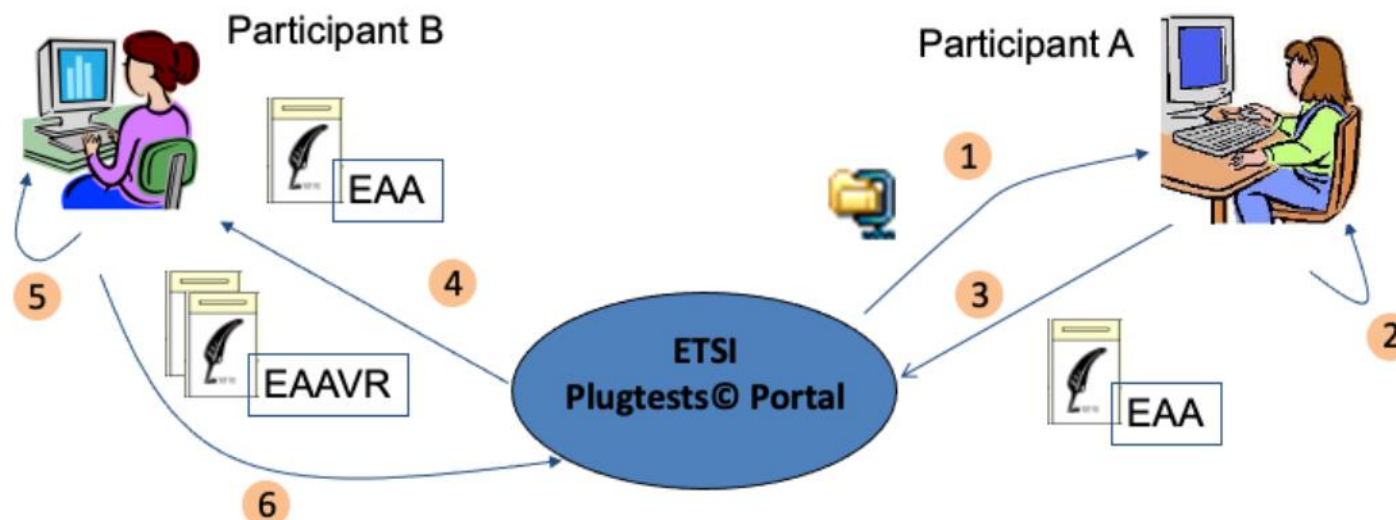
- 1. Introduction
- 2. Naming conventions for new EAAs
- 3. Complete cycle: Generation of EAAs - Verification of EAAs
- 4. Verification reports formats

1. Introduction

The present document provides details on how to operate for conducting the **positive** interoperability tests, i.e., tests where:

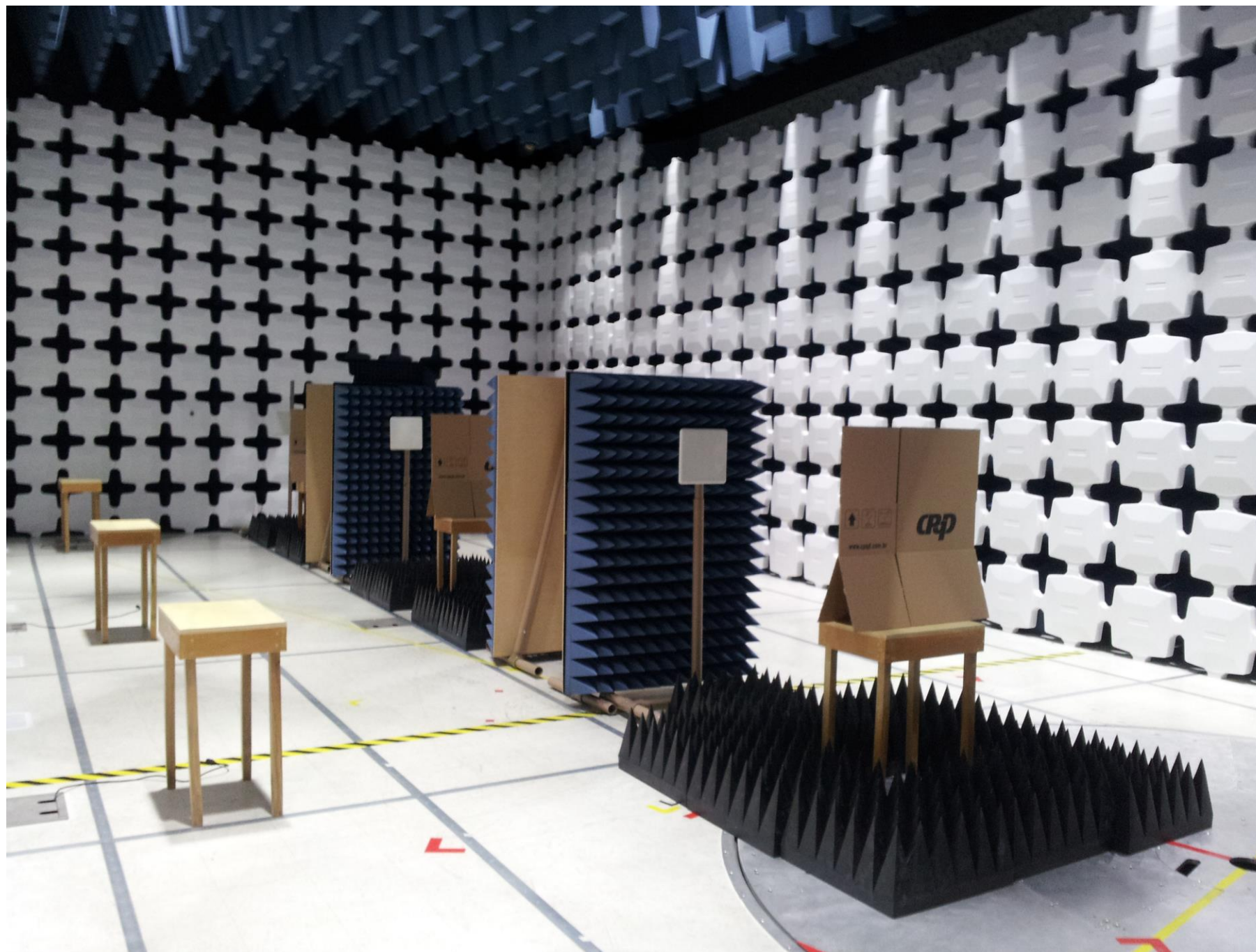
1. Participant A generates and uploads an EAA.
2. Participant B verifies the aforementioned EAA and optionally uploads the corresponding validation report.

The figure below shows the interactions of these two participants for conducting this kind of tests:



Legend:

- EAA: Electronic Attestation of Attributes
- EAAVR: Electronic Attestation of Attributes Verification Report



Any further questions?

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