ETSI MTS AI Working Group

The ETSI MTS AI Working Group (ETSI MTS AI), operating under TC MTS, focuses on standardisation methodologies that support **trustworthy, testable, and auditable AI systems** across the full lifecycle. As AI becomes embedded in critical infrastructures and business processes, the group develops frameworks for **testing, documentation, certification, and conformity assessment,** while also exploring how AI itself can automate and enhance testing and auditing activities.

Tasks and Responsibilities

- Develop methodologies and specifications for testing, documentation, certification, and assessment of AI-enabled systems.
- Define frameworks for conformance, interoperability, trustworthiness evaluation, and lifecycle-integrated quality management.
- Enable continuous conformity assessment and auditing practices.
- Collaborate across ETSI and with external Standards Development Organisations (SDOs) to ensure consistency, interoperability, and global impact.
- Advance AI-driven automation for testing, including test generation, data creation, execution optimisation, and results documentation.

Key Achievements and Ongoing Work

- **ETSI TR 103 910:** Defined test methodologies, test types, and quality criteria for ML-based systems, covering supervised, unsupervised, and reinforcement learning.
- **ETSI TR 104 119:** Established documentation schemes for AI-enabled systems, including structured, industrial-grade documentation practices and continuous documentation approaches.
- **ETSI TS 104 008:** Specified principles, roles, and procedures for Continuous Auditing-Based Conformity Assessment (CABCA).

Roadmap and Vision

Future work focuses on **industrial-grade documentation guidelines and templates to support regulatory compliance across sectors,** alongside comprehensive methodologies for AI assessment, risk and capability evaluation, and continuous auditing. A key priority is the **systematic use of AI to automate conformance testing,** including test specification generation, test data management, execution optimisation, and result reporting. These efforts aim to deliver a unified, scalable, and automated testing and auditing framework with standardised, harmonised, and machine-readable outputs, thereby strengthening ETSI's conformance testing ecosystem and industry adoption.

The outcomes are designed primarily for ETSI adoption but will be publicly available and reusable by other organisations. Expected deliverables include:

- An AI-assisted Smart Test Specification Methodology for standardised tests
- A prototype open-source tool platform supporting the methodology
- A user guide for the testing methodology platform
- Recommendations for smart ETSI base standards enabling digital test specifications

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About ETSI

ETSI is one of only three bodies officially recognised by the European Union as a European Standards Organisation (ESO). It is an independent, not-for-profit body dedicated to ICT standardisation. With over 900 member organisations from more than 60 countries across five continents, ETSI offers an open and inclusive environment for members representing large and small private companies, research institutions, academia, governments, and public organisations. ETSI supports the timely development, ratification, and testing of globally applicable standards for ICT-enabled systems, applications, and services across all sectors of industry and society.

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