



The Standards People

DECT Standardisation

Jussi Numminen ETSI TC DECT chair

DECT World 2025

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ETSI TC DECT introduction



Officials:

Chair Jussi Numminen	Wirepas
Vice chair Guenter Kleindl	OVE
Vice chair Andreas Wilzeck	Sennheiser
TDE chair Marco Zoli	LMS

Meetings since DECT World 2024:

4 TC DECT plenary meetings, 15 online telcos

Contributions: 454 documents in 2024, 324 until now during 2025.

One plenary still to go in this year

Delegates: 25 to 30 persons regularly attending in plenary meetings.



DECT-2020 New Radio

- Working areas
- Some highlights

TC DECT DECT-2020 NR standards

DECT-2020 NR core standards

- ETSI TS 103 636-1 DECT-2020 New Radio (NR); Part 1: Overview;
- ETSI TS 103 636-2 DECT-2020 New Radio (NR); Part 2: Radio reception and transmission requirements;
- ETSI TS 103 636-3 DECT-2020 New Radio (NR); Part 3: Physical layer;
- ETSI TS 103 636-4 DECT-2020 New Radio (NR); Part 4: MAC layer;
- ETSI TS 103 636-5 DECT-2020 New Radio (NR); Part 5: DLC and Convergence layers.

Release 1:

- **Versions 1.6.1 of the above standards** published in July 2025 by ETSI

Release 2:

- **Versions 2.1.1, of the above standards** published in October 2024 by ETSI

Regulation and equipment compliance

- ETSI EN 301 406-2 Harmonized standard for DECT-2020 NR equipment compliance published August 2023
- **ETSI TS 104 047-1 DECT-2020 NR Conformance Test Specification; Part 1: Radio Transmission and Reception** published Oct 2025
- **ETSI TS 104 047-2 DECT-2020 NR Conformance Test Specification; Part 2: Radio Protocol** published Oct 2025
- ETSI TR 103 943 DECT-2020 NR System reference document (SRDoc) published January 2024

Application related

- ETSI TS 103 874-1 DECT-2020 New Radio (NR); Access Profile Part-1; Overview
- ETSI TS 103 874-2 DECT-2020 New Radio (NR); Access Profile Part-2; Smart Metering, City and Buildings
- TS 103 874-3 DECT-2020 New Radio (NR); Access Profile Part 3; IPv6 Profile
- Above standards published in October 2024 by ETSI

TC DECT active work or study items: DECT-2020 NR

Work items

- TS 103 636-6 DECT-2020 New Radio (NR); Part 6: Security.
- TS 103 874-4 Application Specific Profile; Part 4: Over the Air Software Update Operation
- TS 103 874-5 Application Specific Profile; part 5: Generic Audio Applications profile
- TR 103 513 DECT technology roadmap
- Release 2 core specifications TS 103 636 parts 1-5 maintenance WI
- Access profiles Parts 1-3 maintenance for release 1 and updates for release 2
- EN 301 406-2 Harmonized Standard for DECT-202 NR in the 1880-1900 MHz band.

Study items

- TR 103 897 Study on radio spectrum and related technical requirements for DECT-2020 NR
- TR 104 044 Study on information elements for network co-operation
- TR 104 045 Study on optimizing scheduled access for DECT-2020 NR
- TR 104 046 Study on Information Elements and Functionalities for spectrum management
- TR 103 777 DECT-2020 New Radio (NR) interface; Study of additional functionality for the support of new applications in further releases (will be opened for new studies)

DECT-2020 NR Conformance testing TS 104 047 series



- Conformance test specification development has been a major effort for TC DECT in this period.
- Specification defines test suites for testing, test procedures and pass/fail criteria's.
 - Test specifications will remain release independent, i.e. when new test cases are added to the specification there reference of core requirement covers the specification.
 - The scope of conformance test will increase based on new access profiles and industry needs.
- Access profile standards defines the required capabilities for a EUT and scope of the conformance testing.
- New access profiles are under work

TS 103 636 series



- Release 2 maintenance work is ongoing, corrections and improvements have been made to parts 2 and 4 until now.
 - Still some topics to be managed on coming meeting prior the decision for publication.
- Release 1 maintenance work completed, and version 1.6.1 published July 2025
- Release 3 and beyond studies has been ongoing and specification work will start once studies are concluded and work items are opened.
 - Scheduled access optimization
 - Dynamic spectrum allocation methods and control
 - Security part 6 work
 - And early discussions on
 - Channel width modification machining better to 5 or 10 MHz spectrum allocation granularity
 - Receiver and transmitter radio requirements optimization for lower power consumption and cost in part 2

DECT-2020 NR Harmonized standard EN 301 406-2



EN 301 406-2 v3.1.1 is cited in EUOJ in decision 2025/893 May 2025

Citation has 2 notices:

(5) the following rows are added:

No	Reference of the standard
'167.	EN 301 406-2 V3.1.1 Digital Enhanced Cordless Telecommunications (DECT); Harmonised Standard for access to radio spectrum; Part 2: DECT-2020 NR Notice 1: This harmonised standard does not define an objective receiver minimum performance criterion, described in its clause 4.4, for radio equipment that does not support a throughput test and packet error rate (PER) test to be performed and does not therefore confer a presumption of conformity as regards that criterion for the described equipment. Notice 2: This harmonised standard does not define objective testing conditions regarding transmitter unwanted emissions and does not therefore confer a presumption of conformity as regards such parameter.

- New WI is approved in National Standardisation Bodies (NSB) meeting and TC DECT start EN 301 406-2 standard amendments to remove these notices.

ITU IMT technologies



IMT-2020

- TC DECT has submitted updates to ITU for the 3rd update of IMT-2020 technology recommendation M.2150. Updates considers release-2 standards updates and introduction for access profile standards TS 103 874 series.
- Fourth update is scheduled at 2027 , and process starts January 2026.

IMT-2030

- TC DECT has submitted contribution on analysis environment for mMTC and URLLC use cases proposing factory environment channels models use. Proposal was partly agreed for URLLC but not for mMTC.
- WP 5D is still working on defining on use cases and requirements (combinations for single technology requirement). Remaining issues are agreed on February 2026 meeting.

Target ETSI TC DECT working procedure (NR+)



IMT-2030

ITU- R

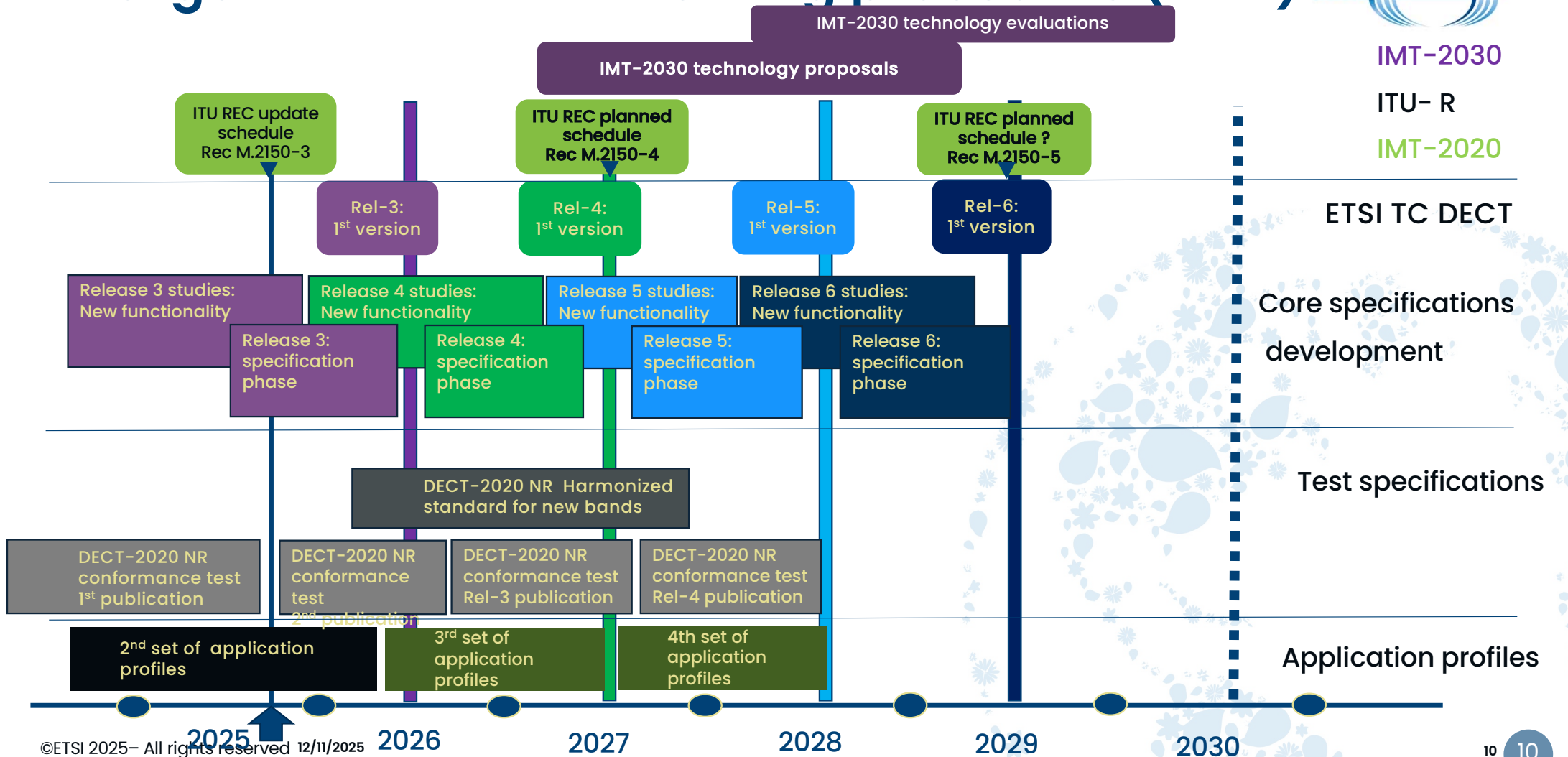
IMT-2020

ETSI TC DECT

Core specifications
development

Test specifications

Application profiles





The Standards People

Classic DECT

- EN 301 406-1 Harmonized standard
- EN 300 175-2 Physical layer



TC DECT Classic DECT activity

DECT base standards

- ETSI EN 300 175 parts 1 to 8.
- Main activity in EN 300 175 part 2
 - Defining operating channels at 1.7 GHz frequencies.

Regulation and equipment compliance

- ETSI EN 301 406-1 Harmonized standard for DECT, DECT Evolution and DECT ULE operating in the 1 880 MHz – 1 900 MHz
- HAS consultant review and amending their comments has been time consuming work still ongoing at final stage.

Study item

- TR 104 088 Study of Introduction of OFDM PHY layer in classic DECT

TC DECT Audio technologies



TC DECT Audio Technologies

- **TS 103 634 DECT; Low Complexity Communication Codec plus (LC3plus)** published in October 2025
High quality music streaming
 - Efficient voice transmission
 - Several Low Latency Modes
 - High error resilience
- LC3plus is DECT-2020 NR ready as payload can be adapted to any byte-aligned slot size
- Technology used by various standardization bodies

Study item

- TR 103 633 New operation modes for LC3plus

¹⁾ ETSI LC3plus is an interoperable superset of the Bluetooth codec LC3

