

ETSI MTS Open Session on **TTCN-3 new major release**

Presented by: **TTF T040**

For: **TTCN-3 experts**

20.05.2025

Agenda

1. Welcome and review of the Open Sessions
2. CR handling with Gitlab (reminder)
3. Status of the TTF discussion
 - *Details within the core notation (part 1)*
 - *Planned status for TRI/TCI and the other parts 7 - 11*
 - *Planned changes for the extensions*
4. Discussion and feedback from the participants
5. Next steps

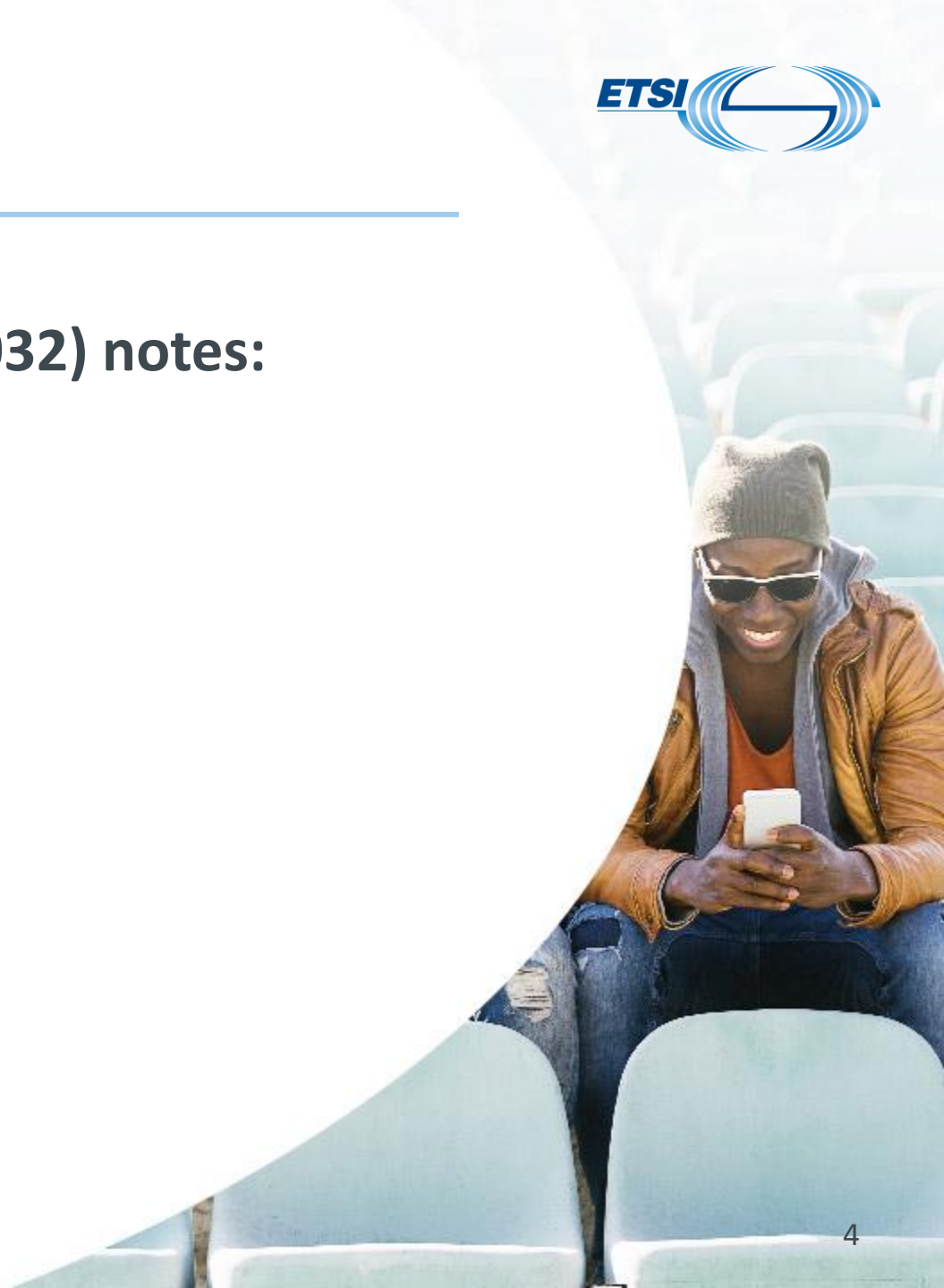




Motivation and Introduction

Motivation and history

- **TTCN-3 workshop 23. January 2024 (TTF T032) notes:**
 - Detailed view on documents and features
 - Maintain compatibility as far as possible
 - Guidelines are important (e.g. using t3q)
 - Initiate questionnaire



Working process & results

- **Questionnaire started with TTF T040 in summer 2024**

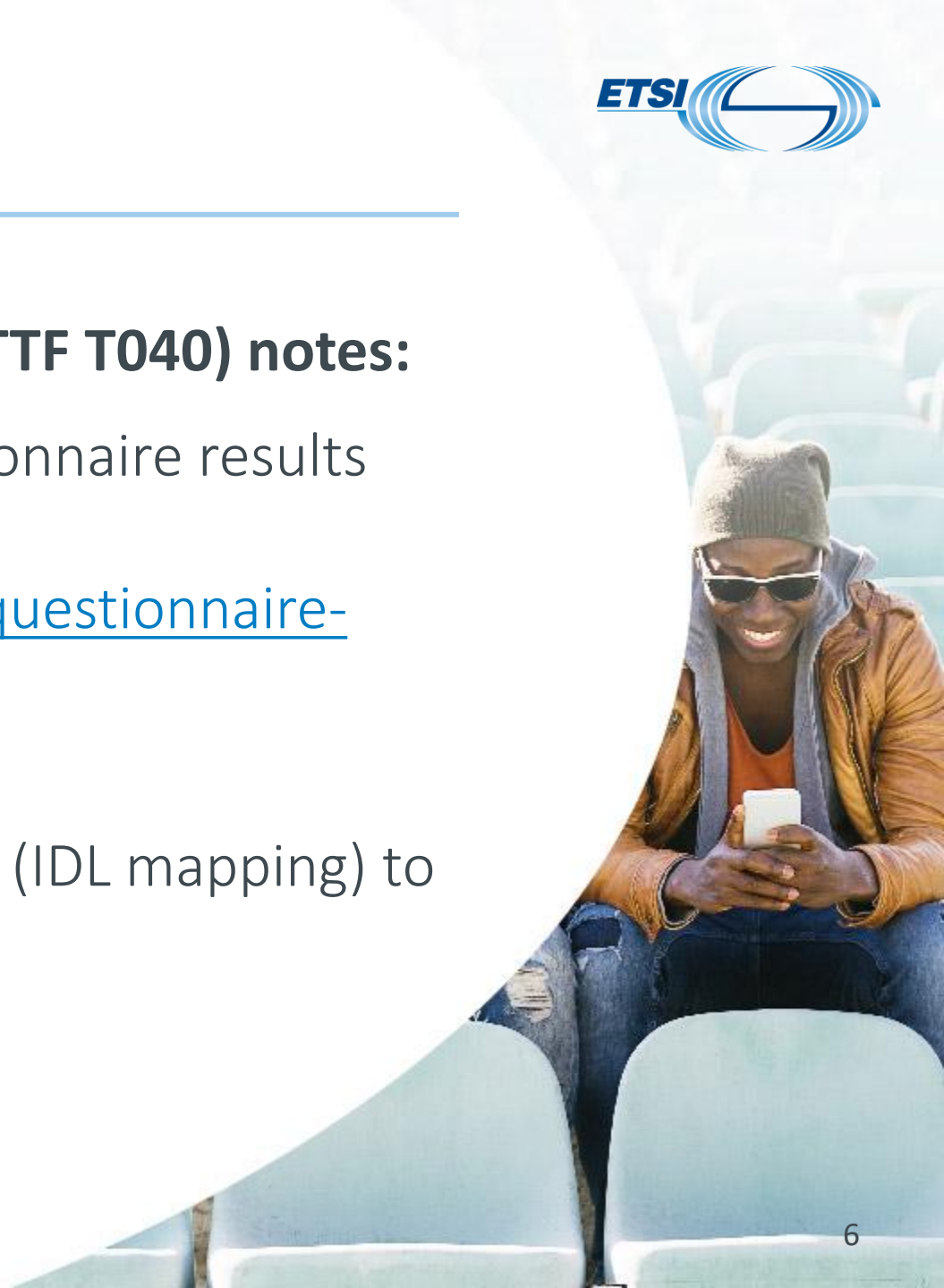
- Promotion via ETSI, Eclipse, LinkedIn & mailings
- Feedback from tool provider and user groups
- Still open:

https://ttcn-3.etsi.org/files/ETSI-TTCN-3-questionnaire_empty_simplified_for_users.zip



Working process & results

- **TTCN-3 Open Session 9. September 2024 (TTF T040) notes:**
 - Presentation and discussion of the questionnaire results from tool provider and users
https://ttcn-3.etsi.org/files/ETSI-TTCN-3-questionnaire-results_v3_anonymized.zip
 - Part 4 (Operational Semantics) and part 8 (IDL mapping) to be shifted into historic status



Working process & results

- **TTF working session in November 2024**
 - Migration of CR handling from Mantis to Gitlab
 - Detailed review and discussion of the questionnaire results from tool provider and users
 - Work on open CRs
(three new drafts in preparation for 2025)

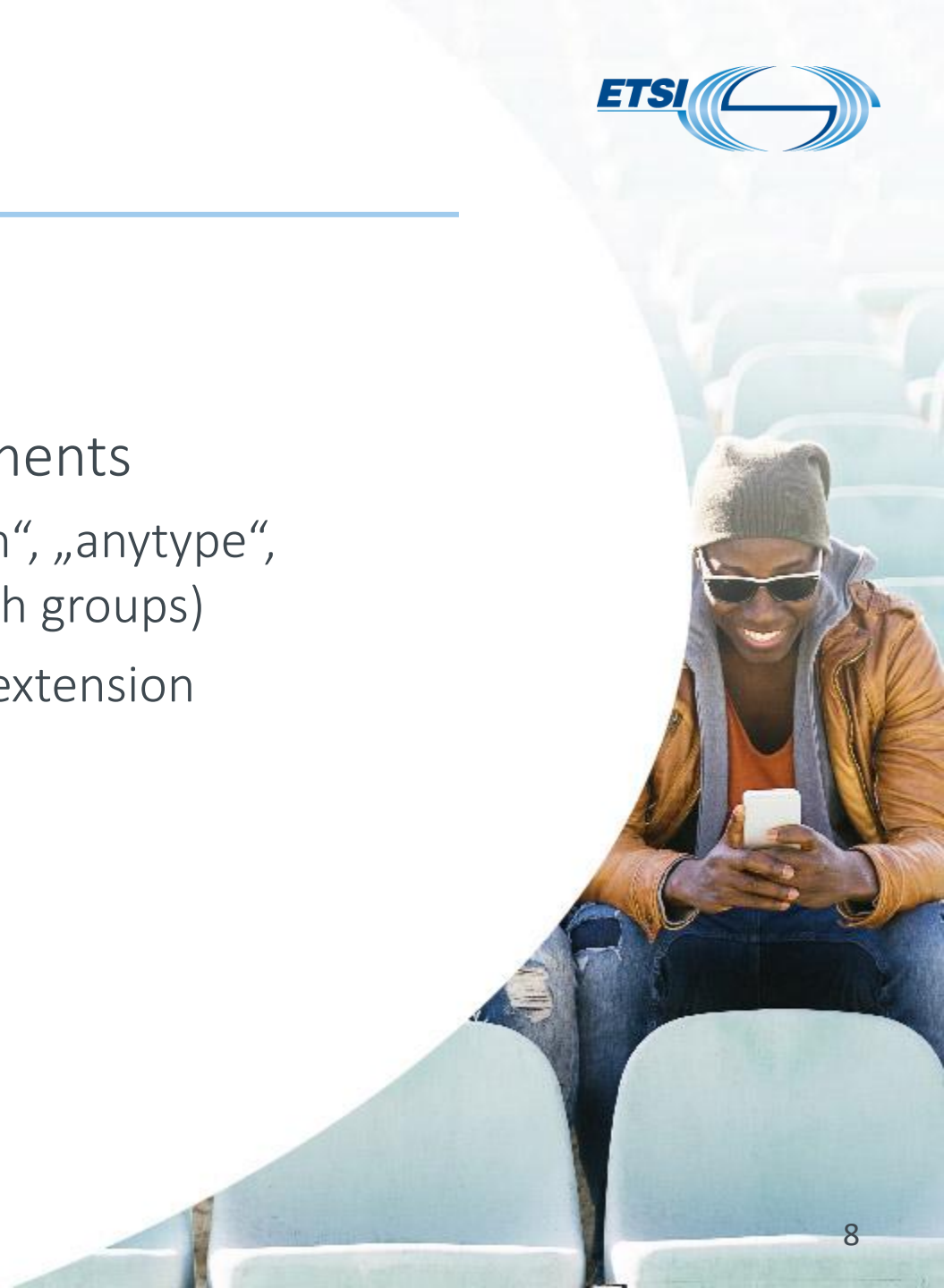


Working process & results

- **TTCN-3 Open Session 28. January 2025:**

Assumptions and discussion of language elements

- In use (core): „group“, „check“, „external action“, „anytype“, „controlling“ communication, „attributes“ (with groups)
- Extension „Adv. Parameterization“ used with extension „behaviour type“
- Extension OO: exception handling is in use
- TCI/TRI/ext.TRI: may become one document
- Introduction of namespaces with „group“?



Working process & results

- **TTF working session in March 2025**
 - Progress of CR discussion using Gitlab
 - Detailed review and discussion towards acceptance/rejection
 - Distribution of work and preparation of solutions for open CRs
 - Preparation of drafts for core, XML, behaviour types
- **TTF presentation at UCAAT in April 2025**

https://docbox.etsi.org/Workshop/2025/04_UCAAT/08_D2_SPECIAL%20SESSION/Jens_Grabowski_Presentation.pptx

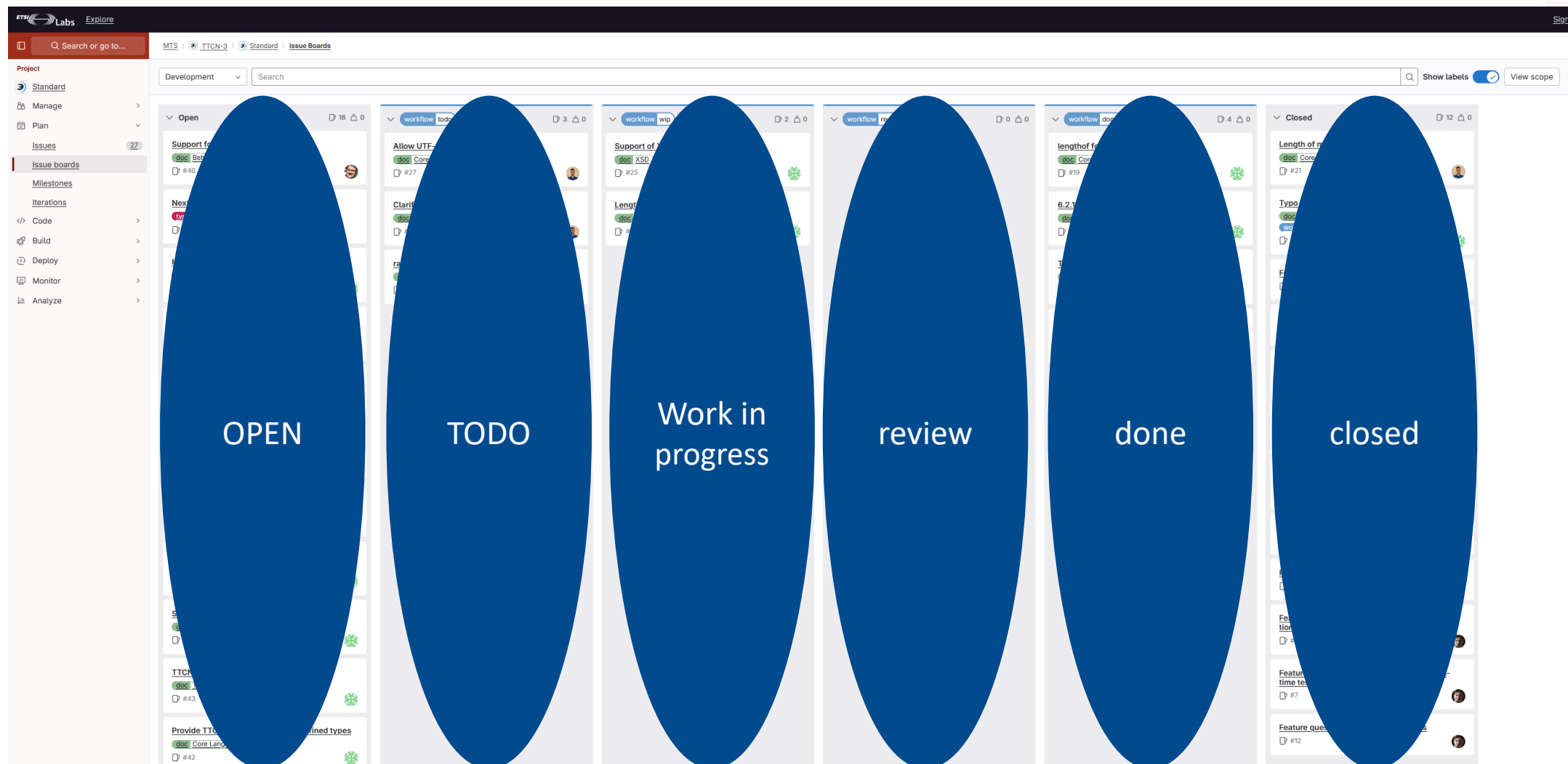
CR handling with Gitlab (reminder)

From Mantis to Gitlab

- No new CRs at Mantis (frozen)
- Old CRs still readable
- All open CR at Mantis have been copied to Gitlab:

<https://labs.etsi.org/rep/mts/ttcn3/standard/-/issues>

New issue dashboard:



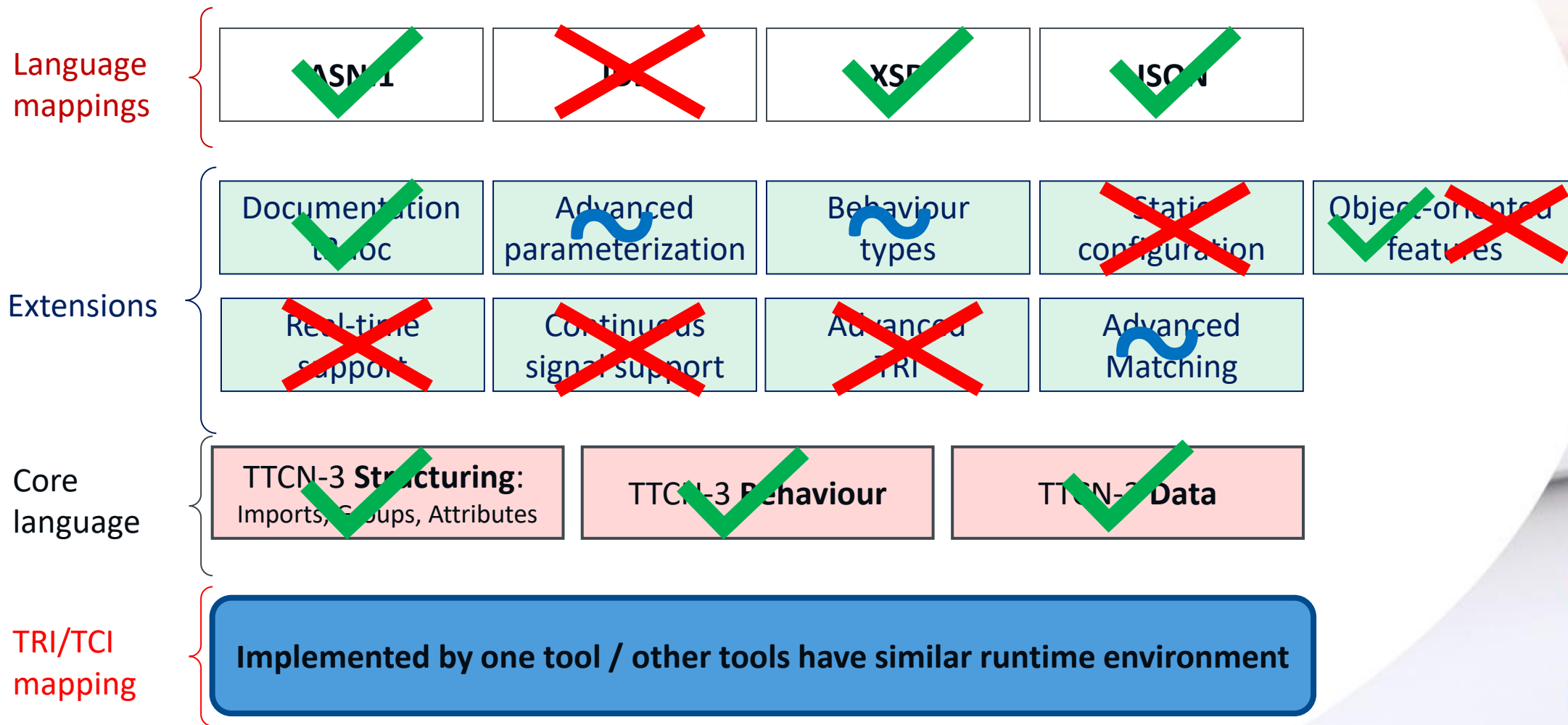
The image shows a screenshot of the ETSI Labs Issue Boards dashboard. The dashboard is divided into six columns, each representing a different stage of the issue lifecycle. Overlaid on these columns are six large blue ovals, each containing a label for the stage:

- OPEN**: The first column on the left, showing a list of open issues.
- TODO**: The second column, showing issues that are planned or to be done.
- Work in progress**: The third column, showing issues that are currently being worked on.
- review**: The fourth column, showing issues that are under review.
- done**: The fifth column, showing issues that have been completed.
- closed**: The sixth column on the right, showing issues that have been closed.

The dashboard interface includes a search bar at the top, a sidebar with navigation options (Project, Standard, Manage, Plan, Issues, Milestones, Iterations, Code, Build, Deploy, Monitor, Analyze), and a main content area with filters and a list of issues in each column.

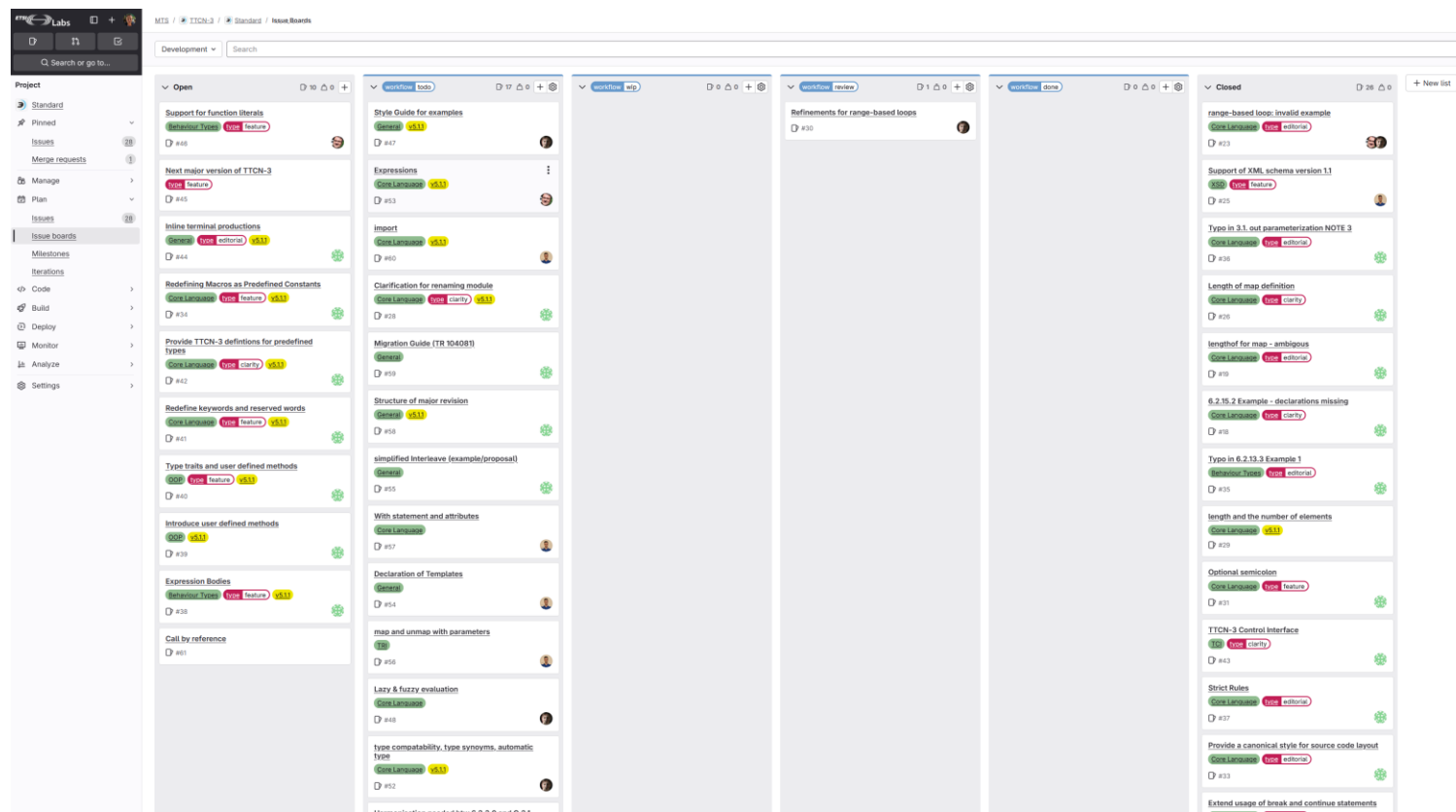
Status of TTF discussion (overview)

TTCN-3 Standards Implementation and Usage



Current snapshot in Gitlab

- CRs for 2025 version have been done and closed
- CRs for major release and migration guide are open:



General CRs for major release

- Structure of major revision (**CR #58**)
- Migration Guide (TR 104081) (**CR #59**)
- Style Guide for examples (**CR #47**)

Selected CRs for major release (core) [1/2]

- Harmonisation of length of strings/arrays (**CR #22, #29**)
- Expression Bodies (**CR #38**)
- Type traits and user defined methods (**CR #40**)
- Provide TTCN-3 definitions for predefined types (**CR #42**)
- Simplifying BNF (**CR #44 #41**)
- Module import (**CR #60, #28**)
- Lazy and fuzzy (**CR #48**)
- Overview of templates and their parametrization (**CR #54, #49**)



Selected CRs for major release (core) [2/2]

- Typing (terminology, compatibility, synonyms, automatic typing, possible harmonization of RECORD (OF)/SET (OF) and CHARSTRING/UNIVERSAL CHARSTRING), etc.) **(CR #52, #50, #27, #51)**
- Simplification, refinement of instructions (interleave, with; range-based loops) **(CR #55, #57, #30)**

Selected CRs for major release (other parts)

- Behaviour Types: function literals, expression bodies (**CR #46, #38**)
- OO: Type traits and user defined methods (**CR #39, #40**)
- TRI Paramerisation of map/unmap (**CR #56**)

Discussion

Discussion and feedback from participants

- Comments on changes, removals and/or status?
- Further simplifications?
- Combinations (number of extensions?)
- Questions?

➤ Deeper look into Gitlab?



Next steps

Timeline for TTCN-3 Version 5.x Development



ETSI TTF T040

- Analysis of Current State
- TTCN-3 Migration Guide

Future ETSI TTF

- TTCN-3 Standard Writing


Next steps

1. **Resolution of open CRs (ongoing)**
*(with publication in 2025 for MTS#95, 2025-5):
 draft available/uploaded for: core, XML, behaviour types (done)*
2. TTF **drafts** for new structure and contents (for the 2026 version)
3. **Follow-up** ETSI MTS Open Session on TTCN-3 (2025-9/10: MTS#96)
4. Milestone 15.10.2025:
*T2: finalization **Migration guide** (for the 2026 version) draft for comment*
*T3: **Conf test suites***
5. **Follow-up** ETSI MTS Open Session on TTCN-3
 (2026-1: MTS#97)

Time schedule

- Further **TTF T040 working sessions** planned in 2025 (meetings before and after MTS#96)
- **MTS#96** in September/October 2025 (with next Open Session?)
- Completion of TTF T040 **output documents** (end of 2025)
- Start of **2nd TTF** in 2026-1



A circular inset image showing a close-up of blue network cables plugged into a server rack. The cables are bundled and connected to multiple ports on the rack. The background is a blurred view of the server rack.

Thanks for
your
participation!

Participants organizations

- ✓ ETSI TTF 040 members
- ✓ ETSI STF 160 members
- ✓ Nokia, Poland
- ✓ Devoteam, Germany
- ✓ Rohde&Schwarz, Germany
- ✓ FSCOM, France
- ✓ Universidad del País Vasco/Euskal Herriko Unibertsitatea, Spain
- ✓ ETSI MTS/CTI technical officers

➤ **Please contribute directly via Gitlab:**
<https://labs.etsi.org/rep/mts/ttcn3/standard/>

