WPTE GPM 2026 Wrap-up

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List of Grant Deliverables 2026-2027

ID	Deliverables Table	Date
TE.D.16	Report on fully integrated simulation of high current partially detached plasma scenario including assessment of PFC erosion in D and DT plasma	Dec 2026
TE.D.17	Report on reduced model validation for plasma reattachment on multiple devices and wide operational space	Dec 2026
TE.D.18	Report on providing input on design and operation of conditioning systems for next step full W devices and focus on standard boronization systems	Dec 2026 → Jul 2027
TE.D.19	Report on qualification with experiment/modelling of the most promising no-ELM scenario in terms of confinement, exhaust capabilities and plasma wall interaction	Dec 2027
TE.D.20	Report on optimized scheme for "benign termination" of runaway beams documented in view of possible applicability for ITER	Dec 2027

- Strong links expected with WP TM to fulfill the modelling related GD

List of Milestones 2026-2027

ID	Milestones Table	Date
TE.M.09	Proper figure of merit for cross-scenario comparison among no-ELM / ADC defined	Dec 2026 → Jul 2027
TE.M.10	First wall particle and heat fluxes quantified in XPR in metallic devices	Dec 2026
TE.M.11	ADCs characterized in H-mode conditions in all relevant TE devices	Dec 2026
TE.M.12	Modelling of SPI experiment on JET and ASDEX-Upgrade completed	Dec 2027
TE.M.13	Impact of N-NBI on plasma behaviour documented in JT-60SA and extrapolation to ITER investigated	Dec 2027

Tentative shot allocation for 2027 for AUG, TCV and WEST

% of op time	2025	2026	2027
AUG	50	40	27,5
TCV	40	35	27,5
WEST	40	40	27,5

- Programme streamlined to comply with available TE experimental time
- WP TE Project Board informed that additional programme ready to fly, should more time become available
- 2027 is the last year of WPTE program therefore priorities to be given to work completion

Provisional shot allocation for 2027 *			
RT	ASDEX-U (until summer break)	TCV	WEST
RT01	34	90	15
RT02	35	120	0
RT03	35	110	15
RT04	25	120	30
RT05	25	90	30
RT06	20	0	90
RT07	40	110	0
RT08	25	170	15
RT09	18	120	15
Contingency	64	214	54
Sum	**321**	**1144**	**264**

* : to be revised after GPM

Priorities for JET

- Complete integrated modelling of the ITER baseline high current seeded scenario (RT01)

NB : modelling effort started on QCE (RT02) and XPR (RT05)

- Complete JET SPI data analysis and modelling (+ comparison with AUG SPI) publication (RT03)

- Support for other activities under RT11 decreasing : focus on a subset of topics, selected based on their strategic relevance to ITER
  - separatrix
  - ICRH scheme
  - isotopic effects, high-current operations and competition between gas and pellet fuelling
  - L-H transition

What have been discussed

- High-level WPTE objectives for 2027
- Presently available timeline for machine operation (including JT-60SA)
- Detailed description of 2027 priorities for the different Research Topics for experiments and A&M
- Detailed description of deliverables and extended goals for JT-60SA experiments
- Practical guidelines for call answers

All the presentation are (or will shortly be) available on the WPTE wiki-page

Points raised during GPM and corresponding actions

- RT05 : Clarify H-Mode parameter space from WEST for investigation of XPR and potential other activities → TFL to ask WEST MR to provide a presentation in one of the forthcoming TFM
- RT06: Discussed initiated on relevance of QCE for W wall sources w.r.t. other scenarios → mentioned directly in ITER MoU with SOL condition more relevant for ITER (density/seeding)
- RT01: Strengthening the synergies for L-H multi-machine investigation including divertor condition and database sharing → TFL in charge
- RT01: TFL to setup a meeting with proponents of activities for Particle/momentum transport and Er investigation in RT01 for activities streamline. Session on WEST to be discussed in within this context
- RT01: Clarify the parameter space explored on AUG (RT01 IBL + seeding *vs* EDA/QCE with seeding in terms of shaping/current/power)
- General: Ensure proper communication sharing with TSVV → TFL participating to WPTM meeting. Further synergies will be explored

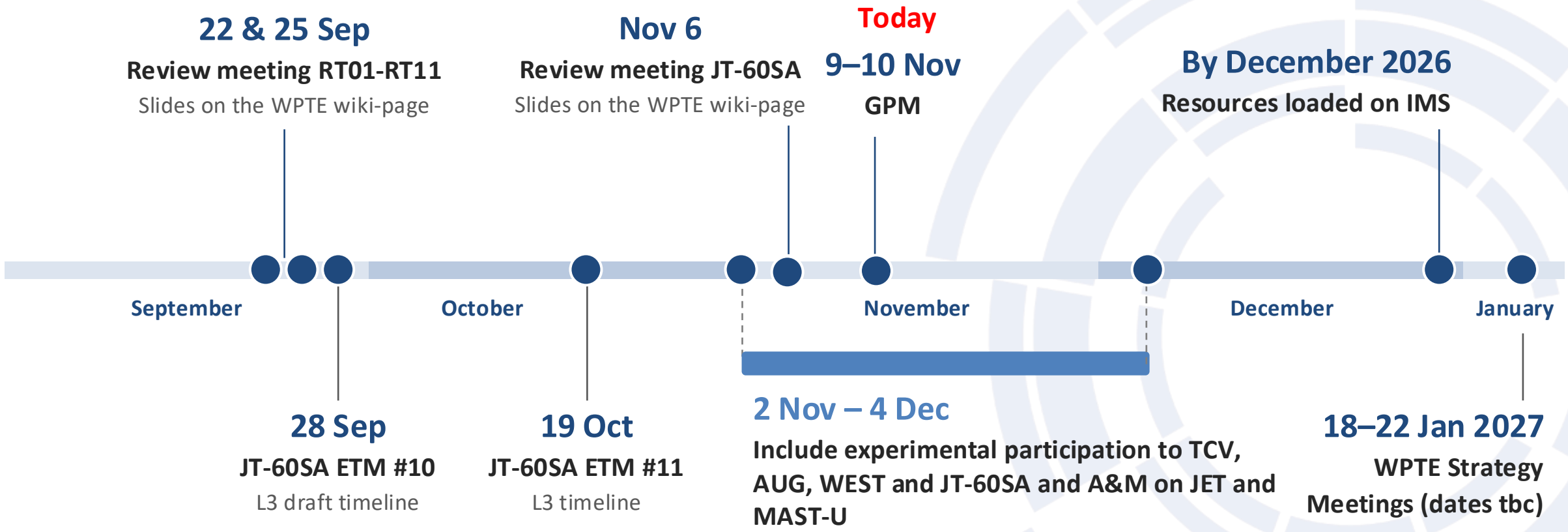
Points raised during GPM and corresponding actions

- RT02 – Does TE.D.19 do include EDA among potential no-ELM regimes? ITER-EF MoU focus on QCE/XPR but deliverables will include consideration on EDA. Activities in within TE.M.09 – will help the comparison
- RT02 – Clarified that limitation for NT operation on AUG in 2027 have been solved
- RT12: Experimental plan based on fully successful scenario development cycle revision planned to account for potential issue
- RT12: Will H concentration from H-NBI operation be known ? Needed for proper transport properties assessment. Not clear but transition from H to D beams will be constrained by neutron budget
- RT14-RT16: Proposed as “unconventional” machine time usage. Strong synergies will be established with the rest of the program to ensure completion of database.
- General point on JT-60SA: a role similar to the Diagnostic Coordinator will be useful. But control room roles require discussion with QST and won’t be officially available for OP2. Unofficially SNE will help EU participations

Points raised during GPM and corresponding actions

- RT03: Provided clarification on work plan of different groups in particular towards JET exploitation. RTC/rTFL aware of the different activities and monitoring them closely. Also points have been raised between differences between disruptions (JET vs AUG). RTCs in place since JET exploitation to ensure adequate knowledge transfer cross-machine
- RT04: Dedicated meeting in Advance the check feasibility of proposed control algorithms in within specific machine PCS. Procedure to be put in place well in advance
- RT13: Startup runaway could be interesting topic to be reported as well in ITPEA-IOS.
- RT13: EU disruption database and inclusion of JT-60SA activity. Work initiated and will continue but need clarification with QST

Next Steps for preparing the WP TE 2027 programme



- Please carefully read the documentation attached to the call including all the Annexes
- If you have any further questions or doubts in your application do not hesitate to contact the TFLs te-tfls@euro-fusion.org