**Taskforce Weekly Plenary Meeting**
***Minutes and Actions, 9 June 2025***

**Meeting time:** 14:30 – 16:00 CET

**Zoom meeting room:**

[Zoom link](https://cern.zoom.us/j/61274255815?pwd=2fwGbaMrZAYmUfpUfMCjKwpoYzPCKd.1)

Attendees: All task force members

Chair: Fiodor Sorentino

**Key Takeaways**

* External review committee provided initial high-level feedback; full report expected soon;
* Several consistency checks and clarifications needed across document sections;
* Critical design questions remain for cryogenic towers and clean room requirements;
* Timeline: Finalize document updates by next week, with possible extension if needed.

**Next Steps**

* Authors to begin document updates based on discussions in the meeting;
* Await full review committee report and address feedback;
* Set Overleaf documents to track changes mode;
* Schedule follow-up meeting on June 23rd if needed;
* Aim to finalize all updates within one week, with possible extension.
* **Feedback from the ET Symposium**

***14:30-15:00 CET***

**Point presented by:** Fiodor Sorrentino

**Point submitted for:** information and discussion

**Summary of discussion:**

Fiodor provided a brief recap of the feedback received during the IT symposium presentations. Key points included:

* Some clarification needed on the optical layout and flexibility;
* Questions on the impact of Newtonian noise cancellation and how it affects the design;
* Requests for an executive summary to highlight the main results;

**Key takeaways:**

* Optical layout: Mostly clarification questions; positive comments on grid work and volume reduction
* Science case & noise budget: No major issues reported
* Civil engineering: Need for clearer cost estimation disclaimers; local teams to help with wording
* **Status of the External Review**

***15:00-15:10 CET***

**Point presented by:** Benoît Tuybens

**Point submitted for:** information

The External Review Committee shared their feedback, comments, and questions. Most of those comments are (at this moment) high-level and will not imply large amount of work by the Task Force team.

**Summary of discussion:**

Benoit provided an update on the external review process. The review committee has provided some high-level comments so far, including:

* Congratulating the task force on the revised baseline in a short timeframe
* Asking about the maximum Newtonian noise reduction demonstrated and how much better than state-of-the-art is required for ET
* Questioning whether the 75% volume reduction is enough
* Noting some inconsistencies in terminology and definitions
* Raising concerns about the lack of a final site and detector geometry decision. The full draft report is expected tomorrow, with one week for the task force to provide feedback and make changes.
* Need to improve consistency in terminology, especially around the use of "nodes" and the number of interconnected vacuum pipes.

**Key takeaways:**

* Draft report expected tomorrow; two weeks given for Task Force to make changes;
* Initial feedback positive on revised baseline and cost reduction efforts;
* Some terminology inconsistencies and clarifications needed;
* Questions raised on Newtonian noise reduction and cryogenic infrastructure.
* **Discussion on open points in output documents**

***15:10-15:50 CET***

**Point presented by:** Fiodor Sorrentino

**Point submitted for:** discussion

**Summary of discussion:**

The Task Force members discussed how to best address the review committee's comments, including:

* Clarifying the context and purpose of the task force documents, especially around comparisons between geometries and site decisions;
* Improving consistency in terminology, especially around the use of "pipes" vs "links" in the vacuum system;
* Providing more details on infrastructure needs during repairs and upgrades, including the design of gate valves and recesses;
* Analyzing the impact of vertical thermal noise and coating thermal noise on the science case, and incorporating these results into the documents.

Fiodor outlined the timeline for finalizing the documents, noting that the task force will receive the external review report tomorrow. The group agreed to work independently on consistency checks and cleanup, with a potential additional meeting on June 23rd before submitting the final versions. All changes will be tracked in the Overleaf documents to ensure transparency.

**Key takeaways:**

* Move alternative cooling strategies section to infrastructure chapter;
* Clarify cryostat and cryogenic payload descriptions, highlighting pros/cons of different concepts;
* Add executive summary (1-2 pages) if requested by review committee;
* Conduct consistency checks across all sections (terminology, references, etc.);
* Update clean room requirements, including simultaneity factor for ventilation;
* Clarify bottom access clean room design and structural needs.
* **A.O.B.**

***15:50-16:00 CET***

**Cryogenic Tower Design Discussions:**

* Debate on access methods (bottom vs. side) and implications for payload operations;
* Need to clarify impact of different designs on overall detector layout;
* Open issues remain for both baseline and alternative concepts;
* Further R&D required for critical design points.