

Subject: TIC meeting , February 17, 2025 (Needed help from the Lumi-Experts; Progressing towards preTDR) - main outcome

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Date: 2/19/2025, 10:07 AM

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Dear Colleagues,

this e-mail is to underline the main outcomes of the February 17th, 2025 TIC meeting, dedicated to (i) Needed help from the Lumi-Experts and (ii) Progressing towards preTDR.

Communications from the TC-Office on February 17th:

- The dates of the Cherenkov PID review (PDR2) have been announced: April 1st and 2nd.
- CERN Deputy PS/SPS physics coordinator Martin Jaekel in charge for the arranging the testbeam schedule has asked ePIC to coordinate the requests coming from the experiment because of the difficulties of satisfying all of them; TC-Office is helping and the reference colleague is Oskar Hartbrich; the collection of information about the ePIC group requests has been completed and the exercise of optimization has started. Of course, it should quickly converge.

(i) Needed help from the Lumi-Experts

Help is requested for the design refinement of the IR.

The requests include:

- all the requirements the lumi-window needs to fulfill, an example material thickness, and material uniformity, ...;
- for all energies 5, 10 and 18 GeV, the distribution from the Bethe-Heitler photons with all beam effects included;
- what is used as the most recent design of the lumi-window;
- a link to the generator used and a description about how to run it with the correct settings for the beam effects.

In spite of short term, Stephen Kay has presented a clear and convincing strategy to get the answer in short time.

(ii) Progressing towards preTDR.

The overall discussion has been ample with several comments and suggestions.

The discussion was limited to Chapter 8 matter, namely to detector matter.

Here a summary clustering the different topics by items.

1) PreTDR timelines: general agreement to have it completed by the end of 2025; this preserves open the option of a detector-dedicated publication based on preTDR to be written as soon as the preTDR is ready; the details about the steps from preTDR to publication will be discussed at a later time.

2) There is the need to better profit of the preTDR Version1, which, contrary to preTDR Version0, has received too little attention. The dominant indication is to form soon a dedicated team, which analyses Version1, in particular with the goal of identifying what is missing. This in view of asking DSCs the effort for Version2, which must be the final request to DSCs. The work remaining after DSC effort for Version2 must be only polishing and, when needed, punctual interventions on the text.

3) "More material".

There is general conviction that more extended material has to go in "ePIC notes" and the definition of a procedure of approval is urged. These material will also form the basis for the publication and, later, for the TDR (2026 activity).

If this notes need corrections/integration, please, write me back.
Thank you.

Best greetings, Silvia

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