

Subject: TIC meeting 4/8, 2024 (TDR effort, progress (electr/r-o/DAQ); Closeout of the tracking review; rad-hard campaigns) - main outcome

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Dear Colleagues,

this e-mail is to underline the main outcomes of the April 8 TIC meeting, dedicated to (i) the first report monitoring TDR effort progress by the electr/r-o/DAQ WG, (ii) a report about the closeout of the tracking review and (iii) two reports about radiation studies.

The careful reports by the speakers have been appreciated.

i) Report monitoring TDR effort progress by the electr/r-o/DAQ WG

The report is very complete and important progress is registered respect to the previous report. To be underlined:

- May PRD in now move to early June; it has to be final for IPGbt / vtrx+ (related to LLP for these two items);
- there has been progress in estimating data volumes, even if some aspects are still pending; (synchrotron radion, information from far detectors, realistic implementation of thresholds in the FEEs)
- RDO Pre-prototype design progressing rapidly (expect 6 boards fabricated end of April).

ii) The report is a summary of the close out report of the tracking review.

The key recommendations from the review committee are underlined:

more simulation, more details on tracking alternatives (cost/schedule) and additional physical mockups for silicon to better understand constraints, document QA procedures for each component, document requirements for production sites and have each produce at least one module. Overall, the schedule is regarded as aggressive and critically dependent on the success of the ITS3 project.

(iii) The plans for two Rad-hard campaigns are illustrated.

- @ UC Davis Cyclotron to study radiation damage in SiPMs for forward hadron calorimetry; even if a single Si-PM type will be studied, the outcome can be extrapolated to other sensors of the same technology with different size parameters (pixel size, sensor surface);
- @ Ljubljana Facility for the AC-LGADs.

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

Thank you.

Best greetings, Silvia

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