

# Detector R&D Committee

Minutes of the third meeting held on Monday-Tuesday, 3-4 June 2024

## OPEN SESSION

1. Welcome & Introduction: Thomas Bergauer
2. Quantum Sensors (DRD5) Proposal: Michael Doser
3. Electronics (DRD7) Proposal: François Vasey

## CLOSED SESSION

**DRDC:** T. Bergauer (Chairperson), S. Bressler, R. Forty, C. Gemme, I. Gil Botella, M. Pesaresi, J. Troska (Scientific Secretary)

**Ex-Officio:** P. Allport (\*), D. Contardo, F. Sefkow

**Excused:** S. Bentvelsen, D. Budker, M. Krammer, P. Merkel, J. Mnich, L. Serin

**DRD3:** G. Kramberger (Spokesperson), I. Gregor (Deputy SP), M. Moll (Deputy SP), G. Pellegrini (\*)

**DRD5:** M. Doser, M. Demarteau (\*)

**DRD7:** F. Vasey, F. Simon

(\*) denotes presence via Zoom

## Procedure

The meeting was opened by T. Bergauer with a warm welcome to the third meeting. The committee proceeded to approve the agenda. T. Bergauer summarised the status of elections of the approved DRD collaborations as well as the key dates of the recent and/or upcoming meetings. The minutes of the second meeting were unanimously approved.

## Report on the MoU Status and Timeline

Helge Meinhard presented the status of the MoU template for DRD collaborations. The DRDC **commends** the work carried out so far and **encourages** the timely distribution of the draft to the DRD Collaborations.

## DRD3

The DRDC **appreciates** the efforts made by the DRD3 collaboration to address many of the DRDC's concerns raised at the previous meeting and **thanks** the DRD3 collaboration for its submission of an updated proposal. The DRDC **particularly appreciates** the effort to start collaboration meetings, endorsing their management team, and increasing the diversity of representation of the collaborating research groups within the management structure that includes the Working Group Convenors.

The DRDC **expects** that the Work Packages should be at the heart of the organizational structure. The DRDC **anticipates** that the apparent duplication between some Work Packages and Working Groups will disappear in due course.

The DRDC **acknowledges** that the goals of a strategic R&D work programme have been formulated and that the resources needed to achieve this programme have been estimated.

The DRDC **looks forward** to a work programme being defined that achieves the goals of the proposal and which is supported by resources for the work to be accomplished. The DRDC **expects** this work programme definition by end of 2024 with the drafting of the MoU.

The DRDC **recommends** the full approval of DRD3.

## DRD5

The DRDC **congratulates** the DRD5 proponents on their intensive efforts to gather together a diverse set of potential collaborators in order to produce a high-quality proposal.

The DRDC **notes** that the DRD5 collaboration has a different nature compared to a typical particle physics collaboration, as it targets the identification of emerging quantum technologies that could be used in future particle physics applications. Therefore, the DRDC **accepts** that the DRD5 proposal contains milestones and deliverables that are not yet resource-loaded, to enable community building in the first phase of the collaboration. The DRDC **expects** that institute responsibility for deliverables be assigned in due course. The DRDC **suggests** to select the more mature projects and start the process of defining a resource-loaded work package structure for them as soon as possible.

The DRDC **encourages** the DRD5 collaboration to publicize their activities more widely to reach a broad audience and to establish contact with the other DRDs on possible areas of overlap and common projects.

The DRDC **recommends** the approval of DRD5.

## DRD7

The DRDC **congratulates** the DRD7 proponents on the high quality of their proposal.

The DRDC **notes** that the DRD7 collaboration has categorized its membership into “contributors” who commit resources to particular projects and “observers” who follow the activities of the working groups, and **welcomes** this approach to broadening the engagement.

The DRDC **appreciates** the inclusion of the transverse activity of working group 7.7 to foster the exchange of knowledge and **encourages** the DRD7 collaboration to keep this activity open to the whole community. The DRDC **suggests** that DRD7 consider appropriate ways to involve the link-persons from the other DRDs in the developing this activity.

The DRDC **encourages** the DRD7 collaboration to continue to seek new collaborators, in particular in the areas of activity identified in the ECFA roadmap that are not yet covered, such as system aspects of power distribution and data concentration, and to establish ways to use their expertise to support the development of DAQ concepts to guide subsystem electronics developments for future large experiments.

The DRDC **looks forward to** the establishment of the Collaboration Board and opening up the management structure to elections.

The DRDC **acknowledges** that tight collaboration outside Europe is currently hampered by the availability of tools and licensing issues and **encourages** exploration of possibilities for wider collaboration despite these difficulties.

The DRDC **recommends** the approval of DRD7.

**Dates for DRDC meetings**

## Dates in 2024

3-4 June 2024

13-14 November 2024

## Dates in 2025

24-25 Feb 2025

15-16 May 2025 (TBC)

8-9 September 2025 (TBC)

4-5 November 2025

Jan Troska

E-mail: [jan.troska@cern.ch](mailto:jan.troska@cern.ch)

Tel. 72063

DRDC Secretariat

E-mail: [csc.secretariat@cern.ch](mailto:csc.secretariat@cern.ch)