

Introductory Text

This questionnaire is organized by the LDG-ECFA R&D Infrastructure Group in order to understand the infrastructure needs of the Detector R&D community BEYOND the standard infrastructure available within the DRDs. In the following you will find different groups of questions around larger facilities but also very special infrastructures your DRD might need. It would be good to get one answer by each DRD by June 15, 2023.

General Questions

1. Name of person filling in the questionnaire: [name, e-mail address, DRD TF]

Block 1: Test beam Facilities (for the next 5 years)

- Which test beam facilities you plan to use (multiple answers)?
 - CERN SPS
 - CERN PS
 - DESY
 - PSI
 - Other [text input]
- What is the preferred particle rate for the test beam studies:
 - [text input]
- How much beam time per year is needed ?
 - [text input]
- Is any special beam structure needed ?
 - [text input]
- Do you need a magnet in the test beam?
- Which field ?
 - [text input]
- What of the following infrastructure is needed ? (multiple answers)
 - Trigger system?
 - Tracking telescope?
 - Calorimeter ?

- Fast timing reference detector?
- Reconstruction software?
- Optional: what are the medium/long-term needs for test beams of your DRD?
 - [text input]

Block 2: Irradiation facilities (for the next 5 years)

1. Which irradiation facilities are you needing? (multiple answers)
 - CERN IRRAD
 - CERN GIF++
 - JSI TRIGA Reactor
 - IFJ PAN AIC-144
 - UC Louvain CRC
 - UoB MC40 Cyclotron
 - Other (specify)
2. How many irradiations per year do you expect?
 - [text input]
3. What is the range of target flux?
 - [text input]
4. What is the range of target fluence?
 - [text input]
5. Is there a need for power, cooling & read-out?
 - [text input]
6. What else is missing or would be nice to have ?

=====

Please note that the following questions (Block 3-5) are asking for needed infrastructures which your DRD will not be able to provide itself, but rather items the detector community has to allocate within Europe.

Example: clean rooms of higher classes needed than available within the DRD.

Block 3: Test set-up for characterisation and test-bench measurements

1. Is there any need for centrally accessible infrastructures such as
 - Detector Characterisation Laboratory?

LDG-ECFA Detector R&D Infrastructure Group

[text field]

- Manufacturing and Production Workshop?
- Assembly Facilities?
- Clean Rooms

Which clean room classes ?

- Radiation background free laboratory – underground facility
- Gas system design and production?
- Mechanical Workshop?
- Electronics Workshop?
- Analysis Laboratory?
- Metrology Laboratory?
- Radioactive Sources (active, passive)?
- Generic data acquisition systems?
- Anything else? [text field]

Block 4: Engineering support for detector R&D

1. Mechanics

- What kind of support in mechanical construction are you needing ?

[text input]

- Is the community needing support in FEA?

[text input]

2. Electronics

- Do you need services in firmware design?

3. Cooling

- Is there a need for support in special cooling equipment?

4. Anything else ?

[text input]

Block 5: Specific software for instrumentation

1. Is your DRD community needing any specific software/licences/license sharing to support the work?
2. Simulation software & support? (Monte Carlo)