

DRD1-WG6: Detector Production and Industrialisation

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Mandate and objectives

- **Mandate**

- Production aspects of gaseous detectors covering all essential construction elements
- Development of production techniques and innovative solutions
- Transfer to industry

- **Objectives**

- 1: Development and maintenance of common production facilities and equipment
- 2: Quality control and large volume productions
- 3: Collaboration with industrial partners
- 4: Establish and support a forum for sharing experiences, knowledge, and best practices

Task 1

Production facilities and equipment

- Propagate the RD51 model to other technologies
- Need for a large-RPC production facility
 - Electrode base material
 - Silkscreen printing
 - Gluing tooling
 - QC tests
 - Mechanical tools for assembling
- Wire Chambers → need to maintain the equipment in working order

Reference	Description	Deliverable Nature
Task 6.1.1	Production Needs: detector type and size, production volumes and quality	Report with estimation for each technology
Task 6.1.2	Production Capabilities: detector type and size, production volumes and production quality	Report with inventory for each technology
Task 6.1.3	Needs and Capability Matching (costs)	Report with required resources in terms of equipment and personnel
Task 6.1.4	Identify Resource Pooling strategies for the creation or the upgrade of production facilities	Resource Requests

Task2

QC and production

Reference	Description	Deliverable Nature
Task 6.2.1	QA/QC protocols for each technology	Report
Task 6.2.2	Inventory of missing but required instrumentation for QA/QC	Report

Task3

Collaboration with industrial partners

- Production volume exceeds the capacity of the facility
- Cost reductions
- Availability for potential commercial applications

Reference	Description	Deliverable Nature
Task 6.3.1	Technology transfer checklist	Report
Task 6.3.2	Technology transfer database (project, industrial partner)	Database

- Important aspects for technology transfer:
 - Identification of the market (market surveys)
 - Matching of the production level with the capacity of the industrial
 - Interest of the industrial for new methods and to address niche markets
 - Clarification of intellectual property licensing

Task4

Collaborative forum (+ DATABASE of existing and available material)

Reference	Description	Deliverable Nature
Task 6.4.1	Establishment and support of a forum for sharing experiences, knowledge, and best practices on gaseous detectors	Online Forum

Contact

- Web page: <https://drd1.web.cern.ch/activities-wg6>
- Contact email: DRD1-WG6-convenors@cern.ch
- Subscription to mailing list: <https://e-groups.cern.ch/e-groups/EgroupsSubscription.do?egroupName=drd1-wg6>
- Forum: <https://drd1-forum.web.cern.ch/c/wg6-production-and-technology-transfer/5>

The screenshot shows a Discourse forum interface. On the left is a navigation sidebar with options like Topics, My Posts, Review, Admin, and Categories. The main content area displays a list of topics under the category 'WG6: Production and Technology Transfer'. The topics are sorted by 'Latest'. The visible topics are:

Topic	Replies	Views	Activity
About the WG6: Production and Technology Transfer category WG6: Production and Technology Transfer	0	0	Sep '23
DLC for uRWELL detectors Materials mpgd	0	11	2d
Coverlay materials Materials	0	6	Sep '23

At the bottom of the page, there is a message: "There are no more WG6: Production and Technology Transfer topics. Ready to [start a new conversation?](#)"

Agenda

09:00 → 11:00 Working Group 6: Detector production

6/2-024 - BE Auditorium Meyrin



PRELIMINARY

- Existing and potential production facilities, capabilities and limits
- Industrial partner and technology transfer
- Working Group Objectives and plan

Conveners: Alain Delbart (Université Paris-Saclay (FR)), Fabien Jeanneau (Université Paris-Saclay (FR)), Gabriel Charles (Université Paris-Saclay (FR)), Giuseppe Iaselli (Universita e INFN, Bari (IT)), Laktineh Laktineh (Universite Claude Bernard-Lyon I (FR)), Rui De Oliveira (CERN)

09:00

Presentation of the WG6 "Detector production and industrialisation"

🕒 10m



Speaker: Fabien Jeanneau (Université Paris-Saclay (FR))

09:10

CERN MPT Workshop ¶

🕒 15m



Speakers: Eraldo Oliveri (CERN), Rui De Oliveira (CERN)

09:25

Saclay's MPGD workshop

🕒 20m



Speaker: Brahim Alain Moreno (Université Paris-Saclay (FR))

09:45

T2K TPC production

🕒 20m



Speaker: Alain Delbart (Université Paris-Saclay (FR))

10:05

Gap RPC production facility @ KODEL

🕒 15m



Speaker: Kyong Sei Lee (Korea University (KR))

 DRD1_KODEL.pdf

10:20

New collaboration for new wires

🕒 20m



Speaker: Gabriel Charles (Université Paris-Saclay (FR))

10:40

The ALERT project

🕒 20m



Speaker: Gabriel Charles (Université Paris-Saclay (FR))