

WP8 – Improvement and equipment of irradiation beam lines

WP.8.1. Coordination and Communication

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- **WP8 – Task overview & News**
- **WP8 – Status of Milestones and Deliverables**
- **Organization of WP8 sessions**

- WP8 – tasks and task leaders

8.1. Coordination and Communication	Co-leader: <u>Giovanni Mazzitelli</u> (INFN LNF) (gm) <u>Michael Moll</u> (CERN) (mm)
8.2. Test beams infrastructure at CERN and Frascati 8.2.1. <i>CERN</i> 8.2.2. <i>Frascati</i>	Leader: <u>Ilias Efthymiopoulos</u> (CERN) (gm) Leader: <u>Giovanni Mazitelli</u> (INFN-LNF) (gm)
8.3. Upgrade of PS proton and neutron irradiation facilities at CERN 8.3.1. <i>Improvement of irradiation facilities and evaluation of upgrade proposals</i> 8.3.2. <i>Common infrastructure for the facilities</i>	Leader: <u>Michael Moll</u> (CERN) (mm)
8.4. Qualification of components and common database 8.4.1. <i>Review existing data and experience from LHC, define test program</i> 8.4.2. <i>Define test procedures and conduct tests on selected components</i> 8.4.3. <i>Set-up and publish a WEB database compiling the information above</i>	Leader: <u>Simon Canfer</u> (STFC) (mm)
8.5. General infrastructure for test beam and irradiation lines 8.5.1. <i>Commission and operate beam tracking telescope</i> 8.5.2. <i>TASD and MIND</i> 8.5.3. <i>GIF++ user infrastructure</i>	Leader: <u>Ingrid Gregor</u> (DESY) (gm) Leader: <u>Paul Soler</u> (STFC) (gm) Leader: <u>Davide Boscherini</u> (INFN Bologna) (mm)
8.6. Coordination of combined beam tests and common DAQ 8.6.1. <i>Common test beam experiments at CERN and DESY</i> 8.6.2. <i>Common DAQ</i>	Leader: <u>Ties Behnke</u> (DESY) (mm) Leader: <u>David Cussans</u> (Uni Bristol) (WP9)

Task 8.1: Coordination and Communication

- ▶ **WP8.1.** Most of the tasks within WP8 achieved a **very good progress** in the last six months.
- ▶ **WP8.2** The tasks related to the test beam infrastructure at Frascati **are well on track and the anticipated milestones and deliverables** are at no risk. The CERN deliverable D8.2. is expected to be late by 5 months.
- ▶ **WP8.3 and 8.5** Excellent **progress was achieved in the construction of the irradiation facilities** at CERN, namely the Proton & Mixed field irradiation facility in the East Area and the **GIF++** facility in the North Area. Both projects are now **fully approved CERN**
- ▶ **WP8.4** The irradiation testing of materials and components and the production of a database on irradiated materials and components, is **delayed** due to lack of resources at STFC. The according milestone **MS30 has gathered a delay of seven months** but is now completed.
- ▶ **WP8.5** T ASD and MIND, and tracking telescope are **progressing well and are on schedule**
- ▶ **WP8.6** a delay was cumulated in reaching the objectives set for the EDMS system at DESY and the common DAQ system. **The achievement of the deliverable D8.2 is expected to be late by 7 months.**

MS27	Specification for beam line fixed	CERN (1)	m12 <u>Jan 2012</u>	Final specification for the design study in task 8.2. (Task 8.2.1)	o.k.
MS28	Design of T ASD and MIND	STFC (31)	m20 <u>Sept.2012</u>	Design for deliverable D8.11 (Task 8.5.2)	o.k.
MS29	Design of GIF++ infrastructure	INFN (18)	m20 <u>Sept.2012</u>	Detailed design ready for the cosmic ray tracker, the radiation measurement facility and the DCS (Task 8.5.3)	o.k.
MS30	Definition of test procedure and specification	STFC (31)	m20 <u>Sept.2012</u>	Common agreement of how tests for materials will be conducted and which components to test (Task 8.4)	o.k.
MS31	Installation of new equipment	CERN (1)	m26 <u>March 2013</u>	Movable irradiation tables operational (Task 8.3.2) CERN, UK	ready
MS32	First test results on selected components	STFC (31)	m26 <u>March 2013</u>	Intermediate result with respect to D8.7 (Task 8.4)	ongoing
MS33	Installation of T ASD and MIND	STFC (31)	m36 <u>Jan.2014</u>	Installation at CERN for deliverable D8.11 completed (Task 8.5.2)	
MS34	Test beam, EDMS and DAQ commissioning	DESY (9)	m36 <u>Jan.2014</u>	Intermediate stage for deliverable D8.8 (Task 8.6. 1&2)	
MS35	Installation of infrastructure	(34)	m37 <u>Feb. 2014</u>	Cold boxes and Fluence monitoring system operational (Task 8.3.2) CERN, UK, VU	
MS36	Commissioning of tracking telescope	DESY (9)	m44 <u>Sept.2014</u>	Start of operation of telescope delivered in D8.5 (Task 8.5.1)	

D8.1	Experience at LHC and definition of test programme: Based on the experience and expectations for the LHC test programme is defined and described in a document.	[month 12] <u>Jan. 2012</u>	Task 8.4	<u>o.k.</u>
D8.2	Publication of specification documents for the DAQ and for the central documentation facilities: Description of common infrastructures and interfaces for the linear collider test beams.	[month 20] <u>Sept. 2012</u>	Task 8.6. 1&2	<u>delayed!</u>
D8.3	Design study on low energy beamline: Design and implementation study on a low energy beam to the range of 1 (or possibly less) to 10 GeV	[month 26] <u>March 2013</u>	Task 8.2.1 CERN	<u>delayed!</u>
D8.4	Upgrade scenarios for irradiation lines: Design study on new or upgraded irradiation facilities at CERN based on slow extracted proton beams. Containing a proton and – if feasible – a mixed field irradiation facility.	[month 37] <u>Feb. 2014</u>	Task 8.3.1 CERN	
D8.5	Installation of tracking telescope: The tracking telescope is installed in the beam line and operational.	[month 40] <u>May 2014</u>	Task 8.5.1	
D8.6	Detector and detector control system operational: Cosmic ray tracker including front end electronics, power and gas systems. Detector for radiation measurement. Detector Control System monitoring the tracker working and the environment parameters.	[month 44] <u>Sept. 2014</u>	Task 8.5.3	
D8.7	Populated data base of components qualification: The materials and components database is online and populated with data.	[month 46] <u>Nov. 2014</u>	Task 8.4.1.	
D8.8	DAQ performance and test beam utilization: Report on the performances and use of the integrated DAQ setup, and of the common test beam facilities at DESY and CERN	[month 46] <u>Nov. 2014</u>	Task 8.6 1&2	
D8.9	Performance of beamline and infrastructure: Report on performance of beamline and infrastructure including GEM based beam profile and tracking detector	[month 48] <u>January 2015</u>	Task 8.2.2 Frascati	
D8.10	Commissioning of new facility equipment: Report on commissioning of shuttle systems, movable irradiation tables with cold boxes and a fluence monitoring system based on a microwave absorption technique in silicon.	[month 48] <u>January 2015</u>	Task 8.3.2 CERN, UK, VU	
D8.11	Infrastructure performance and utilization: T ASD and MIND are constructed and tested for their performance.	[month 48] <u>Jan. 2015</u>	Task 8.5.2	

- **Mid-term report submitted to AIDA management**
 - Many thanks for your input!
- **AIDA publications and AIDA INDICO pages**
 - The following Milestone and Deliverable reports are available in CDS: MS27 to MS30 and D8.1. (details on previous pages)
 - Number of publications and outreach talks in CDS still quite low!
 - **Reminder**
 - Please submit your publications to the AIDA CDS
(instructions on AIDA site or contact Agnes or Catherine in case of doubts)
 - *Please keep the AIDA INDICO up to date and link external contents to it if needed*
- **Upcoming AIDA Mid-term assessment review (25.4)**
 - Please provide status for all future milestones and deliverables
(..we like to speak with all task leaders about the status of their respective tasks)

- Wednesday morning

- 8.1 Coordination
- 8.2 Test beam infrastructure
- Coffee
- 8.3 Irradiation Facilities

09:00		
	8.1. Coordination and Communication <i>Aula Conversi, LNF Bldg 57</i>	<i>Michael MOLL et al.</i> 09:30 - 09:40
10:00	8.2.1 Test beams infrastructure at CERN <i>Aula Conversi, LNF Bldg 57</i>	<i>Marlene TURNER</i>  Vydio 09:40 - 10:20
	8.2.2 Test beams infrastructure at Frascati <i>Aula Conversi, LNF, Bldg 57</i>	<i>Giovanni MAZZITELLI</i> 10:20 - 10:30
	8.2.2 GEM tracker <i>Aula Conversi, LNF Bldg 57</i>	<i>Gerardo CLAPS</i> 10:30 - 10:45
	8.2.2 LYSO Calorimeter <i>Aula Conversi, LNF Bldg 57</i>	<i>Alessandro ROSSI</i> 10:45 - 11:00
11:00		
12:00	8.3.1 Improvement of existing irradiation facilities and evaluation of upgrade scenarios <i>LNF Bldg 57</i>	<i>Michael MOLL</i> 11:30 - 12:15
	8.3.2 Common infrastructure: Irradiation Tables <i>Aula Conversi, LNF Bldg 57</i>	<i>Gianluigi CASSE</i> 12:15 - 12:45
13:00	8.3.2 Common infrastructure: Fluence Monitoring <i>LNF Bldg 57</i>	<i>Prof. Juozas VAITKUS et al.</i> 12:45 - 13:30

- **Wednesday afternoon**
 - 8.4. Qualification of components and common database

	8.4: Qualification of components and common database	<i>Simon CANFER et al.</i>
15:00	<i>Aula Conversi - Building 57, LNF</i>	Vydio 14:30 - 15:10
	8.4: Qualification of components (Electronics)	<i>Mauro CITTERIO</i>
	<i>Aula Conversi - Building 57, LNF</i>	15:10 - 15:40
	8.4. Qualification of components	<i>Mauro MENICHELLI</i>
16:00	<i>Aula Conversi - Building 57, LNF</i>	15:40 - 16:00

– *Note: WP8 session from 17:30-19:00 cancelled*

- Thursday morning

- 8.5.1 Telescope
- 8.5.2. T ASD & MIND
- 8.5.3 GIF++

(...8.5 continued after coffee if needed)

Coffee

- 8.6.1. Test beam support & EDMS
- 8.6.2. (included in WP9 session)

	8.5.1 Commission and operate beam tracking telescope	??	09:30 - 09:50
	Aula Conversi, LNF Bldg 57		
10:00	8.5.2 T ASD and MIND	Etam NOAH MESSOMO	09:50 - 10:20
	Aula Conversi - building 57, LNF		
	8.5.3 Status of GIF++ user infrastructure	Davide BOSCHERINI	10:20 - 10:50
	Aula Conversi, LNF Bldg 57		
	8.5.3 Monitoring of radiation and environmental parameters at GIF++	Plamen Stoianov IAYDJIEV	10:50 - 11:00
	Aula Conversi, LNF Bldg 57		
11:00			
	8.6.1: Common Test Beam Experiments at DESY	Aura ROSCA	11:30 - 12:00
	Aula Conversi, LNF Bldg 57		
12:00	8.6.1 – Support for common test beam for linear collider	Dr. Erik VAN DER KRAAIJ	12:00 - 12:30
	Aula Conversi, LNF Bldg 57		
	Conclusion & Discussion		
13:00			
	Aula Conversi - bulding 57, LNF		12:30 - 13:30

- Friday: WP8 Summary in plenary session

- Enjoy the meeting !