

WP8 – Improvement and equipment of irradiation beam lines

WP.8.1. Coordination and Communication

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Contents:

- **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) <u>Michael Moll</u> (CERN)	(gm) (mm)
8.2. Test beams infrastructure at CERN and Frascati		
8.2.1. <i>CERN</i>	Leader: <u>Ilias Efthymiopoulos</u> (CERN)	(gm)
8.2.2. <i>Frascati</i>	Leader: <u>Giovanni Mazitelli</u> (INFN-LNF)	(gm)
8.3. Upgrade of PS proton and neutron irradiation facilities at CERN	Leader: <u>Michael Moll</u> (CERN)	(mm)
8.3.1. <i>Improvement of irradiation facilities and evaluation of upgrade proposals</i>		
8.3.2. <i>Common infrastructure for the facilities</i>		
8.4. Qualification of components and common database	Leader: <u>Simon Canfer</u> (STFC)	(mm)
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>		
8.5. General infrastructure for test beam and irradiation lines	<i>New, replacing I.Gregor</i>	
8.5.1. <i>Commission and operate beam tracking telescope</i>	Leader: <u>Hanno Perry, Igor Rubinsky</u> (DESY)	(gm)
8.5.2. <i>TASD and MIND</i>	Leader: <u>Paul Soler</u> (STFC)	(gm)
8.5.3. <i>GIF++ user infrastructure</i>	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>	Leader: <u>Ties Behnke</u> (DESY)	(mm)
8.6.2. <i>Common DAQ</i>	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 within last year.
- ▶ **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.** on low energy beam line design study has been **achieved** concluding this part of task 8.2.
- ▶ **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 under construction at CERN!
- ▶ **WP8.4** The irradiation testing plan for materials and components has been established (MS30) and the production of a database on irradiated materials and components, is **under test** prior to release in coming month.
- ▶ **WP8.5** T ASD installed at RAL test beam line and MIND prototype under construction with delay of 10 months with respect to schedule.
- ▶ **WP8.6** a delay was cumulated in reaching the objectives set for the EDMS system at DESY and the common DAQ system. **EDMS milestone MS34 reached, waiting for DAQ part of MS34.**

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. [m14]
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	o.k.
MS32	First test results on selected components	STFC (31)	m26 <u>March 2013</u>	Intermediate result with respect to D8.7 (Task 8.4)	o.k.
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)	o.k. T ASD: 2/14 MIND:12/14
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)	o.k., EDMS delay DAQ
MS35	Installation of infrastructure	(34)	m37 <u>Feb. 2014</u>	Cold boxes and Fluence monitoring system operational (Task 8.3.2) CERN, UK, VU	Need to wait for facility to exist
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.	[m12] <u>Jan. 2012</u>	Task 8.4	o.k. [m18]
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.	[m20] <u>Sept. 2012</u>	Task 8.6. 1&2	o.k. [m30]
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	[m26] <u>March 2013</u>	Task 8.2.1 CERN	o.k. [m33]
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.	[m 37] <u>Feb. 2014</u>	Task 8.3.1 CERN	...writing <u>report</u>
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	

- **P2 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 MS34 and D8.1. to D8.3 (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*
- **Many Deliverables for WP8 in last year**
 - Please report any risk of failing deliverables in time!

- Wednesday morning

- 8.1 Coordination

8.1 Coordination and communication	<i>Michael MOLL et al.</i>
<i>Festsaal, Vienna University of Technology</i>	09:30 - 09:40

- 8.2 Test beam infrastructure

8.2.1 CERN low energy beam line	<i>Adrian FABICH</i>
<i>Festsaal, Vienna University of Technology</i>	09:40 - 09:55

10:00

8.2.2 Frascati test beam upgrade	<i>Giovanni MAZZITELLI</i>
<i>Festsaal, Vienna University of Technology</i>	09:55 - 10:05

- 8.4 Qualification of components and common database

8.4 Qualification of components and common database ROBERTSON, Steven	<i>Steven ROBERTSON et al.</i>
<i>Festsaal, Vienna University of Technology</i>	10:05 - 10:25

8.4 Radiation damage in composites	<i>Steven ROBERTSON</i>
<i>Festsaal, Vienna University of Technology</i>	10:25 - 10:45

11:00

- Coffee

8.4 Radiation damage of monolithic pixel detectors	<i>Mauro MENICHELLI</i>
<i>Festsaal, Vienna University of Technology</i>	11:15 - 11:35

- 8.5.2 TASD/MIND

8.5.2 TASD and MIND progress report	<i>Etam NOAH MESSOMO</i>
<i>Festsaal, Vienna University of Technology</i>	11:35 - 12:05

12:00

8.6 EDMS progress report	<i>Aura ROSCA</i>
<i>Festsaal, Vienna University of Technology</i>	12:05 - 12:25

- 8.6 EDMS

8.6 Common test beam experiments	
<i>Festsaal, Vienna University of Technology</i>	12:25 - 12:45

- Thursday morning

- 8.3 CERN EAST AREA^{09:00}
Radiation Facilities

8.3 PS EAST AREA Irradiation Facilities	<i>Dr. Federico RAVOTTI</i>
<i>Festsaal, Vienna University of Technology</i>	09:00 - 09:30

8.3 Sensor cooling at the Birmingham Irradiation Facility	<i>Richard FRENCH</i>
<i>Festsaal, Vienna University of Technology</i>	09:30 - 09:50

- 8.5.3 GIF++

10:00

8.3 User infrastructure: Radiation Monitoring	<i>Prof. Juozas VAITKUS et al.</i>
<i>Festsaal, Vienna University of Technology</i>	09:50 - 10:10

8.5.3 The GIF++ facility	<i>Martin Richard JAEKEL</i>
<i>Festsaal, Vienna University of Technology</i>	10:10 - 10:45

11:00

8.5.3 GIF++ user infrastructure - Overview and Status	<i>Plamen Stoianov IAYDJIEV et al.</i>
<i>Festsaal, Vienna University of Technology</i>	11:15 - 11:55

12:00

8.5.3 User infrastructure - other equipment	
<i>Festsaal, Vienna University of Technology</i>	11:55 - 12:15

8.5.1 Telescope (Common with WP9)	
<i>Festsaal, Vienna University of Technology</i>	12:15 - 12:45

- Friday: WP8 Summary in plenary session



- Wednesday afternoon
 - Common Sessions with WP9 [DAQ, Telescope]

14:00	The common DAQ specifications <i>Prechtlsaal, Vienna University of Technology</i>	<i>David CUSSANS</i> 14:00 - 14:20
	Common DAQ issues for Silicon Pixel Telescope <i>Prechtlsaal, Vienna University of Technology</i>	<i>Hanno PERREY et al.</i> 14:20 - 14:35
	Common DAQ issues for TPC <i>Prechtlsaal, Vienna University of Technology</i>	<i>Jan-Ulf MJOERNMARK et al.</i> 14:35 - 14:50
15:00	Ideas for integrating ILC SiTra into a common DAQ <i>Prechtlsaal, Vienna University of Technology</i>	<i>Thomas BERGAUER et al.</i> 14:50 - 15:05
	Clock and Control within CALICE and implications for common DAQ <i>Prechtlsaal, Vienna University of Technology</i>	<i>Uli SCHAEFER et al.</i> 15:05 - 15:20
	Common DAQ issues for Calice ECAL <i>Prechtlsaal, Vienna University of Technology</i>	<i>Vincent BOUDRY et al.</i> 15:20 - 15:35
	Common DAQ issues for AHCAL <i>Prechtlsaal, Vienna University of Technology</i>	<i>Jiri KVASNICKA et al.</i> 15:35 - 15:45
16:00	Ideas for EUDAQ-CALICE matching <i>Prechtlsaal, Vienna University of Technology</i>	<i>Vincent BOUDRY</i> 15:45 - 16:00

- Thursday morning/afternoon
 - Common Session with WP9 on test beams, and telescopes [8.6/8.5.1]

- Enjoy the meeting !