

MUSE Scientific Board kick-off meeting

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MUSE SB kick-off meeting
Monday 15 February 2016

Project Management

MANAGEMENT BOARD (meets every 3 months + when needed)

Administrative aspects of the project

One member for each main department + the coordinator (chair)

SCIENTIFIC BOARD (meets every 2 months + when needed)

Coordination of the network activities

WP coordinators + one MB member (chair)

SB duties (from Grant Agreement)

- SB meets every 2 months. Extra meetings, if necessary
- SB responsibilities
 - Coordinate network activities (7 Work Packages)
 - Plan and supervise secondments (revisions submitted to MB for approval), collect reports from seconded personnel
 - Monitor the progress of the scientific programme (check deliverables and milestones)
 - Produce periodic written reports (6 months) on network activities status of secondments and deliverables
 - Develop mitigation plans in case of problems

Work Packages conveners

WP #	WP Name	Institutions	Conveners
1	g-2 detectors	UCL	M. Lancaster
		LIV	T. Bowcock
2	Mu2e detectors	INFN	S. Miscetti
		INFN	M. Martini
3	Calibration	INFN	C. Ferrari
		INFN	D. Cauz
4	Software tools	INFN	G. Tassielli
		UCL	R. Chislett
5	Dissemination & outreach	INFN	A. Lusiani
		FNAL	D. Glenzinski
6	Transfer of knowledge	HZDR	F. Fiedler (D. Bremmer)
		INFN	F. Spinella
7	Management	INFN	S. Giovannella
		INFN	S. Donati

WP 1: $g-2$ detectors (M. Lancaster, T. Bowcock)

Objectives: Participate to the development and construction of the $g-2$ straw tracker detector and DAQ, and of the $g-2$ calorimeter DAQ

Task 1.1: Build calorimeter laser DAQ boards ("flight simulator")

Task 1.2: Calorimeter SiPM bias voltage supply

Task 1.3: Build straw tracker

Task 1.4: Build straw tracker readout electronics

Deliverable 1.1: Report on laser integration (INFN, M24)

Deliverable 1.2: Report on straw trackers (Liverpool, M24)

Milestone 1: Tracker DAQ integration (UCL, M17)

WP 2: Mu2e detectors (S. Miscetti, M. Martini)

Objectives: Develop and build the Mu2e calorimeter and HPGe monitor system

T2.1: Calorimeter design and technological choices

T2.2: Test and characterize crystals

T2.3: Test and characterize silicon photo-sensors

T2.4: Design and build calorimeter front-end electronics

T2.5: Assemble first calorimeter disk

T2.6: Design HPGe monitor

T2.7: Build HPGe monitor

D2.1: Calorimeter TDR (INFN, M12)

D2.2: Database of calorimeter crystals, photo-sensors, electronics (INFN, M36)

D2.3: Design of HPGe monitor completed (Liverpool, M27)

WP 2: Mu2e detectors (S. Miscetti, M. Martini)

MS2: First calorimeter disk assembled (INFN, M42)

MS3: HPGe detector installed (UCL, M48)

WP 3: Calibration (C. Ferrari, D. Cautz)

Objectives: develop calibration systems for
g-2 calorimeter
g-2 straw-tracker
Mu2e calorimeter

T3.1: build g-2 laser-based calorimeter calibration system

T3.2: build g-2 straw tracker calibration system

T3.3: commission g-2 calibration systems

T3.4: build Mu2e laser-based calorimeter calibration system

T3.5: install Mu2e calorimeter calibration system

D3.1: g-2 laser based calibration system (INFN, M10)

D3.2: g-2 straw tracker calibration system (UCL, M18)

D3.3: Design of Mu2e laser-based calibration system (INFN, M18)

WP 3: Calibration (C. Ferrari, D. Cautz)

MS4: Mu2e laser-based calibration system assembled (INFN, M30)

MS5: g-2 calibration system commissioned (UCL, M36)

Comments

While WP1 and WP2 are respectively "confined" within g-2 and Mu2e, WP3 requires a tight collaboration between g-2 and Mu2e to manage Muse. This is true also for WP4, WP5, WP6, WP7.

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WP 4: Software Tools (G. Tassielli, R. Chislett)

Objectives: develop software packages for the simulation of the “European” detectors, participate to g-2 data analysis.

T4.1: develop g-2 calorimeter and straw-tracker simulation and reconstruction code

T4.2: develop Mu2e calorimeter and HPGe monitor simulation code

T4.3: commission g-2 analysis code

T4.4: commission Mu2e calorimeter reconstruction code with cosmics

D4.1: Mu2e calorimeter, HPGe and neutron simulation and reconstruction code released (INFN, M32)

D4.2: Stress test of g-2 analysis framework with 10^{11} simulated Muon samples (UCL, M12)

WP 4: Software Tools (G. Tassielli, R. Chislett)

MS6: g-2 calorimeter and straw-tracker simulation and reconstruction code released (UCL, M12)

MS7: Mu2e calorimeter and HPGe monitor reconstruction code commissioned with cosmics (INFN, M40)

WP 5: Dissemination and Outreach

(A. Lusiani, D. Glenzinski)

Objectives: Promote communication between the scientific community and the general public and increase science awareness, but also participate to conferences and publish a lot of scientific papers

T5.1: Muse workshop day (in coincidence with the Muse annual Meeting, organize a one-day workshop open to university and High-school students, also open laboratories)

T5.2: Muse open day (in coincidence with the European Researchers Night)

T5.3: Annual Physics Meeting at INFN-LNF (3-day event open to High-school teachers)

T5.4: UK masterclasses

T5.5: University of Pisa Summer School at Fermilab and other US laboratories (3-day training on Muse research activities)

T5.6: Muse public web site

WP 5: Dissemination and Outreach

(A. Lusiani, D. Glenzinski)

D5.1: Muse Open day (HZDR+ALL, M9)

D5.2: Annual Physics Meeting at INFN-LNF (INFN, M22)

D5.3: UK Masterclasses (Liverpool, M28)

D5.4: University of Pisa Summer School at Fermilab (INFN, M44)

Please be aware that most of these events are annual, we did not Report these events on an annual-basis in the Grant Agreement to Save space.

The Deliverable relative to the Muse public web site is reported In Work Package 7 (Management)

D7.3: Muse public web site (INFN, M5)

WP 6: Transfer of Knowledge

(F. Fiedler (D. Bremmer), F. Spinella)

Objectives: transfer of knowledge among participants, to increase the research quality and competitiveness of participants;
Special care to transfer of knowledge between academic and non-academic partners

T6.1: Transfer of knowledge "research-industry" (Prisma for electronics design)

T6.2: Medical applications (INFN/AdvanSiD/HZDR)

T6.3: Training courses: seconded personnel has to attend training Courses

D6.1: Report on irradiation studies for Mu2e detectors (INFN, M35)

D6.2: Report on SiPM optimization for medical applications (HZDR, M36)

WP 7: Management (S. Giovannella, S. D.)

Objectives: run Muse (secondments, scientific activities, fulfill Deliverables, maximise knowledge sharing, guarantee equal opportunities for all participants, maximise visibility)

T7.1: Supervise project

T7.2: Organize meetings

T7.3: Prepare general and periodic reports

T7.4: Muse web site (public and private section)

D7.1: First progress report (INFN, M12)

D7.3: Muse web site (INFN, M5)

D7.4: First Muse General meeting (INFN, M9)

Deliverables repeated annually

MS8: Muse Management structure in place (INFN, M1)

Done

Work Package Coordinators Mission

- Organize WP activity
- Appoint task leaders
- Perform risk analysis and mitigation
- Solve problems
- Report WP activity at SB meetings

Next SB Meetings

- M4: April 2016
- M6: June 2016
- M8: August 2016
- M10: October 2016
- M12: December 2016
- M14: February 2017, Mid Term Review

Mid Term review (February 2017)

Usually held in Bruxelles

All Reports, Deliverables, Milestones, Documentation will have to be provided in time

Our work will be checked in extreme detail