

Infrastructure for advanced calorimeters

WP14 Session Introduction

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- **14.1** Scientific coordination (MPP-MPG, CNRS-LAL), 16kEUR
- **14.2 Test infrastructure for innovative calorimeters with optical readout**, 340kEUR
 - 14.2.1** Test benches for characterisation of organic and inorganic scintillator material (CERN [CERN, RINP, Brunel], INFN [Torino, Roma, MiB, UNIMiB], VU, ETHZ)
 - 14.2.2** Test benches for the characterisation of highly granular calorimeter elements with scintillator and SiPM readout (JGU, DESY [Uni Heidelberg], MPG-MPP, UiB, IPASCR)
- **14.3 Test infrastructure for innovative calorimeters with semiconductor readout**, 345kEUR
 - 14.3.1** Assembly and QA Chain for silicon-based ECALs (CNRS [LLR, LAL, LPNHE], CERN [CERN, Imperial])
 - 14.3.2** Infrastructure for very compact Tungsten based calorimetry (DESY [Zeuthen], AGH-UST, TAU [Tel Aviv, IFJPAN], Vinca)
- **14.4 Readout systems for innovative calorimeters**, 150kEUR
 - 14.4.1** LC Calorimetry specific DAQ interfaces (IPASCR, CNRS [IPNL, LLR], DESY [Hamburg])
 - 14.4.2** Low Power Readout & Monitoring systems (CNRS [LAL, IPNL], DESY [Hamburg, Uni Wuppertal])
- **14.5 Mechanical and thermal tools for innovative calorimeters**, 115kEUR
 - 14.5.1** Precision mechanics for calorimeter structures (CIEMAT [Madrid])
 - 14.5.2** Infrastructure to evaluate thermal properties of calorimeter structures (CNRS [LPSC], DESY [Hamburg])

- Beneficiaries

- AGH-UST
- CERN
- CIEMAT
- CNRS - IPNL, LAL, LLR, LPNHE, LPSC
- DESY
- ETHZ
- INFN - MI, RTV, TO
- IPASCR
- JGU
- MPG-MPP
- TAU
- UiB
- VU

- Associated Partners - receive funding through beneficiaries
- CERN: Brunel, Imperial, Minsk
 - DESY: U HD, U W
 - INFN: UniMIB
 - TAU: IFJPAN

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- Beam tests
 - SpaCal beam test to test optical materials (Task 14.2.1)
 - Combined CALICE Hcal/CMS Ecal beam test (Tasks 14.2.2, 14.3, 14.4 and WP5)
 - CALICE SiW Ecal beam test (Task 14.3)
Remark: Analysis of beam test data will tighten links with WP3
- Infrastructure
 - Mounting of large scale cooling loop (Task 14.5)

- AIDA2020 Midterm-Review (20/04/17)

Statement on WP14 by A. Walenta 02/06/17:

“The work is well organized and progressing. A major impact on technical issues is expected when the initial drive can be kept for the second half of the project.”

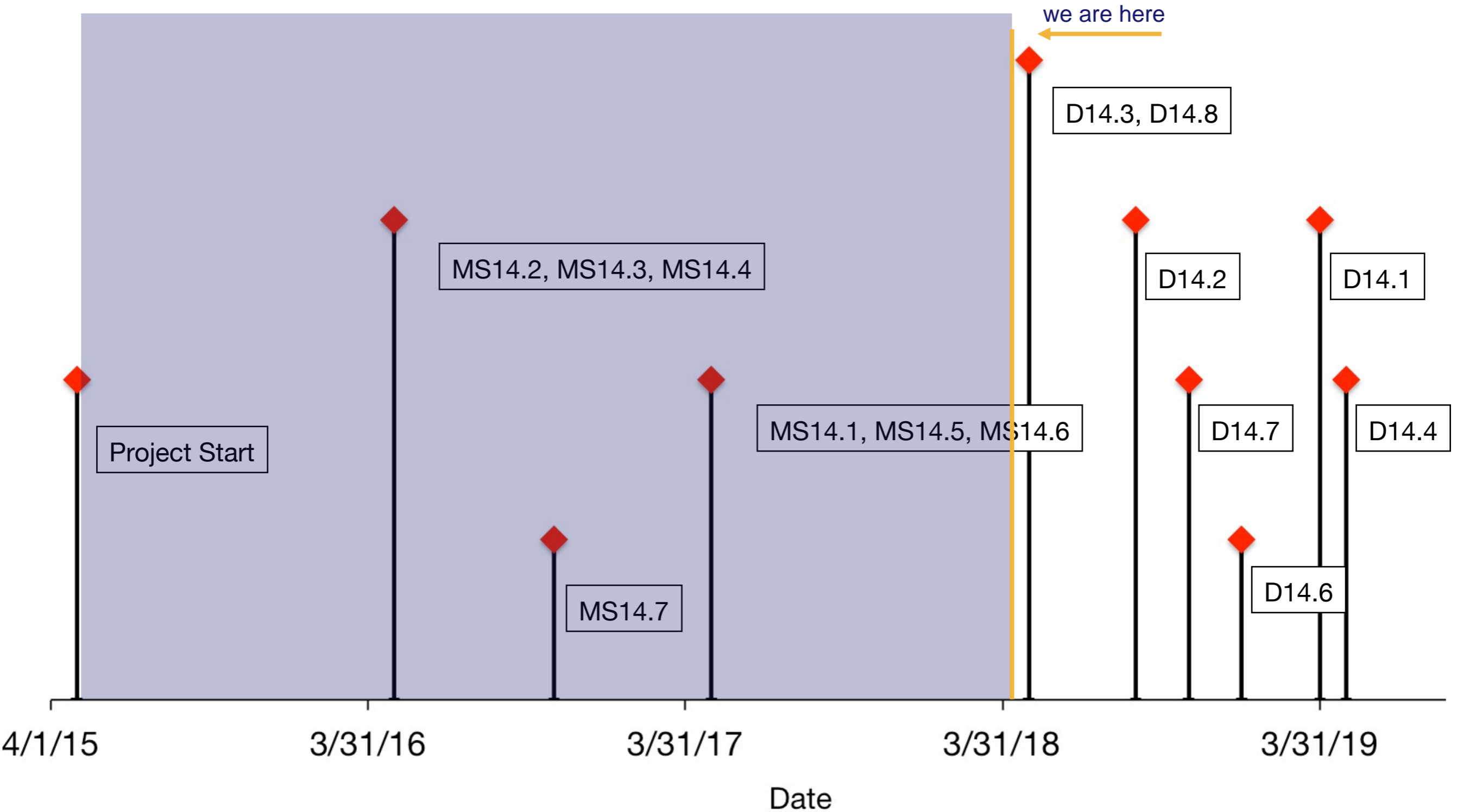
- 4th Face-to-face meeting 11/01/18 at CERN
 - “Guest reports” from WP5 and WP3 (last year WP4)

- Regular WP14 TL Meetings

- WP14 Workspace

<https://espace.cern.ch/AIDA2020-intranet/WP14/SitePages/Home.aspx>

WP14 Time Line

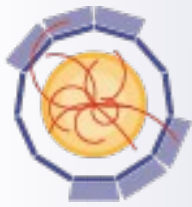


	Title	Lead Ben.	Task	Month
D14.1	Fibre test benches	CERN	14.2.1	47
D14.2	Performance of test infrastructure for highly granular optical readout	MPG-MPP	14.2.2	40
D14.3	Advanced assembly chain for Si calorimeters	CNRS	14.3.1	36
D14.4	Very compact calorimeters	AGH-UST	14.3.2	48
D14.5	Common running of calorimeter prototypes	DESY	14.4.1	36
D14.6	Updated readout system	CNRS	14.4.2	44
D14.7	Electron beam welding demonstrator	CIEMAT	14.5.1	42
D14.8	Large leak-less system, thermal model	DESY	14.5.2	36

Three deliverables in M36 (at the end of 04/2018), one in M40 (at the end of 08/2018)

NB: Deliverables are formal obligations towards the EU - requires substantially longer lead times than Milestones, more critical review and higher standards in terms of presentation etc

- 3 Deliverables due in M36 - have hit some problems (management already informed):
 - “Hardware” exists (see also presentations) delay in write-up
- D14.3 Advanced assembly chain for Si calorimeters (CNRS)
 - Delay in finalisation of report – draft is in hand of WP Coordinators
- D14.5 Common running of calorimeter prototypes (DESY)
 - The work has been completed but the intensive work on the AHCAL beam test setup that includes also the completion of D14.8 leads to a minor delay of the report according to our information.
- D14.8 Large leak-less system, thermal model (DESY)
 - Delay in report, due to delayed delivery of a key component for tests at DESY (now there), expect to have report with a maximum delay of 2 months by M38
 - Note that a large part of the report is however available to the WP14 Coordinators



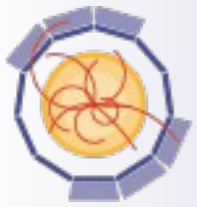
AIDA²⁰²⁰ WP14 Publications

WP	No. of journal publications	No. of conference/ workshop proceedings	Other publications	Total
WP2	0	0	6 press articles 6 "On track" newsletter issues	12
WP3	2	3	6 presentations 3 scientific notes	14
WP4	0	0	1 poster	1
WP5	0	1	2 presentations 1 scientific note 1 poster	5
WP6	10	2	1 poster	13
WP7	11	8	2 presentations 2 posters	23
WP8	2	2	0	4
WP9	1	0	5 presentations 1 poster	7
WP13	4	2	1 presentation 3 posters	10
WP14	4	7	1 scientific note	12
WP15	0	7	6 presentations 5 scientific notes 7 posters	25
TOTAL	34	32	60	126

- The publication record is good
... but there is room for improvement
... upon search in CDS one finds 18 pubs
- Expect more publications as tasks reach their final stages
... in particular Journal Publications
... prefer OpenAccess Journals
Contact us in case of doubt where to publish
- Publication plan requested from each task
- AIDA2020 offers nice tool for publication query
<https://cds.cern.ch/collection/AIDA-2020?ln=en>

Please check whether your publication is there!!!

Source: <http://aida2020.web.cern.ch/science/publications>



- Governance Board will discuss draft of a request of an extension of AIDA2020 until End of April 2020
 - Requires amendment to Grant Agreement
 - no extra funding but opportunity to complete work or benefit from built infrastructures while keeping the community together
 - No call for integrated activities before 2012
 - See details in Felix' talk tomorrow
- P2 report due in M38 (June 2018) covering the period Nov. 2016 – Apr. 2018 [M19 - M36]
 - > Will contain last three WP14 Milestones and first three deliverables

- With deliverables tasks and groups will have progressively fulfilled their “duties”
- AIDA-2020 and WP14 may continue to remain platform for exchange of knowledge outside of collaborations and projects (fosters free thinking)
- Formally we will continue to have regular Taskleader Meetings
- 2019 F2F Meeting may be organised as a first WP14 review meeting to see applications of earlier MS and deliverables
- Food for thinking for the WP Coordinators but also for the WP14 TL and members
- Your suggestions on how to keep WP14 alive and attractive towards the end of AIDA-2020 (plus extension) are most welcome

- Busy agenda
- 12 presentations agenda
- 8 Taskleader presentations – Overview with focus on deliverable where applicable
- 4 dedicated presentations
- WP14 summary tomorrow afternoon

- Broad variety of activities on infrastructures for calorimeter R&D covered by WP14
- Now heading towards deliverables
 - Demonstrators and hardware are in place
 - Writing up is lacking behind
- Publication record of WP14 is satisfactory
- Publication record is an essential evaluation criterion
- Need to exploit extension/continuation of AIDA-2020 and WP14



AIDA²⁰²⁰

Backup

- Guidelines by AIDA-2020 management for deliverable reports (Felix Sefkow, July 2016):

Deliverables are contractual obligations to the EC, and also to the consortium. There is no page limit to the reports, but since this is where the primary attention of our project officers and reviews will be directed to, it is clear that this should also be our prime focus.

The reports should clearly demonstrate that the goals set out in the proposal have been reached.

The deadline is the month in which the report has to be uploaded to the EC portal. The idea that the deadline specifies when the work has to be completed, while the report can be written at earliest convenience afterwards, is a misconception.

Again: The deadline is the month in which the report has to be uploaded to the EC portal.

This means that we need to have the report at least two, better more weeks beforehand to allow for proof-reading and final editing.

If a report is delayed by more than a month, we need an additional document justifying the delay. We should make use of this possibility as little as possible and only in case it is absolutely unavoidable.

- No call for detectors closing in 2018
- Most likely none in 2019, either
- Discussions for “Innovation pilot” call closing in 2020
 - Test bed for FP9
 - Will most likely have to join with other advanced community
 - Proposal preparation during 2019
 - Funding to start in 2021: 2 year gap
- Precedence EUDET
 - Originally 2006-2009
 - Follow-up DevDet failed in 2008
 - Extension till end of 2010
 - Reduced meeting activity
 - 2011-2015: AIDA

F. Sefkow: AIDA-2020 SG#13

- No additional funding
 - No additional deliverables
 - No additional scientific reports
 - P3: M36, P4: M48
 - Final M48 shifted to M60
 - Financial report on Y5
 - But:
 - Amendment to grant agreement
 - To be prepared for and decided in Bologna
 - New description of work
 - Support for additional user demand
 - Input from WPs required
 - Whether, and if yes, why
 - Management and follow-up to continue
 - Final re-imburement delayed by 1 year
- Main advantage:
 - Keep community together
 - AIDA-2020 meetings are effective and popular
 - Frame for proposal preparation phase
 - Stay in touch with Brussels
 - Main disadvantages:
 - Keep going
 - + 2-3 SC, +1 AM
 - Some funds delayed

F. Sefkow: AIDA-2020 SG#13

- Two task leaders for each task - to provide expertise in all topics within a task and to represent the full breadth of the WP14 community
- Work package leaders (and Task 14.1):
Roman Pöschl (CNRS-LAL), Frank Simon (MPG-MPP)
- Task 14.2: Etienne Auffray (CERN), Lucia Masetti (JGU)
- Task 14.3: Vincent Boudry (CNRS-LLR), Marek Idzik (AGH-UST)
- Task 14.4: Katja Krüger (DESY), Dirk Zerwas (CNRS-LAL)
- Task 14.5: MaryCruz Fouz (CIEMAT), Denis Grondin (CNRS-LPSC)
- Technology Transfer Officer (TTO): Etienne Auffray (CERN)