

Advancement and Innovation for Detectors at Accelerators

WP3: Test beam and DAQ infrastructure

M. Stanitzki (DESY) and M. Wing (UCL)

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Tasks and task leaders

- Task 3.1 Management
 - → Marcel Stanitzki (DESY), Matthew Wing (UCL)
- Task 3.2 Upgrading the EUDET-style beam telescope infrastructure (DESY, CERN, CNRS-IPHC)
 - → Adrian Herkert (DESY)
- Task 3.3 Sub-ns timing capabilities for the EUDET-style telescopes (NWO-I/Nikhef, UNIVBRIS, CSIC-IFCA, DESY, UCL, USC)
 - Martin van Beuzekom (Nikhef), David Cussans (Bristol)
- Task 3.4 Development of DAQ software for next generation beam tests (UCL, DESY, UOS)
 - 🔁 Lennart Huth (DESY)
- Task 3.5 Development of common DAQ hardware (CERN, DESY, SRS)
 - → Dominik Dannheim (CERN)



News

- Task leaders Meeting in January 2024
 - Touch base on Status of the many upcoming deliverables
 - https://indico.cern.ch/event/1376333
- Parallel Session this morning
 - Limited WP3 attendance in person, many remote
 - Restrictions on travel take their toll



Milestones

MS #	Milestone name	Lead beneficiary	Due Date (in months)	Means of verification
MS8	Telescopes upgraded with ALPIDE sensor	12 - DESY	Delayed 27	New telescope in test-beam facilities (Task 3.2)
MS9	Timepix4 timing layer in telescopes	23 - NWO-I/Nikhe	f Delayed ³⁶	Upgraded telescope in all beamlines (Task 3.3)
MS10	Monitoring software developed	39 - UCL	30	Use in beam tests (Task 3.4)
MS11	Common readout boards designed	1 - CERN	23	Prototype developed (Task 3.5)



Deliverables

D #	Deliverable name	Lead beneficiary	Type Due Date (in		e (in months)
D3.1	Common cold box delivered	1 – CERN	Report	MIA	39
D3.2	New TLU produced	38 – UNIVBRIS	Demonstrator	Delayed	39
D3.4	New software developments available for use	39 – UCL	Report		39
D3.5	Common readout boards delivered	1 - CERN	Report		42



- Details also in Highlight slides
- MS8 WP3.2 \rightarrow delays because "doing the right thing"
 - A open, long-term supportable solution for the ALPIDE Telescopes
 - Development took longer, but we are convinced the long-term gains justify the delays
- MS9 is in principle in reach, needs a bit longer, "justification for delay" being written
- No real show stoppers in either
- D3.1 WP Management has received no updates
- D3.2 will be delayed by approx 6 month tbc







Beyond AIDAInnova

- We're in our fourth year ...
- Time to at least ponder,
 - Is there life after AIDAInnova
 - And what would we do ?
- Time to collect ideas
- IHMO set is the support of our infrastructures
 - Telescopes, Software, TLU
- Ideas ?
 - Let me and Matthew know



Summary and Conclusions

- WP2 is advancing reasonably well
 - Some deliverables are coming later but we clearly understand why
 - Mainly not as much technical effort available as desired
- In WP3.2 there is a real danger of not achieving the "Common Cold Box" deliverable
 - Also the "decay" of the MIMOSA26 infrastructure is worrying
- All other milestones and deliverables are either on-track or already done