

## 14.4. Readout systems for innovative calorimeters

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**WP 14 – Aida 2020 meeting**

**June 15, 2016**

**1 Milestone (58)**

**2 Deliverables (14.5 and 14.6)**

**Aida 2020**

**Year 1: 0 milestones, 0 deliverables**

**Year 2: 1 milestone**

**Year 3: 1 deliverable**

**Year 4: 1 deliverable**



## **Milestone 58: Definition of optical and electrical coupling of readout, interface functionality and DIF design**

**Verification:** DIF data sheets

**Date:** 24 months

**Comment:** not defined for a specific detector

**Status:** on-track with several options

### **IPN Lyon**

Implementation of a GBT based communication for Roc chips

**Presentations in the previous meetings**

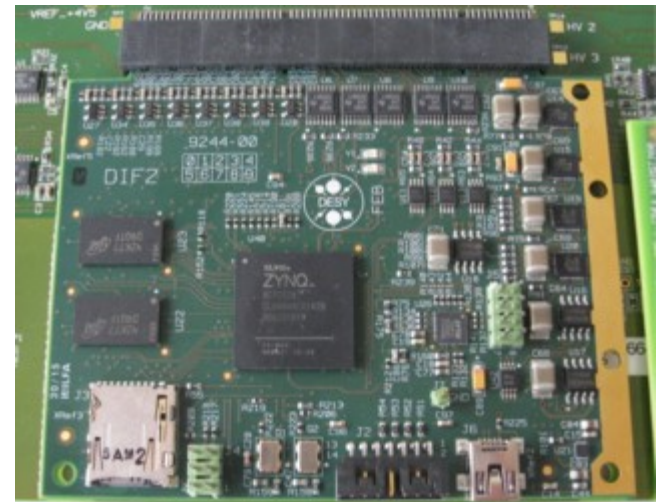
### **LLR**

ECAL DIF

### **DESY**

Design and production of a new DIF for scintillator readout

**status:** see Jiri's talk



## **Deliverable 14.5: Common running of calorimeter prototypes**

**Data acquisition system to allow for a common data taking of different highly granular calorimeter prototypes in beam tests at CERN and DESY. These tests should provide data files containing events synchronised between the subsystems.**

**Date: Month 36**

### **Status:**

- **intensive discussions**
  - **in CALICE DAQ taskforce on combined running of different linear collider calorimeters**
  - **WP5: during Beam telescope workshop 3-5 February 2016 at LAL**
  - **WP5: Interface definition: draft available**
- **hardware standards for common DAQ of linear collider calorimeters agreed upon**
- **combined SDHCAL+SiECAL beam tests (see **Vincent's** presentation this meeting and **Imad's** presentation for **Christophe** in the WP5 package meeting)**

**Deliverable 14.6: Final Detector electronics (space constraints....)**

**Date: Month 44**

**Status:**

- **DIFs of M58 designed to fulfill requirements**
- **Ideas on how to evolve for other detectors in discussion**

# Deliverable 14.5: geared to Linear Collider, but keeping an eye on LHC activities under the “platform” idea

## Example:

- LC EMCALO DIF space 3cm
- HighGranularityTimingDevice Readout electronics: cm in rad environment
- Common: reliable interconnections ASU and DIF

