AIDA in July 2010

Advanced European Infrastructures for Detectors at Accelerators

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acting on WP9 with Marcel Vos
and on WP 9.5 with Felix Sefkow

AIDA approved second among proposals

Requested funding, frozen beg of june
Final document sent second half of june:

- budget, requested, committed
- deliverables with lead, time and description
- milestones with lead, time
- global contributions of institutes to tasks

We need to describe in detail for ourselves what is expected from any contributor.

Start February 2011

The infrastructures covered by the AIDA project are
key facilities required for an efficient development
of future particle physics experiments, such as:
test beam infrastructures (at CERN, DESY and LNF),
specialised equipment,
irradiation facilities (in several European countries),
common software tools,
common microelectronics and system integration tools and
establishment of technology development roadmaps
with a wide range of industrial partners.

Structure

Lead: Laurent Serin
with two deputies
Paul Soler. LHC side
Ties Behnke LC side

steering group

9 work-packages

		requested funding
WP 9	test infrastructure	2.882 M€
WP 9.1	Coordination and Communication	36k€
	Marcel Vos, HV to be replaced by Vincent Boudry	
WP 9.2	Gazeous detector facilities	643k€
WP 9.3	Precision Pixel detectors.	881k€
WP 9.4	Silicon tracking devices	266k€
WP 9.5	Highly granular calorimetry	756k€

WP 9.5

Objectives

Development of a versatile calorimetric infrastructure to test different detecting media under various circumstances

- Provide a mechanical structure to place and move the different elements [DESY; CSIC (CIEMAT), UCL]
- Provide a luminosity calorimeter structure with tungsten radiator and read-out electronics [DESY; TAU; AGH-UST; IFJPAN]
- Provide an electromagnetic calorimeter extended from the EUDET model [IPASCR; CNRS (LAL, LPSC, LLR)]
- Provide a hadronic structure with insertion of a tungsten radiator and all the services for operating the infrastructure when checking the parts under study [CERN; DESY (DESY, UHEI, Wuppertal, MPG-MPP); IPASCR, CNRS (LAL, IPNL, LAPP, LPC); UiB; CSIC (CIEMAT), UCL]

Deliverables

- Integrated infrastructure for highly granular calorimeters
Lead beneficiary DESY month 40

Integrated infrastructure for highly granular calorimeters: An integrated infrastructure allowing for testing in beam a complete calorimeter set-up with different options for radiators, sensors or electronics.

- Adequation of GEANT4 simulation of hadronic showers in different media
Lead beneficiary DESY month 48

Adequation of GEANT4 simulation of hadronic showers in different media: Report on the comparison of GEANT4 simulations with highly granular calorimeter test beam results proposed in AIDA.

Subtasks of 9.5

9.5.1	“AHCAL”	283k€
9.5.2	“DHCAL”	146k€
9.5.3	“ECAL”	127k€
9.5.4	“FCAL”	199k€

This is not described with that detail in any official paper

AHCAL: see later

FCAL: outside of this meeting

ECAL: provide the EUDET module properly equipped, at least 18x18
- money at LLR and Prag for wafers
- money at LAL for electronics
- money at LPSC for mechanics/cooling

“DHCAL”: provide the services for a gas calorimeter
- money at LAPP for gas system
- money at Lyon for read out electronics
- money at Madrid and Louvain for mechanics global support
- money at LAL for electronics (chips .)

Milestones

M9.5.1 - 3rd generation fast readout chip	CNRS	30	Report
M9.5.2 – Calibration and power supply system	UiB	36	Report
M9.5.3 – Electromagnetic calorimeter of at least 18x18 cm^2 area	CNRS	36	Infrastructure
M9.5.4 – Gas system, control and bench structure	CNRS	24	Infrastructure
M9.5.5 – Multilayer tungsten structure with position control and monitoring for forward calorimeters	DESY	30	Infrastructure
M9.5.6 - Multichannel readout ASICs for luminosity detector readout	AGH	40	Report