

AIDAInnova

Advancement and Innovation for Detectors at Accelerators
Horizon 2020 Research Infrastructures project AIDAINNOVA

MILESTONE REPORT

REPORT OF THE ACADEMIA-MEETS-INDUSTRY EVENT (TASK 2.2)

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Abstract:

This milestone reports on the Academia-meets-Industry event on “advanced mechanics” organized on the 27th of April in the campus of ADEIT in Valencia, in close connection with the 2023 annual meeting of the project. The event was organized in collaboration with I.FAST, another innovation pilot project. The event welcomed 52 participants among project members and industry representatives. The program included seven invited talks and five brief presentations from companies and technological centers, as well as ample time for networking.

The Advancement and Innovation for Detectors at Accelerators (AIDAinnova) project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement no. 101004761. AIDAinnova began in April 2021 and will run for 4 years.

Delivery Slip

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Executive summary

This milestone reports on the Academia-meets-Industry event on “advanced mechanics” organized on the 27th of April in the campus of ADEIT in Valencia, in close connection with the 2023 annual meeting of the project. The focus event welcomed more than 50 registered participants from the project as well as other industry representatives. The program included seven invited talks and five brief presentations from companies and technological centers, as well ample time for informal contacts.

1. INTRODUCTION

The second annual meeting of the AIDAInnova project was organized by CSIC and IFIC Valencia and took place from the 24th to the 26th of April in the campus of the “Fundación Universidad - Empresa de la Universitat de València” (ADEIT) that enhances the collaboration of Valencia University with industry. Apart from the parallel meetings of all work packages and the main plenary session, the event included a series of academic training lectures and an academia-meets-industry event that is the main subject of this report.

The topic of the event was chosen as “advanced mechanics”, an area where close collaboration with industry is clearly beneficial. It is important to foster contacts of the particle physics institutes involved in AIDAInnova with commercial suppliers of key technologies, such as ultra-light support structures, to enhance the co-development of new ideas with industry, and to increase the efficiency of knowledge transfer from academia to industry.

It is envisaged that the three innovation pilots AIDAInnova (advancement and innovation for detectors at accelerators), I.FAST (innovation fostering in accelerator science and technology) and LEAPS-INNOV (open innovation for accelerator-based light sources in Europe) collaborate in this area. The event in Valencia counted with contributions from Marcello Losasso, from the CERN KT group (& also working closely with I.FAST), who also made important contributions to the organization of the academia-meets-industry event.

2. COMMUNICATION

A dedicated poster (see below Figure 1) was realised to advertise the Academia meets Industry event at CERN and in partner institutions. The event was advertised online on the AIDAInnova website, on the CERN Knowledge Transfer website and in their newsletter, in the *On Track* newsletter and on social media. Personal invitations were sent to targeted people.

Marcello Losasso from CERN contacted companies that are connected to I.FAST and the accelerator R&D community. We got in touch with the Spanish companies through INEUSTAR, who sent out an invitation to their members.



The **AIDA** project will provide state-of-the-art upgrades to research infrastructures in order to unfold the scientific potential of detector technologies.

ACADEMIA MEETS INDUSTRY ADVANCED MECHANICS

The **AIDA** Industry meets Academia event aims at fostering synergies between detector R&D programmes of AIDA members and the industry, by creating awareness of strategic R&D topics in academia and of strategic industry needs for which industry-academia collaborations could be envisaged.

The first **AIDA** Academia meets Industry will focus on **Advanced Mechanics**, and will consist of technical talks by industry and academic partners, industrial exhibition for industrial partners and a network cocktail reception.

The event will be hosted by **IFIC (UV/CSIC)** at ADEIT in Valencia, Spain.

indico.cern.ch/event/1231591/

**THURSDAY,
APRIL 27TH**

**VALENCIA,
SPAIN**



   

This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement No 101004761.

Figure 1: AIDAInnova Academia meets Industry event poster.

3. ACADEMIA-MEETS-INDUSTRY EVENT

3.1 PROGRAMME

The academia-meets-industry event consisted of four main blocks, two formal sessions with presentations from companies and technological centres, and two networking opportunities to establish contacts between AIDAInnova participants and the invited guests.

The main session with longer invited talks had the following agenda:

- Paolo Giacomelli (U. Bologna) Introduction
- Burkhardt Schmidt (CERN) Challenges for Advanced Mechanics and Cooling in High-Energy Physics
- Paolo Barbero (SIMIC), ITER TF coils and radial plates advanced manufacturing
- Benoit Brichard (Fusion4energy), experience for the diagnostics and sensors for fusion applications
- Marco Roveta (CRIOTEC), Cabling production of massive Superconducting conductors and process control
- Miguel Carrera (AVS), The carbon fibre structures of the ATLAS inner detector upgrade
- Erik Fernandez (INEUSTAR), The Spanish science industry

In the afternoon, a series of brief “flash talks” gave the opportunity to companies and technological centres to present their capabilities and interests:

- Joan Manel Casalta, SENER Aerospacial.
- Marcos Sanchez Alameda , Thermal Vacuum Projects
- Jelena Ninkovic, the semi-conductor laboratory of the Max Planck Society
- Manuel Lozano Fantoba, Centro Nacional de Microelectronica
- Martin Schwentenwein, Lithoz GmbH

The details of the programme, the presentations and other material relevant to the event are available on the INDICO agenda system: <https://indico.cern.ch/event/1231591/>

There was a lively discussion during the sessions and in the lunch and afternoon breaks.

3.2 ANALYSIS

The event counted with 52 registered participants, which is in line with expectations for a focused event.

The connection with I.FAST and LEAPS-INNOV is clearly an asset that needs to be further exploited. Many engineering companies active in the high-tech science industry have a broad portfolio of capacities that is interesting for all three innovation pilots. Moreover, due to the way in which accelerator and light source R&D is organised, with a strong involvement of industrial partners in the

development and construction of accelerator facilities, but also as users, both pilots have a strong network that can clearly benefit AIDAinnova to expand its connections with industry. Therefore, future academia-meets-industry events should be organised in close collaboration.

After preliminary discussions at the AIDAinnova industry meeting in Valencia where I.FAST and LEAPS-INNOV industry representatives were present, the AIDAinnova coordinator and the WP2 leader have agreed to participate in the industry meeting from LEAPS-INNOV in Lund to continue exploring synergies.