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“High-performance Carbon-based composites with Smart properties for Advanced Sensing Applications”



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Deliverable Title	Practical sessions between academia and industry (M12-24-36-48)
Working Group	WG 2
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1 Introduction to the deliverable content

Working group 2 is expected to be a strong connection between industry and academia and its activities will focus on the identification of existing gaps in common industrial processes along with the main challenges that the industrial partners are currently facing towards technology advancements and the launch new smart products to the market.

Another important role of WG2 is related to find innovative ways to involve and connect academia and industrial partners to practical sessions, where end-users and scientists/researchers can meet to discuss and identify commercial market gaps and industrial challenges that need to be tackled. The present deliverable deals with the description of the activities organized for M12, M24, M36, M48 deadlines in terms of Practical sessions. In the following the activities will be described in detail.

2 Practical sessions between academia and industry (M12)

The first year of Cost Action was characterized by the pandemic Covid Crisis and no possibility of organizing physical meeting between partners was possible. WG2 gave its contribution to the first Summer school that was organized and that was full online event. In this occasion, a virtual factory tour was organized thanks to video and live discussion bringing academia members together with students inside of Dallara premises. We are aware of the fact that this situation can not be considered a real practical session, but it demonstrate the idea to carry on this activity despite distances and difficulties.

3 Practical sessions between academia and industry (M24)

As far as the second year is concerned, part of the period was still influenced by a relative difficulty in moving of the project partners, however WG5, together with WG2 organised a Training school which was held in Politecnico di Torino (Polito) and Dallara Automobili, Italy, 13-16/6/2022. Also WG4 and WG6 gave a important contribution to this event

In this situation Academic professors together with company researchers met and discussed some activities related to the Cost Action, and Industrial researchers gave their perspective during some lessons dealing with:

- Fatigue in composites: an industrial approach
- Lab activities in an industrial context

Considering the great success of the event with 30 in person participants and several online ones, the organization of practical sessions/workshop after or during a training event can be considered a good opportunity to join together both physically and virtually researcher from both environments.

In the next months a meeting with the other WGs, in particular WG3-4-5 and with Wg1 and 8 is planned in order to define the future steps for M36 and 48 practical sessions.



Figure 1: A lesson held during the training event in Dallara



Figure 2: A moment of discussion during the event in June 2022.



Figure 3: Group photo after the end of the training school.

4 Practical sessions between academia and industry (M36-M48)

Taking into account the success of the II training event held by Politecnico di Torino with 30 in person participants and several online ones, the organization of practical sessions/workshop after or during a training event was discussed with the other WGs, in order to define the future steps for M36 and 48 practical sessions.

As far as M36 practical session is concerned, it was not possible to organize a physical meeting that was coincident with the III training event and an extension of this deadline was asked up to M42.

In order to complete the deliverable for M36 extended to M42 WG2 organized a discussion between the WG leaders to understand the topic and the main interest of the Cost action participants.

The meeting was held virtually and the discussion was focussed on the topic of finding the main interest of the consortium members in order to strengthen the collaborations.

The IV training event was held at Dallara Academy, Varano de Melegari with the topic

"Future trends on CNMs-based composites: from development to market application in the framework of sustainability and digitalization"

Dates: 26-28 June 2024

The event focussed on the important challenges that CNMs-based composites should face: sustainability and digitalization. In the last year the topic of recyclability, safety and sustainability are among the core discussion in the European community together with the emerging themes of material and product digital twins. The three day event was thought to give an overview of the main aspects related

to sustainability and digital challenges by bringing together academic and industrial experts at Dallara Academy



Figure 4 Group photo of the IV training event



Figure 5 A moment of the presentation of CIT Toray Italy

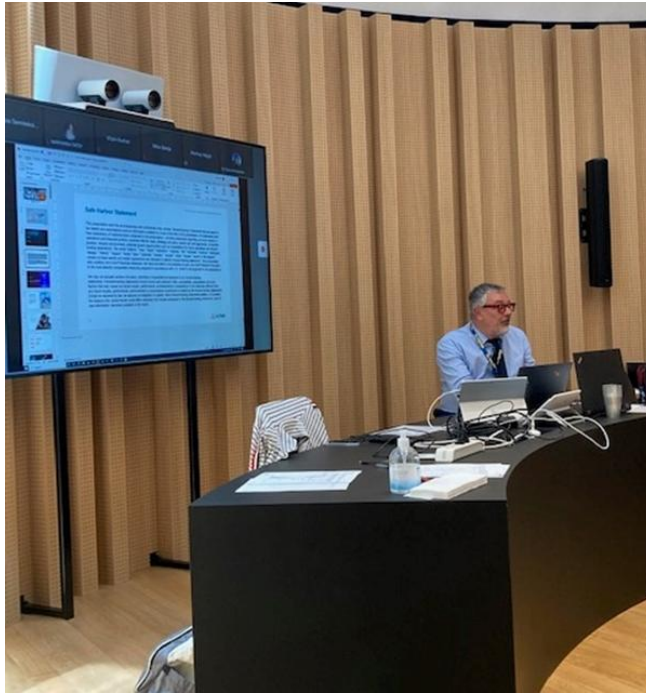


Figure 6 A moment of the presentation of Altair during the event

Important discussions took place during the events thanks to the interdisciplinarity of the participants and to the Industry representative (CIT, Altair, Tenowo), bringing to a great success of the event.