



## KEY FACTS

Acronym: IMOCO4.E

Full name: Intelligent Motion Control under Industry4.E

Coordinating institution: Sioux Technologies B.V.

Project coordinator: Arend-Jan Beltman

GA No.: 101007311 - H2020-ECSEL-2020-2-RIA

Start date: 1st September 2021

Duration: 36 months

Consortium: 46 Partners from 13 countries

This issue provides a grasp of the main project developments during *December 2023 – February 2024*. It also provides facts on the results achieved, as well as links to the latest dissemination activities.

The IMOCO4.E project continues to be making significant progress! WP3 has finalized development of various sensors, processing platforms, and AI modules that will be integrated into demonstrators and pilots. Partners in WP4 and WP5 are finalizing their deliverables outlining the Building Blocks they developed while WP7 is actively working on pilots and demonstrators, with a successful meeting focused on integrating new sensor solutions into UC1.

## IMOCO4.E Highlights

## WHAT HAS BEEN DONE?

### WP3

WP3 partners finalized their developments of different solutions for the Instrumentation and Perception layer of the IMOCO4.E platform. Novel sensors, processing platforms, AI-based modules, and drives are ready to be integrated into demonstrators, use-cases, and pilots. The final ongoing task of all involved partners is writing a public deliverable D3.7, which will provide more information on each of the developed solutions.

WP4 was successfully closed in M30. is performing its last steps. After covering the development stage of the solutions of the Building Blocks directly connected to the WP (BB4, 5 and 10) and the corresponding implementation and validation activities, they are ready for the final implementation and verification in IMOCO4.E Pilots, Use Cases and Demonstrators within WP6 and WP7. In the last weeks, partners have been focused in the last validation activities, as well as collecting and reporting the available solutions in the last WP4 deliverable, D4.8. As proof of the excellence of the available technologies, partners continue publishing papers in relevant journals with the obtained results and presenting their work in relevant conferences.

### WP4

### ToC

Project Highlights: **P1**

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# What has been done

## WP5

This period can be called the “final run” for all the partners in WP5. Activities were turning around finalizing results and describing them in a common deliverable D5.8. Task leaders merged contributions from the partners into individual chapters, and the WP5 leader put all the contributions into one document. The delivery of D5.8 was prolonged by two months to unify the document structure with WP3 and WP4 and integrate reactions to the comments from the second-year review meeting. It is worth mentioning that some partners from WP5

visited WEG Automation Europe in Gerenzano at the end of January 2024 to test their developed components. Similar activities were in progress also with other components and building blocks.

During the recent project period, WP6 has been leading the finalization of the IMOC04.E framework documented via integrated components and building blocks. The best practices are being collected for final WP6 deliverables. Additionally, we are currently progressing through the final stages of verification and validation procedures, applied to each software/hardware component and cluster. Now, our component catalogues are locked.

Furthermore, under the umbrella of WP6, we are finalizing research work on four project use cases. WP6 also continuously monitors critical technological project risks to ensure smooth progress and final success.

## WP6

## WP7

Partners of WP7 are working on their Pilot or Demonstrator, most of the times together with one or more other partners. Every month there was a WP7 meeting, to exchange the progress and status. The templates for the final deliverables were discussed and are still under preparation. These deliverables are due near the end of the project. For every pilot and demonstrator there is a report requested. The latest due deliverable will be a summary of the lessons learned over the full project time. This will be a public report.

## Dissemination & Communication

IMOC04.E values the importance of networking, exchanging ideas and knowledge with other similar EU projects. The consortium has managed to generate discussions with H2020 TIBCO, METIS, MADEin4, REBECCA, EdgeAI, Human Brain Project, CHARM and HiCONNECTS aiming at the co-organization of special sessions as well as boosting joint dissemination activities.

During the reference period, the partners intensively disseminated the project results by spreading knowledge and creating good networking opportunities with industrial and scientific peers. The IMOC04.E partners have focused to widen up the network of scientific experts of the project and transferred valuable scientific results by participating in multiple online and physical conferences and workshops. Visibility of the project and transferability of the project outcomes has been promoted through the update of the [promotional material](#) and by regular dissemination to the public through social media channels.

During the past 3 months and in the context of WP8 activities, IMOC04.E participated in the several events, such as:

IMOC04.E project participated in the PPP gallery event.

More details [here](#)



ECS BROKERAGE  
EVENT 2024  
20 & 21 February

Liaison  
activities are  
in progress

IMOC04.E project attended ECS Brokerage 2024.

More details [here](#)

## Consortium Meetings, Submitted Deliverables & Upcoming Events

UC1 Sensing and Control Meeting has been successfully completed!



From January 23rd to January 25th, a collaborative meeting took place at WEG Automation Europe involving the University of Brescia, University of West Bohemia and BRNO University of Technology. The focus of the gathering was to integrate promising solutions developed in BB3, BB5, and BB6 into the UC 1 WEG Lift Tower system. The team successfully connected two new sensors created by UWB and BRNO to the lift cabin, enabling the collection of vibration data in real-time. These sensors can gather vibration information through data fusion of accelerometers and gyroscopes, achieving a sampling rate of up to a frequency rate more than

30kHz.

The face-to-face meeting was marked by a strong spirit of collaboration among the entire team, making it a highly productive session.

IMOCO4.E Consortium will meet again in M34 Consortium meeting in Athens during 18-19 June 2024.

### Submitted Deliverables

- D1.6 – “Midterm Report (M30)”

### Upcoming Events

In addition, IMOCO4.E partners plan to participate in:

- 3D & Systems Summit, 12-14 June 2024, Dresden, Germany – [Event Link](#)

**iMOCO4.E**



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