



ACROBA
connect & produce through agile production

PRESS RELEASE

A successful kick-off meeting of the newly launched ACROBA Project – AI-Driven Cognitive Robotic Platform for Agile Production environments



Bern, 4th February 2021

*The newly started ACROBA (AI-Driven Cognitive Robotic Platform for Agile Production environments) project addresses the challenges of **developing and demonstrating a novel concept of cognitive robotic platforms based on a modular approach able to be smoothly adapted to virtually any industrial scenario applying agile manufacturing principles**. At the project's kickoff meeting held on the 4th February 2021 in Bern (Switzerland) participants discussed how this goal could be achieved.*

The fast-changing market trends and customer demands require the manufacturing industries to shorten their time to market to maintain their competitiveness. Customer changing requirements and increased product complexity are largely the most compelling drivers of the agile manufacturing industry. It implies for the companies constant reprogramming of production tools and robots, which is costly and time-consuming adaptations, especially for SMEs.

In order to meet this challenge, the ACROBA project will develop generic robotic platforms tailored to the specific needs of the companies that would be the key step to increase their level of automation within agile production and mass customisation scenarios, reducing costs, increasing performance and therefore gaining competitiveness.



The ACROBA project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101017284.



The ACROBA project, co-funded by the European Union's Horizon 2020 programme, will last 42 months from January 1st 2021. ACROBA brings together a consortium of 17 partners from 9 EU countries and is coordinated by the Bern University of Applied Sciences (Berner Fachhochschule).

A novel industrial concept of cognitive robotic platforms

Departing from existing robot operating system (ROS) reference architectures (i.e COPRA AP)¹, ACROBA project aims to **develop and demonstrate a novel concept of cognitive robotic platforms based on a modular approach able to be smoothly adapted to virtually any industrial scenario applying agile manufacturing principles.**

ACROBA's novel industrial platform will take advantage of **artificial intelligence and cognitive modules** to meet personalisation requirements and enhance mass product customisation through advanced robotic systems capable of self-adapting to the different production needs.

- The platform will depart from the **COPRA-AP reference architecture** for the design of a novel generic module-based platform easily configurable and adaptable to virtually any manufacturing line.
- This platform will be provided with a decentralised **ROS node-based structure** to enhance its modularity. ACROBA Platform will definitely serve as a cost-effective solution for a wide range of industrial sectors, both inside the consortium as well as other industrial sectors that will be addressed in the future. The project approach will be demonstrated by means of five industrial large-scale real pilots.

The ACROBA Platform will be tested through **twelve dedicated Hackathons** and **two ACROBA On-Site Lab (AOSLs)** for manufacturing SMEs.

Project key figures

- Total budget: 8 M€
- EU funding: 6.9 M€
- Duration: 42 months
- Partners: 17 partners from 9 EU countries (project coordinator: The Bern University of Applied Sciences)

Project partners

1. Berner Fachhochschule (CH)
2. BIBA - Bremer Institut Für Produktion Und Logistik GMBH (DE)
3. MR. NEC BV (NL)
4. Fundacion AITIIP (ES)
5. Universidad De La Iglesia De Deusto Entidad Religiosa (ES)
6. Pôle EMC2 (FR)

¹ These initiatives offer through their marketplaces open reference architectures, catalogues and libraries of plug and play implementations for the development of robotic platforms for industrial applications.



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7. Cabka Group GmbH (DE)
8. Ikor Sistemas Electronicos SL (ES)
9. SIGMA Clermont (FR)
10. Irish Manufacturing Research Company Limited By Guarantee (IE)
11. Nuevas Técnicas De Automatización Industrial, S.L. (ES)
12. SteriPack Ireland Ltd (IE)
13. STAM SRL (IT)
14. ICPE SA (RO)
15. Fundacion Centro De Tecnologias De Interaccion Visual Y Comunicaciones Vicomtech (ES)
16. Moses Productos SL (ES)
17. PRIZZTECH LTD (FI)



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