



*Boosting technology to move the world*

**High-rate Resin transfer Molding for  
high-quality, low-cost large composite  
structures**

**HARMONY**

HORIZON-CL4-2027-01-MATERIALS-PRODUCTION-02:  
Advanced manufacturing for key products (Made in Europe &  
IAM4EU partnerships) (IA)

**EFFRA Pitching event**  
June 23<sup>rd</sup> 2026





FIDAMC is a technological centre (RTO) funded by AIRBUS, Regional Government of Madrid and CDTI (Spanish Government). FIDAMC offers innovative solutions in composites to the industry.



Expert team of 80 people made up of PhDs, engineers, technical experts and PhD students.



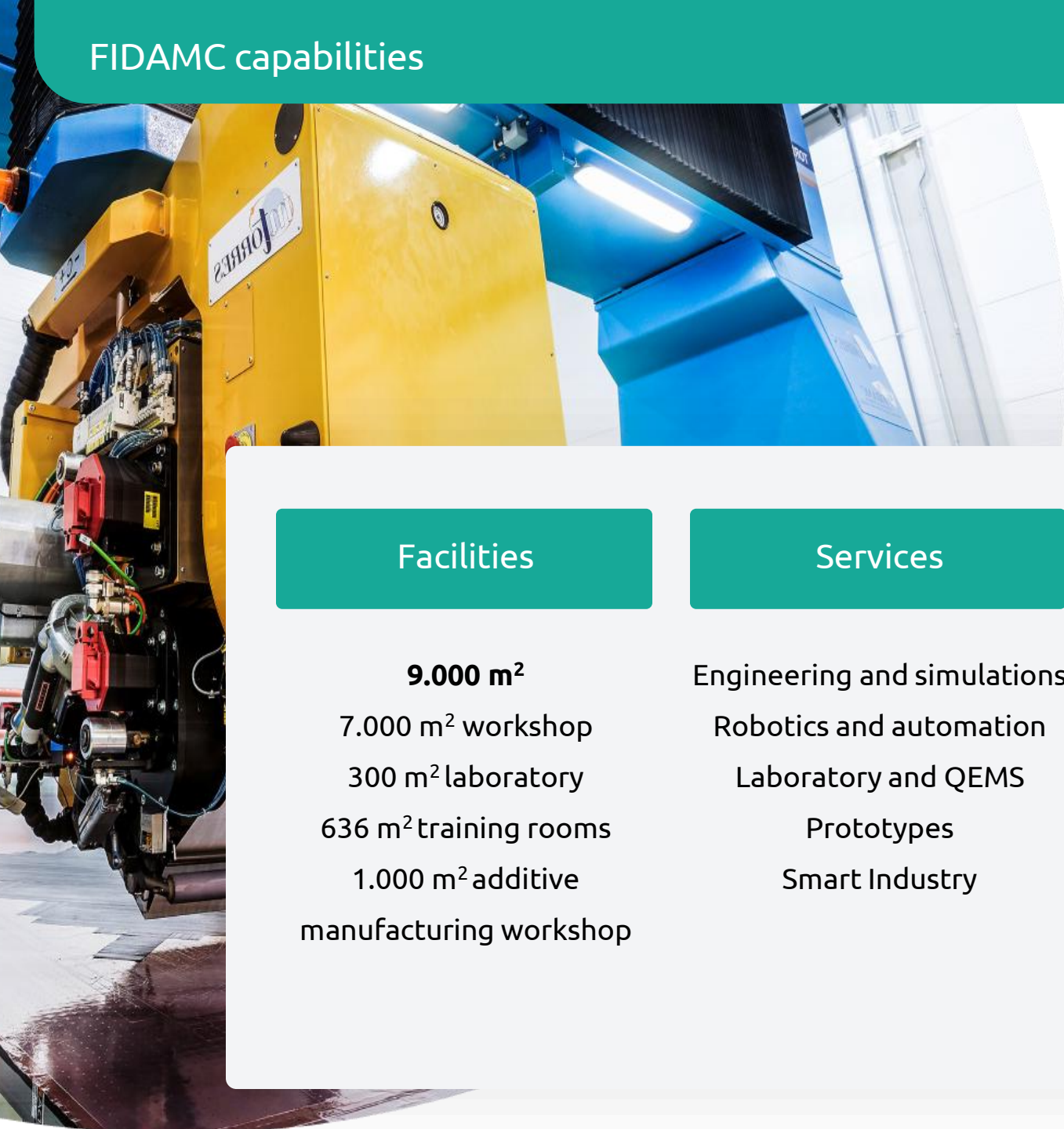
FIDAMC has its headquarters in Getafe (Madrid). FIDAMC also has an office in Brussels.



FIDAMC has participated in 33 EU projects. 6 of them are currently ongoing.



Thanks to FIDAMC's expertise in composites and aeronautics, in 2025 FIDAMC is considered a Centre of Excellence in Composite Material and Advanced Manufacturing



# Technological capacities

## Facilities

**9.000 m<sup>2</sup>**

7.000 m<sup>2</sup> workshop  
300 m<sup>2</sup> laboratory  
636 m<sup>2</sup> training rooms  
1.000 m<sup>2</sup> additive  
manufacturing workshop

## Services

Engineering and simulations  
Robotics and automation  
Laboratory and QEMS  
Prototypes  
Smart Industry

## Technologies

Laboratory equipment  
Automatic & forming lay-up  
equipment  
Curing and consolidation  
equipment  
Robotic & automation  
equipment

## Certificates

ISO/IEC 17025  
NADCAP  
ISO 9100  
EN 14001 ND  
AIRBUS COMMERCIAL  
AIRCRAFT QSPL

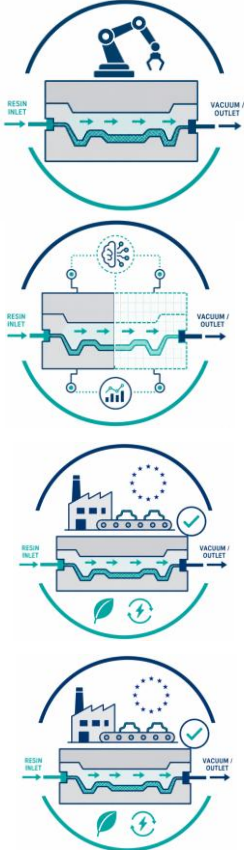


# HARMONY

Development of a highly automated, High-rAte Resin transfer Molding fOr high-quality, low-cost large composite structures



## SCOPE



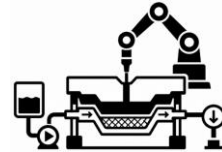
1. Automation of large-scale RTM manufacturing to enable more sustainable processes
2. AI-enabled digital process control to ↓ energy, cost, and scrap and ↑ quality, productivity
3. Integration of circular/ secondary RMs
4. Industrial validation (TRL 5 → 7) of a Made-in-Europe platform



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## PROPOSED STRATEGY



1. Automated RTM manufacturing cell



2. AI-enabled digital full process control



3. Industrial validation



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## CURRENT CAPABILITIES OF THE CONSORTIUM



- End-to-end RTM process development for large composite structures
- Automated preforming, handling and robotic manufacturing operations
- Advanced RTM tooling, workstations and injection systems
- Process monitoring, quality control and industrial validation



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## EXPECTED IMPACT / KPIs

KPI	State of the art	HARMONY target
Production rate	Manual lay-up, low	↑ 2-3×
Manufacturing cost	Baseline	-30%
Scrap & rework	Baseline	-30%
Carbon footprint	Baseline	-30%
Secondary raw materials	~0%	≥ 20%
Technology maturity	TRL 4-5	TRL 7



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## **PARTNERS NEEDED\***

The consortium is looking for:

- End-users interested in the technology
- AI-enabled platform developers closing the loop between sensing, real-time decision-making and machine actuation
- LCA experts
- Industrial end users for tech demonstration
- Business models and exploitation strategy
- Circular / secondary RM developer





Avda. Rita Levi-Montalcini, 29  
28906 Getafe (Madrid)

**Miguel Ángel Torrijos**

EU business development & funded projects manager  
Representative of FIDAMC in EFFRA

*miguel.torrijos@fidamc.es*  
*+32 472 17 80 12*