

IAM



INTERNATIONAL
ADVANCED
MANUFACTURING

3D HUB

WHERE AM ADOPTION HAPPENS

ABOUT 3D PRINTING

3D Printing is a group of additive manufacturing technologies where a three-dimensional object that is described in a digital program is created by adding layer upon layer of material in an industrial production process. Nowadays, 3D printing is a disruptive technology that is being expanded and it will be very important in the following 4.0 revolution.

BENEFITS OF AM ADOPTION

3-Dimensional Printing (3DP) technology has emerged within the generalist frame of the 4.0 economy. 3D printing and, especially, its intensive use of the manufacturing system, will redefine production systems by increasing the customization of the product, the reduction of inventories, waste footprint and environmental impact and, therefore, increase the competitiveness of local production systems.

Since this technology is so innovative, large-scale investments in research and development are still necessary, as are incubators and transfer spaces.



3D printers offer product developers the ability to print objects in **one piece**, without having to assemble any parts and offering a wide range of product **customization**, the **recycling** of materials and the absence of **waste**.

IAM 3D HUB

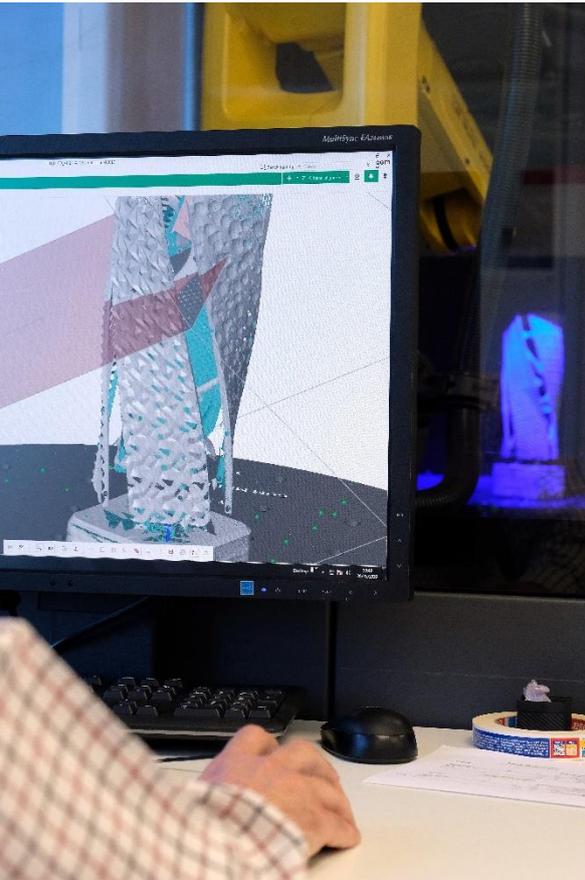
IAM 3D HUB was officially inaugurated in 2018 with the aim to accelerate the adoption of additive manufacturing and 3D printing technologies in the European industry as an alternative way to design, develop and manufacture new competitive products and services.

It is defined as a Digital Innovation Hub specialized in Additive Manufacturing and 3D Printing who will provide SME's a "One-Stop" Shop to assess, guide and address all their needs in Additive Manufacturing

The IAM 3D HUB is has been chosen to take part of the Strategy Board selected by the Ministry of Industry in Spain for the definition of the DIH's roadmap.

IAM 3D HUB is the only digital innovation hub specialized in additive manufacturing and 3D Printing in Europe.





OUR GOALS

The IAM 3D Hub wants to accelerate the adoption of additive manufacturing and 3D printing technologies in the European Union manufacturing sectors as an alternative way to design, develop and manufacture new competitive products and services that strengthens their competitiveness.

The challenge is to ensure that all industrial sectors make the best use of new technologies in 3D printing and manage their transition towards higher value digitized products and processes, The IAM 3DHub facilitates access to digital technologies for any industry in Europe to empower any business.

OUR FOUNDERS

The IAM 3D HUB is an initiative launched by HP, leader in polymer printing equipment; Leitat, a technology center of reference; Renishaw, leader in metal printing equipment; and Abrast by Coniex, company specialized in the development of post-processing solutions; and Forward AM by BASF have recently joined, which are committed to the development of metallic and polymeric 3D printing materials.



Amb el suport de:

ACCIÓ



In February 2019, the 3D Factory Incubator, the first high-tech 3D printing incubator in Europe was launched and joined to the initiative. It offers incubation spaces, consulting and business services, as well as a complete 3D printing laboratory, and professional technical advice for the different entrepreneurial incubated projects.



3DFACTORY
INCUBATOR

Furthermore, in 2018, the IAM 3D HUB became a strategic partner of Fira de Barcelona, one of the largest fair institutions in Spain in the framework of INDUSTRY 'From Needs to Solutions' trade show, which explores the convergence between digital and industrial production.

Resulting of more than 10 years of research and development in the field of 3D printing, Leitat, jointly with HP, Renishaw, Abrast by Coniex and Fira de Barcelona, who collaborated in different projects before, took a leap forward and decided to launch the IAM 3D HUB, with the aim to push the 3D printing adoption in the industry. The advanced technology maturity allowed partners to offer users a unique value such as fast prototyping and the production of small industrial series at lower prices. During the first years, the Hub carried out a didactic and evangelizing work about the 3D printing benefits by welcoming hundreds of visitors and through its presence in multiple congresses, conferences, and fairs. Now, the Hub aims to go a step further by promoting the adoption of 3D printing technologies for the SMEs.

OUR SERVICES

The IAM 3D HUB wants to help companies to gain confidence by offering them a wide range of services depending on their knowledge status of the technology and according to their needs:

EXPERIMENTING & TESTING

By helping SME's to Identify proper AM solution for their product, offering them sample parts with different AM technologies. Finally, in this first step is it possible to analyze the company's manufacturing capacities and giving them a cost estimation to support fact-based decision making.

END TO END SOLUTIONS

Once the company has decided the material and analyze their capabilities. The IAM 3D HUB can help them with the (re) design for AM/3DP of their product, in order to optimize any part's functionality by AM thinking.

According to their experience managing a pilot plant, the Hub's team can also help them to establish the floor planning layout to improve productivity and efficiency.



Example of an **optimized piece** with different **additive manufacturing** and **post-processing technologies**.

BUSINESS & MENTORING

As a recognized initiative by the European Commission and the Ministry of Industry, the IAM 3D HUB is in contact with different governments and organizations in order to be informed about their financing solutions related to innovation and AM adoption.

EDUCATION & TRAINING

Finally, the IAM 3D HUB has an experienced team to offer customized AM/3DP training according company' needs, as well as a complete catalogue of theoretical and practical courses all along the 3D printing value chain at the new IAM 3D HUB Academy.



OUR EQUIPMENT

To achieve all the above listed services, the IAM 3D HUB has the latest 3D printing and post-processing technology:

- 2 Selective Laser Melting (SLM)
- 5 Fused Deposition Modelling (FDM)
- 2 Vat Photopolymerization (SLA)
- 2 Vat Photopolymerization (LCD)
- A functional working 3D printing production line with 15 Multi Jet Fusion printers (HP) and 1 Color Jet Fusion (HP). The plant is fully operational 24h / 5 days a week, so the HUB team is acquiring the experience and knowledge necessary to make a realistic proposal tailored to the needs and capabilities of interested companies.

The post-processing area includes:

- 5 Sandblasters
- 1 Vibrational Polishing
- 2 Dyeing machines
- 1 Graphite Blaster
- 1 Form Wash Photocentric
- 1 Curing Oven | Form Cure



There is also a technical area with software for design and 3D modelling, DfAM tool for topological and geometrical optimization, analysis, and modelling simulation.

Finally, as the IAM 3D HUB's facilities are located in Leitat premises, they have access to their labs for material characterization and mechanical properties validation, within many others.



Leitat is one of the most important Technological Center in Spain. It is leading the Ris3 Community devoted to the development of additive manufacturing solutions in Catalonia, Llabor 3D.

