







advanced and digital manufacturing campus

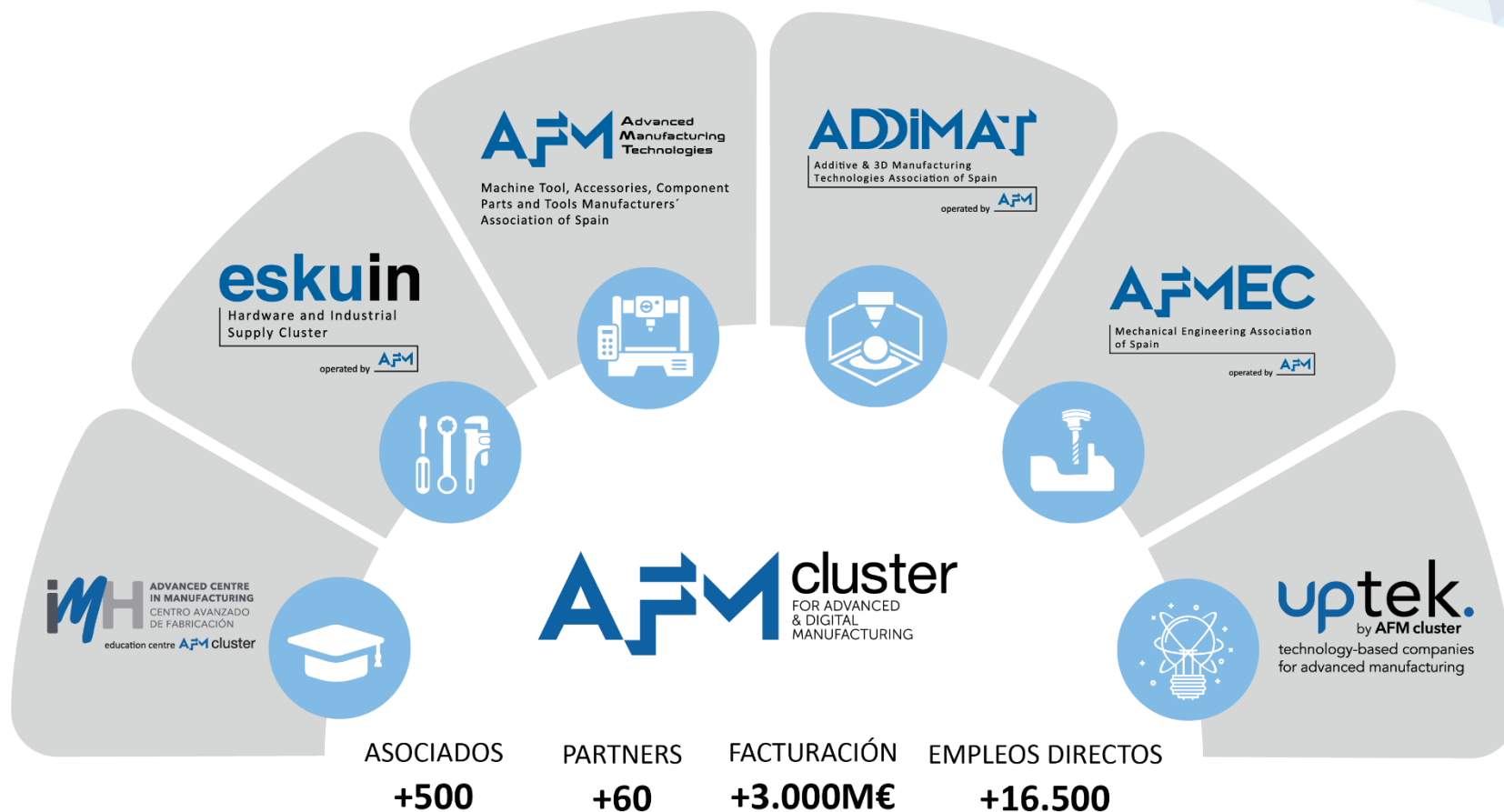


## BOARD OF TRUSTEES

### Participating Institutions



## AFM CLUSTER





## ABOUT IMH

- ✓ Advanced and Digital Manufacturing Campus that offers specialized training, directed to employment, flexible, giving priority to the dual model.
- ✓ Demonstration, transfer and innovation services center for SMEs
- ✓ Mission: contribute to increasing innovative capacity and business dynamism in the industrial sector, through actions that influence the development of skills of individuals and companies.
- ✓ Integrated Vocational Training Center belonging to the Basque Government.
- ✓ University School attached to the University of the Basque Country / Euskal Herriko Unibertsitatea (UPV / EHU).
- ✓ Agent of the Basque Network of Science, Technology and Innovation in the category of "Intermediate Innovation Agency".
- ✓ An integral part of AFM CLUSTER, promoter of its training

**2.200** STUDENTS

**+30** YEARS OF  
TRAJECTORY

**800** COLLABORATING  
COMPANIES







# INDUSTRIAL HERITAGE

**ME** MAKINA  
ERREMINTA  
MUSEOA

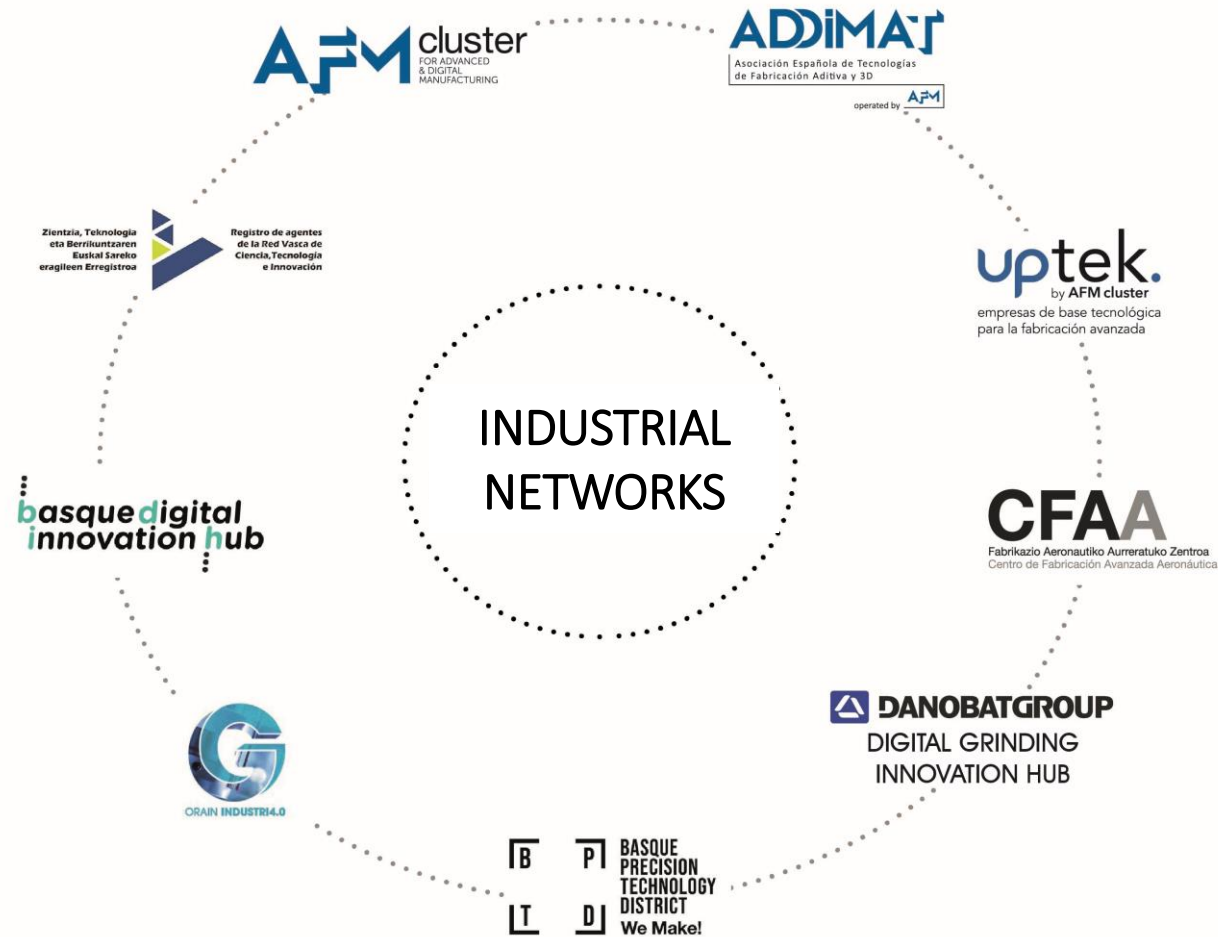




ADVANCED AND DIGITAL  
MANUFACTURING CAMPUS  
CAMPUS DE LA FABRICACIÓN  
AVANZADA Y DIGITAL

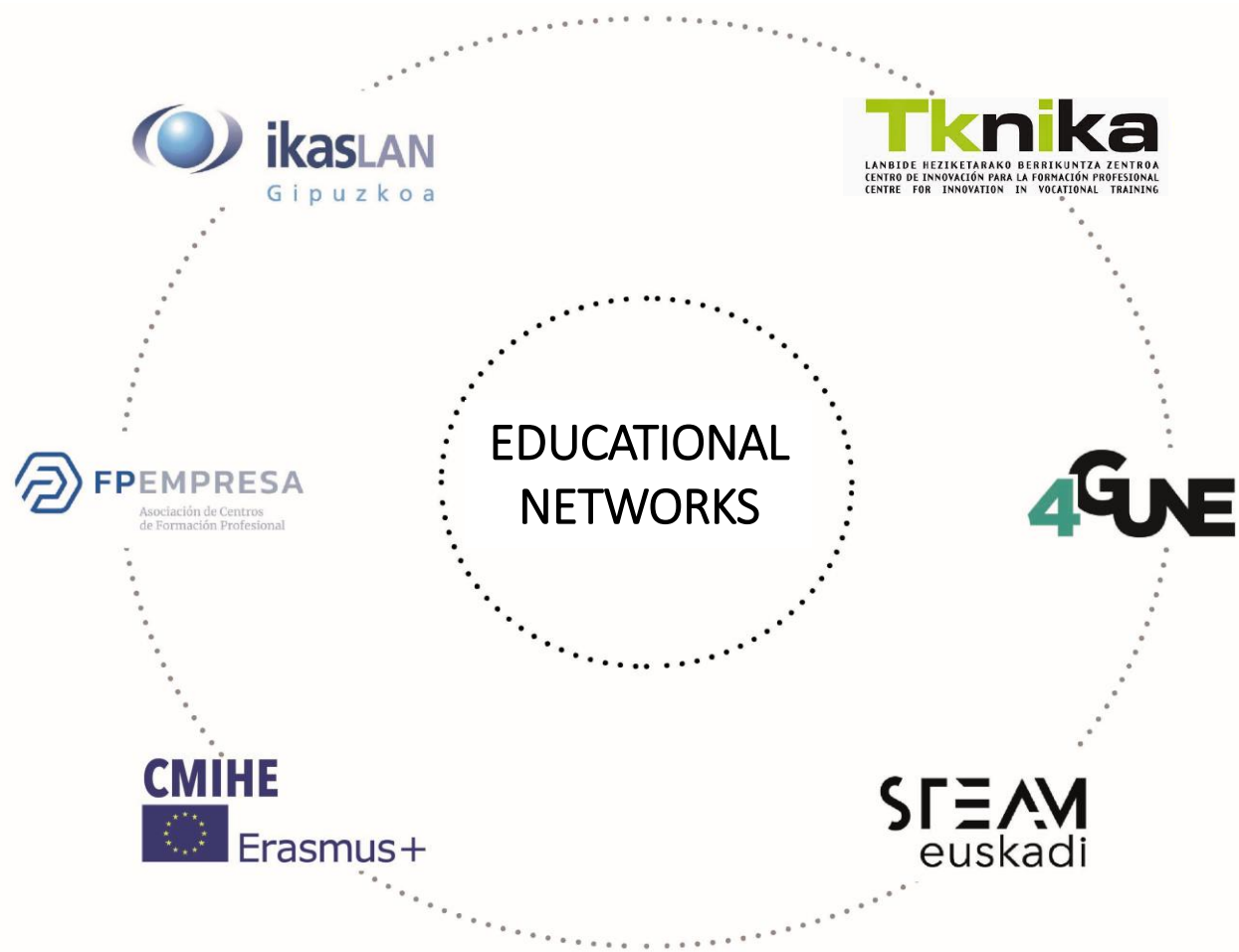
AFM cluster

## NETWORK





## NETWORK



**ManuLearn**







To be a benchmark training and demonstration centre in the field of Advanced Manufacturing and Industry 4.0 to accelerate the learning curve of the skills required by people and companies.

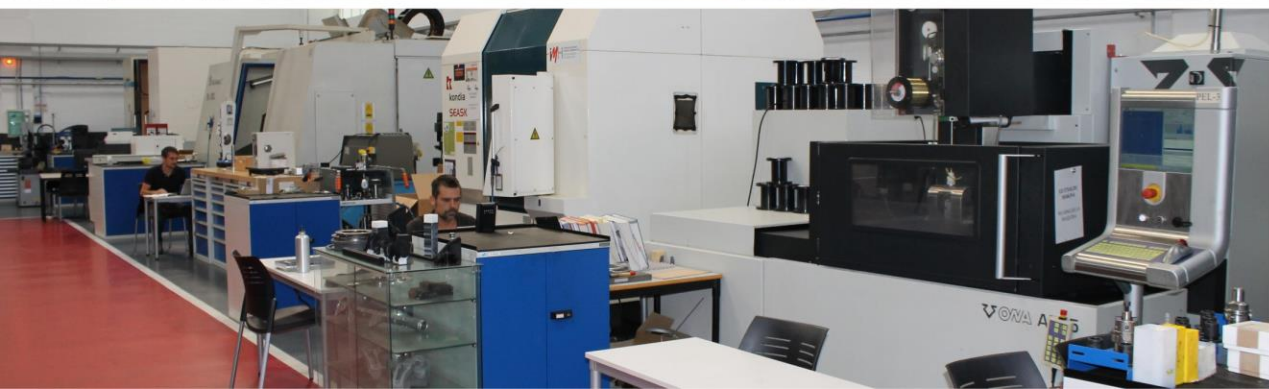
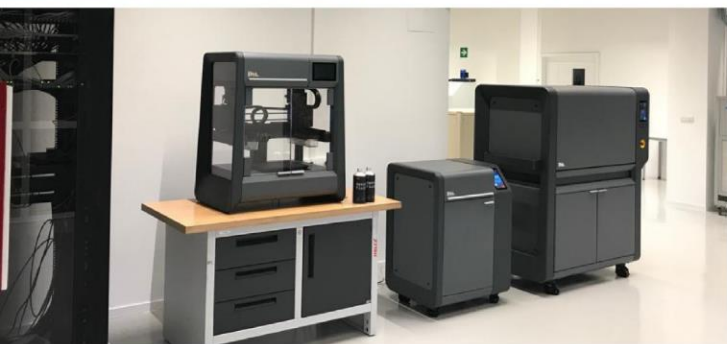
# IMH - Advanced and Digital Manufacturing Campus



To improve skills, either through Curriculum Training (VET and Dual Engineering), (life long) job training or relations with companies and innovation services provided to them.



# FACILITIES



1/ Informazioa lortu eta antolatu  
Obtain and organize information

2/ Parametroak zehaztu  
Establish parameters

3/ Ebaluazioa egitea  
Perform evaluation

4/ Emaitzak aurkeztu  
Present results

3//Parametroak zehaztu  
Establecer parámetros  
Establish the parameters

4//Informazioa lortu eta antolatu  
Obtener y organizar información  
Collect and classify information





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## IMH 4.0

### School 4.0

#### Learning spaces / Methodology

Attractive physical learning spaces, incorporating technologies that facilitate methodological changes and innovative practices in education.

#### Teaching equipment

Modular, flexible and scalable Factory 4.0, which reproduces different aspects of a company's value chain.

### Factory 4.0

#### Digital Factory

Smart production plant, built on a solid reality, governed, observed and analysed online.

#### Additive Manufacturing

HUB bringing together technologies and stakeholders in additive manufacturing and 3D technology.





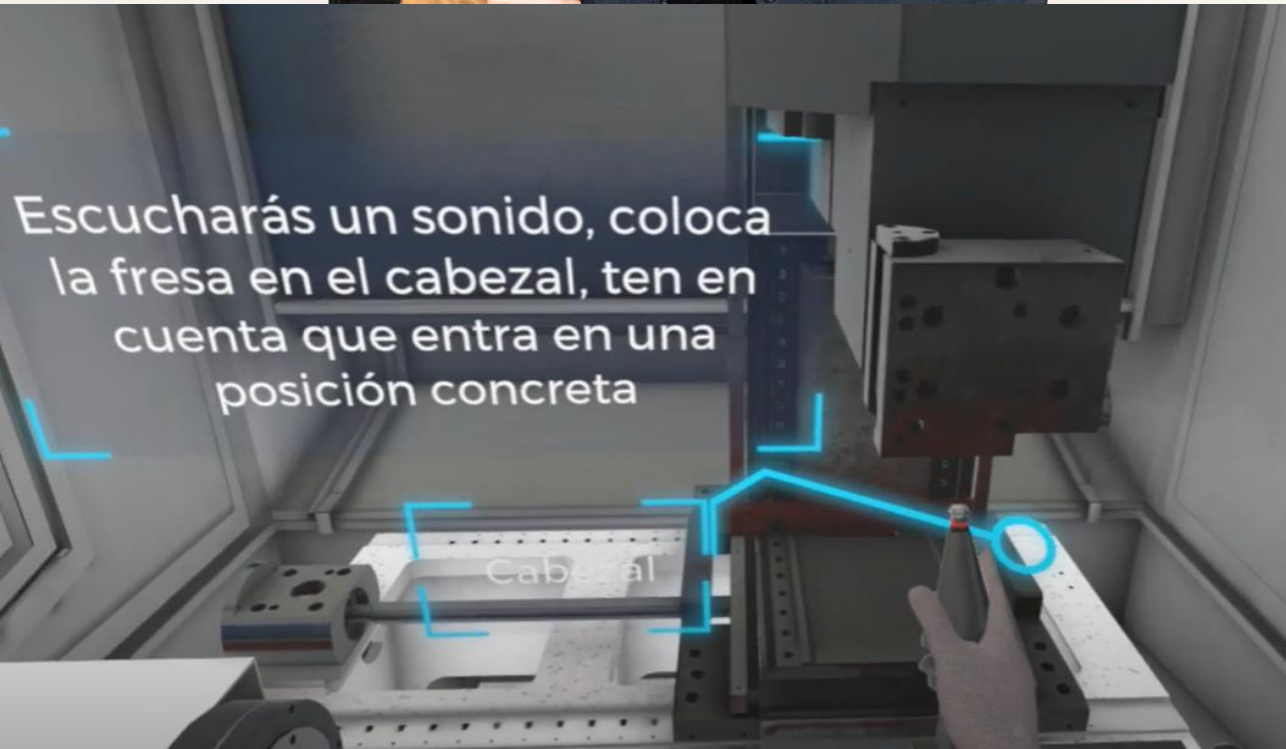
SCHOOL 4.0













## Training and transition area

### School 4.0 Teaching Equipment

Projection: Didactical multiprocess 4.0 / 3D printing / Collaborative Robot / Artificial vision / Non-contact measurement system / PLCs for control / Assembling cell (hydraulic, pneumatic,...) / Warehouse / Managing / Diverse simulator







FACTORY 4.0



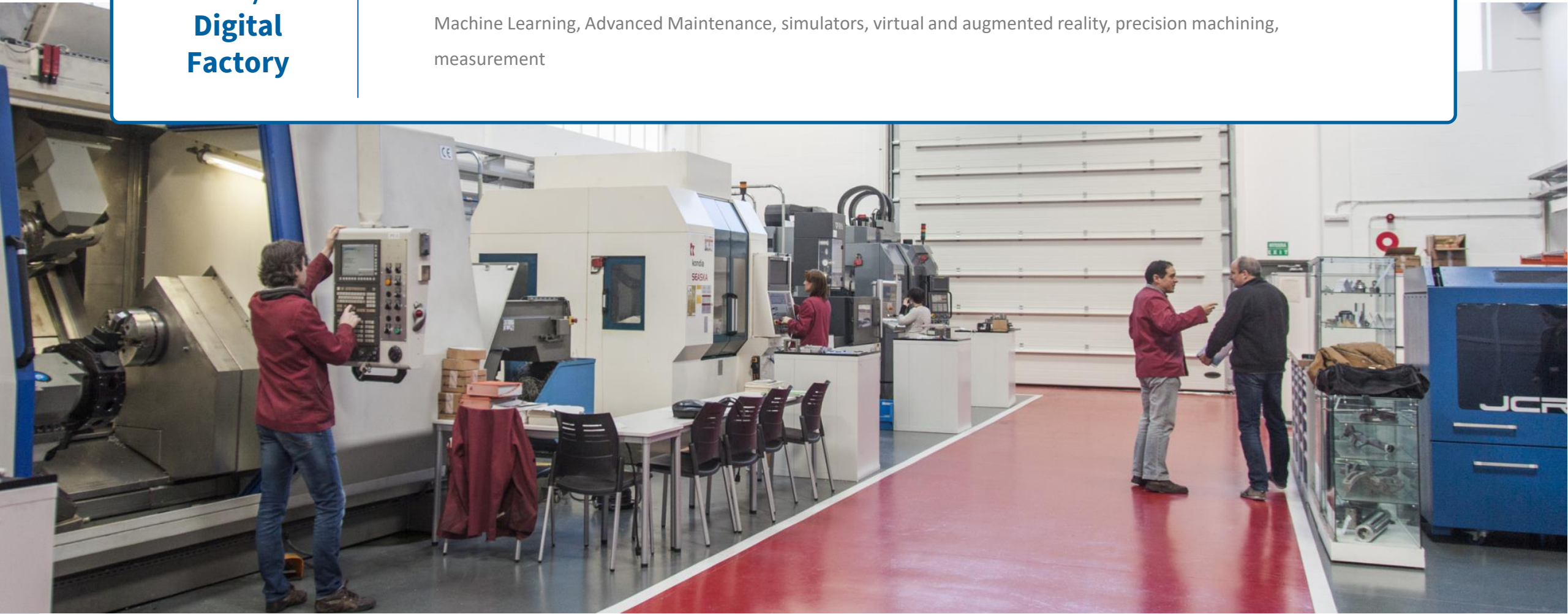


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## 4.0 Workshop: Training and demostration

### Factory 4.0 Digital Factory

Projection: Sensorization, connectivity and cybersecurity, data capture, Industrial Business Intelligence, Machine Learning, Advanced Maintenance, simulators, virtual and augmented reality, precision machining, measurement



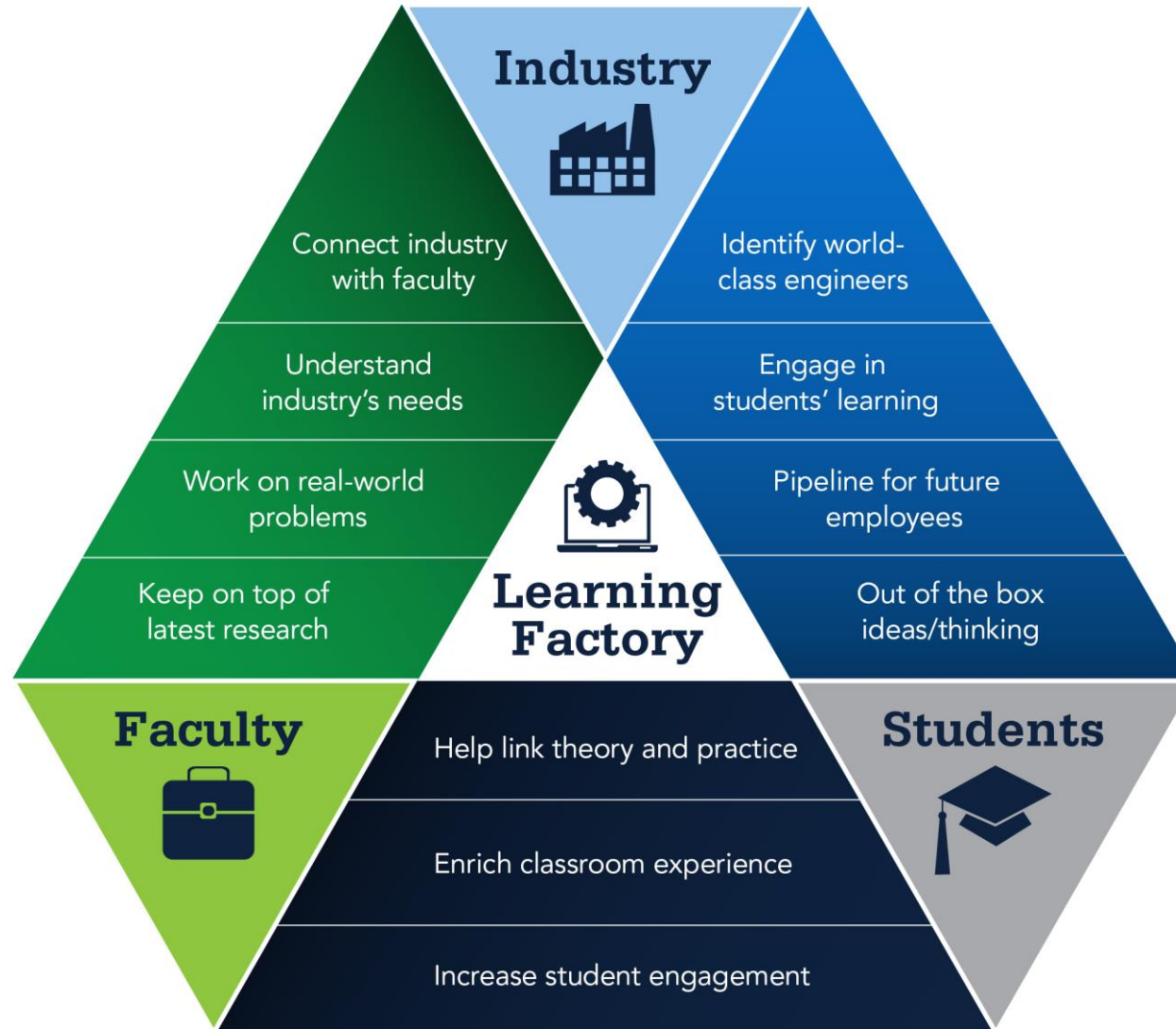




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## 4.0 Workshop: Training and demostration





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## 4.0 Workshop: Training and demonstration



Ilustración 20: Esquema de las máquinas del Taller Asmaola y sus CNCs



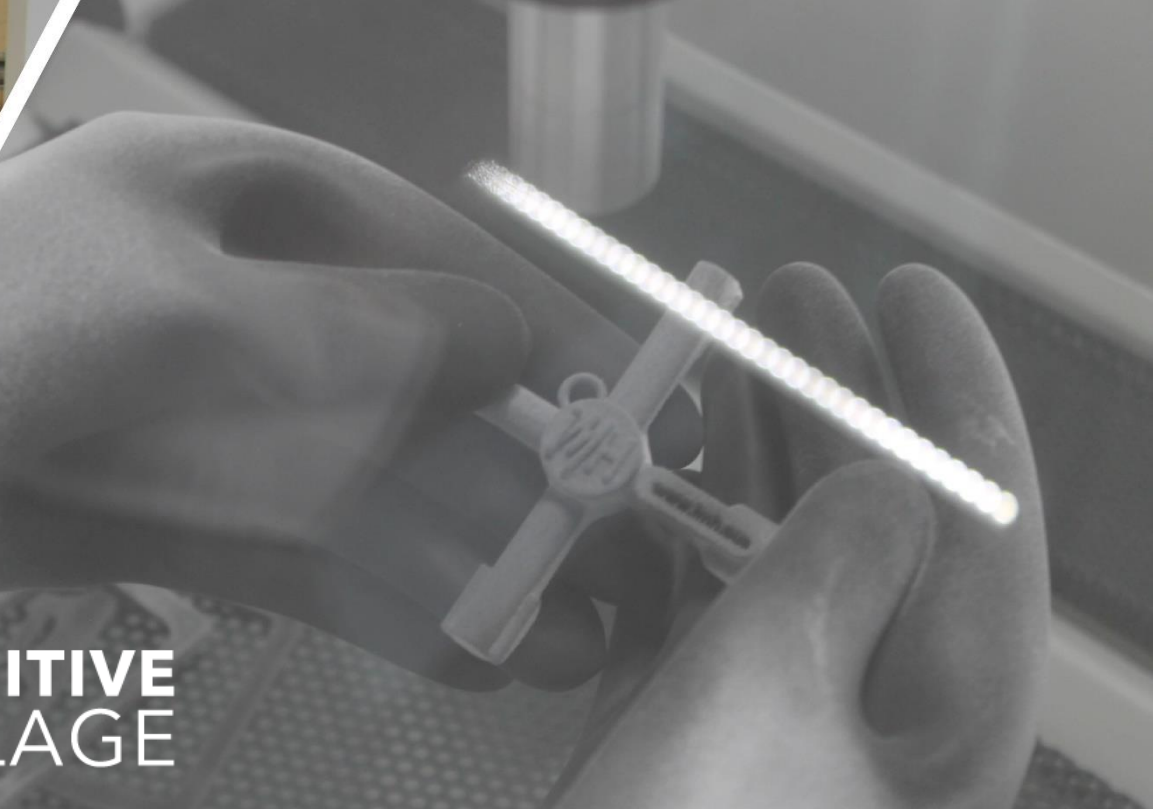
## 4.0 Workshop: Training and demonstration







**IMH** ADDITIVE  
VILLAGE



CO2	10.000
Fibra (Ni:YAG)	1.000
Fibra (Yb:YAG)	1.000
Diodos	750 - 870 - 900 - 1.000

La longitud de onda del haz láser está directamente relacionado con el sistema de transporte que se puede emplear y la seguridad a implementar en la máquina.





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## Equipment Additive Manufacturing

**RENISHAW AM250**  
**SAMYLABS ALBA 300**  
**(300W)**  
SLM-Selective Laser  
Melting

**DESKTOP METAL STUDIO**  
Binder Jetting

**ADDITOLA**  
LMD-Cladding



## Equipment Additive Manufacturing

**HP Jet Fusion 3D 4200**

Jet Fusion

**SICNOVA JCR600/UM2/UM2Ext**

FDM-Fused Deposition Modeling





## ENVIRONMENT

An ECOSYSTEM where Advanced Manufacturing, Training and Transfer are native activities

A place to facilitate the understanding of the phenomenon of Additive Manufacturing, from Design, Development, Manufacturing and Postprocessing

## HUB

A Hub for Networking

A unique gate for the various actors of additive manufacturing and advanced manufacturing

Industry - Suppliers - VET -  
Research Centers - University  
- Services

## ACCELERATOR

To provide demonstration, training / learning and testing services in:

DESIGN  
DEVELOPING  
PRODUCTION  
POSTPROCESS  
INDUSTRIALIZATION

## GENERATOR

A generator and diffuser of knowledge related to Additive Manufacturing and all related technologies

A place where you can, research, develop and innovate in: products, processes, applications and materials and postprocessing





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