We are your technology link for 4.0 solutions
What is it?
The advanced manufacturing strategy is a priority area of the Smart Specialization Strategy RIS3 Basque Country.

Its implementation is carried out through public-private cooperation led by the Basque Industry 4.0 Steering Group.
To strengthen the position of the Basque Country as an economy with an industrial base through the promotion of knowledge intensive manufacturing.

**Mission**

To help and guide Basque companies towards more knowledge intensive manufacturing activities which have greater added value.

**Strategic Objectives**

1. **Added value**
   - To promote multi-disciplinary and technological convergence in a structured way so as to develop best-in-class manufacturing capacities and solutions while optimizing existing resources.

2. **Integration of KETs**
   - To help and guide Basque companies towards more knowledge intensive manufacturing activities which have greater added value.

3. **Global value chains – Cluster 2.0**
   - To integrate local and international value chains to meet the challenges of Advanced Manufacturing using the sum of the particular capacities of each sector and its companies.

4. **Scaling Up**
   - To foster collaboration and support as a catalyst for the industrialization of the results of R+D+i in Advanced Manufacturing.

5. **Talent**
   - To support education and job training in technologies and management systems related to Advanced Manufacturing.
Technological priorities

The commitment to technological development in advanced manufacturing is crucial to maintain the competitiveness of the industry and to ensure positioning in market niches with greater added value.

**Advanced materials & processes**
- Nanomaterials
- Joining technologies for advanced materials
- Automatized composites manufacturing
- Efficient processes for materials
- Advanced surface technologies
- Life Cycle Assessment

**Intelligent, Flexible & efficient production systems**
- Smart supply chain
- Hybrid & multitasking machinery
- Smart Production Systems
- Data management systems
- Integrated monitoring systems
- Intuitive & multimodal programming
- Human in the Loop
- M2M Communication

**Digital & Connected Factory**
- Virtual Factory
- Predictive maintenance systems
- Integrated inspection & measurement
- Unitary level traceability
- Real-time data services

**Energy efficiency**
- Energy management tools
- Energy consumption monitoring systems
- Energy recovery systems
Strategic pillars

**TECHNICAL SECRETARIAT**
Planning and operational support office
SI deployment and projects office

**EXECUTIVE COMMITTEE**
Executive Management

---

**Decision-making**

**Specialized support**

**Strategic work areas**

**Operational work areas (WG/task forces)**

---

**Strategic pillar 1. BASQUE DIGITAL INNOVATION HUB**
- Connected Network of A.M. Assets (SI1)
- BOIP 4.0 (SI2)

**Strategic pillar 2. TRAINING FOR EMPLOYMENT**
- Vocational Training
- University Training
- Continuous Training
- STEAM
- Impact on people (employment and labour relations)

**Strategic pillar 3. NEW BUSINESS MODELS**
- Advanced Services 4.0
- Circular Economy
- Entrepreneurship and Investment 4.0

---

Advisory bodies

- Engineering, Science and Technology Training Cluster - Fuicté
- LEHIA Vocational Training Nodes Forum
- Connected Network of A.M. Assets (SI1)
- BOIP 4.0 (SI2)

---

CVCTI
Public-private co-presidency

---

EXECUTIVE COMMITTEE
Executive Management

---

TECHNICAL SECRETARIAT
Planning and operational support office
SI deployment and projects office

---

**International positioning**

- International WG
- Hannover Messe

---

**Proposals and monitoring of results of policies and instruments**

- Connection with other SGs
- Energy (off-shore, heat)
- Bio-health

---

**Promotion of SMEs**
BDIH, What is it?

Connected network of advanced manufacturing assets and services. Infrastructure for training, research, testing and validation available for companies.

The BDIH is already a reality in operation.
The aim of this initiative is to provide industrial enterprises, especially SMEs, with the technological capabilities needed to meet the challenges of industry 4.0.

It consists of a digitally-linked network of R+D infrastructures, pilot plants and specialized know-how in different areas of advanced manufacturing. The network will be used for the development of R+D projects, scaling of industrial projects, exhibition of cutting-edge technologies and also as a resource for training and acceleration of start ups.

We are going to channel SME digitization in the Basque Country toward more knowledge-intensive and higher value manufacturing activities.

Assets, advanced manufacturing services, training, research, testing and validation infrastructure at the disposal of companies.
Members

The network is owned by R&D Centers, vocational training centers and universities and is supported by regional public institutions. It is internationally connected with other European Digital Innovation Hubs.
Nodes

6 work areas in which we classify knowledge and technology

Flexible Robotics
Additive Manufacturing
Cybersecurity
Data Driven Solutions
New Materials
Smart and Connected Machines
Our offer

We provide companies with infrastructure, equipment and knowledge

Technological-economic advice
- Need Analysis
- 360 vision technological assessment
- Collaboration & coworking
- Technological Prospective & State of the Art
- Technological Analysis
- Economic viability Analysis
- Proof of Concept

Design, prototyping and validation
- Conceptual Design
- Simulation, solution architecture
- Safety Analysis
- Prototyping, programming and experimental validation
- Technological transfer for industrialisation

Awareness and Training
- Showroom
- Training Workshops (<1 day)
- Training (+ 1 day)

More than 100 4.0 assets
Flexible Robotics

Offer of technological-economic advice, design prototyping and validation, and training and awareness-raising in fields applicable to:

- Advanced manipulation with robots
- Internal logistics with mobile robots
- Manufacture and assembly of components by robots
- Quality Control with Robots
- Flexibility for robotics applications
CABLECRANE: robotic gantry crane for fully controlled handling and assembling.
Cell for research on robotic machining.
MUGIRO: Customizable omnidirectional mobile robot with autonomous navigation and teleoperation.
NEXTAGE-Open - Dual arm robot with humanoid torso.
Offer of technological-economic advice, design prototyping and validation, and training and awareness-raising in fields applicable to:

- AM/3D Printing process
- Design for AM and Digital pre-processing
- Post process
- Materials for 3D/AM
- AM Digital Chain
- Supporting technologies and processes
- AM Process Validation
Metal cladding cell (Robot IRB-1600 ABB) and plasma welding machine SBI (PMI-280B)
Additive Manufacturing

RX/computer tomography cell GE model X-CUBE compact 225
Additive manufacturing of continuous fiber composites
Laser laboratory for the analysis and development of solutions for additive manufacturing.
The aim of this initiative is to provide industrial enterprises, especially SMEs, with the technological capabilities needed to meet the challenges of industry 4.0.

1. Need to know, test or develop 4.0 technologies?
2. Take a look at our offer
3. Tell us your requirements
4. Our 4.0 link person will contact you
We are your technology link

www.basqueindustry.eus