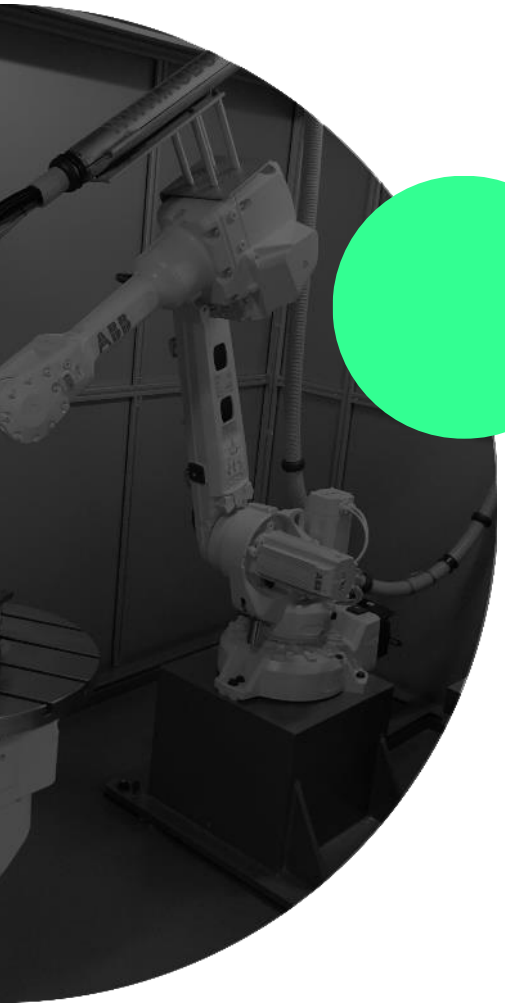

Basque Digital Innovation Hub

Your technological link

March 2023

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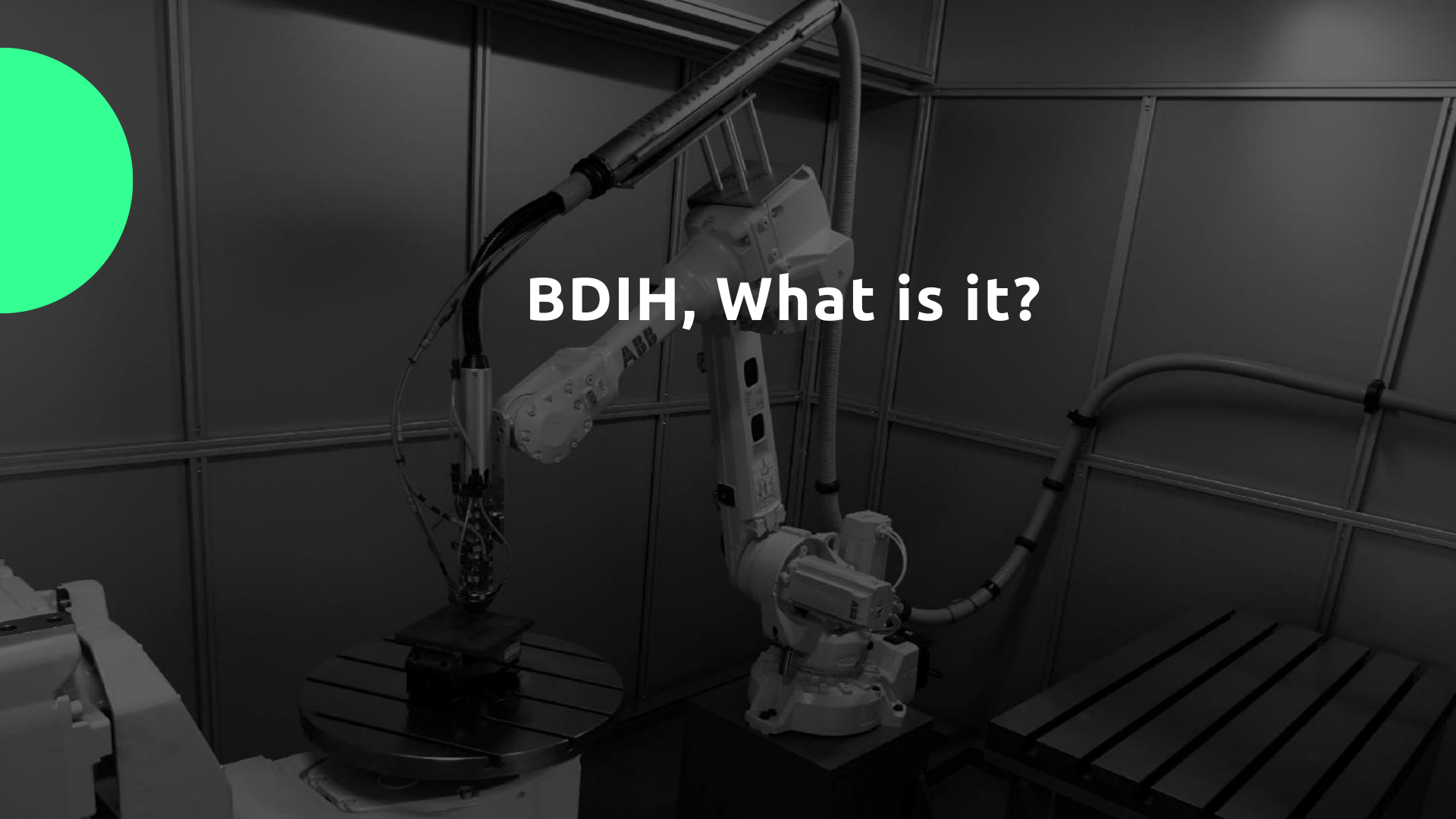
BDIH, What is it?



BDIH, What is it?

Initiative that responds to the Basque strategy of smart specialization RIS3 to support the business network in experimenting with digital and sustainable innovations.

Connected network of assets and services for training, research, testing and validation of technologies available for companies (especially SMEs).

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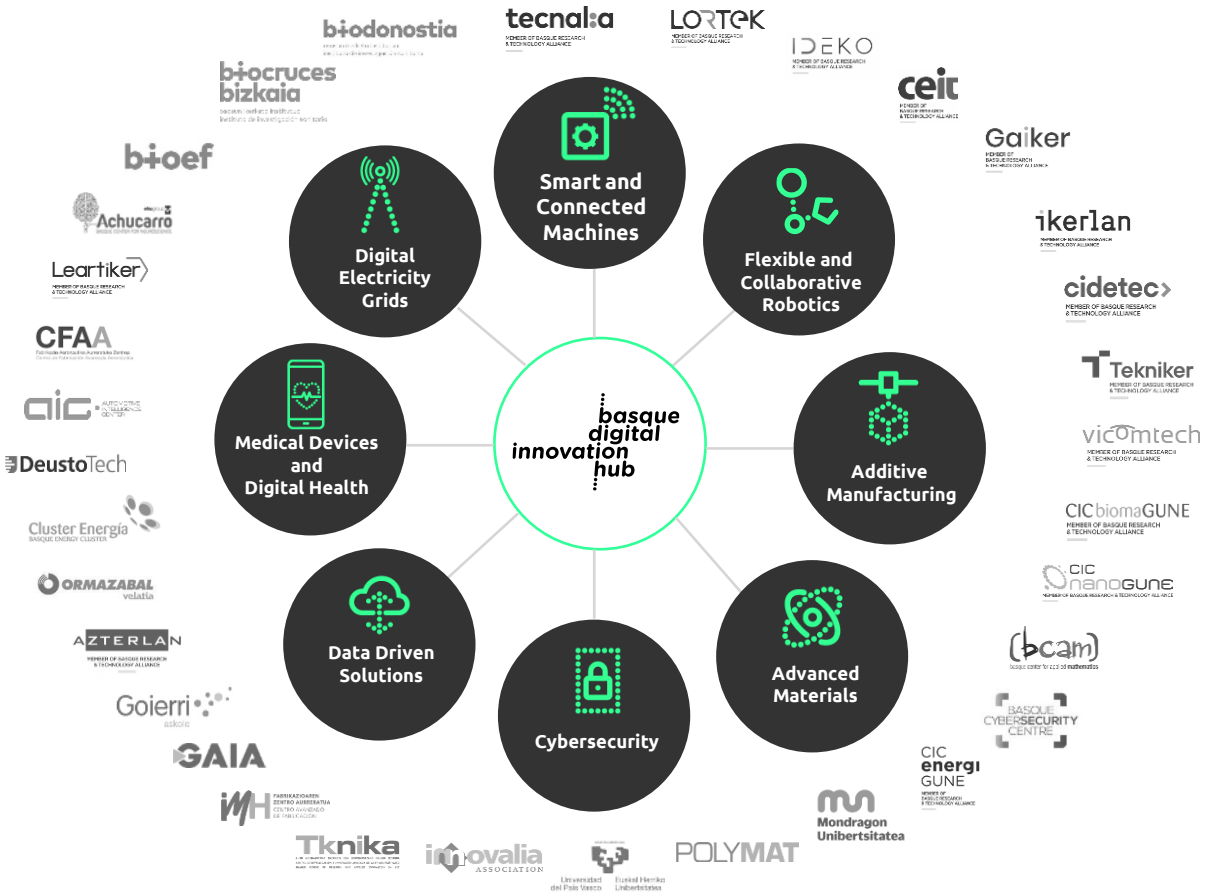
Goal and Members

The goal of this initiative is to provide industrial companies, especially SMEs, with the technological capabilities needed to meet the challenges of Smart Industry, Energy and Health.

The BDIH is co-owned by Technology Centers, Professional Training Centers and Universities and **is supported by regional public institutions.**



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Guided by international expert collaborators

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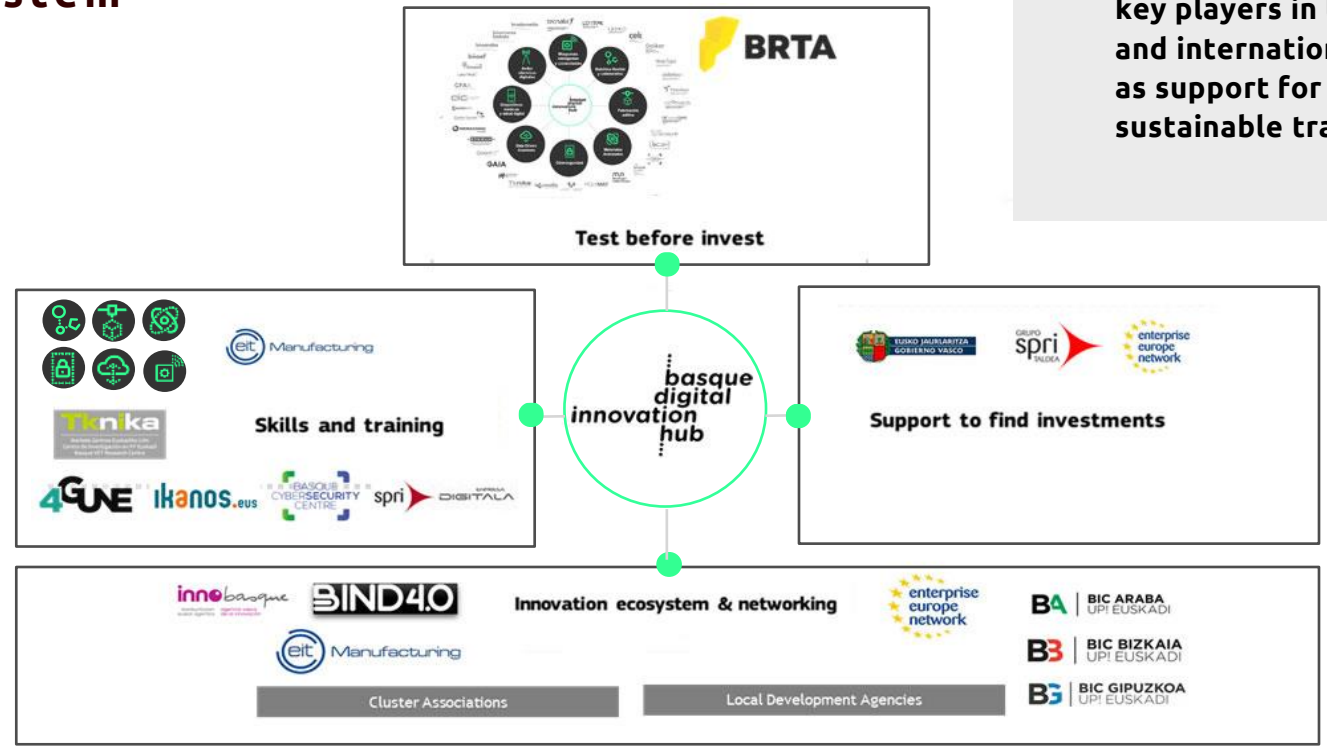
Additive Manufacturing	TNO innovation for life	*Maurits Butter (Netherlands)*
Flexible and Collaborative Robotics	German Research Center for Artificial Intelligence	*Tilman Becker (Germany)*
Cybersecurity	IIT Istituto di Informatica e Telematica	*Fabio Martinelli (Italy)*
Data Driven Solutions	INTERNATIONAL DATA SPACES ASSOCIATION	*Thorsten Huelsmann (Germany)*
Smart and Connected Machines	Leibniz-Institut für Werkstofforientierte Technologien IWT Bremen	*Bernhard Karpuschewski (Germany)*
Materials and processes	SIM innovating together	*Guido Verhoeven (Belgium)*
Digital Electricity Grids	DERlab	*Diana Strauß-Mincu (Germany)*
Medical Devices and Digital Health	convert.	*Gery Colombo (Switzerland)*
SCM Extension	IIT Istituto di Informatica e Telematica	*Andrea Pasarella (Italy)*

Ecosystem

The BDIH brings together key players in the Basque and international ecosystem as support for digital and sustainable transformation.



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Nodes

Smart and Connected Machines	Digital Electricity Grids	Medical Devices and Digital Health

- Flexible Robotics
- Additive Manufacturing
- Advanced Materials
- Cybersecurity
- Data Driven Solutions

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Offer

Company

Need to learn about/ test/ develop new technologies

Assets catalogue

Visibility of the BDIH's physical and logical assets (more than 250 assets)

Connected network of assets

Access to aggregated services

Coordinated support

Single window

More than 250 digital and sustainable assets

Technological and economic assistance

Needs Analysis
360º technology consulting
Collaboration and coworking
Technology foresight and state of the art
Technological análisis
Evaluation of economic viability
Proof of concept

Desing, prototype and validation

Conceptual design
Simulation, solution architecture
Security analysis
Prototyping, programming and experimental validation
Technology transfer for industrialization

Training and Awareness

Demonstration/Showroom
Training Workshops (less than 1 day)
Training (more tan 1 day)

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More than
250 Assets

Find 4.0 assets in our global search engine or by application categories and ask us for a 4.0 proposal

MORE THAN

250

ASSETS

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Flexible Robotics

Experimentation to solve automation challenges

10 organizations and
31 assets to assist in the following fields of application:

tecnalia
MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

Tekniker
MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

LORTEK
MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

vicomtech
MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

ikerlan
MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

IDEKO
MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

ceit
MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

Universidad del País Vasco · Euskal Herriko Unibertsitatea

Mondragon Unibertsitatea

innovalia ASSOCIATION

- **Advanced handling with robots**
- **Logistics with mobile autonomous robots**
- **Flexibility and autonomy for robotics applications**
- **Quality Control with Robots**
- **Manufacture and assembly of components by robots**

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Additive Manufacturing

Process validation at all stages

14 organizations and more than 38 assets to help in:

LORTEK
MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

vicomtech · Tekniker · tecnalia · Gaiker · ceit
cidetec · ikerlan · IDEKO · inovalia ASSOCIATION
IMH FABRIKAZIOAREN ZENTRO AURRERATUA CENTRO AVANZADO DE FABRICACIÓN · Goierri eskola · Universidad del País Vasco Euskal Herriko Unibertsitatea · Mondragon Unibertsitatea

- Design for AM and Digital pre-processing
- Additive manufacturing process
- Post-process
- Materials for Additive manufacturing
- AM Digital Chain
- Supporting technologies and processes
- AM process validation

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Advanced Materials

Scaling of new functionalities and associated processes

16 organizations and more than 69 assets to help in:

- **Design and development of materials**
- **Manufacturing processes**
- **Coatings and surface solutions**
- **Advanced unions**
- **Materials and processes in the circular economy**

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Cybersecurity

Real-world environment for testing, operations simulation and cybersecurity training

4 organizations and
7 laboratories to support the following application fields:

BASQUE CYBERSECURITY CENTRE

vicomtech MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

tecnalia MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

ikerlan MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

bcam basque center for applied mathematics

- **Identification of threats and risks**
- **Asset protection**
- **Attack detection**
- **Attack response**
- **Asset recovery**

Smart and Connected Machines

Testing of advanced solutions for digital grinding, advanced forming, machining and multitasking, micromachining, digitalization and connectivity and other processes.

12 organizations and more than 42 assets to help in:

- **Advanced Forming**
- **Grinding and Finishing Technologies**
- **Machining and Multitasking**
- **Precision and Micro Machining**
- **Digitalization and Conectivity**
- **Other processes**

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Medical Devices and Digital Health

Digitalization for diagnostics and development of new applications and devices

15 organizations and more than 52 assets to help in:

- Electromedical devices
- Orthopedic and rehabilitation Technology
- In-Vitro diagnostics
- Laboratory equipment
- Medical image
- Digital health
- Biomedical consumables
- Additive manufacturing

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Digital Electricity Grids

Network digitalization for energy transition

6 organizations and 12 assets to help in

Cluster Energía
BASQUE ENERGY CLUSTER

tecnalia
MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

Tekniker
MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

ikerlan
MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

ORMAZABAL
velatia

Mondragon Unibertsitatea

DeustoTech

- Product validation (HW/SW) for electricity grids
- Optimal grid operation and demand management
- Integration of distributed generation and storage. Microgrids
- Immersive systems and digital twin for power infrastructures
- Electricity grid cybersecurity

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Data Driven Solutions

Demonstrating data-driven solutions for the industry

GAIA

P4Q PROFESSIONALS FOR QUALITY · aic AUTOMOTIVE INTELLIGENCE CENTER · ULMA Handling Systems · AERnnova

microdeco · TUBOS REUNIDOS · wolco · AIRLAN

FAGOR · SORALUCE · GKN Driveline · MONDRAGON ASSEMBLY Automation and assembly solutions for industrial components

Kortagroup · ZAYER · Alcorta FORGING GROUP · Goizper Group

- **Knowledge of previously applied solutions and results for similar needs and industrial contexts.**
- **Access to User experiences, "already implemented solutions" and validated by international experts**
- **Accelerating the adoption of IOT, Artificial Intelligence, Big Data and Cloud, Simulation and Interaction, and Cybersecurity.**

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Demand activation

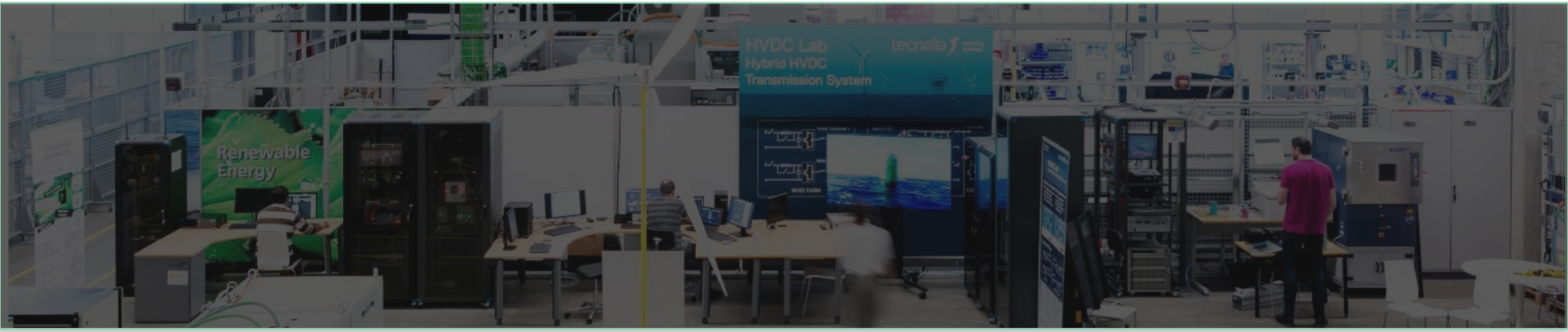
Communication and positioning activities of the BDIH and the services it provides.

Technical sessions for industrial companies on BDIH assets to learn in depth about the services of each node.

Grant program for technical advice and support to industrial companies for the use of the BDIH's experimentation and testing infrastructure.

“Deep Dive” sessions of the BDIH nodes

A DEEP DIVE is an in-depth analysis session into the node’s technology and assets at a high technical level. Sessions will be led by senior staff from each node’s members.



Practical

Use cases and demonstrations, classified according to assets/nodes applications

Proactive

”Hands on” sessions where attendees work directly with the technicians who manage the assets

Interactive

Discussions between technicians and companies for individual consulting

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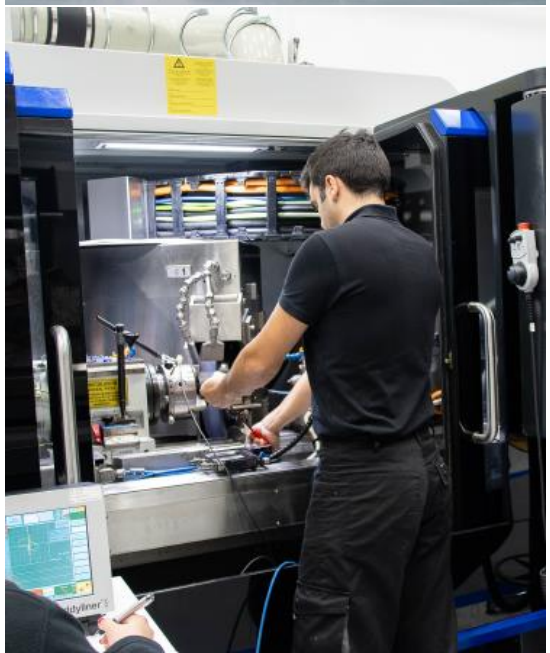

Support Programs

Basque Industry 4.0	Hazitek	Bind4.0
Gauzatu industria	**BDIH KONEXIO**	Industria Digitala
Industrial Cybersecurity	Ekintzaile	Renove Maquinaria 4.0 Program

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BDIH – KONEXIO Support Program

Aim of the program

Support access, connection and knowledge of the BDIH experimentation and testing infrastructure.

Total program budget - 2022

1,1M€

Target

Basque manufacturing industry

Deadline for submission of proposals -2022

14 October 2022

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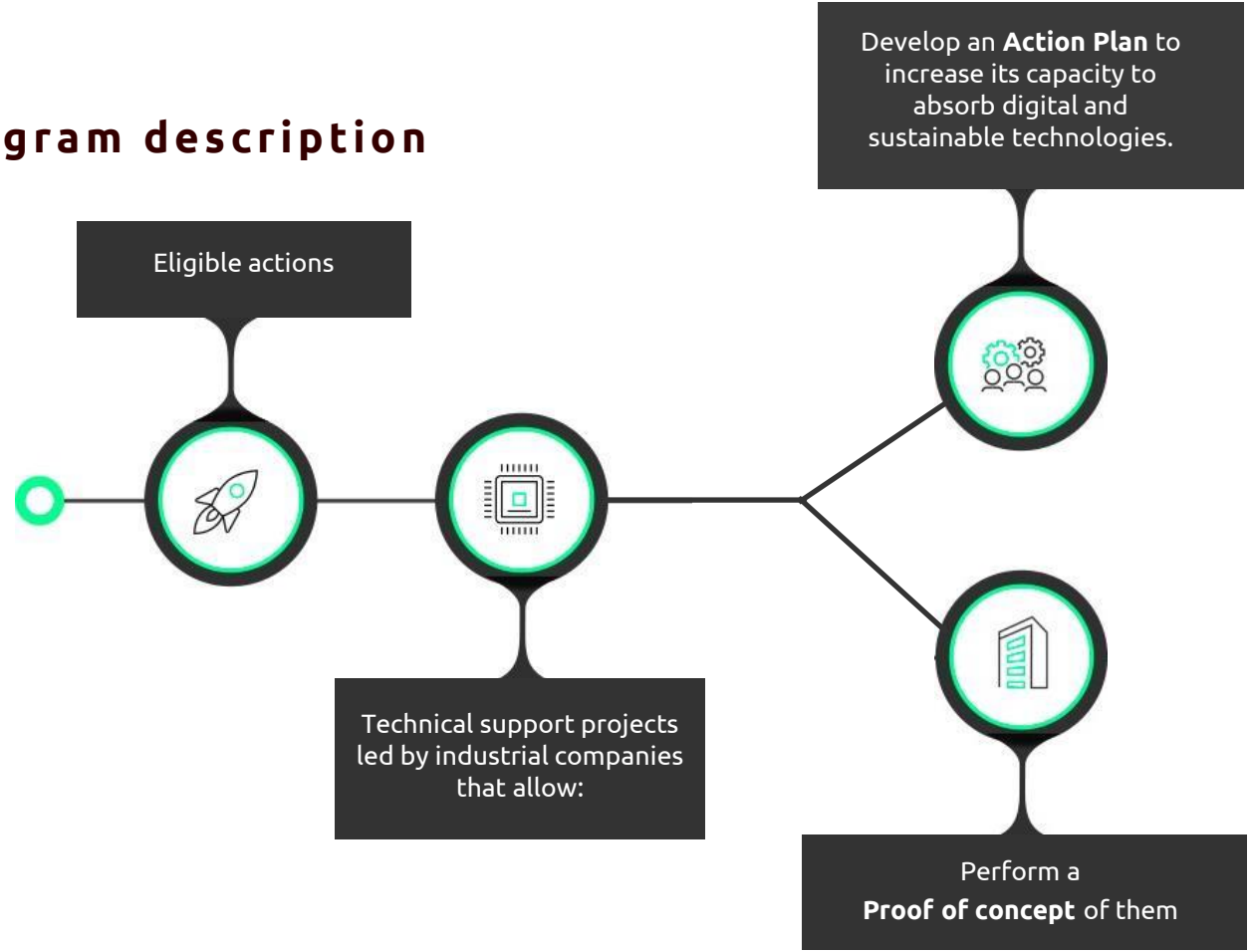
Program description



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Type and amount of grants

Total program budget

1,1M€

Grants
non-refundable

Successive granting

on a first-come first-served basis, provided that the terms and conditions of the program are met.

80% subsidy

of the eligible expenses with the following maximum amounts

- 2.000 euros in the case of collaboration with 1 agent
- 20.000 euros in the case of collaboration with two or more agents
- 15.000 euros in the case of collaboration with a European DIH (of which up to 3.000 euros for travel expenses)

Eligible expenses

Recruitment costs of the BDIH agent(s) chosen by the beneficiary entity or the European DIH.

Up to **2 applications per entity** will be accepted NEW

Given grants are considered **minimis** grants

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2022 Program Results

96 Projects*

- Cybersecurity: 6 projects
- Medical Devices and Digital Health: 9
- Additive Manufacturing: 11 projects
- Smart and Connected Machines: 16 projects
- Advanced Materials: 43 projects
- Flexible Robotics: 12 projects

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* 3 projects include several assets

Digital Europe Programme

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Thank you
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