We accelerate factories through robotics.

Jesús Pablo González
jesuspablo.gonzalez@eurecat.org
@jpgovi
Technology Transfer Manager
Eurecat Technology Center

Innovation with an impact

Proximity and trust

We stay close to our clients and their challenges through our broad regional deployment in Catalonia.
Eurecat Technology Center

50% of our activity is with SME

50M billed in 2018

1,600 Business clients

+650 professionals

22% doctors

58% men, 42% women

42% doctors

58% men, 42% women
Eurecat Technology Center
Specialized in science and technology

We are specialized in seven big areas to provide a comprehensive response to the main social, economic and environmental challenges.

- Water technology
- Medical devices
- Personalized nutrition
- Functional polymers
- Artificial intelligence for industry
- Lightweight materials
- Advanced robotics

Artificial intelligence for industry
Robotics and Automation Group

Applied robotics research for real applications
DIH as an instrument of digitization

What is a Digital Innovation Hub?

A one-stop-shop providing services to companies in the region through a multi-partner cooperation:

- Awareness Creation around Digital Technologies
- Innovation Scouting
- Digital Maturity Assessment
- Visioning and Strategy Development for Businesses
- Brokering/Matchmaking
- Access to Specialist Expertise and Infrastructure
- Mentoring
- Training
- Access to Funding and Investor Readiness Services
- Collaborative Research
DIH as an instrument of digitization

DIGITAL INNOVATION HUB: INGREDIENTS

- Technical Support (development, integration, etc.)
- Infrastructure
- Testing
- Access to Users
- Access to Finance
- Competence Center
- Training
- Innovation Coaching
- Knowledge
DIH as an instrument of digitization

- One tech/market domain focus
- Supporting regional SMEs
- Multi-actor partnership
- Creating business with non-tech expertise

- Multi-tech/market domain focus
- Regional ecosystem development
- Coordination multiple DIH nodes
- Benefit of Economy-of-Scale
- Implementing Smart Specialisation and pan-EU collaboration

- One tech/market domain focus
- Initiating pan-EU collaboration and Smart Specialisation
- Facilitate regional learning
- Creating EU awareness on new topics
DIH as an instrument of digitization

Robotics for Healthcare (2019-2022)
www.dih-hero.eu

Robotics for Agile Production (2019-2022)
www.dih-squared.eu

Robotics for Agrifood Industry (2019-2022)

Flexible Electronics (2017-2020)
www.smartees.eu
Trends in manufacturing

LEAN MANUFACTURING

- Specialization
- Customization
- Flexibility
- Low cost
- High quality
- Low inventory
- Short lead time
Trends in manufacturing

LEAN MANUFACTURING

PROCESS

PRODUCT

• Specialization
• Customization
• Flexibility
• Low cost
• High quality
• Low inventory
• Short lead time

STANDARD FACTORY

AGILE PRODUCTION

PEOPLE

DATA

CONNECTED FACTORY
Technology drivers for Agile Production

- Variable degree of automation
- Highly integrated safety support
- Mobility
- Minimal geometric pre-determination (Perception)
- Modularity, scalability, usability
- Interoperable equipment
- Robust and reliable
- Cost-efficient
We accelerate factories through robotics.

- DIH² believes in the power of robotics to transform the agility of manufacturing in Small and Medium-sized Enterprises (SMEs) and drive economic growth across the European Union.
- Our role is to facilitate the connections that will enable agile production in factories where speed and versatility are essential to satisfy customer demand.
Our ambition.

- The ambition of the DIH² project is to:
  - Improve the cost-effectiveness of advanced robotics solutions.
  - Drive growth of the European manufacturing robotics market.
  - Generate innovation that maximises productivity and optimises agility in over 300,000 manufacturing SMEs and Mid-Caps across the European Union.

- DIH² is a network of 26 European Digital Innovation Hubs (DIHs). Our objective is to grow this network to over 170 DIHs by 2022.
How we support SMEs.

TECHNOLOGY SERVICES AND ACCESS TO INFRASTRUCTURE
Access to prototyping, research and manufacturing know-how and a technology catalog to speed-up your product development. Access to specialized labs and realistic test environments to validate your product and services.

BUSINESS AND GO-TO-MARKET SERVICES
Business consultancy, links to public and private funding services to transform your technology into market-ready product. Resources to help you understand customer segments, regulation and value chains to create perfect market entry strategy.

TRAINING AND EDUCATION SERVICES
Knowledge and resources for competence building and life-long learning for professionals and robotic developers.
Connected factories.
A digital platform for connected factories.

- DIH² offers a reference system architecture that enables SMEs to step into Industry 4.0 without large-scale changes in their current production equipment.

- The Common Open Platform Reference Architecture for Agile Production (COPRA-AP) allows the integration of heterogeneous systems, robots, automation equipment and sensors under a common platform.

- Plug and Play implementations for a range of different use cases will be available through RAMP.
The ROSE-AP Catalogue is a collection of components that account for convenient COPRA-AP interfaces. They can be assembled together and integrated with other technologies to implement the COPRA-AP instances defined by TTEs.

- Open Source FIWARE enablers ([FIWARE Catalogue](#))
- FIWARE ready enablers and devices ([FIWARE Marketplace](#))
- Other supporting technologies ([Hadoop](#), [Flink](#), [Spark](#), [Storm](#))
- IDSA connectors (get your starter kit at tech-onboarding@internationaldataspaces.org)
- Future ROSE-APs (COPRA-AP components developed within the Transfer Technology Program)
Technology Transfer Experiments (TTEs).

- Every Technology Transfer Experiment should be driven by a real industrial use case where robotics can be instrumental to materialize enabling factors for Agile Production.
- A list of eight relevant challenges has been generated (next slide), every experiment must address at least one of these challenges.
- The reuse of existing ROSE-APs from the COPRA-AP catalogue will be considered a bonus.
Challenges.

1. INCREASING THE **SAFETY** OF ROBOTIZED WORKPLACES

2. DEVELOPING **HUMAN-CENTERED INTERFACE** TO FACILITATE THE CONTROL OF ROBOTS BY NON-TRAINED WORKERS USING STANDARD HUMAN-TO-HUMAN COMMUNICATION (SPEECH, TOUCH, MIMICS, ETC.)

3. REDUCING THE PROBABILITY OF OCCURRENCE OF HAZARDOUS EVENTS FOR CO-OPERATIVE ROBOTICS AND GO **BEYOND THE “JUST SAFE STOPPAGE”** OF THE CURRENT MACHINERY

4. INCREASING **DRONE RELIABILITY** IN MANUFACTURING ENVIRONMENT

5. DEVELOPING **DIGITAL TWINS** TO TRAIN SAFETY ALGORITHMS IN ORDER TO AUTOMATE FAULTY OPERATIONS, IMPROPER BEHAVIOURS AND POTENTIAL COLLISIONS DETECTION

6. DEVELOPING **REAL-TIME PRODUCTION MONITORING** APPLICATIONS ABLE TO HANDLE HETEROGENEOUS SENSORS PORTFOLIO

7. INCLUDING MORE SECURITY STRATEGIES WITHIN ORGANIZATIONS IN ORDER TO MITIGATE **CYBERSECURITY** RISKS

8. ENABLING TO RESPOND QUICKLY TO CUSTOMER NEEDS AND **MARKET CHANGES** WHILE STILL CONTROLLING COSTS AND QUALITY
Equity-free funding.
Who can apply for funding?

- Up to €248,000 equity-free funding is available for the following types of organisation:
  
  - **Manufacturing Small and Medium-sized Enterprises** (SMEs) with up to 500 employees and a maximum of €100 million in turnover.
  
  - **Systems integrator and technology providers** specialised in technology transfer or integration to end users (this includes research and technology organisations, competence centres, Mid-Caps or start-ups).

https://dih-squared.fundingbox.com/
What are the key steps?

Stage 1:
• Type of applications: individual applications for SME/Mid-Caps and system integrators/technology providers.
• Applicants: a minimum of 520 individual applications, 20 per country.
• **Beneficiaries: 520 individual applicants** will be invited to the brokerage event. 10 manufacturing SMEs and 10 system integrators/technology providers per country.
• Timing: from **1st July to 31st October 2019**.

Stage 2:
• Type applications: **consortia made up of 2 to 3 members, of which one must be a manufacturing SME/Mid-Cap**. Consortia can be set up before or during the national brokerage event.
• Applicants: a minimum of 130 applications/5 consortia per country.
• **Beneficiaries: 13 consortia.**
• Timing: from **3rd December to 27th February 2020**. The brokerage events will take place 1st – 15th December 2020.

https://dih-squared.fundingbox.com/
Open call process.

1st Stage Call Launch
01/07/2019 - 31/10/2019
(4 months)

1st Stage Selection and Matchmaking
01/11/2019 - 15/11/2019
(15 days)

Local Brokerage Events
01/12/2019 - 15/12/2019
(15 days)

External Evaluation
02/03/2020 - 14/03/2020
(15 days)

Jury Day and Beneficiaries Selection
April 2020

Robot Days
01/07/2019 - 31/10/2019

2nd Stage Call Launch
03/12/2019 - 27/02/2020
(3 months)

Support to Prepare Application
03/12/2019 - 27/02/2020
(3 months)

Consensus Meeting
23/03/2020 - 27/03/2020

Negotiation
May-June 2020
Open call process.

1st Stage Call Launch
01/07/2019 - 31/10/2019
(4 months)

1st Stage Selection and Matchmaking
01/11/2019 - 15/11/2019
(15 days)

Local Brokerage Events
01/12/2019 - 15/12/2019
(15 days)

External Evaluation
02/03/2020 - 14/03/2020
(15 days)

Jury Day and Beneficiaries Selection
April 2020

Stage 1

Stage 2

Robot Days
01/07/2019 - 31/10/2019

2nd Stage Call Launch
03/12/2019 - 27/02/2020
(3 months)

Support to Prepare Application
03/12/2019 - 27/02/2020
(3 months)

Consensus Meeting
23/03/2020 - 27/03/2020

Negotiation
May-June 2020
Value Proposition -> SERVICES

- **Mentoring**
  - Technical Business Funding
- **Access to investment**
  - Public: EU & National Private
- **IP&ELS**
  - Ethic, Legal and Cybersecurity vouchers
- **Training**
  - Mooc Platform
  - Agile Production
  - Business Model Commercialization
  - Standardization

- **Standardization**
  - Mentor COPRA AP
- **Marketplace**
  - Publication in the COPRA AP Catalogue in the Marketplace
- **Corporate Brokerage**

https://dih-squared.fundingbox.com/
Technology Transfer Program

10 Months Program

https://dih-squared.fundingbox.com/
Technology Transfer Program

**WHAT**

- Selection: Brokerage event and Jury Day
- Technology Transfer Experiment
- ROSE AP
- Go to Market

**WHEN**

- 4 months
- 8 Months
- 2 Months

**YOU GET...**

- €2K
- €216K
- €30K
- Support

https://dih-squared.fundingbox.com/
What to do next

Send your application, find our Guide for Applicants and FAQs to https://dih-squared.fundingbox.com/

Follow us

Email us at helpdesk@dih-squared.eu
Partners.
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824964