

27 •

NOVEMBER 2024

THE ADVANCED MANUFACTURING SECTOR IN WALLONIA



SOPHIE SCHMITZ

International Project Manager
Mecatech



AGORADA+ 2024
EURADA event 




SHAPING THE FUTURE OF
INDUSTRY TOGETHER!



A woman with long brown hair, wearing a light blue shirt, is focused on operating a 3D printer. She is holding a black tool, possibly a nozzle or a part of the printer, over a white, ribbed, rectangular object that is being printed. The background is a dark, textured wall. A large, semi-transparent purple circle is overlaid on the image, containing the text 'Advanced manufacturing' in white.

Advanced manufacturing



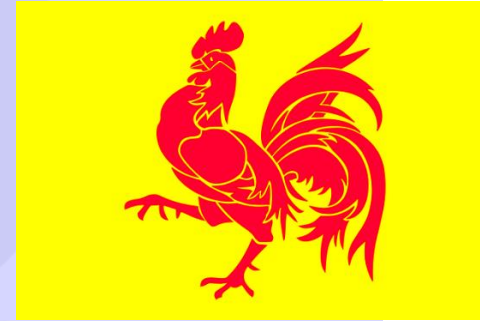
« Advanced manufacturing represents a Key Enabling Technology. It uses new knowledge and innovative and cutting-edge technologies such as robotics, 3D printing, artificial intelligence, high-performance computing and modelling, to produce complex products like aeroplanes and medical devices. It also optimises processes towards products having no defects, avoiding any waste, reducing industrial pollution, material consumption and energy use.

Europe is strong in advanced manufacturing technologies, with the highest share of world patent applications and the highest number of venture capitalist backed firms. »

The context of the Advanced Manufacturing Sector in Wallonia



- Environment
- Digitalisation
- Competitiveness
- Resilience
- Raw material dependency
- Value chain disruption
- ...



- Reach 20% GDP for the industry
- Adoption of new technologies and materials
- Innovation (products & processes)
- Circular and digital transformation
- Training and talents
- Dependency of other markets
- Regional strategies and politics
- ...

REGIONAL STRATEGIES & MECATECH



SIA 1* **Circular Materials**

In collaboration with

GreenWin
Logistics in
Wallonia
Skywin

Project Names

Win4C
VALBO
WAL

SIA 2* **Better Health**

BioWin

ReM
edIA
ATM
PWal
I-Care
MedTech Wallonia

SIA 3** **Agile and safe design and production methods**

Skywin

MadeInWallonia
HITT
Trail4Wallonia

SIA 4** **Sustainable energy systems and habitats.**

Two
ed
Gree
nwin
Logistics in
Wallonia

CyberWal

e-
Wallo
nHy
Contri
bute
CETW
A
RENOVATION



Agence
du Numérique



Wallonia.be

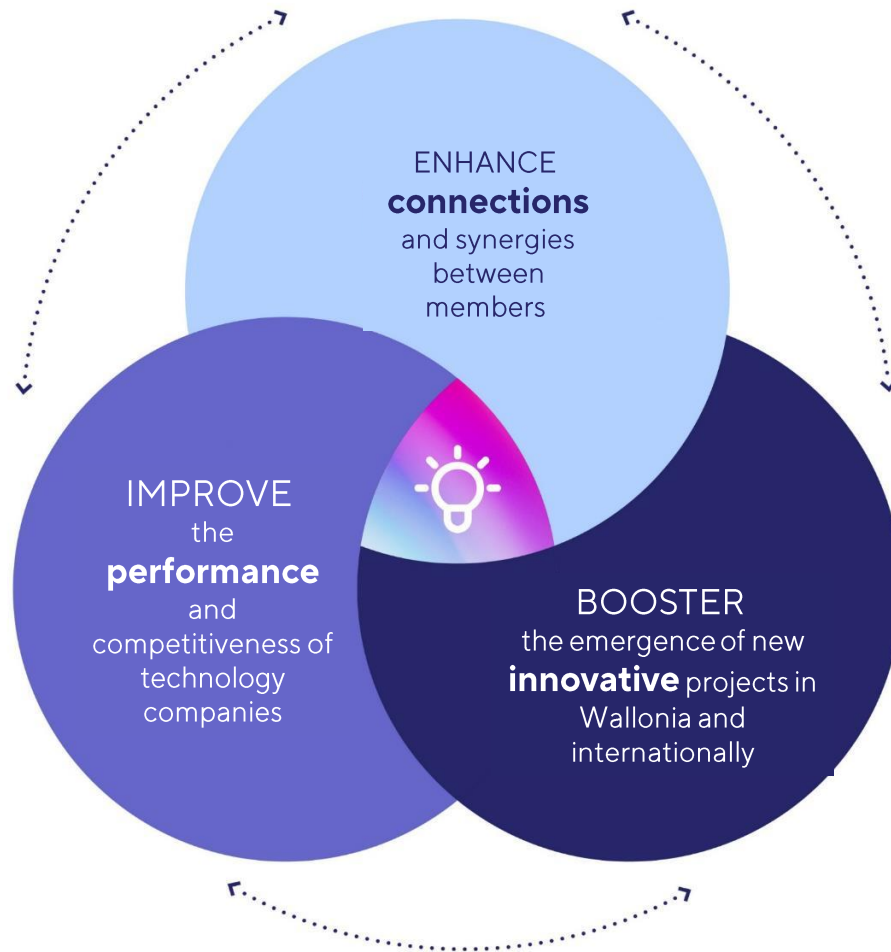
EXPORT
INVESTMENT



MecaTech cluster is coordinating the
Metallurgy, Batteries and Transport value chain



MISSIONS of POLE MECATECH



THE WALLOON COMPETITIVENESS CLUSTER FOR ENGINEERING SCIENCES



Connection



Innovation



Performance



Supporting the economic development of Wallonia's industrial companies to meet Wallonia's economic, ecological and social ambitions.



KEY FIGURES

4 TECHNOLOGICAL TOPICS

528 MILLION EUROS
INVESTED SINCE 2007

5 ECOSYSTEMS

171 APPROVED PROJETS
SINCE 2007

400+ INNOVATION PLAYERS
INCLUDING 260 INDUSTRIAL MEMBERS

+102% ADDED VALUE
FOR OUR MEMBERS

8000+ JOBS CREATED

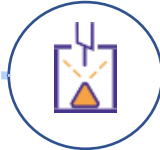
STRATEGIC AREAS OF ACTION



TECHNOLOGICAL WATCH



ADVANCED MATERIALS



TECHNOLOGIES ADVANCED
DESIGN AND MANUFACTURING



MECATRONICS
& MICRO-TECHNOLOGIES



DATA TECHNOLOGIES

ECOSYSTEMS



INDUSTRY 5.0



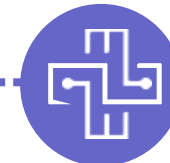
SUSTAINABLE
ENERGY



CIRCULAR
ECONOMY

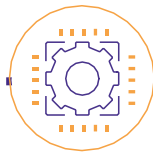


DEFENCE &
SECURITY

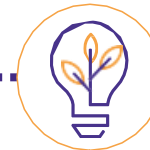


MEDTECH

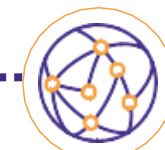
CHALLENGES



OPERATIONAL EFFICIENCY



ENERGY EFFICIENCY



MATERIAL EFFICIENCY

Our services to the members



TRANSFORMING YOUR CONCEPTS INTO INNOVATION

- ➡ Technology watch
- ➡ Innovation management
- ➡ Collective intelligence

EXPAND YOUR NETWORK LOCAL AND INTERNATIONAL

- ➡ Local connections
- ➡ International connections
- ➡ Ecosystem management

FINANCE YOUR PROJETS

- ➡ Call for projects MecaTech cluster
- ➡ Investment incentives
- ➡ Proof of Concept
- ➡ European projects

MAKING YOUR INDUSTRIAL TRANSITION

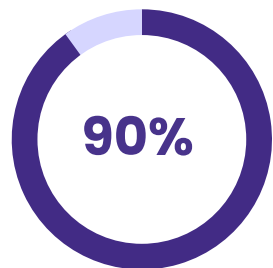
- ➡ CAP IMPACT Program
- ➡ workshops CIRCO Program

PROJECTS

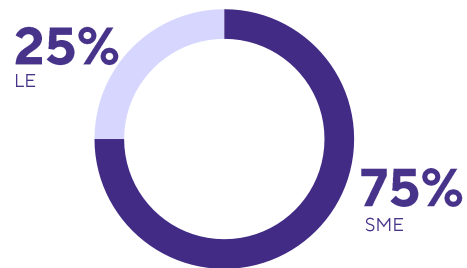
The projects unit helps companies stay at the forefront of the sector by selecting the best funding methods and the best partners for research and innovation.

Supporting the emergence of innovative collaborative projects

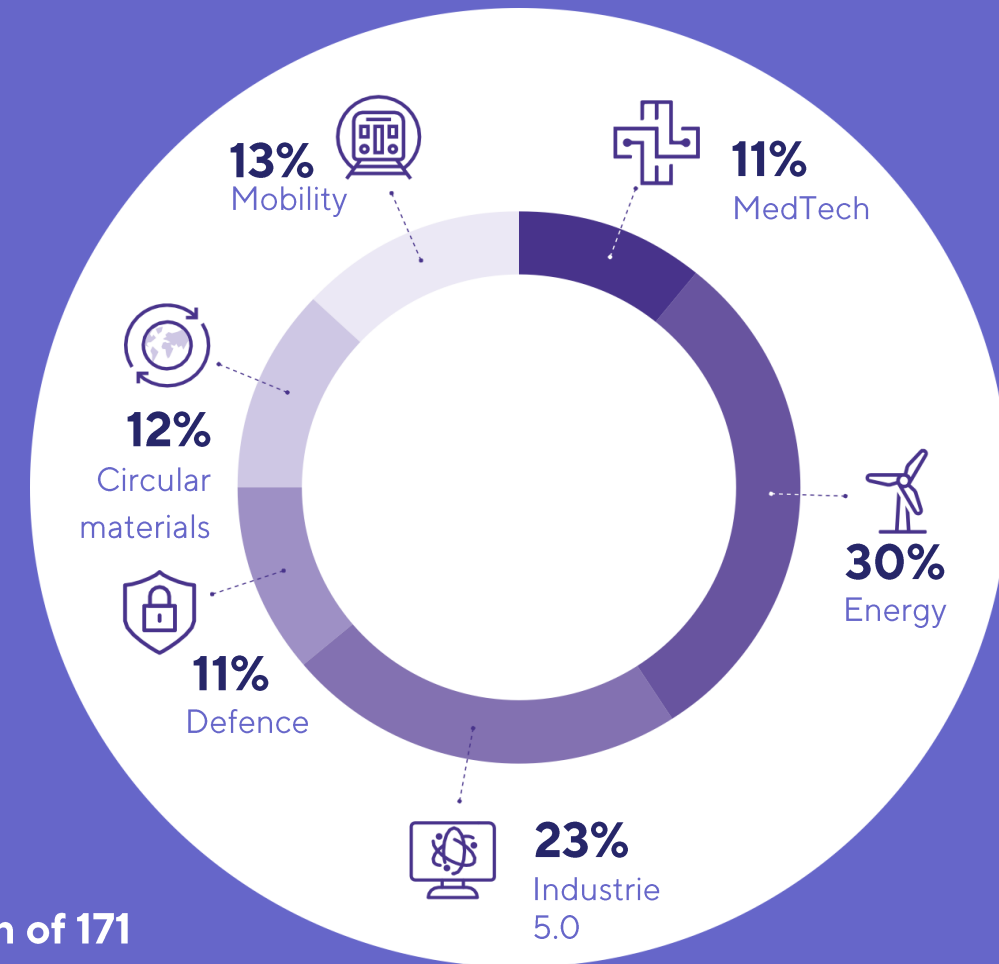
Success rate of project accreditation over the last two years



Participation by company size



Breakdown of 171 projects awarded the cluster's label by sector





INTERNATIONAL

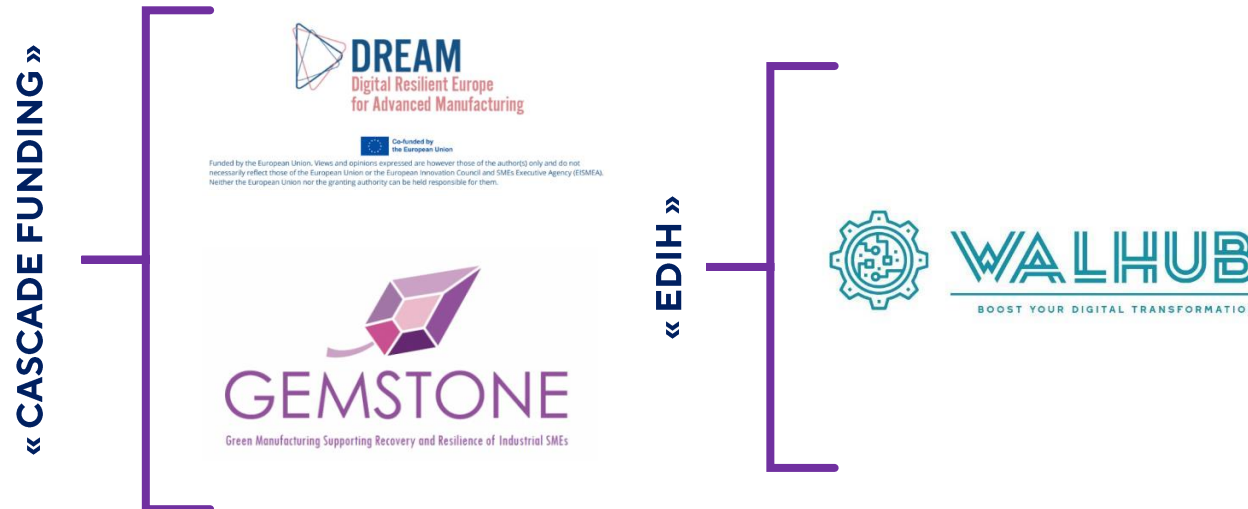
Types of international activities

Promote the **international visibility** of Wallonia and the ecosystems covered by the Cluster

Connect our ecosystem with other ecosystems in Europe and outside EU

Support our ecosystem to **EU funding and projects**

EU Projects in progress



Contributing to the **TWIN TRANSITION** of the European industry

International network and collaborations



ECOSYSTEMS



SUSTAINABLE ENERGY



Our challenges

- ➡ **Energy Communities** (pooling and symbiosis of energies);
- ➡ **Industrial transition** (low-carbon and electrification);
- ➡ **Renewable energies** (hydrogen, wind power and offshore wind power, photovoltaics).
- ➡ **Energy storage** (batteries).

Walloon Government's
Strategic Innovation
Area (SIA)

**Sustainable energy
systems and habitats.**

A flagship project

HECO2

- Framework: **2022 Recovery and Resilience Plan (EU & Wallonia).**
- Main topics: **Decarbonizing** production facilities and reducing the environmental **impact** of their activities
- Global Objectives:
 - ↳ 1.100 kt CO₂/year in Wallonia
 - ↳ 5.000 kt CO₂/year in Europe
 - ↗ 2500 sustainable jobs
- Budget : 81 Millions €

- 26 industrial actors, namely:



- Support from poles of competitiveness:



Roadmap

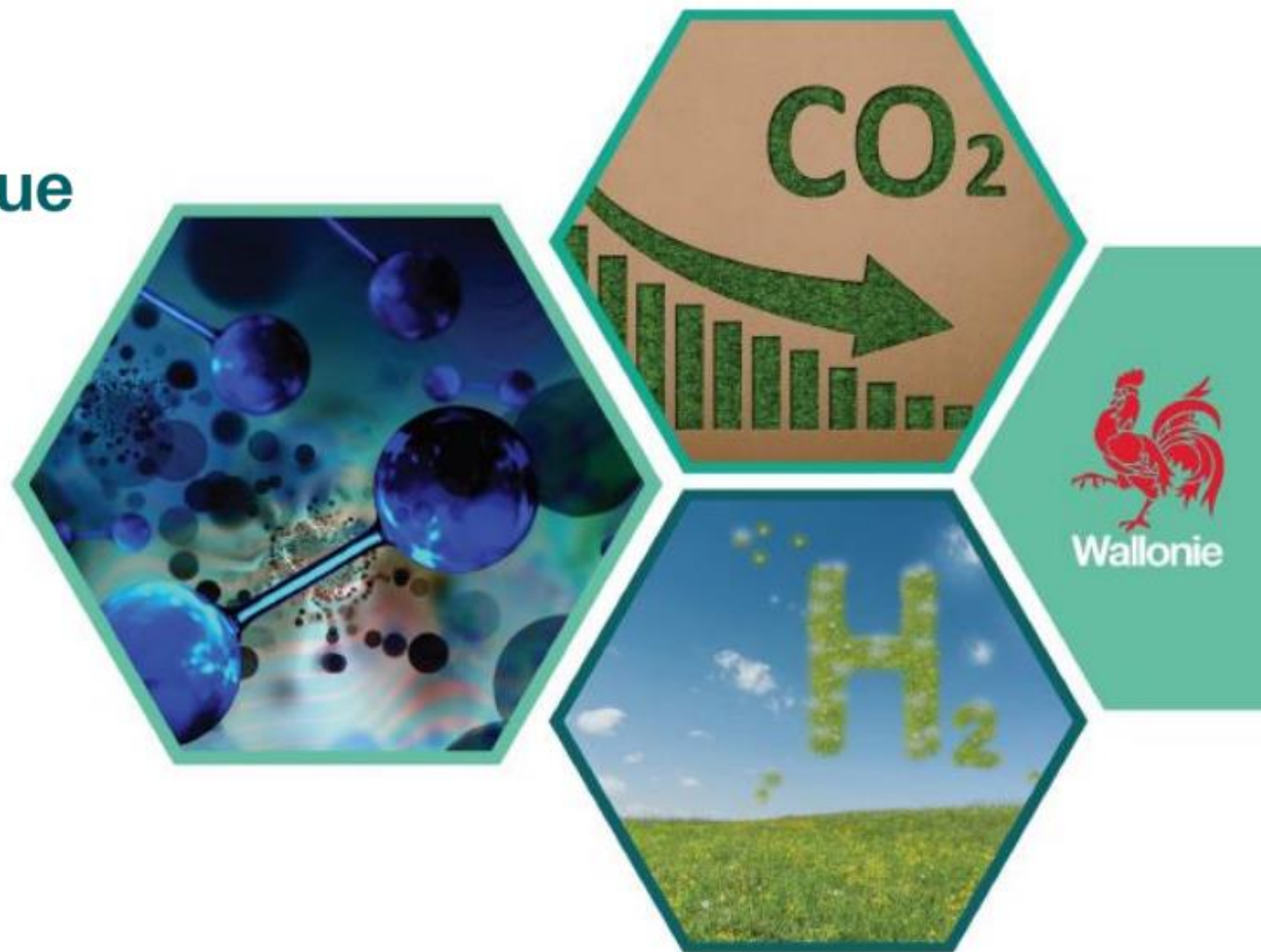
Technologique & Stratégique

Hydrogène & CCUS

Pilotée par



&



<https://www.polemecatech.be/en>



CIRCULAR ECONOMY



Our challenges

- ➔ Reducing our environmental impact;
- ➔ Better management of our resources (raw materials).
- ➔ Sustain Walloon jobs linked to the circular economy

Walloon
Government's
Strategic Innovation
Area (SIA) :
Circular materials

**+Circular Wallonia
Programme**

A flagship project

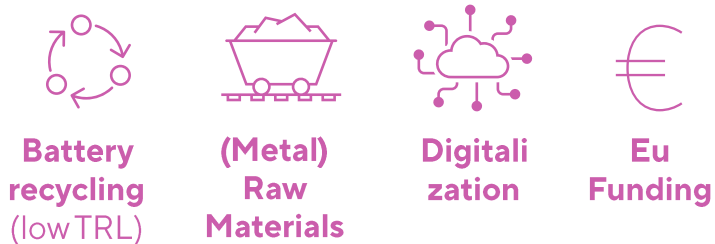
PHOENIX

- Framework: Innovation in Wallonia (Pole of Competitiveness).
- Main topic: **Metal (vehicle) recycling**
- Global Objectives: recovery of organic matter contained in metal waste shredding residues into liquid fuels and useful carbon for metallurgy.
- Local partnership:



SUPPORTING THE BATTERY VALUE CHAIN

Specific challenges



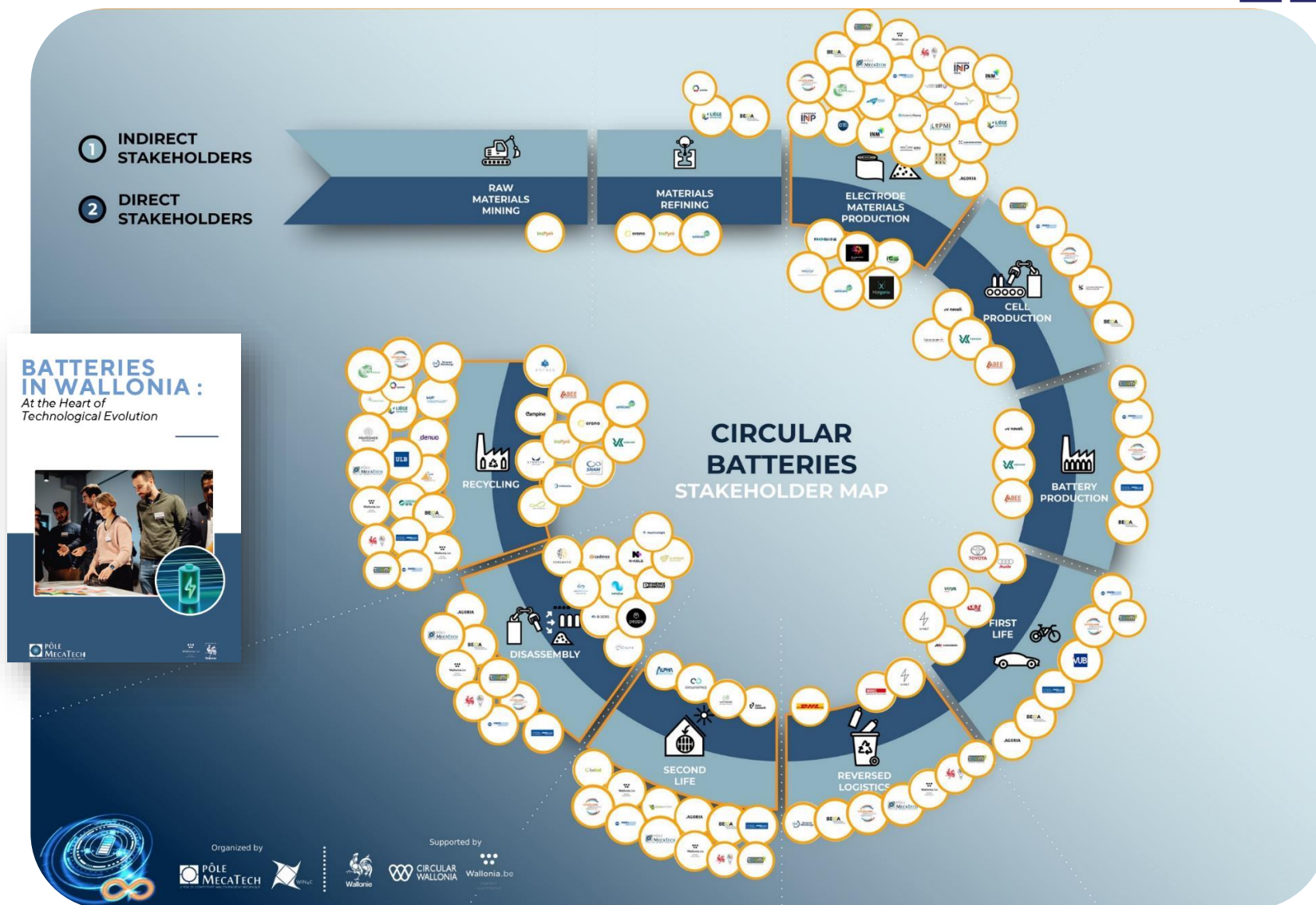
Ecosystem and activities

40 Walloon players active in the battery value chain.

Walloon players active in regional and European R&D projects.

7 Investment projects selected to strengthen the regional battery value chain.

Strategic Innovation Initiative in relation with Batteries value chain : WIN4C.





INDUSTRY 5.0



Our challenges



Putting **people** and **environmental** issues **at the heart of the digital transition** for manufacturing companies.

Walloon Government's Strategic Innovation Area (SIA):
Agile and safe design and production methods

A flagship project

MAIN

- Framework: DREAM Eurocluster
- Main topic: digital & green transition
- Main objectives : innovative digital solutions to make manufacturing companies greener, more resilient and more competitive
- International partnership: BE tech provider x FR end-users
- Budget 35 K €

MAIN



DREAM

Mapping of industrial glass furnaces using optical fiber temperature sensors and cloud computing

Innovating in heavy industry using fiber optic sensor solutions, data communication and cloud computing to improve its overall environmental impact.



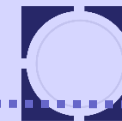
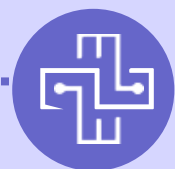
B-SENS SPRL
📍 Belgium



SAINT-GOBAIN CREE
📍 France



Agence
du Numérique



Our challenges

- ➡ **Connection & innovation in medical devices** (connected or not);
- ➡ **Digital** (technological) **health**;
- ➡ **In vitro diagnostics**.

Walloon Government's
Strategic Innovation Area
(SIA):
Better health



Support manufacturing SMEs
in their green transition
initiatives

GREENADOPT



SUPPORTED WITH

€40.000

Project REPRESX (Replace production process and exploit circular materials)

Thematic area: Circular Design

Countries of the applicants: Denmark and Belgium

Sector(s): Materials, Health

Summary: Sustainable 3D-printing production of orthopaedic implants



Funded by
the European Union

Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

CIMES



EMC2

POLE MEDTECH

WANT TO KNOW
MORE?

✉ gemstone@cimes-hub.com

🌐 www.projectgemstone.eu

A flagship project

REPRESX

- Framework: GEMSTONE Eurocluster
- Main topic: digital & green transition
- Main objectives : Green manufacturing – Adoption of innovative solutions. REPRESX combines circular economy principles and 3D-printing to revolutionize orthopaedic healthcare, including recycled raw materials in an economical and more sustainable way.





Our challenges

Defence and security is both an ecosystem and a major industrial activity in Wallonia.

💰 **€ 5 billion** 👥 **12,000 jobs** 🏭 **100 companies**



8 Strategic Technology Priorities

- WG1 – Unmanned Intelligent Autonomous Systems
- WG2 – Information Processing/Data Mgt, Communication & Embedded Intelligent Systems
- WG3 – Ammunition Systems/Effectors and Integration
- WG4 – Structures, Materials (including energetic) and protection elements
- WG5 – Life Cycle Support & Services
- WG6 – Advanced Air Vehicles, Control Systems and Propulsion
- WG7 – Space4Defense



7 Strategic transverse priorities

- Internationalization & EU funding (EDF + HE)
- R&D
- Sovereignty and robustness
- Dual Use
- Diversification
- Talents
- ESG



A flagship project

IRIS

- Framework: Innovation in Wallonia (Pole of Competitiveness)
- Main topic: Defense and Security x Data technologies
- Main objectives : developing intelligent modules to help detect, recognize and analyze behavior and threats.
- Local partnership:



POLE MECATECH'S TEAM AT YOUR SERVICE



BOARD OF DIRECTORS

Large companies
SMEs
RTO & Universities
Economic Institutions

OPERATIONAL TEAM & UNITS

Head Office

Support

Communication

Projects

Creativity and
innovation

Performance

International

Ecosystems
Sustainable Energy
Circular Economy
Industry 5.0
Defence

Meet us in

- **Norway/Sweden Industry 5.0** (mission) | Dec 2024
- **France Grand-Est - Additive and Welding** (mission) | Feb 2025
- **Hauts de France – Batteries** (mission) | Feb 2025
- **Global Industry** Lyon (France) | March 2025
- **Hannover Messe** (Germany) | April 2025
- **Battery Show** Stuttgart (Germany) | June 2025
- **Le Bourget** Paris (France) | June 2025
- ...



Sophie Schmitz

International Project Manager

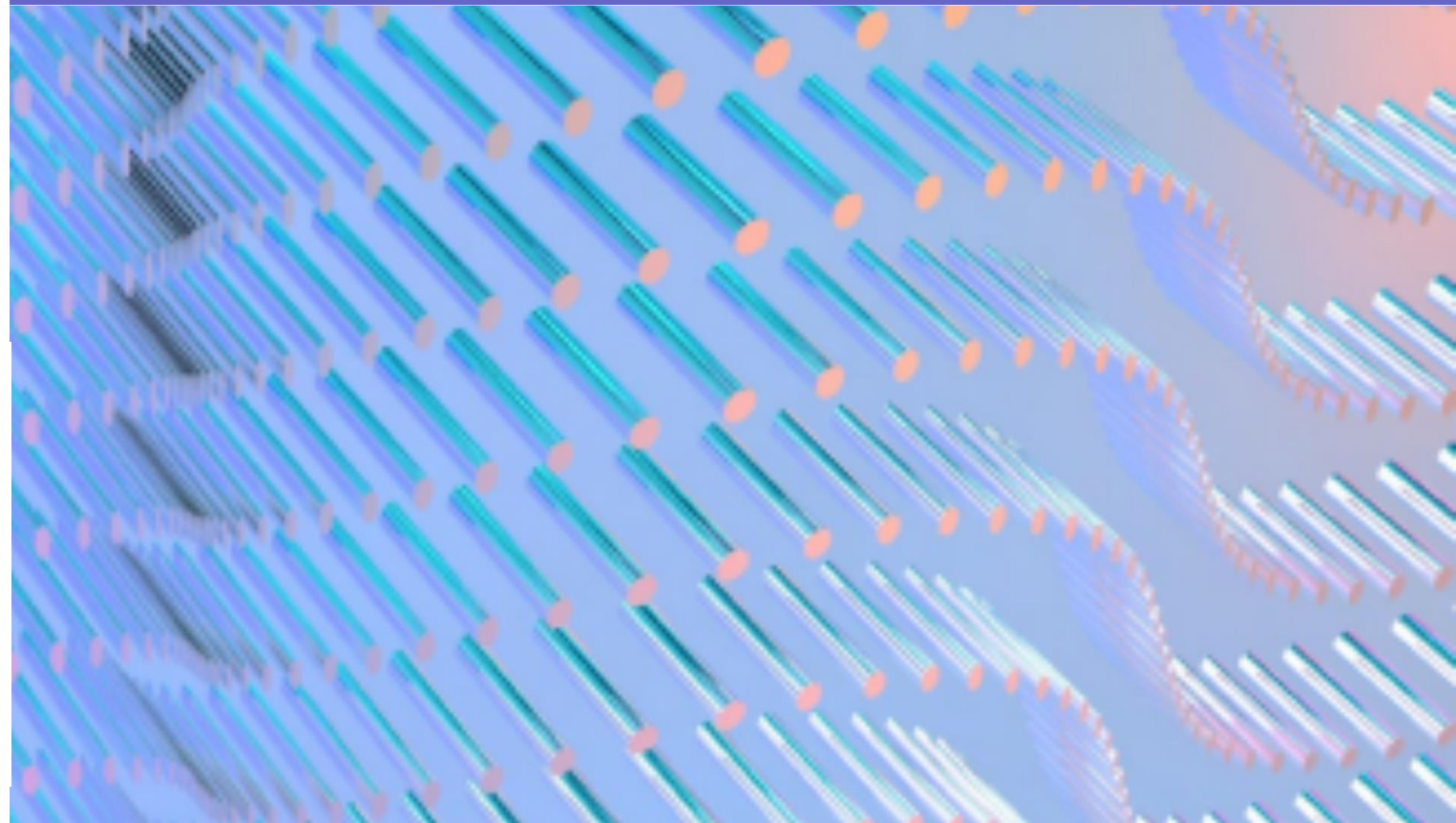
+32 (0) 81 20 68 50

+32 (0) 478 44 45 98

polemecatech.be

Business Village Ecolys - av. d'Ecolys 2 bte 33
5020 Suarlée

LET'S KEEP IN TOUCH and CREATE SYNERGIES



flo ! ó à | ç Ê و



AGORADA+ 2024
EURADA event 

