EUROPEAN CLUSTERS ALLIANCE

CIMES
Creating Integrated MEchanical Systems
Auvergne-Rhône-Alpes

DIGITIZATION OF THE MANUFACTURING SECTOR

TOOL OR ISSUE?

13 APRIL, 2021

1/ French pôle de compétitivité policy:
An original approach to innovation. Example of CIMES

2/ « Culture of integration »:
the toolbox to meet the needs of the manufacturing sector

3/ Green Manufacturing:
A digitized factory?

4/ Speakers
Chantal DAVID - CEO, Science Computer Consultant

1/ French pôle de compétitivité policy
An original approach to innovation. Example of CIMES

Common definition

« A *pôle de compétitivité* (= innovation hub) brings together companies of all sizes, research players and training establishments in a given territory to develop innovative synergies and cooperation around a specific sector of activity » - Created in 2004, more than 50 *pôles* labeled during phase IV

Key elements: why are *pôle de compétitivité* different from the other clusters?

1. Objective of excellence
2. Collaborative project labeling
3. Intermediary between project consortia and public funding
4. Project emergence facilitator > 1€ of public money invested = 2,5€ of private money mobilised for R&D
5. From projects to products = from R&D to business
6. Multi-scale innovation orchestrator

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The French *pôle de compétitivité* dedicated to Mechanical engineering, Manufacturing and Production Performance/Efficiency
Cross-sectoral approach
> Traditional sectors: automotive, aeronautics, metal industry, energy…
> Diversification sectors: agriculture, agrifood, forestry…

At the regional level

Located in Auvergne-Rhône-Alpes and Nouvelle-Aquitaine
More than 270 direct members/Extended ecosystem: +500
Regional Smart Specialisation Strategy

La Région Auvergne-Rhône-Alpes
Région Nouvelle-Aquitaine

At the national level

Member of the National Alliance for Industry 4.0

At the European level

Member of European projects: S3FOOD, DIGIFOF, BLOCK4COOP
Member of European networks: EFFRA, Vanguard Initiative, S3P SS4AF

Thematic roadmap

Engineering and Manufacturing for Materials and Surfaces

Integrated robotics and productive efficiency

Optimised engineering for sustainable systems

2/ « Culture of integration »:
the toolbox to meet the needs of the manufacturing sector

Integrator companies are the key stakeholders that understand manufacturing companies' needs and point out the digital technologies that are valuable to develop helpful solutions.

Agility
Competitiveness
Safety
Profitability
...

5G
IoT
AR/VR/VX
HPC
New business models
Raw materials...

Innovative SMEs
Tech-savvy SMEs

Collaborative and mobile enterprise
Self-reconfigurable factory
Zero-defect manufacturing
Self-learning system
MaaS

3/ Green Manufacturing:
A digitized factory?

European Commission: "green" and "digital" transitions are "two inseparable challenges".

→ YES <u>if and only if</u> it is done with a system approach

The system approach ensures that the digital transition does not have a negative impact and that, conversely, the environmental transition is sufficiently controlled so as not to impact the development of companies.

An interesting initiative: AIF Frame of references[1]

→ Technological bricks to support the environmental transition are not only digital

The green industrial transition is more a matter of efficiency than a mandatory digital transition.

Circular economy
PSS
Re- and up-skilling
Ecoconception
Re-manufacturing
Local industrial ecosystems
...

[1] http://www.industrie-dufutur.org/Actualit%C3%A9s/industrie-futur-developpement-durable-transition-energetique-coeur-de-transformation/

Thank you for your participation

Contact us to get more information about CIMES

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