

CIMES

Creating Integrated MEchanical Systems

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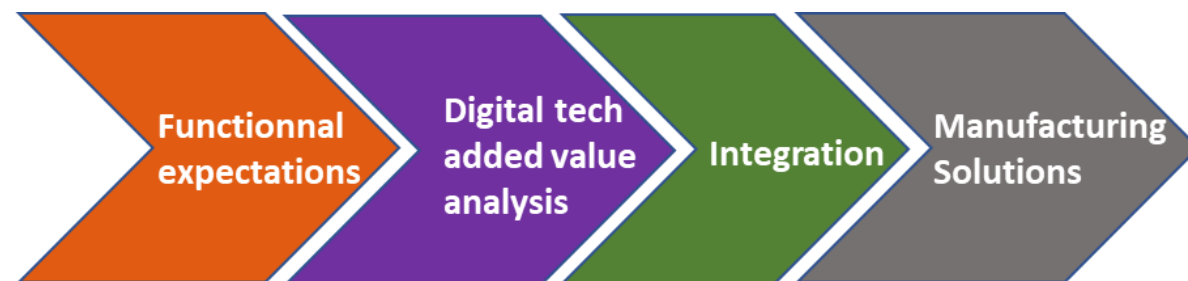
In September 2019, Mont-Blanc Industries and ViaMéca merged and became...



Ambition and key points

- ❑ To create the first innovative hub with European ambition dedicated to engineering, manufacturing for the intelligent mechanical systems, known as the major stakeholder of the new organisation of the French mechanical sector
- ❑ To coordinate the highly-innovative ecosystem gathering the stakeholders from industry, academic and research communities in order to think, develop and industrialize processes, products and services in the framework of Industry 4.0
- ❑ CIMES is a french « pôle de compétitivité » (competitiveness cluster = innovation hub) devoted to Mechanical engineering.
- ❑ It brings together :
 - Companies (SMEs and groups),
 - Research centres (public and private ones),
 - Educational establishmentswith the aim of accelerating innovation and enabling the emergence of innovative collaborative projects.
- ❑ Located in Auvergne-Rhône-Alpes and Nouvelle-Aquitaine regions, it represents more than 30% of the French mechanical workforce.

- ❑ « Culture of integration »
- ❑ Digital technologies are considered as a mean to serve production performance (> « Manufacturing DIH »)
- ❑ European ambition for the organisation and for its members



4th phase objectives:

« Usine à projets »

Animate, federate,
articulate

« Usine à produits »

Europe

4th phase strategic roadmap:

Thematic organisation

Territorial coordination

Valuation and international

National & European
networks

An ecosystem with more than 500 members gathering companies, research centres and leaning back on the scientific work developed by the major regional educational establishments



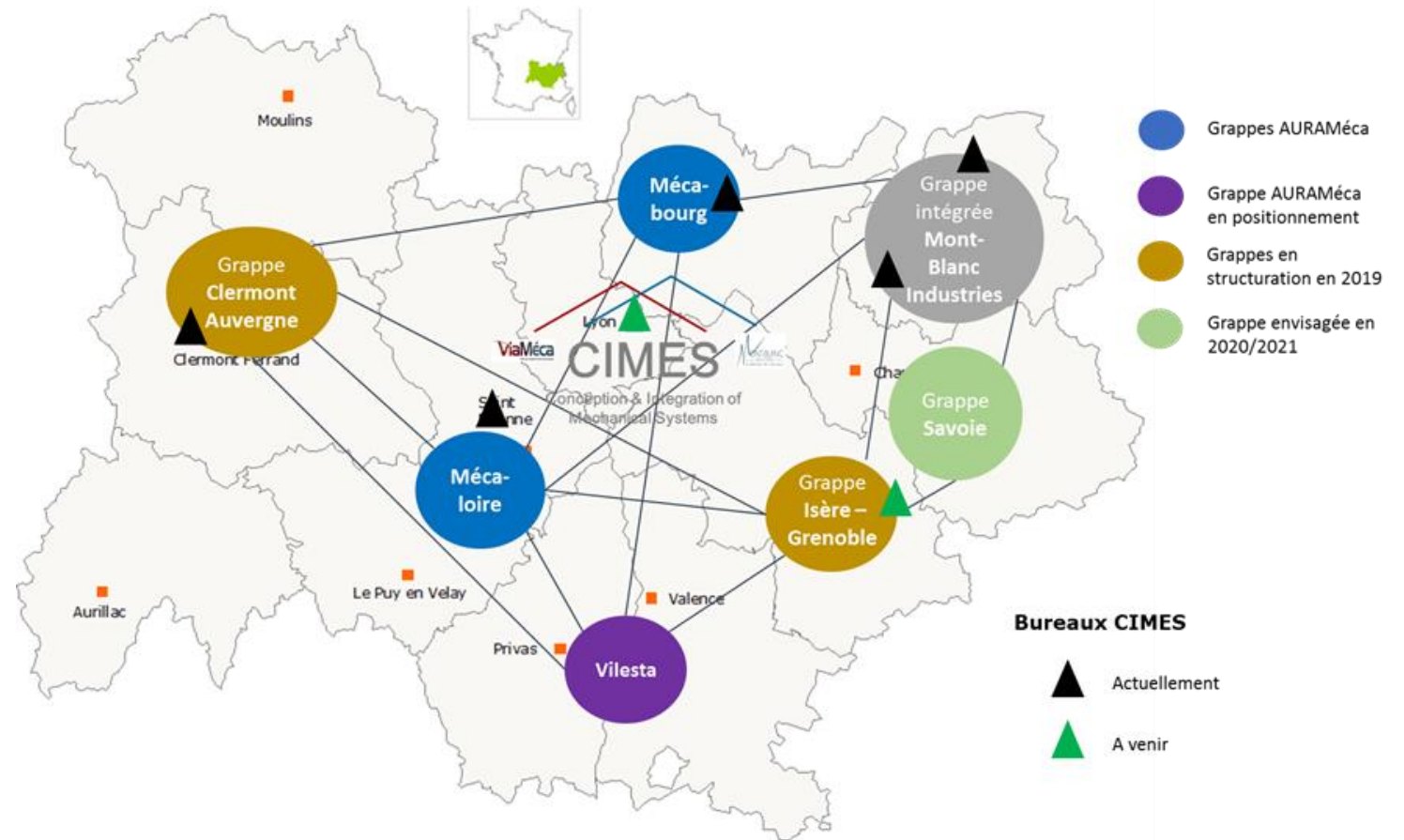
More than 40 innovative solution provider SME's who are key players for innovation expertise

3D&P



A territorial and collective project in Auvergne-Rhône-Alpes:

- Organised to support the collaborative innovation and the internationalization with the label « pôle de compétitivité »
- Interoperating with the main mechanical pools and creating the ideal conditions of dynamism and cooperation for companies
- With the ambition of being the first European hub for mechanical and industrial innovation





Regional level

- DOMEX (fields of excellence):
- Industry 4.0 and industrial process,
 - Agriculture, Agrifood and Forest.



National level



European level

- S3 platforms member:
- Smart sensors for Agrifood,
 - 3D-Printing.

European projects partner :

- BIFOCAlps,
- CONNSENSYS,
- S3FOOD,
- DIGIFOF,
- BLOCK4COOP,
- IOT4INDUSTRY...

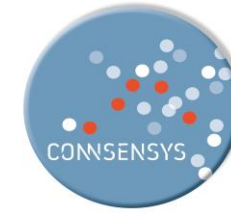
BIFOCAlps (Boosting Innovation in Factory of the Future Value Chain in the Alps)

- Alpinespace Interreg ; closed (2016-2018)



CONSENSYS (Connecting smart sensors systems for food industry)

- COS-CLUSTPARTNERS-2017-3-02 ; COSME (Cluster Partnerships for smart specialisation investments)
- November 2018 - October 2020



DigiFoF (The FoF-Designer: Digital Design Skills for Factories of the Future)

- Erasmus+ KA2 (cooperation and innovation for good practices ; Knowledge Alliances for Higher Education)
- January 2019 – December 2021



S3Food (Smart sensor systems for food safety, quality control and resource efficiency in the food processing industry)

- INNOSUP-01-2018 (Cluster facilitated projects for new industrial value-chains)
- May 2019 – April 2022



Block4Coop (Blockchain for Industry)

- Interreg SUDOE
- October 2019 – September 2022



•IoT4Industry (Intégration de l'IoT, le Big Data, l'Intelligence Artificielle et la Cybersécurité dans les outils et moyens de production d'entreprises industrielles)

- Innosup
- 2018-2021





Engineering for Manufacturing, Materials and Surfaces

- Metallic additive manufacturing
- Sintering, powder metallurgy
- « Subtractive » processes : complex machining – laser processing - finishing operations
- Processes for surface functionalization
- New material/process interactions
- Hybrid processes
- Solutions for process monitoring and device characterization



Integrated robotic and productive efficiency

- Mechatronic technologies and devices
- Integrated robotic systems
- Digital devices for productive equipment and maintenance
- Multicriteria analysis and driving for productive systems performance
- Industrial companies transformation (digitalization, servitization...)



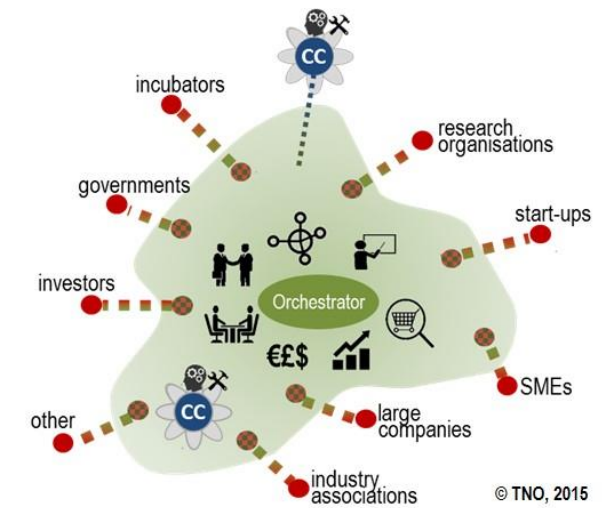
Optimised engineering for sustainable systems

- User-centred engineering
- Design for manufacturing
- Optimised engineering, compromise management
- Pluridisciplinary engineering for complex systems and product-service systems
- Engineering under uncertainty, risk management
- Tools, methodology and technology for engineering

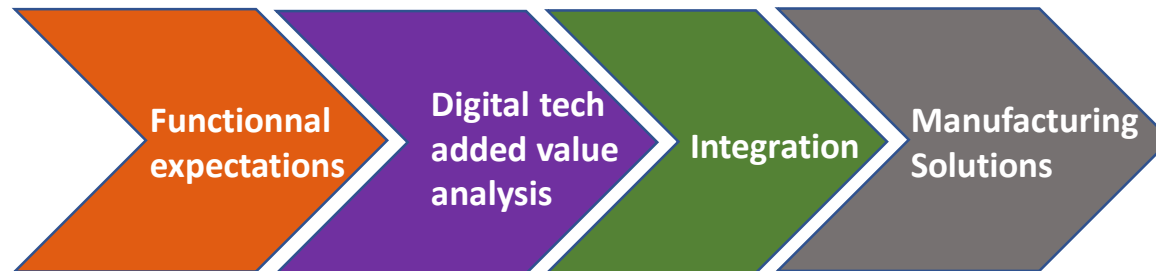
CIMES is a « fully operational » DIH

We are not « Deep-Tech focused » but « Manufacturing Solution oriented »

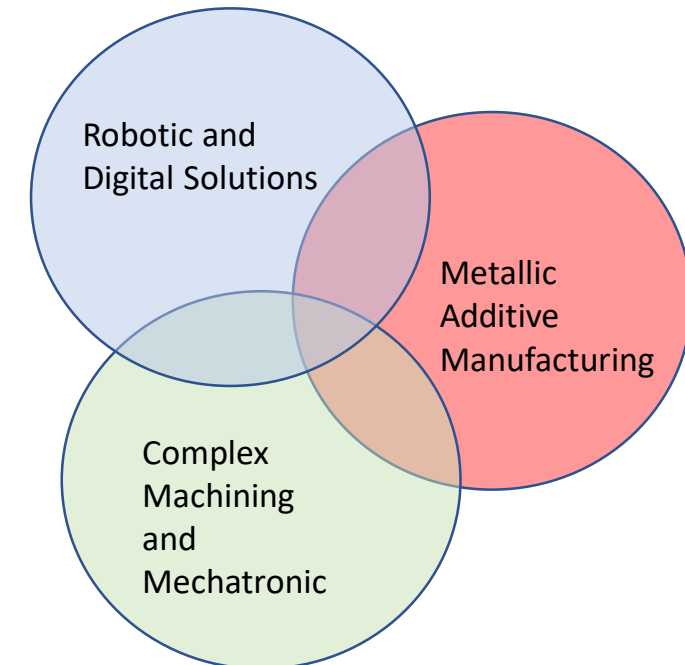
DIH focused on manufacturing (or MIH Manufacturing Innovation Hub)



**Performance of the productive system is the issue.
Digital tech are part of the solution, but not the final objective.**



Strategic layers :





Let's make Europe together in 2020!