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**Operational structure** 

Paul DUCASSE CEO

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Since 2010, MEDEE, cluster in electrical engineering, bridges the gap between two worlds: the research and the industry. Based in Lille (and through its representation office in Brussels), MEDEE relies on the North of France scientific community. It has national and European ambitions.

Thanks to well-known modelling/simulation skills and experimental results validation, the academic partners work to satisfy the industrial players needs.

# Electrical Engineering Collaborative R&D projects Market Innovation

### **Our ambitions :**

- Emerge as a leading institution in:
  - the electrical efficiency of industrial processes
  - the electrical power generation efficiency.
- Bring together industrial players, large companies and SMEs around collaborative projects, support them in their innovation transfer and technological leap as well as contribute to their economic development.



Jeumont Electric

### Thematics :

- Innovative materials and components in electrotechnics
- Innovative electrical machines and systems
- Energy eco-efficiency (including predictive maintenance)
- Designing the Electrical grid of the future
- Energy Management and storage
- Modelling, design and optimization tools



#### **TARGET MARKETS:**

- Industry, with the implementation of innovative solutions in energy efficiency (electrical)
- Electricity generation from renewable sources, especially wind energy
- Electrical distribution network management
- Transportation (rail, air, marine, electrical vehicle...)

### Our means :

The partner research laboratories, (private and public), have unique technological platforms: power networks simulation, modelling/multicriteria optimization, high power bench, eco design and reliability, thermal management...



Since 2015, MEDEE has supported the PowerGrid Campus Project which is one of the 4 French Research, Innovation and Training platform dedicated to grow the Smart Transmission Power Grid in Europe. Thanks to the existing equipment, the PowerGrid Campus Lille objective is to develop new solutions adapting the new electrical systems to raising major issues such as the integration of intermittent renewable energies sources.

## **Partnerships** :

- MEDEE is a member of Smart Grid France (a French consortium composed of 11 business and research clusters specialized in the area of energy and ICT)
- MEDEE co-leads the RAILENIUM « Energy work package » (Technological Research Institute dedicated to Railway Transport)
- MEDEE is one of the founding members of CEVEO (Research organization for the Wind Energy sector gathering laboratories from both North of France and Normandy regions)

