Sustainable and High-Performance Electric Motors

Maxima Project Mid-Term Conference

15:00 Part 1

Mid-Term Achievements of the Maxima Project

15:00 Welcome and Opening Remarks

15:05 Project Overview

Modular Axial Flux Motor for Automotive Applications

→ **Stéphane Clénet**, ENSAM

15:15 Key Milestones Achieved

Comprehensive EM Design and Analysis Framework: Multiphysics Challenges in Axial Flux Machines for Automotive Applications

→ UTCN/Emotors/4Multiphysics

Manufacturing Process Flow for Axial Flux Machines: Overcoming Challenges for Cost-Effective Mass Production

→ Emotors

Ferromagnetic Materials and Manufacturing Processes: Optimizing Axial Flux Machines for Automotive Applications

→ Höganas/OCAS

Digital Twin Methodology: Specifications and Applications for Axial Flux Machine Development

→ Universitat Politècnica de Catalunya

16:05 Q&A Session

16:10 Coffee Break

16:25 Part 2

Sustainability in Focus: Permanent Magnets Recycling Challenges and Life Cycle Assessment for Electric Motors

16:25 Recycling Challenges: Managing End-of-Life Magnets

Heavy Rare Earth Permanent Magnets: Addressing Recycling Challenges

→ Johannes Maurath, MIMplus Technologies

Policy Considerations for Rare Earth Magnet Recycling: Challenges and Opportunities

→ TBC

16:50 Life Cycle Assessment: A Path to Sustainable Mobility

LCA in the Automotive Sector: Key Insights and Future Directions

→ Léa d'Amore, Vrije Universiteit Brussel

Transport-Specific Life Cycle Assessment Approach Across Europe

→ TBC

17:20 Q&A Session

17:25 **Part 3**

Electrical Motors: Specifications and Requirements Across Automotive, Aerospace, and Marine Sectors

17:25 **Electrical Motor Performance: Current Metrics, Challenges, and Innovations Across Industries**

Automotive Sector

→ Emotors (TBC)

Maritime Sector

→ **Jean Frédérique Charpentier**, Senior Researcher, Naval Academy France

Aeronautic Sector

→ **Christophe Viguier**, Electrical Machines Team Leader, Safran

Industrial Sector

→ TBC

18:25 **Closing Remarks**

18:30 **Networking & snacks**