

EPOWERDRIVE



Objectives : Propose technologies, models and tools to increase power density and efficiency of the the whole electromechanical chain using WBG semi-conductors (Silicium Carbide SiC and Gallium Nitride GaN)



8,4 M
euros



48
months



AEROCONSEIL,
AIRBUS, APSI 3D,
ELVIA PCB,
LIEBHERR, LEROY
SOMER, SAFRAN,
TFE
ELECTRONICS,
ZODIAC



3
PhDs

Key Results

- WP1: Optimisation → tools for Multi-Disciplinary Optimisation
- WP2: EMC → HF models for optimized filter design
- WP3: Power Electronics → technologies for high-power density, high efficiency inverter
- WP4: Electric Motors → models for better understanding of iron losses, potential of additive manufacturing

3 Demonstrators (2 based on SiC, 1 based on GaN)

