

PRIMES has been identified as a platform of the competitiveness center Aerospace Valley in order to enhance the strengths of the area specializing in the industry of embedded systems.

Industrial members are gathered in an « association Loi 1901 », linked by a permanent contract to academic laboratories. PRIMES offers means to industrial companies: ALSTOM Transport, EADS IW, SAFRAN, Schneider Electric, and SMEs: SCT, CIRTEM, Boostec, Aquitaine Electronic, CISSOID, TM4, CALYOS, aPSI3D, and French academic laboratories: LGP, LAPLACE, LAAS, Latep and CIRIMAT.



The main objectives of PRIMES are these two fundamental topics:

- Technology of **integration** of power converters (Design and manufacturing of demonstrator; Validation of basic technologies; Integration numeric-power);
- **Architecture**, system and technology management for electrical energy storage in fixed or onboard systems.

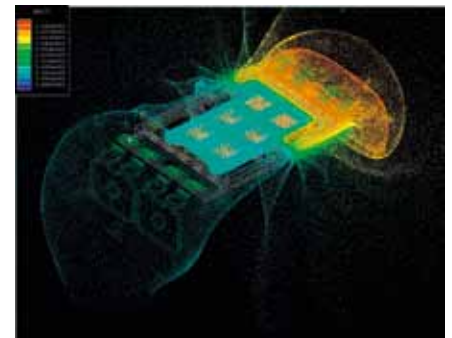


PRIMES is succeeding to the **PEARL** Laboratory and take the benefit of its 10 last years of experience in applied research as well as in the use of very highly equipped platform.

One of the major challenges for Primes is to enable the maturity of new industrial channel aiming at the manufacturing of new wide gap components that could be sold to the transport Industries (aeronautics, railway, automotive) as well as to the industrials dealing with the management of energy, with facilities to design, develop and test integrated power converters and test power systems like traction drives or any inboard systems.

In particular, PRIMES puts a huge effort in developing virtual **prototyping** solutions for power electronic systems, combined to a prototyping and characterization platform to be able to **design, simulate, manufacture** and **characterize** new power module technologies.

In a technological point of view, PRIMES has developed several integration technologies, for insulating or conductive materials to electrical system topologies. PRIMES has experience and is certified for the industrial development of power switches for avionic/aerospace applications and be confident with innovative interconnect, packaging and cooling solutions. PRIMES includes a power switch manufacturer of proven experience in the avionic domain (linked to AeroSpace Valley competitiveness Pole), and is equipped and resourced to provide the type and number of innovative power modules required for any program.



PRIMES is a key platform for power integration innovations in Europe.