LETI 3S, SILICON SPECIALTY SOLUTIONS

A collaborative solution to meet your unique prototyping needs
A FLEXIBLE & RAPID RESPONSE TO YOUR PROCESSING NEEDS

Leti 3S is a collaborative solution for businesses (fabless, foundries with a limited processes offer, SMEs, RTOs...). 3S offers a flexible and rapid access to advanced processing relying on Leti’s technological platforms to meet your unique prototyping needs.

**STATE-OF-THE-ART FACILITIES**

One of Europe’s leading research institutes, Leti proposes world-class equipment, in Grenoble, France and facilities:
- 10,000 sq.m.
- up to class 1 clean-room facilities
- 700+ advanced instruments and machines
- 24/7 operations

**IP PROTECTION**

Leti is committed to protecting customers’ intellectual property and maintaining the confidentiality of all projects.

**STATE-OF-THE-ART CLEAN-ROOMS**

A unique 10,000 sq. m. infrastructure, gathering on a single site:
- 200 mm & 300 mm CMOS lines
- 200 mm & 300 mm MEMS line
- 200 mm & 300 mm MEMS and CMOS co-integration
- 300 mm 3D integration
- 100 mm Photonics Platform
- In-line and off-line characterization platform

**advanced processes**

- Ion implantation of various species
- Deposition of advanced materials
- Advanced lithographies: eBeam, immersion 193 nm
- Support to local spin-off: ST, Soitec, Sofradir, Ulis, Microled, etc.

**Access to Equipment**

Validate your consumables on state-of-the-art equipments operated by Leti experts with on-demand access to manufacturing (deposition, etching, CMP, etc.) and characterization tools (like SEM, TEM, and TXRF).

**Prototyping and Series**

Prototype your design in a real fab environment:
- Access advanced technologies from nanometers (e-beam) to microns (TSVs, MEMS)
- Advanced process integration
- Small pilot production runs are also available on demand to stabilize your process before transferring it to a commercial foundry

Rely on our customized or standard blocks:
- Litho/DRIE/HF Release
- Bonding on cavities
- Damascene processes
- Microbumps

**Blocks**

Extend your process offer through advanced single step processes:
- Bonding, grinding, and dicing
- Deposition: dielectric, metal, ECD, magnetic
- Clean: FS/BS
- Lithography: e-beam, aligner, stepper, scanner, immersion
- Etching: RIE, DRIE, IBE
- Ion implantation, epitaxy, and diffusion

**Some Leti 3S Success Stories**

Neuronal probes for Caltech
- Part of the "Brain initiative Project" launched by ex-President B. Obama
- Several prototypes for 6 mm length have been realized
- New project for 38 mm probes on going
- First in class in terms of number of active sites for recording density and volume

Micro cooling devices for CERN
- Application: LHCb & NA62 experiment upgrades
- First batches qualified by CERN. Pressure test pump limits exceeded (700b)
- New devices installed and running on CERN Gigattractor (NA62)
- LHCb devices have been installed

Single advanced processes
- Ion implantation of various species
- Deposition of advanced materials
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ABOUT LETI

Leti is a technology research institute at CEA Tech and a recognized global leader in miniaturization technologies enabling smart, energy-efficient and secure solutions. Committed to innovation, its teams create differentiating solutions for Leti’s industrial partners.

By pioneering new technologies, Leti enables innovative applicative solutions that ensure competitiveness in a wide range of markets. Leti tackles critical, current global issues such as the future of industry, clean and safe energies, health and wellness, safety & security...

Leti’s multidisciplinary teams deliver solid micro and nano technologies expertise, leveraging world-class pre-industrialization facilities.

For 50 years, the institute has been building long-term relationships with its industrial partners providing tailor-made solutions and a clear intellectual property policy.

INTERESTED IN THIS TECHNOLOGY?

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