

CEA-Leti Announces Launch of FAMES Pilot Line As Part of EU Chips Act Initiative

GRENOBLE, France – June 24, 2024 – CEA-Leti is proud to announce the kick-off meeting today of the FAMES Pilot Line, a pioneering project aimed at advancing semiconductor technologies in Europe. This initiative aligns with the ambition of the [EU Chips Act](#), which seeks to bolster EU semiconductor capabilities and ensure technological sovereignty.

The pilot line will develop five new sets of technologies:

- FD-SOI (with two new generation nodes at 10nm and 7nm),
- Several types of embedded non-volatile memories (OxRAM, FeRAM, MRAM and FeFETs),
- Radio-frequency components (switches, filters and capacitors),
- Two 3D integration options (heterogeneous integration and sequential integration), and
- Small inductors to develop DC-DC converters for Power Management Integrated Circuits (PMIC).

Invented by CEA-Leti, FD-SOI is a planar CMOS technology that offers the best PPAC-E (Performance, Power, Area, Cost and Environmental impact) for mixed circuits (mixing digital, analogue and radio-frequency blocks). FD-SOI has been adopted by global semiconductor leaders due to its tight electrostatic control at the transistor level and because it is well suited for highly innovative power-management technologies.

The booming FD-SOI market is therefore anticipating the 10nm and 7nm next-generation nodes. No less than 43 companies throughout the electronic-systems value chain, from materials providers and equipment manufacturers to fabless companies, EDAs, IDMs, system houses and end-users from ITC, automotive, medical device or space and security markets, have formally expressed their support for the FAMES initiative, prefiguring a vibrant ecosystem of start-ups, SMEs and other global industry leaders.

“By integrating and combining a set of cutting-edge technologies, the FAMES Pilot Line will open the door to disruptive system-on-chip architectures and provide smarter, greener and more efficient solutions for future chips. The FAMES project will indeed pay special attention to semiconductor sustainability challenges,” said Jean-René Lèquepeys, CTO of CEA-Leti.

“The [Chips Joint Undertaking \(Chips JU\)](#) is proud to contribute to this strategic initiative and strengthen the EU’s sovereignty in a critical domain. This pilot line will advance essential semiconductor technologies, while maintaining a strong focus on sustainability, and foster the collaboration between several European actors. The Chips JU aims to act as a catalyst and a model for further public and private collaborations in key areas,” explained Jari Kinaret, the Chips JU executive director.

The FAMES Consortium brings together an outstanding group of partners: the pilot line coordinator, CEA-Leti (France), imec (Belgium), Fraunhofer Mikroelektronik (Germany), Tyndall (Ireland), VTT (Finland), CEZAMAT WUT (Poland), UCLouvain (Belgium), Silicon Austria Labs (Austria), SiNANO Institute (France), Grenoble INP-UGA (France) and the University of Granada (Spain).

The five new technologies will create market opportunities for low-power microcontrollers (MCU), multi-processor units (MPU), cutting-edge AI and machine learning devices, smart data-fusion processors, RF devices, chips for 5G/6G, chips for automotive markets, smart sensors and imagers, trusted chips and new space components.

The pilot line will be accessible to all EU stakeholders (universities, RTOs, SMEs and industrial companies) and all like-minded countries through annual open calls and upon request, following a fair and non-discriminatory selection process.

The project will benefit from funding that will be provided in equal parts by participating member states and the Chips JU.

The kick-off meeting will be in Grenoble today at CEA-Leti's headquarters, preceding the start of Leti Innovation Days June 25-27.

For more about the FAMES partners, [click here](#).

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