



Press Release

photonixFAB Consortium now open for first prototyping

New customer engagement portal enables early technology access

Tessenderlo, Belgium – March 27, 2024

Pushing ahead with the European Union (EU) funded [photonixFAB](#) initiative, the consortium partners have taken the first step on the path to industrialize the European silicon photonics value chain by providing early access to R&D and small-scale manufacturing through technology partners.

Announced in mid-2023, photonixFAB aims to elevate Europe's global standing in silicon photonics by championing its exceptional value chain. The initiative draws together the continent's most innovative enterprises within the photonics sector (each supplying their own specific proficiencies), along with highly respected research establishments.

The customer engagement portal will be pivotal in facilitating early engagement with clients as photonixFAB progresses – enabling initial technology evaluations and consultations to be conducted. It will provide users with a consolidated access point, so that they can explore the breadth of possibilities available. Consequently, early product development may begin while the various technologies/services encompassed by photonixFAB are being transferred to an industrial environment over the course of 2024 to 2026.

Those using the intuitive web-based platform will learn about the different capabilities offered by the respective members of the photonixFAB consortium. After deciding on which technologies/services are needed, they will then be directed to the relevant partners, so that dialogue with them can be initiated. As a result, work can commence sooner on



developing the concept and creating prototypes, as well as moving to small volume fabrication.

Examples of the capabilities that customers can initiate will include prototyping in relation to SiN via LIGENTEC and SOI through imec, as well as for InP chipelets by working with SMART Photonics. There will also be the packaging expertise that PHIX Photonics Assembly offers for both SiN and SOI processes, plus early technology access for InP micro-transfer printing on SiN/SOI supplied directly by X-FAB and supported by SMART. PDKs based on Luceda's EDA tool are available through the technology partners.

According to Youssef Guerfi, Project Coordinator for photonixFAB (X-FAB): "Substantial progress is already being witnessed on photonixFAB, with valuable contributions being made by all of the consortium members. The customer engagement portal is an important milestone in our ongoing journey with this initiative. Using the portal, customers will be able to find the correct partners and start carrying out the preliminary stages of their photonic projects, to be ready to benefit from full-scale production in the future."

"We are seeing a great deal of interest in the European-based silicon photonics value chain that photonixFAB represents. This launch signifies that we are now open for business and projects can get underway, so no time is wasted. It means that we can accelerate engagement activity and customers can get ahead of the game," adds Joni Mellin, Business Line Manager for Photonics at X-FAB.

Visit the photonixFAB customer engagement portal here:

<https://www.photonixfab.eu/technologies-services>

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Editors' note: photonixFAB is a major technology initiative backed by Euro 46.7 million in overall investment (from the EU and the private sector combined). The mass-production activities involved will be located at X-FAB's Corbeil-Essonnes facility in France. In addition to X-FAB, other consortium partners include imec, LIGENEC, SMART Photonics, CEA-Leti, PHIX Photonics Assembly and Luceda Photonics. There are application development partners too, including Nokia, Aryballe, and PhotonFirst. More information on all photonixFAB partners can be found on <https://www.photonixfab.eu/project-partners>

Acronyms

EDA - Electronic Design Automation

InP - Indium Phosphide

PDK - Process Design Kit

SiN - Silicon Nitride

SOI - Silicon-on-Insulator

About X-FAB

X-FAB is the leading analog/mixed-signal and MEMS foundry group manufacturing silicon wafers for automotive, industrial, consumer, medical and other applications. Its customers worldwide benefit from the highest quality standards, manufacturing excellence and innovative solutions by using X-FAB's modular CMOS and SOI processes in geometries ranging from 1.0 μm to 110 nm, and its special silicon carbide and MEMS long-lifetime processes. X-FAB's analog-digital integrated circuits (mixed-signal ICs), sensors and micro-electro-mechanical systems (MEMS) are manufactured at six production facilities in Germany, France, Malaysia and the U.S. X-FAB employs about 4,200 people worldwide. Learn more at xfab.com.

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