EUROPRACTICE

xfab

Europractice webinar series

November 2025-
March 2026

# INTRODUCTION TO X-FAB TECHNOLOGIES

## A EUROPRACTICE WEBINAR SERIES

X-FAB is one of the world's leading specialty foundry groups for analog/mixed-signal semiconductor technologies with a clear focus on automotive, industrial, and medical applications.

In this webinar series, X-FAB will present the special features of selected processes available through Europractice. Each webinar will focus on one process, its unique capabilities and the applications they enable.

The series starts with a presentation of X-FAB's range of specialty semiconductor technologies offered through Europractice, which include HV CMOS, BCD-on-SOI, and MEMS. The second episode in the series is a technical overview of X-FAB's X035 350nm CMOS platform, which supports high-performance sensor and actuator designs with integrated analog, HV, and NVM features, and is tailored for automotive and industrial use. The third episode focuses on the XPH90 SOI silicon photonics platform by X-FAB, which is designed for high-speed optical connectivity applications such as datacom, telecom, LIDAR, AR/VR, and quantum computing. The fourth episode covers BCD-on-SOI technologies, which provide robust, scalable solutions for automotive-grade IC designs. The fifth episode dives into optical sensor technologies, including photodiodes and SPADs and the means through which these technologies are driving smarter, more connected systems across sectors like healthcare, smart cities, and automotive. The series ends with a technical overview of X-FAB's GaN-on-Si technology platform (XG035), supporting applications from grid-level to automotive and GPU systems.

This course is suited for a diverse audience ranging from PhD students, engineers, and physicists to anyone keen on extending their knowledge of X-FAB and their supported technologies.

Each webinar spans an hour, featuring a comprehensive 45-minute presentation followed by a Q&A session. All webinars are hosted by Pieter Claes (imec): Pieter.Claes@imec.be.

## PROGRAM INCLUDES 6 WEBINARS

Vinodhan Sekar, Sales Manager Europe (X-FAB)
Pieter Claes, R&D Team Leader (imec)

26 November 2025
11:00 CET

### X-FAB introduction, technologies and track record

▶ Click here to register

Lars Bergmann, Director Design Support (X-FAB)

3 December 2025
11:00 CET

### X-FAB's 350 nm Sensor / High-Voltage Technology Platform

▶ Click here to register

Sergii Gudyriev, Principal Engineer (X-FAB)

14 January 2026
11:00 CET

### Photonics at X-FAB: Enabling Scalable Innovation

▶ Click here to register

Alexander Hölke, Senior Member of Technical Staff (X-FAB)
Guido Janssen, Team Leader Analog Libraries (X-FAB)

4 February 2026
11:00 CET

### Embracing BCD-on-SOI for ease of design and superior performance

▶ Click here to register

Heming Wei, Product Marketing Manager – Sensors (X-FAB)

25 February 2026
11:00 CET

### X-FAB's optical sensor solution

▶ Click here to register

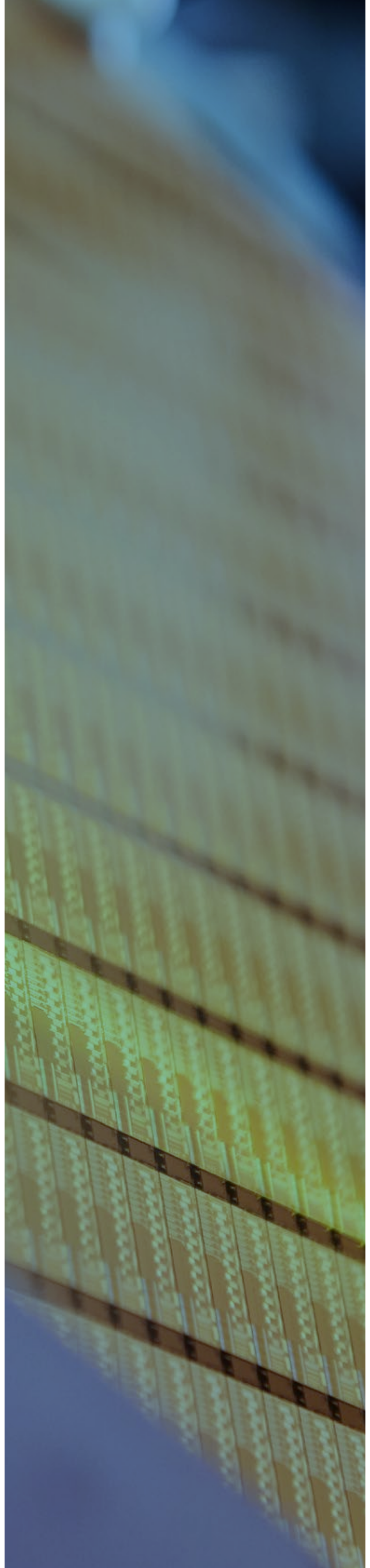
David Auffret, Product Marketing Manager – GaN (X-FAB)

18 March 2026
11:00 CET

### X-FAB's GaN-on-Si Foundry Service

▶ Click here to register





## WHAT WILL YOU DISCOVER?


### X-FAB introduction, technologies and track record

26 November 2025, 11:00 CET

Vinodhan Sekar (X-FAB), Pieter Claes (imec)

X-FAB is a global foundry group with wafer manufacturing sites located in Europe, Malaysia, and the United States, providing specialty semiconductor technologies. Its technology offering includes analog/mixed-signal technologies, microsystems/MEMS, photonics, silicon carbide (SiC), and gallium nitride (GaN). Through Europractice the following process families are available:

- HV CMOS in 350 nm with the option for noble metal post processing,
- HV CMOS in 0.18 µm with NVM or embedded FLASH,
- CMOS in 0.18 µm with fast image sensors and high-sensitive photodiodes,
- BCD-on-SOI in 0.18 µm and 0.11 µm for voltages up to 375 V,
- MEMS inertial sensor enabling acceleration sensors and gyroscopes.

### X-FAB's 350 nm Sensor / High-Voltage Technology Platform

3 December 2025, 11:00 CET

Lars Bergmann (X-FAB)

This presentation provides a comprehensive overview of X-FAB's 350nm CMOS technology platform (X035), highlighting its robust and modular design tailored for high-performance sensor, interface, and actuator applications in automotive and industrial environments. The platform includes two process variants: XA035, supporting up to 175 °C for AEC-Q100 grade 0 applications, and XH035, supporting up to 125 °C for grade 1.

X035 offers a wide range of analog, high-voltage, and optical features, including a rich portfolio of transistors (10–100 V), precision resistors, high-performance capacitors, and vertical NPN bipolar transistors. Notable features include ultra-low noise 3.3 V PMOS transistors, optical window etching with anti-reflective coating for sensitive photodiodes, and reliable embedded non-volatile memory (NVM) solutions.

The platform's unique capability to integrate digital, analog, HV, and NVM components within a single process enables cost-effective and highly integrated product designs. This webinar is aimed at engineers and decision-makers seeking proven yet modern solutions for demanding applications, and it showcases X-FAB's collaboration with IMEC to deliver low barrier access to technologies and prototyping opportunities.

## Photonics at X-FAB: Enabling Scalable Innovation

14 January 2026, 11:00 CET

Sergii Gudyriev (X-FAB)

X-FAB is advancing its foundry capabilities in silicon photonics. The XPH90 SOI silicon photonics platform is engineered to meet the demands of next-generation optical connectivity applications, including datacom, telecom, LIDAR, AR/VR, and quantum computing.

Leveraging heterogeneous integration techniques such as Micro-Transfer printing, Die-to-Wafer and Wafer-to-Wafer bonding, XPH90 enables the incorporation of advanced materials (for example, III-V semiconductors, SiGe, lithium niobate and others). This integration enhances performance and functionality while maintaining compatibility with CMOS manufacturing and packaging processes. The platform features silicon and silicon nitride waveguides, high-efficiency electro-optic modulators, and cutting-edge grating couplers, forming a scalable ecosystem for ultra-fast, energy-efficient optical communication.

XPH90 is positioned as a foundational technology for multi-terabit data transmission, AI computing, and precision optical sensing, paving the way for a new era in silicon photonics.

## Embracing BCD-on-SOI for ease of design and superior performance

4 February 2026, 11:00 CET

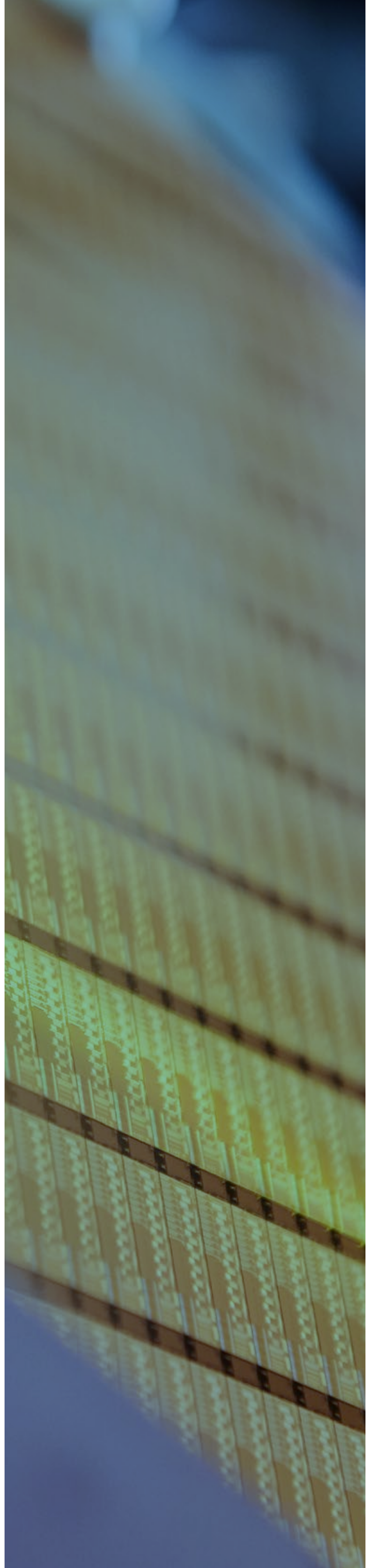
Alexander Hölke, Guido Janssen (X-FAB)

BCD-on-SOI technologies have gained significant traction among IC vendors in recent years, thanks to their many inherent advantages. As the leading foundry for BCD-on-SOI, X-FAB offers the industry's most comprehensive portfolio, built on over 25 years of experience. Their solutions extend down to 110 nm, enabling digital-intensive next generation designs.

X-FAB's modular processes leverage dielectric isolation through buried oxide (BOX) and deep trench isolation (DTI) with a wide range of robust HV CMOS, bipolar, and well-matched passive primitive devices. These technologies support automotive AEC-Q100 Grade 0 designs and satisfy the most stringent automotive reliability requirements - challenges that are increasingly difficult to address with conventional bulk BCD processes.

Join us for this webinar to learn more about the benefits of dielectric isolation in BCD-on-SOI technologies including latch-up immunity, voltage scalable isolation and ESD protection, ease of design for circuits with multiple voltage domains and simpler ways to handle AC-coupling effects. Discover how your team can achieve first-time-right designs for your next project.





## X-FAB's optical sensor solution

25 February 2026, 11:00 CET

Heming Wei (X-FAB)

In the rapidly evolving landscape of technology, optical sensors have emerged as a pivotal force driving innovation and enhancing intelligence across various sectors. X-FAB, as a pure-play foundry, with more than 15 years of experience in the development of optical sensors, provides not only IP devices such as photodiodes, SPADs, image sensor pixels, but also a process platform that enables the integration of multiple functions.

This presentation explores how various optical sensors offered by X-FAB are making the world smarter by enabling more efficient and connected systems. From smart cities and healthcare to industrial automation, from environmental monitoring and aerospace observation to autonomous driving, optical sensors are the backbone of the technological advancements that are shaping a smarter, more connected world.

## X-FAB's GaN-on-Si Foundry Service

18 March 2026, 11:00 CET

David Auffret (X-FAB)

GaN-on-Si technology is a promising semiconductor process for power electronic applications. X-FAB introduced GaN-on-Si foundry services as part of its XG035 technology platform enabling customers to design products that improve energy efficiency from the grid down to the car battery or GPU level.

The XG035 process includes dMode HEMT transistors (scalable from 100V to 650V), often used in power conversion applications. XG035 technology also includes Schottky Barrier Diodes as a variation of the HEMT device. GaN eMode technology flavor reached prototyping stage and is in the final development stages for small volume production.

XG035 dMode process follows X-FAB's successful CMOS approach with an open-foundry platform for Power GaN technologies while having the ability to customize our processes for matching customer needs.

A PDK that eases the design process for customers and achieves faster on-boarding is available. In addition, a public MPW shuttle service is available, allowing multiple customers to share a single silicon wafer for chip fabrication.

In this presentation, we will explore the details of the latest Wide-bandgap technologies offer, i.e. GaN-on-Si, from the key specifications to the applications addressed.