



PARTNERS



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PIX4life

PHOTONIC INTEGRATED CIRCUIT (PIX)
PILOT LINE FOR LIFE SCIENCE APPLICATIONS

PIX4life will mature a state-of-the-art silicon nitride (SiN) photonics pilot line for life science applications. The pilot line will pave the way to make the technology accessible in open-access to enable product development and manufacturing for a broad range of industrial customers. Current life science products deploy bulky and expensive optical systems and would benefit enormously from miniaturized photonic implementation. This field requires a visible light PIC-technology (400nm - 1000 nm). By bridging technological research towards industrial deployment, PIX4life will drive the development of an open access pilot-line enabling low cost, highly reproducible and scalable products for the life-science sector. The PIX4life pilot-line comprises system integrators, design houses, foundries and packaging providers to allow a full turn-key solution.

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IT IS OUR AMBITION TO:

- 1 Establish open-access CMOS compatible SiN technology platform in the visible range for compact biophotonics integrated circuits (PICs)
- 2 Develop an end-to-end supply chain reaching from design to packaged and characterized chip components
- 3 Facilitate the access to the foundry and assembly technologies via design kits and generic photonic building blocks
- 4 Showcase application-demonstrators for vital sensing, multispectral sources for super resolution microscopy, cytometry and 3D tissue imaging
- 5 Organize frequent trainings and workshops to enable new and existing users to acquire necessary skills to efficiently access the PIX4life pilot line

WHAT CAN PIX4life DO FOR YOU?

PIX4life can provide:

- 1 Feasibility study for your life-science application
- 2 Access to state-of-the-art photonics ecosystem specifically for life-sciences:
 - Translate feasibility into device design
 - Manufacturing through photonics foundries
 - Packaging and assembly solutions towards final product
- 3 Training, workshops and seminars to prepare the workforce for this pilot line.

