PHOTONMED NEWS

From photonic innovation to real medical devices

How the PhotonMed pilot line helps bridge the gap between laboratory breakthroughs and manufacturable medical-device solutions

Turning promising technology into practical products

Bringing a photonics-based medical device from an excellent laboratory result to a manufacturable product is rarely straightforward. Strong performance is only the beginning: the technology must also be integrated, packaged and fabricated reproducibly, with medical-device quality and regulatory requirements considered from the outset.

PhotonMed tackles this challenge through a pilot-line approach that connects advanced photonic technologies with practical device development and manufacturing capabilities. The goal is to shorten the journey from research to industrial exploitation—and ultimately to the market.

The Photonic medical pilot line is designed to deliver more than advice: it can provide a fabricated and integrated prototype as a concrete basis for the next stage of product development.

More than a process description

The PhotonMed offering goes beyond explaining how a device *could* be manufactured. Depending on the technology and its maturity, partners can support the development of **fabrication processes, integration and assembly approaches, manufacturing documentation, and concrete prototypes and physical devices**.

Companies can enter the pilot line with a new medical-device concept or an enabling photonic technology and work with the relevant partners toward a manufacturable solution. The combined capabilities include photonic components, integration, packaging, biofunctionalization, microfluidics, electronics and reader technologies.

Across applications ranging from biosensing and spectroscopy to wearable and clinical devices, PhotonMed is developing fabrication chains and pilot-line processes that turn promising concepts into tangible development outcomes.

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Quality and regulatory thinking from the start

For medical devices, manufacturing cannot be separated from quality and regulatory requirements. PhotonMed therefore integrates these considerations into technology and process development. Its common way of working connects structured manufacturing-process development with **ISO 13485** requirements, assesses partners' existing quality-management capabilities, and provides training on applying quality-management principles during development.

ISO 13485-certified manufacturing and contract-design partners also train technology suppliers and pilot-case partners on requirements arising from medical-device standards. Using the pilot line does **not** automatically make a customer or partner ISO 13485 certified. Instead, PhotonMed helps establish fabrication processes and development practices that consider relevant requirements early reducing the risk of costly process redesign when moving toward industrial production.

A bridge from research to manufacturing

PhotonMed's ambition is simple: make advanced photonics easier to turn into real medical devices. By combining technology development, fabrication know-how, access to prototype and device manufacturing, and quality and regulatory support, the pilot line connects research results with industrial medical-device production.

Technologies developed in PhotonMed are intended to become part of a sustainable pilot-line offering, keeping these capabilities available for exploitation beyond the project's individual activities.

Contact

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Disclamer

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