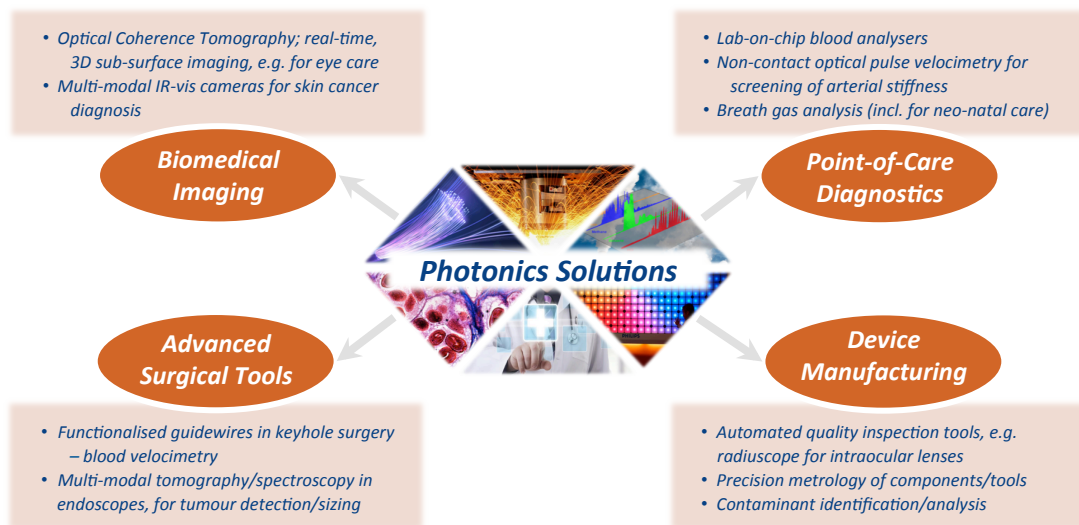




Photonics for Medical Devices

Application Case Study

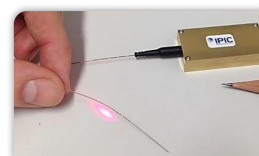
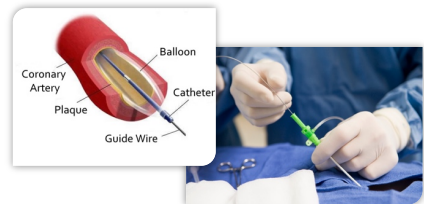
Ireland is one of the leading manufacturing hubs for medical devices: 17 of the top 25 global companies have a base here. The sector employs over 25,000 people nationally, and exports €8bn worth of medical products annually to over 100 countries. Biophotonics technologies are a key enabler for the current drive towards preventative medicine and personalised (“home health”) care.



Industry Case Study: In-Vivo Blood Flow Measurement

A multi-national manufacturer of surgical guidewires, **Lake Region Medical**, joined the **IPIC Research Centre** on a project to functionalise their guidewires. These are thin, flexible wires used in minimally invasive surgery, introduced initially to define the path to target. Larger items such as catheters are then inserted over the guidewire and guided to the target area.

CAPPA and the Photonics Packaging Group at Tyndall National Institute incorporated an ultra-fine optical fibre within the guidewire, and successfully used it to measure blood flow at the tip via Doppler velocimetry. The company demonstrated the module at TCT 2014, the world’s largest interventional cardiovascular conference.



The IPIC side-fire module

