

NKT Photonics

UBAPHODESA: mid-term review

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Motivation

Potential benefits of Supercontinuum

- Large bandwidth: higher axial resolution
- Higher power: Greater penetration
- Ultrabroad spectrum:
 - Multi-modal: OCT + Functional imaging (Spectroscopy, Fluorescence)
 - Shorter wavelength OCT: Higher Axial Resolution

The Numbers

- Founded 1999
- Merger between Koheras and Crystal Fibre 2009
- 100+ employees

- Part of the NKT Group with 9.000+ employees
- 2012 NKT turnover of 2 billion EUR

Motivation for entering UBAPHODESA

Supercontinuum sources seemed viable for OCT, but we were not sure.



Issues

- NKT were not OCT specialists: which application to choose?
- Are supercontinuum sources too noisy for OCT
- Are they too expensive?
- Which hardware and software do you need to utilize the supercontinuum advantages

UBAPHODESA offered

- Access to R&D experts at University of Kent
- Access to OCT network
- Financing of PhDs to look into open OCT questions:
 - Importance of noise: ESR1 and ESR2
 - Ultra-high resolution: ESR3
 - Functional imaging: ESR3 and ESR4
 - OCT at other wavelengths: ESR1 and ESR4
 - Multi-modal imaging: ESR5
- Providing NKT with key input on where there is a commercially attractive case

0.8 M€ revenue in
SuperK sources for
OCT in 2014+ 15