RAIS

Scalable, point-of-care and label free microar**ra**y platform for rap**i**d detection of **S**epsis

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PHOTONICS 21
PHOTONICS PUBLIC PRIVATE PARTNERSHIP

Fact sheet

- Objectives
  - A microarray optical reader
  - A microarray plate with bioreceptors
  - A disposable microfluidic cartridge
  - Analytical software

Low-cost <30-minute Sepsis diagnosis

- Partners

  ICFO, EPFL, iXscient, Diesse, CSIC, Trinean, microTEC, Hospital Vall d'Hebron, ThermoFischer Scientific

- Total costs

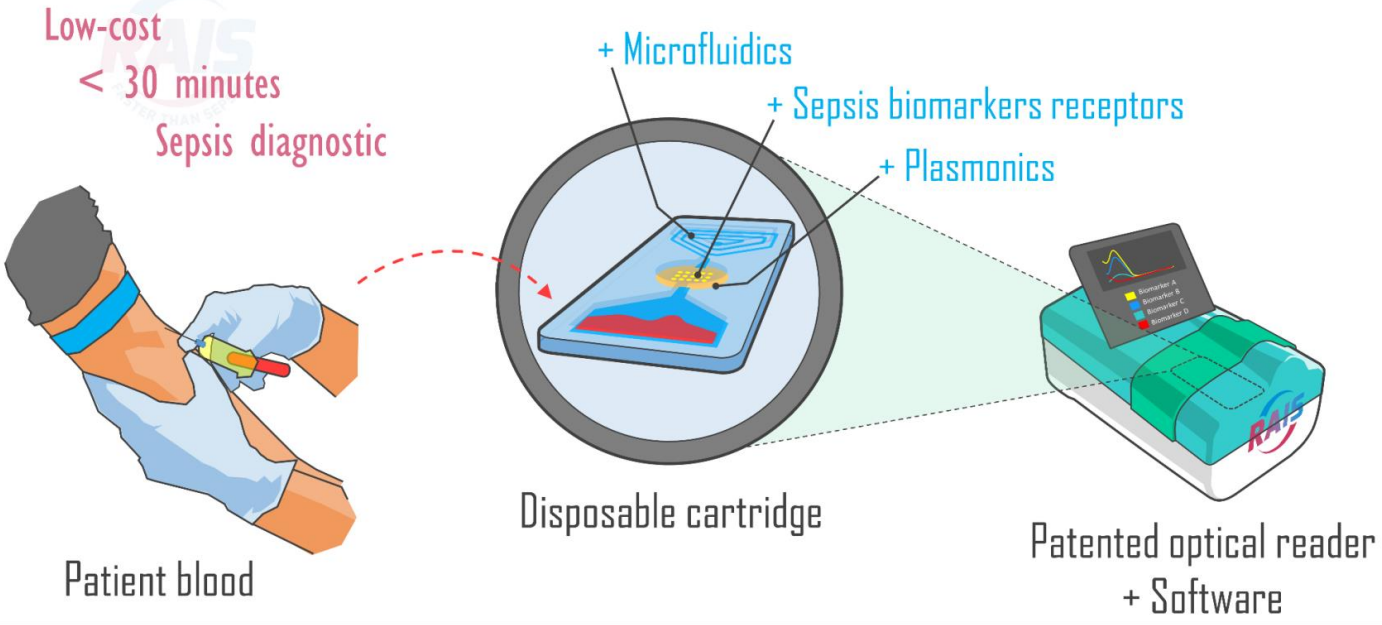
  EUR 3 388 572,5

- Duration

  36 months (from 2015-17)

Expected outcomes

- Technology breakthroughs: Novel point-of-care (PoC) diagnosis platform using CMOS image sensors



- Innovation challenges: detect the smallest biomarkers (< 1 nm)
- Potential market barriers: competing systems already appearing on the market

Topics for potential collaboration with other projects in the area

- The point-of-care RAIS microarray technology could be extended to perform other types of disease screening or multiple simultaneous diagnoses, especially those requiring the detection of a large number of biochemical targets (more than 1 million) on a single microarray.
- More generally, the RAIS interferometric technology can also be applied to the study of local non-uniformities (thickness, material composition, temperature, strain…) in transparent samples.