ASTEROID

ASTronomy **E**u**RO**pean **I**nfrared **D**etector

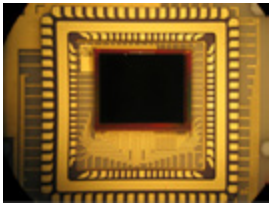
EU funded H2020-COMPET project

asteroidh2020.eu

European Commission

Horizon 2020
European Union funding
for Research & Innovation

ASTEROID Objectives



The objective of the project is to **extend the dimension of high performance infrared (IR) Focal Plane Arrays (FPA)** that can be manufactured in Europe.

The targeted format is 2k² 15µm pitch FPA (2048x2048 pixels).

ASTEROID will enable Europe to acquire the technology and knowledge necessary to manufacture 2k² IR FPA, define the types of products to design and define the strategy to create an industrial manufacturing line of these detectors.

ASTEROID Partners

The ASTEROID consortium is composed by an interdisciplinary team of 3 European industrials and 2 research organisations.

Industrial Organizations:

- **LYNRED**, France
- **EV Group**, Austria
- **ADDL**, France

Research Institutes:

- **CEA-Leti Institute,** France
- **CEA-IRFU Institute,** France
- **IFAE,** Spain

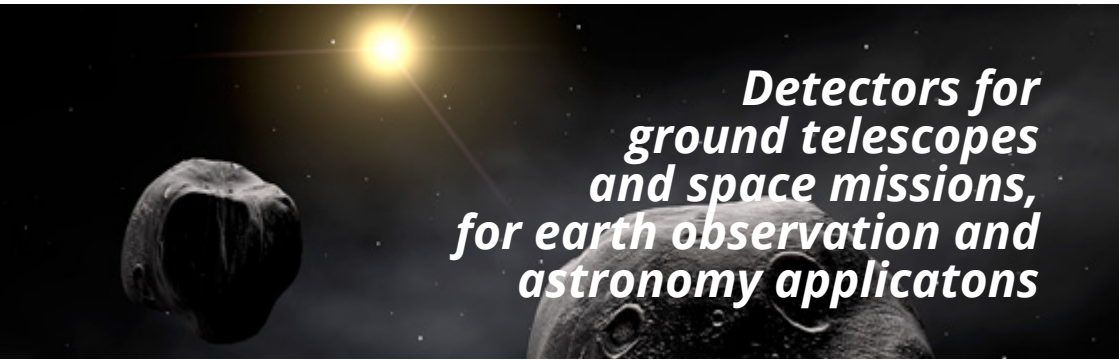
ASTEROID Technology

ASTEROID will develop the technology to
manufacture 2k² IR FPA in Europe through:

- ROIC development
- MCT development
- Hybridization technology

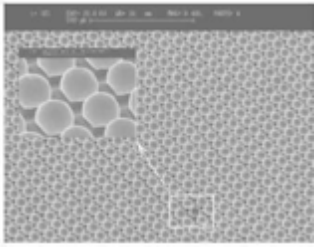
ASTEROID will also define the **commercial and industrial strategy** definition:

- Different types of 2k² products
- Manufacturing line implementation plan and commercial evaluations



ASTEROID Innovation

The very large IR detector manufactured thanks to ASTEROID development is designed for scientific and astronomy applications.
Thanks to its performances in SWIR wavelength range, especially its low noise and low dark current, it will be directly useful for astronomy applications in both ground telescopes (ESO) or space telescopes (ESA)



Large focal plane array technologies will also allow other application with derivative of this detector:

- **Earth observation** with high resolution requiring large numbers of pixels
- **Hyper spectral missions** with a high number of channels

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ASTronomy EuROpean Infrared Detector

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