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## Developments and opportunities of Large Infrared Detectors for Astronomy at Sofradir

Sofradir is world leader in manufacturing and providing infrared detectors for tactical and space applications using different technologies (HgCdTe, InGaAsn InSb,...). From linear detectors in the 90's and then staring arrays at the end of the nineties, the format of the IR detectors still increases for tactical and space missions. Today, standard size of Sofradir IR detectors is in the range  $1K^2$  pixels with  $15\mu m$  pitch. Astronomy new instrument for space mission and especially for ground extremely large telescopes will need huge numbers of very large detectors ( $2K^2$  or  $4k^2$ ) with upmost performances to detect very low flux (in the SWIR range of  $2\mu m$ ) with low noise and dark current.

This presentation deals with the new challenges that appears today for IR manufacturers. While most of the solutions offered for astronomy applications are coming from US, Extremely Large Telescope program is an opportunity to introduce a European IR detectors for Astronomy applications. This paper will explain Sofradir strategy to answer astronomy needs, developments currently running or starting soon and finally remaining developments and work still to be performed.

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