Uncooled IR imaging industry: the market is taking off
Uncooled IR Imaging Technology & Market Trends report – August 2016

LYON, France – August 25, 2016: More technologies, more products and more players… The uncooled IR imaging industry is booming. Yole Développement (Yole), the “More than Moore” market research and strategy consulting company announces: the uncooled IR imager shipments are expected to reach 15.8% CAGR\(^1\) between 2016 and 2021, with 1.5 million units in volume in 2021.

“Indeed, in 2021, we believe most uncooled IR applications will move toward more public awareness and added value. And most market value will expand,” analyzes Dr Eric Mounier, Senior Technical & Market Analyst at Yole. Today the uncooled IR imaging market is clearly driven by both traditional markets including thermography, surveillance, firefighting and defense and rising opportunities such as PVS, automotive, consumer and medical applications.

The consulting company Yole confirms its strong commitment within the IR imaging industry with:

- A new technology and market report, Uncooled IR Imaging Technology & Market Trends, available today
- The organization of the 1st Executive IR Imaging Forum taking place on Sept. 8 in Shenzhen, China.

The IR Imaging Forum, organized in collaboration with CIOE, is an exceptional opportunity to understand the developments of the IR imaging market, meet the leaders of the industry and analyze their strategy. Today, IR imaging companies are making radical strategic choices:

\(^1\) CAGR: Compound Annual Growth Rate
developing high-end products, focusing on performances and selecting the best technologies… What are the latest insights? What are the keys to success? Register today!

After a strong downturn in 2012 and 2013 due to the collapse of the military market, the uncooled IR imaging industry came back into a growth phase in 2014 and 2015.

Today, the infrared business is still driven by commercial markets, which will continue to expand quickly, with shipments growing at 16.8% CAGR to account for 92% of the overall market by 2021. The commercial market is divided into three major sub-segments:

- Thermography, which will account for 521,000 units in 2021. In 2015, thermography was still by far the main commercial market in terms of both value and shipments. “Since 2013, Fluke and FLIR have introduced several new products with lower pricing, which has boosted sales,” comments Dr Mounier. The trend towards lower-end thermography cameras has also prompted the introduction of low-resolution technologies such as pyroelectric sensors, thermopiles, and thermodiodes.

- From its side, the automotive market segment will account for 284,000 units by 2021, according to Yole’s analysts. Automotive market shipments grew 15% in 2015, although the growth rate was down from 30% in 2014. Total automotive sales, including OEM and aftermarket, accounted for less than 100,000 units in 2015, generating US$61 million, which reflects strong price erosion.

- Ultimately, surveillance and security applications will account for 248,000 units in 2021. Surveillance market shipments grew 32% in 2015 due to price erosion and the growing number of suppliers. Until recently, thermal cameras have primarily been used in high-end surveillance for critical and government infrastructure. However, new municipal and commercial applications with lower price points are now appearing, including traffic, parking, power stations and photovoltaic plants.

These results are part of Yole’s uncooled IR imaging technology & market analysis. It presents the latest news and analysis of new market entrants and exits. Yole’s analysts propose an up-to-date survey of 10+ market segments and a scenario focused on IR integration into smartphones as well as 2015 estimates of sensor manufacturers’ market shares and evolution. A detailed description of this analysis is available on i-micronews.com, Imaging reports section.

2 OEM : Original Equipment Manufacturer
Make sure you will get up-to-date information about the IR imaging industry and attend the IR Imaging Forum! The IR Imaging Forum is sponsored by ULIS and welcomes keynote speakers from Autoliv and Heimann Sensors and speakers from ULIS, Umicore, Yole Développement, Device-ALab, INO, Mikrosens, Robert Bosch, Umicore, Shanghai Institute of Technical Physics...

- Dr Andreas Krauss, Product Management Sensor Components from Robert Bosch will highlight the added-value of thermodiode IR technology for mass market applications. According to him, IR detection offers many attractive applications and use cases for mass markets, including non-contact temperature measurements, media sensors and advance presence detection.

- Joerg Schieferdecker, CEO & Co-Founder of Heimann Sensors proposes to discover low cost infrared arrays for high volume applications. Heimann Sensors’ speaker will present the four basic technologies including the bolometer, pyroelectrics, the thermodiode and thermopile and some selected actual and potential near future high volume applications.

- Autoliv’s speaker, Stuart Klapper, Managing Director of Autoliv Global Night Vision offer us the opportunity to discover technologies and market trends related to night vision for every car.

Yole’s analysts and CIOE’s team invite you discover speakers’ profiles and abstracts: click on IR Imaging Forum agenda. Number of places limited. Register today!

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About Uncooled IR Imaging Technology & Market Trends report

In a dynamic IR imaging market with ever more competitors, technologies and products, uncooled IR imager shipments are expected to grow at 15.8% CAGR from 2016-2021.

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About the author:

Dr. Eric Mounier has a PhD in microelectronics from the INPG in Grenoble. He previously worked at CEA LETI R&D lab in Grenoble, France in marketing dept. Since 1998 he is a cofounder of Yole Développement, a market research company based in France. At Yole Développement, Dr. Eric Mounier is in charge of market analysis for MEMS & Sensors, visible and IR imagers (CIS, microbolometers), semiconductors, printed electronics and photonics (e.g. Siliconphotonics). He has contributed to more than 200 marketing & technological analysis and 100 reports. Eric is also an expert at the OMNT ("Observatoire des Micro & Nanotechnologies") for Optics.

Companies cited in the report:

About 18th China International Optoelectric Expo 2016
China International Optoelectronic Exposition (CIOE) has been held successfully for 17 years. The event is world’s largest and most influential exhibition in optoelectronics industry with a total exhibition area of 110,000 sq. meters. More than 2,800 exhibitors and 60,000 visitors are expected to attend the event. More information about this event: Here

Founded in 1998, Yole Développement has grown to become a group of companies providing marketing, technology and strategy consulting, media and corporate finance services. With a strong focus on emerging applications using silicon and/or micro manufacturing, the Yole Développement group has expanded to include more than 50 collaborators worldwide covering MEMS, Compound Semiconductors, LED, Image Sensors, Optoelectronics, Microfluidics & Medical, Advanced Packaging, Manufacturing, Nanomaterials, Power Electronics and Batteries & Energy Management.
The “More than Moore” company Yole and its partners System Plus Consulting, Blumorpho and KnowMade support industrial companies, investors and R&D organizations worldwide to help them understand markets and follow technology trends to develop their business.

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