

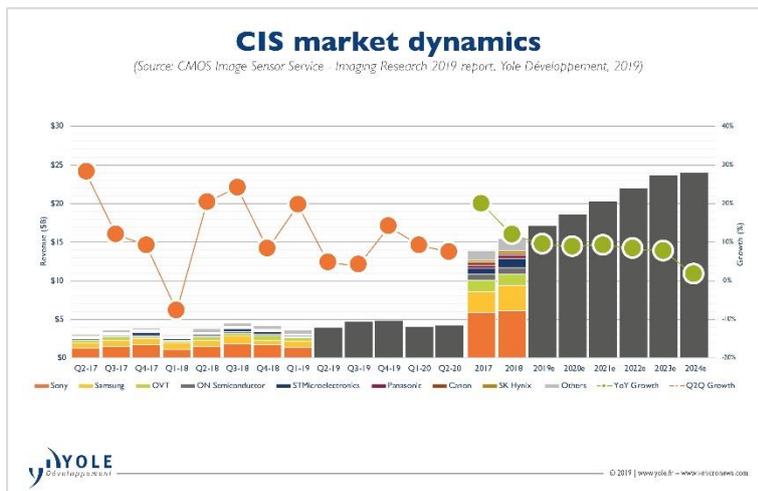


FOR IMMEDIATE RELEASE:

CIS¹ industry: Yole’s analysts expect a 10.1% year on year growth rate for 2019

Extracted from the quarterly market monitor: CMOS Image Sensor Service – Imaging Research, Yole Développement, 2019

LYON, France – July 8, 2019: “CIS has become a key market segment in the semiconductor industry, reaching US\$15.5 billion in 2018”, asserts **Chenmeijing Liang, Technology & Market Analyst, Photonics, Sensing and Display at Yole Développement (Yole)**. And Yole’s analyst adds: “And it should exceed 3% of the total semiconductor sales”. This segment has seen Sony become a significant semiconductor player, alongside other CIS players such as Samsung, OVT, and ON Semiconductor. Innovative approaches like wafer stacking technologies have emerged specifically for CIS, and have become key developments for the semiconductor market in general. In the context of a fierce rivalry in the technology sector, imaging has become a key focal point of OEMs² and the entire semiconductor supply chain.



The market research & strategy consulting company announces today a new product, published in quarterly instalments. Titled [CIS Service – Imaging Research](#), this monitor contains world-class research, data, and insights pertaining to the imaging markets. With a full package including an Excel database with quarterly update on historical and forecast data, a PDF slide deck with graphs and analysis covering the expected

evolution and a direct access to Yole’s analysts for one year. The new product powered by Yole, proposes a detailed description of the CIS markets’ evolution in terms of revenue, shipments, capex, and near-term price evolution, as well as demand per market segment and CIS technology evolution. NIR³ sensing is also included in this quarterly imaging monitor, as well as detailed profiles of main suppliers.

In 2007, smartphones began disrupting the imaging market and its corresponding technology. Just five years later, the production peak

¹ CIS: CMOS Image Sensor
² OEM : Original Equipment Manufacturer
³ NIR: Near Infrared

for digital still-cameras was reached, and phones became the primary imaging device for consumers.

“New use-cases linked to social media began fueling the need for high-quality rear (world-facing) cameras for photography, quickly followed by front (selfie) cameras for videos and top-grade photography”, details **Pierre Cambou, Principal Analyst, Imaging at Yole.**

2015 – 2017 saw additional cameras attached, either to extend the zoom capability on the rear or to provide 3D biometric interaction on the front.

And Pierre Cambou adds: *“In 2019, 3D rear cameras are pushing the trend further to the back, improving the photographic experience and making inroads into AR⁴ applications.”*

In 2019, the overall attachment rate for CIS cameras per phone is moving towards in average of 2.5 units per phone, and the growth rate for CIS attachment will rise from 6.5% to 7.8% from 2019 to 2021. Amidst stagnant smartphone volume, CIS attachment rate is a central, successful strategy for main smartphone OEMs like Apple, Huawei, and Samsung.

Alongside mobile, which is the main application market with 70% of all CIS sales, security and automotive are experiencing double-digit growth and have grown into billion-dollar CIS segments.

So what do the upcoming quarters hold? 2019 looks slightly different than 2018, confirm Yole’s analysts with the new tool, CIS Service – Imaging Research. With a low QI, the CIS market faces a slowly eroding ASP⁵ since most players can now match Sony’s proposition. Nevertheless, the market remains constrained in terms of capacity, with capex the main limiting factor since customers always want more CIS cameras. The outlook though remains very positive. Yole announce a range of 10% year-on-year in 2019 and 8% over the long-term. In 2024, CIS is heading for US\$24 billion.

Without doubt, the CIS industry is still showing a bright future...



These results will be presented in Shenzhen, China beginning of September. Therefore, Yole is proud to collaborate once more with the China International Optoelectronic Expo (CIOE) to organize a new edition of the Executive Forums on Photonics, from September 4 to 6, 2019 in Shenzhen, alongside

the 21th CIOE.

4 dedicated sessions have been planned: IR imaging – Si photonics – LiDAR – 3D sensing. List of speakers is impressive: HIK Vision, HP

⁴ AR : Augmented Reality

⁵ ASP : Average Selling Price

Electronics, Innoviz, Intel, LGE, Oxford Instruments, Sicoya, System Plus Consulting, Teem Photonics, ULIS, Valeo, Yole Développement and more... Program & registration on i-micronews.com

Stay tuned!

ABOUT THE QUARTERLY MARKET MONITOR

CMOS IMAGE SENSOR Service – Imaging Research:

As camera quantity and die size increase per end-device, a 10.1% year-on-year growth rate is expected for 2019. – Powered by Yole Développement

Key features of the monitor:

- Quarterly update of the data
- Market forecast through 2024 in \$US, units, and wafers
- Market share (Sony, Samsung, OmniVision, ON Semiconductor, STMicroelectronics, Panasonic, Canon, SK Hynix) from 2015 to present: by revenue (\$US), segment (\$US), technology (wafer), and foundry (wafer)
 - Demand forecast through 2024 by category (i.e. mobile, consumer, security, auto), in revenue (\$US) and units
 - Supply forecast through 2024: by supplier for wafer production (wpm, by fab), technology mix (% of wafers), and process node (% of wafers)



More information about CIS reports:

- [Mobile CMOS Image Sensor Comparison 2019](#)

Physical Analysis and Cost Comparison of 28 CMOS Image Sensors Found in Seven Leading Flagship Smartphone Cameras from Apple, Samsung, Huawei, Xiaomi, Oppo and Vivo. - Produced by System Plus Consulting

- [Status of the CMOS Image Sensor Industry 2018](#)

Proliferation of cameras for imaging and sensing is driving CMOS image sensor (CIS) growth – Produced by Yole Développement.

ABOUT YOLE DEVELOPPEMENT



Founded in 1998, Yole Développement has grown to become a group of companies providing marketing, technology and strategy consulting, media and corporate finance services, reverse engineering and reverse costing services and well as IP and patent analysis. With a strong focus on emerging applications using silicon and/or micro manufacturing, the Yole group of companies has expanded to include more than 80 collaborators worldwide covering MEMS and image sensors, Compound Semiconductors, RF Electronics, Solid-state lighting, Displays, software, Optoelectronics, Microfluidics & Medical, Advanced Packaging, Manufacturing, Nanomaterials, Power Electronics, Batteries & Energy Management and Memory.

The “More than Moore” market research, technology and strategy consulting company Yole Développement, along with its partners System Plus Consulting, PISEO and KnowMade, support industrial companies, investors and R&D organizations worldwide to help them understand markets and follow technology trends to grow their business. . For more information, visit www.yole.fr and follow Yole on [LinkedIn](#) and [Twitter](#).

- Consulting & Financial Services: Jean-Christophe Eloy (eloy@yole.fr)
- Reports: David Jourdan (jourdan@yole.fr)

Yole Group of Companies – Public Relations: Sandrine Leroy (leroy@yole.fr)

###