



## FOR IMMEDIATE RELEASE:

### Fingerprint market: from almost zero to a multibillion dollar value in three years

Fingerprint Sensor Applications & Technologies: Consumer Market Focus report – Yole Développement – January 2017

**LYON, France – January 19, 2017:** [Yole Développement \(Yole\)](#) is expecting strong evolution of the fingerprint market in the next five years: CAGR<sup>1</sup> should reach 19% from 2016 to 2022 in volume into the consumer field. Indeed combined with a fast decreasing ASP<sup>2</sup> due to a strong competitive landscape, a process optimization and numerous emerging technologies, the fingerprint market explodes, especially within the smartphone market: this market segment is increasing from US\$2.8 billion in 2016 to US\$4.4 billion in 2022.

The fingerprint market is today pushed by OEMs<sup>3</sup> requiring all-glass design and waterproofing. “This will lead to the emergence of new technologies like CMOS TFT<sup>4</sup> and ultrasonic detection as new ways to detect fingerprint with a high level of integration”, comments **Guillaume Girardin, Technology & Market Analyst at Yole.** “These new technologies will clearly reshape the competitive landscape.”

[Fingerprint Sensor Application & Technologies report](#) is a relevant combination of the best of Yole Développement’s biometric sensor industry knowledge. Each year, the company regularly participates in a selection of industry conferences and tradeshows worldwide to collect

market and technology data and meet leaders of the industry. Yole’s analysts have close relations with key players. Yole’s report is a synthesis of 2016 fingerprint sensor industry’s status in a thorough manner.

The rapid-changing fingerprint technology market has expanded impressively into the consumer space – now shipment volumes will benefit



<sup>1</sup> CAGR: Compound Annual Growth Rate

<sup>2</sup> ASP: Average Selling Price

<sup>3</sup> OEM : Original Equipment Manufacturer

<sup>4</sup> TFT : Thin Film Transistor

from a 19% CAGR through to 2022, when the market will be worth US\$4.7 billion.

Apple introduced the iPhone 5s in 2013, after acquiring AuthenTec a year earlier. Since then, fingerprint sensors have been massively adopted, and the volumes of sensors shipped into the consumer market have grown incredibly. *“At first, the sensors were a convenience and protection feature for unlocking phones”*, explains Guillaume Girardin. *“However, they are now shifting into a security feature for online identification and mobile payment in an increasing number of smartphones.”*

From 23 million units in 2013, 689 million fingerprint sensors for smartphones were sold in 2016. This is an incredible 210% CAGR between 2013 and 2016. The 2016-2022 timeframe will see a more reasonable, but still impressive growth.

Fingerprint sensing is becoming a mandatory feature on every smartphone, adding a lot of value. However such an increase in volume is always followed by strong cost pressure, and this is what has happened over the last three years. The average cost of a fingerprint sensor has decreased from around US\$5 in 2013 to US\$3 in 2016, and even less for low-end technologies. And the pressure hasn't gone away. *“Current technologies have now reached maturity, and are threatened by new technologies, which need lower cost to gain momentum”*, analyzes Guillaume Girardin. And this is the case for ultrasonic detection, for instance.

Over the past four years, consumer fingerprint sensor market evolution has been driven by the introduction of the biometry in the smartphone business. Revenues were a few tens of millions of dollars in 2010, mainly from the laptop business. Then, the overall consumer market skyrocketed, shipping 800 million units in 2016, worth US\$2.9 billion.

[Fingerprint Sensor Applications and Technologies report](#) is a brand-new technology & market analysis from Yole, the “More than Moore” market and strategy research company. This 1<sup>st</sup> edition targets fingerprint sensors used for consumer applications. Indeed Yole's analysts quantified the market for each technology and each company's yearly shipments. Market metrics are detailed for each sensors. And each application is positioned according to performance level and corresponding market size. A detailed description of this report is available on [i-micronews.com](http://i-micronews.com), [MEMS & Sensors reports section](#).



### About [Fingerprint Sensor Applications and Technologies – Consumer Market Focus](#) report:

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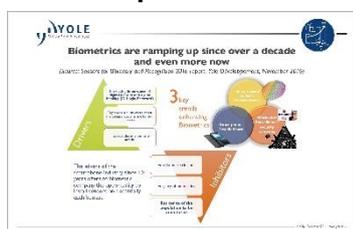
**Guillaume Girardin** works as a Market & Technology Analyst for MEMS devices and technologies at Yole Développement, the “More than Moore” market research and strategy consulting company. Guillaume holds a Ph.D. in

Physics and Nanotechnology from Claude Bernard University Lyon I and a M.Sc. in Technology and Innovation Management from EM Lyon School of Business.

Companies cited in the report:

Amkor, Apple, Atmel, Cowell, CrucialTec, EgisTec, Fingerprint Cards, Foxconn, Fujitsu, Goodix, Huawei, IDEX, InvenSense, LG, LiteOn, Meizu, Microsoft, New Imaging Technologies, NextBiometrics, NXP, O-Film, Omnivision, Oppo, Oxi Technology, Partron, Precise Biometrics AB, Qualcomm, Sharp, Signetics, Sony, STMicroelectronics, Synaptics, Tessera, TSMC, Vkansee, Xfab, Xiaomi, Xintec, ZTE and many more...

### Related report: [Sensors for Biometry and Recognition \(November 2016\)](#)



The evolution of the smartphone industry since ten years offers to biometric technologies a huge opportunity to install sensors on each human. Today biometrics technologies are rapidly integrated and evolve quickly.

Yole Développement (Yole), the “More than Moore” market research and strategy consulting company confirms, consumer sector, especially smartphone applications are driving the biometrics development: consumer applications are today representing 66% of the total hardware biometric

market, against only 2% in 2010. 2021 is showing the same trend with 10% CAGR from 2016 to 2021.

Sensors for Biometry & Recognition 2016 report is the 1st edition dedicated to the physiological biometrics sensors used for biometrics and recognition applications and published by Yole’s MEMS & Sensors team. This analysis combines the most valuable Yole’s knowledge related to biometric technologies and markets, including eye, face, finger, hand, voice and more.... [Full article](#)

### About Yole Développement – [www.yole.fr](http://www.yole.fr)

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, Displays, Image Sensors, Optoelectronics, Microfluidics & Medical, Advanced Packaging, Manufacturing, Nanomaterials, Power Electronics and Batteries & Energy Management.

The “More than Moore” company Yole, along with 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 grow their business.

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