
MEMS technology for your senses: What can you expect?

European MEMS Summit 2015 – September 17-18, 2015, Milan, Italy

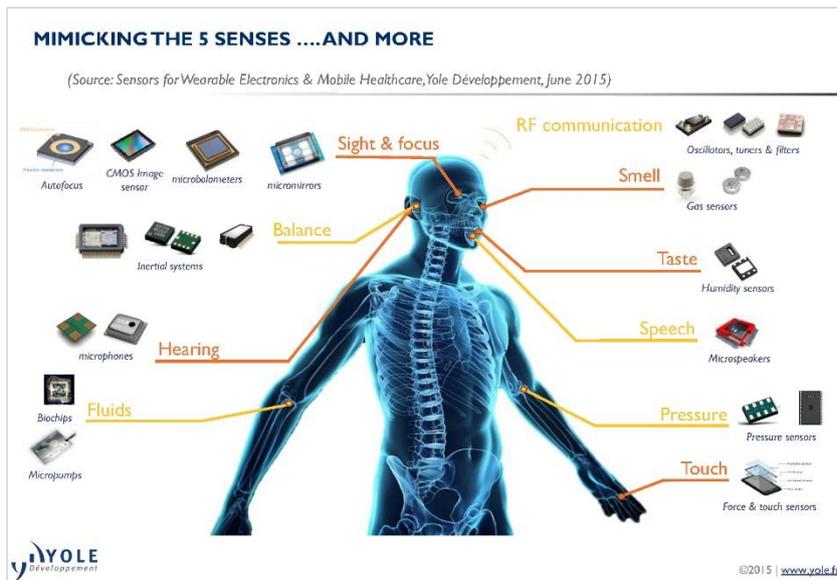
LYON, France – September 11, 2015: *Hearing, touching, smelling and seeing... what will be the next improvement that MEMS will bring to our senses? Sensors are now small enough, reliable enough, and accurate enough to be included in a pocket-sized device of only 9cm³ and become the interface with the environment, details [Yole Développement \(Yole\)](#) in its latest report dedicated to the wearable industry ([Sensors for Wearable Electronics & Mobile Healthcare](#), Yole Développement, June 2015). In this technology and market analysis Yole, the “More than Moore” market research and strategy consulting company, forecasts a US\$88 billion market by 2020, comprising 1.2 billion sensor units.*

Dr Eric Mounier, Senior Technology & Market Analyst at Yole, will be part of the [European MEMS Summit 2015](#) taking place from September 17 to 18 in Milan, Italy. He will present an overview of the wearable industry, its technological status and key market figures. Yole’s analyst will review the development opportunities linked to MEMS for wearable applications and share his vision with MEMS executives. The European MEMS Summit has been created by SEMI. This year, the Summit is entitled “Sensing the Planet, MEMS for Life”. This Summit is a networking platform to present ideas and exchange viewpoints on MEMS technologies, manufacturing and business challenges. [Register right now](#) and ensure your place in the tomorrow’s MEMS world.

In its annual MEMS technology and market analysis, [Status of the MEMS Industry](#) (May 2015), Yole’s analysts confirm the MEMS market’s growth, with a major increase due to consumer applications. Yole forecasts a 12% CAGR between 2014 and 2020. MEMS for consumer markets will represent more than 50% of total MEMS market value in 2020. The accelerometer is probably the most interesting example. This MEMS device has grown in volume to more than 2 billion units between 2008 and 2015. This growth is mainly due to smartphone applications, which have clearly changed the game with a new high volume/low cost ratio.

The MEMS industry’s birth was supported by automotive market needs. Its development has been ensured by new applications coming from the consumer sector. What will be the next step?

“Most of the MEMS companies benefited from this growth, across all sectors, with good revenues in 2014,” Dr Eric Mounier from Yole comments. *“But the most important fact is probably the new status of the MEMS industry. It is reaching a maturity level where it is proposing MEMS products with good market positioning in terms of technology and cost. It is also characterized by a new status for the leaders of this industry. At Yole, we call them, the “MEMS titans”. They include Canon, Knowles, InvenSense, Robert Bosch, and STMicroelectronics, and currently share most of the MEMS market pie.”* (Source: [2014 Top 30 MEMS player ranking: rise of the first MEMS titan](#), March 2015)



But the MEMS world will not stop here. With the first developments in the 1960s, a move in wearable applications towards the consumer and wellness sectors could become the next step. Yole’s team follows this industry closely, sharing information with the key players every day. According to its latest figures, the wearable market will reach US\$88 billion in 2020, and 1.2 billion sensors.

90% of the market will be focused on fitness band and smart watch applications, details Yole in its MEMS & Sensors for wearables report ([Sensors for Wearable Electronics & Mobile Healthcare](#), Yole Développement, June 2015).

What can we expect from wearable applications? Today they are very different to the original vision. MEMS companies would like to mimic the five human senses, and add new ones, such as night vision within smartphones, as suggested by [FLIR Systems’](#) 2015 announcements. Thanks to the evolution of MEMS technology, MEMS players can develop a real interface between humans and our environment. *“The status of MEMS technology turns wearable applications into a reality,”* asserts Dr Mounier. *“With Wi-Fi, cellular and Bluetooth, MEMS devices can be connected everywhere. Today’s components are also based on*

a low power consumption principle and allow us to collect all the data needed to monitor our environment. All attributes are therefore in place to ensure the development of wearable solutions.” But is a “good” technology enough to be successful and ensure the development of a new market? Apple and its new Apple watch is an interesting case study. Dr Mounier will review these technology and market trends and detail the related challenges during his presentation at the European MEMS Summit. Save the date right now and register today!

About the European MEMS Summit

This year, SEMI proposes a [comprehensive program](#) focused on “*Sensing the Planet, MEMS for Life.*” Leaders such as Stefan Finkbeiner, Robert Bosch’s CEO, Benedetto Vigna, Executive VP & GM of STMicroelectronics, Behrooz Abdi, CEO and president of InvenSense and others will present their visions of the MEMS industry.

“More than 250 international decision makers including many executives decided to attend the first edition of the new flagship event of SEMI dedicated to MEMS and Sensors”, says Yann Guillou, Business Development and Event Manager, SEMI Europe Grenoble Office. “It seems SEMI and its MEMS committee have proposed an attractive program addressing the right themes with an appropriate format. We are excited to kick off the event on Thursday 17th in Milan.”

The summit will have a strong emphasis on the applications side of MEMS technology to give attendees a more complete vision of how MEMS are being used in automotive, consumer, and wearable electronics and the Internet of Things (IoT) segments. It also offers a strong focus on business-related aspects, and technical topics such as new detection principles, innovation in materials, new packaging solutions, and manufacturing MEMS on 300mm wafers will also be addressed.

In addition to key networking opportunities including a gala dinner and networking cocktails, the European MEMS Summit 2015 edition is also organizing a [MEMS Exhibition](#), giving companies an opportunity to connect directly to other participants. [Registration](#) for the event is open.



About Yole Développement's reports:

▪ [Sensors for Wearable Electronics & Mobile Healthcare](#)

Released in June 2015 - *Consumer, healthcare, and industrial will drive the rapidly-expanding wearable industry to a potential value of \$90B by 2020. But how it will evolve, and who will succeed?*

▪ [Uncooled Infrared Imaging Technology & Market](#)

Released in June 2015 - *Smartphones and low-cost cores are widening commercial markets and paving the way for consumer applications simultaneous with military recovery.*

▪ [Status of the MEMS Industry](#)

Released in May 2015 - *New MEMS sensors, dramatic cost reductions, growing importance of software, new technologies, the rise of industry titans and Chinese foundries: The MEMS industry is preparing to exceed \$20B by 2020.*

Rates: Euros 5,990.00 (Full report - Multi user license). For special offers and the price in dollars, please contact [David Jourdan](#) (Phone: +33 472 83 01 90).

About SEMI

SEMI is the global industry association serving the nano- and micro-electronic manufacturing supply chains. Our 1,900 member companies are the engine of the future, enabling smarter, faster and more economical products that improve our lives. Since 1970, SEMI has been committed to helping members grow more profitably, create new markets and meet common industry challenges. SEMI maintains offices in Bangalore, Beijing, Berlin, Brussels, Grenoble, Hsinchu, Moscow, San Jose, Seoul, Shanghai, Singapore, Tokyo, and Washington, D.C.

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About Yole Développement

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, Photovoltaics, Advanced Packaging, Manufacturing, Nanomaterials and Power Electronics. The group supports 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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- [i-Micronews.com](http://i-micronews.com), online disruptive technologies website and its weekly e-newsletter, @Micronews
- Technology Magazines
- Communication & webcasts services
- Events: Yole Seminars, Market Briefings

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