
The inertial MEMS device market keeps on growing. What's next?

4ème Journées Micro & Nano technologies pour l'Inertiel - November 27, 2015, Centre de Recherche et Technologie SAFRAN TECH, Saclay

LYON, France – November 20, 2015: *The MEMS¹ industry is today in the age of sensing and interacting. The wide diffusion of MEMS and sensors gives us a better, safer perception of the external environment. In its latest report, [Status of the MEMS Industry](#) (Yole Développement, May 2015), the “More than Moore” market research and strategy consulting company, [Yole Développement \(Yole\)](#) estimates that 14 billion devices were produced in 2015. Almost 30 billion will be made annually by 2020. For inertial MEMS devices, Yole’s analysts highlight that IMU² manufacturing volumes will grow about 23% between 2015 and 2020. Gyroscope and accelerometer production volumes are also growing, with the following CAGR: 7.9% and 1.6% respectively over the same period. Every sector will keep growing. So, what’s next?*

*The French Inertial MEMS community, including Yole, will gather on November 27 in Saclay, France. There they will discuss technological evolution and the latest market trends, identify business opportunities and share visions of the future. The conference, entitled “**4ème Journée Micro & Nano Technologies pour l’Inertiel**”, is backed by the [Club des Micro & Nanotechnologies](#). The Organizing Committee has arranged 19 presentations and is expecting about 100 attendees. “This event showcases the strength of our national ecosystem in the strategic inertial MEMS area, which covers a wide range of applications, from consumer to automotive, including civil aerospace and military,” says **Stéphane Renard, President of the Club NanoMicroTechnologie and Chief Technology Officer at Tronics Microsystems**. “Based on this packed program, I am convinced this event will be a huge opportunity for fruitful discussions and exchanges.” Click here for the [program and registration](#).*

Yole has been actively following the inertial MEMS market’s evolution for more than 17 years. Yole’s analysts conduct thousands of direct interviews in this area every year, with device and system manufacturers, designers, equipment and materials suppliers, and technology developers. “Most of the discussions we have with the key players in this industry highlight the progressive introduction of more

¹ MEMS : Micro Electro Mechanical Systems

² IMU : Inertial Measurement Unit

*degrees of freedom,” comments **Dr Eric Mounier, Senior Technology & Market Analyst, MEMS & Sensors at Yole.** “2014 was a successful year for consumer IMU sensors. At Yole, we see high volume adoption in platforms such as the Apple iPhone 6s Plus™. Clearly, the 6-axis IMU has been adopted in a growing number of platforms. In parallel, 9-axis solutions are gradually being proposed by MEMS device manufacturers with a major target: the wearable market.”*

In its MEMS technology and market analysis Yole estimates that the IMU market was worth US\$966 million in 2014, and will grow to US\$3 billion in 2020. Consumer smartphones and tablets are driving IMU development. However, business opportunities remain for discrete sensors including accelerometers and gyroscopes for camera module stabilization.

The conference welcomes presentations from leaders of the inertial industry: Thales, iXBlue, Sagem, Club Nano, Dolphin Integration, Asygn, l’Onera, IES Université de Montpellier, Airbus DS, la Direction Générale des Armées (DGA) and more are part of the **“4ème Journée Micro & Nano Technologies pour l’Inertiel”** program.

There have been a lot of important announcements made by inertial MEMS manufacturers this year that illustrate progress in market volumes and innovations. Some of them will present their vision and highlight the technical evolution during the conference.

For example, Colibrys has recently released its dedicated [accelerometer](#) targeting crucial up-and-coming industrial applications, described in an [interview available on i-micronews.com](#). It will be part of the “Perspectives & Applications session” and will share its expertise with the conference’s attendees.

The Executive & Marketing team from Tronics, another major player of the inertial MEMS market, will present progress made on its high performance standard product range GYPRO® & AXO®. It will also discuss the latest technologies and improvements for future applications, including the M&NEMS platform, developed in collaboration with LETI and dedicated to consumer and automotive applications.

By 2020, the inertial MEMS device market landscape should look very different. *“The next opportunity should come from wearable electronics, where long-term market potential is huge, and autonomous driving,”* explains **Dr Guillaume Girardin, Technology & Market Analyst, MEMS & Sensors at Yole.** As part of the third level in assisted driving, the dead reckoning³ function could be a valuable market opportunity for the inertial MEMS community. This function includes inertial

³ Dead reckoning: process of calculating one's current position by using a previously determined position, or fix, and advancing that position based upon known or estimated speeds over elapsed time and course (Source: [Wikipedia](#))

sensors for relative motion associated with cars, such as wheel odometers, encoders, accelerometers and gyroscopes. In the new report "[Sensors & Data Management for Autonomous Vehicles](#)" (Yole Développement, October 2015), Yole draws a detailed sensor technology roadmap and describes the associated autonomous functions that will be relevant from 2012 to 2040 and beyond. This covers the numerous sensors and related technologies that could be embedded in vehicles for assisted and autonomous driving.

During the one-day conference, [Club NanoMicroTechnologie](#) invites you to share your vision of the inertial industry, especially regarding applications and emerging markets such as wearable electronics, autonomous vehicles and more. The conference features presentations from leaders of the inertial industry and also networking time for debates. Make sure you are part of these discussions and register right now on the [Club MicroNanotechnologie website!](#)



About [Apple iPhone 6s Plus Teardown & Physical Analyses of Key Components](#) – November 2015

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About [High-End Gyroscopes, Accelerometers and IMUs for Defense, Aerospace & Industrial](#) report – February 2015

Defense applications still represent half of the market, while commercial aerospace and industrial applications are driving future growth. But MEMS will be a game-changer, leading to the emergence of many new applications requiring high performance, low-cost and small form factor.

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 [Club NanoMicroTechnologie](#)

Founded in 1990, the Club MicroNanotechnologie brings together, in close collaboration with national scientific authorities, researchers and industrials in the field of microelectronic, ultra-precision, biology, physics, chemistry, optics and mechanics around the topics of nanotechnologies.

Gathering large companies as well as organisations of more modest size (innovative SMEs and SMIs willing to catch business opportunities), the goal of the Club is to unify all players of the sector through the dissemination of significant scientific advances, the development of the key skills in the sector, the promotion of the members at international level and their connection with similar associations.

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, Power Electronics and Batteries & Energy Management. The group supports industrial companies, investors and R&D organizations worldwide to help them understand markets and follow technology trends to develop their business.

CONTACTS

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

Reports business: David Jourdan (jourdan@yole.fr)

Press relations: Sandrine Leroy (leroy@yole.fr)

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