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## **STMicroelectronics Tops Five Billion MEMS Sensors Shipped**

*Extensive MEMS portfolio, which also includes micro-actuators, drives innovation across IoT and wearable, mobile, industrial, consumer and automotive applications*

**Geneva, September 25, 2014 - STMicroelectronics (NYSE: STM)**, a global semiconductor leader serving customers across the spectrum of electronics applications, the world's top MEMS (Micro-Electro-Mechanical Systems) manufacturer and the leading supplier of MEMS for consumer and mobile applications<sup>1</sup>, today announced it has shipped five billion MEMS sensors. This achievement confirms ST's continued position as the industry leader and, combined with its total of more than three billion micro-actuators shipped, demonstrates ST is the only company with the expertise to cover the full range of micro-machined silicon devices.

Beyond gaming systems, smartphones, tablets, navigation systems, and other widely adopted applications, ST's sensors have also been used in thousands of other useful, fun, and valuable applications including weather stations<sup>i</sup>, bicycle helmets<sup>ii</sup>, smart and sport watches<sup>iii</sup>, and other sporting goods<sup>iv</sup> as well as a host of automotive and Internet-of-Things<sup>v</sup> products.

In addition, engineers have designed ST sensors into an amazing range of applications, including physiotherapy monitoring devices that monitor and help correct exercise movements; input devices that perform complex gesture recognition, including signature detection; safety products that prevent runaway child strollers and baby carriages; and snake-like robots for subaqueous environments, in design contests held around the world.

"The excitement around the Internet of Things and wearable applications combines with the added value of sensors and micro-actuators to create an ever-expanding number of applications that will drive this market's continued strong growth," said Jérémie

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<sup>1</sup> Source: IHS Consumer and Mobile MEMS Market Tracker H1 2014

Bouchaud, director and senior principal analyst for MEMS and Sensors at IHS Inc., an independent provider of business information and analytics. “ST’s broad range of sensors and micro-actuators clearly positions it as the company with the most comprehensive portfolio.”

Leveraging ST’s robust design technologies and expertise, along with high-quality manufacturing enables ST’s sensors and micro-actuators to also be used in automotive, healthcare, and wellness applications<sup>vi</sup>, where reliability is critical. The Company’s micro-actuators enable ink-jet printing, auto-focus in digital cameras, and image projection in ultra-mobile projectors.

“We have barely scratched the surface of the valuable role sensors and micro-actuators will play in improving the quality of our lives at home, at work and at play by making us safer and products easier to use,” said Benedetto Vigna, ST Executive Vice President and General Manager of the Analog, MEMS & Sensors Group. “With the industry’s most diverse portfolio ideally suited to the most dynamic industries, we are the only company that can continue to enable wave after wave of innovation in our homes, cars, and workplace, changing everyone’s life for the better.”

ST is the one-stop MEMS sensor and micro-actuator supplier of choice, offering the industry’s most comprehensive portfolio of micro-machined accelerometers, gyroscopes, microphones, pressure, magnetic, temperature and humidity sensors, and micro-actuators with a total of more than 8.5 billion MEMS devices shipped to date. Moreover, with its extensive portfolio ST can mix and match functions in multi-sensor and micro-actuator combos with on-board signal processing, control functions, and sensor-fusion algorithms that can be combined with ST’s wireless connectivity, analog, power management, and microcontrollers to deliver complete smart-sensing and actuating solutions.

With almost 1000 MEMS-related patent families and close customer relationships with many of the markets’ top companies, ST is at the forefront of MEMS technology development.

## **Note to editors**

**MEMS sensors and micro-actuators** are very tiny machines, finely crafted in silicon, using high-volume, high-precision semiconductor manufacturing technology. Both sensors and actuators are transducers that convert energy from one form to another.

**Sensors** typically convert mechanical energy to electrical energy. One example is an accelerometer, which measures the acceleration-produced deflection of a mass on a

spring and converts that deflection to an electrical signal. Greater acceleration produces a larger deflection, and that increases the size of the electrical signal.

A **micro-actuator**, on the other hand, converts electrical energy to mechanical energy. These devices operate, for example, in inkjet printers to precisely spray ink onto paper and in digital-camera autofocus systems to make adjustments to the lens module.

For further information on ST's complete MEMS portfolio see [www.st.com/mems](http://www.st.com/mems).

### **About STMicroelectronics**

ST is a global leader in the semiconductor market serving customers across the spectrum of sense and power and automotive products and embedded processing solutions. From energy management and savings to trust and data security, from healthcare and wellness to smart consumer devices, in the home, car and office, at work and at play, ST is found everywhere microelectronics make a positive and innovative contribution to people's life. By getting more from technology to get more from life, ST stands for life.augmented.

In 2013, the Company's net revenues were \$8.08 billion. Further information on ST can be found at [www.st.com](http://www.st.com).

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<sup>i</sup> [Sleek and Stylish Netatmo Weather Station Forecasts Clear Skies Using STMicroelectronics Components](#)

<sup>ii</sup> [Invisible Bike Helmets from Hovding Rely on ST's Motion Sensors and Microcontrollers](#)

<sup>iii</sup> [ST Chip Controls Pebble Smart Watch, Wearable-Solutions Designer Maxwell Guider Technology Selects ST MEMS Sensors for Advanced Activity Trackers, ST's Motion Sensors and Microcontrollers Propel Category-Creating Sports Watches from Swimovate](#)

<sup>iv</sup> [Blast Motion Launches First Product Blast Baseball and Debuts New Website, MEMS Accelerometer from ST Is Part of Newly Launched Brain Sentry Impact Sensor, ST and X2 Biosystems Celebrate Shipment of 5,000th Concussion Sensor System](#)

<sup>v</sup> [Accelerometers from ST Track Activity of Objects and People Before Reporting to Mother](#)

<sup>vi</sup> [ST and Preventice Partner to Deliver Real-World Remote Monitoring that Brings Clinical Support to Patients at Home, STMicroelectronics and Debiotech Debut Disposable Insulin Jewel Pump at ADA Congress in US](#)