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## **Samsung and STMicroelectronics Sign Strategic Agreement to Expand 28nm FD-SOI Technology**

*Foundry and license agreement ensures multi-source availability of 28nm FD-SOI technology for faster, cooler and simpler semiconductor devices*

**Seoul and Geneva, May 14, 2014 - STMicroelectronics (NYSE: STM)**, a global semiconductor leader serving customers across the spectrum of electronics applications, and **Samsung Electronics Co., Ltd.**, a global leader in advanced semiconductor solutions, today announced the signing of a comprehensive agreement on 28nm Fully Depleted Silicon-on-Insulator (FD-SOI) technology for multi-source manufacturing collaboration.

The licensing accord provides customers with advanced manufacturing solutions from Samsung's state-of-the-art 300mm facilities and assures the industry of high-volume production for ST's FD-SOI technology. FD-SOI technology at 28nm delivers faster, cooler, and simpler semiconductor devices to meet the continuing demand for higher-performance, lower-power systems-on-chips for next-generation electronic products, such as mobile and consumer applications.

The agreement, on 28nm FD-SOI technology, encompasses ST's fully developed process technology and design enablement ecosystem. ST has already proven the speed-power and simplicity benefits of 28nm FD-SOI and continues to build design interest and momentum. The agreement complements ST's advanced 28nm FD-SOI manufacturing capabilities at its 300mm facility in Crolles, France, ensuring a multi-source option for 28nm FD-SOI products and providing customers with the benefit of both Samsung's and ST's deep experience and comprehensive knowledge of high-volume manufacturing technology. The Samsung 28nm FD-SOI process will be qualified in early 2015 for volume production.

"Building upon the existing solid relationship between ST and Samsung within the framework of the International Semiconductor Development Alliance, this agreement

further strengthens our cooperation by extending it to 28nm FD-SOI, while expanding the ecosystem and augmenting fab capacity for ST and the entire electronics industry. Moreover, the agreement confirms and strengthens further the business momentum that we have experienced on this technology during the past quarters through many customers and project engagements in our Embedded Processing Solutions segment” said Jean-Marc Chery, Chief Operating Officer, STMicroelectronics. “We foresee further expansion of the 28nm FD-SOI ecosystem, to include the leading EDA and IP suppliers, which will enrich the IP catalog available for 28nm FD-SOI.”

“We are pleased to announce this 28nm FD-SOI collaboration with ST. This is an ideal solution for customers looking for extra performance and power efficiency at the 28nm node without having to migrate to 20nm,” said Dr. Seh-Woong Jeong, executive vice president of System LSI Business, Samsung Electronics. “28nm process technology is a highly productive process technology and expected to have a long life span based on well-established manufacturing capabilities. By adding FD-SOI to our technology portfolio, Samsung provides a full-spectrum of 28nm process offerings for our customers’ success.”

### **Technical Notes for Editors:**

FD-SOI technology is the result of a long history of research and development in the French Grenoble technology cluster among ST, CEA-Leti, Soitec, as well as other partners. It is particularly well suited for markets requiring power efficiency and performance with a controlled cost of ownership. The semiconductor process technology effectively extends Moore’s law<sup>1</sup> by offering an evolutionary upgrade to traditional planar semiconductor process technology. Unlike alternate manufacturing processes, FD-SOI benefits from the continuation of existing design flows, a wide array of Electronic Design Automation software, and currently installed manufacturing equipment. In particular, ST’s FD-SOI technology<sup>2</sup> delivers the best balance of faster performance and cooler operating temperatures while protecting existing investments in manufacturing tools and equipment. On top of leveraging existing design flows and manufacturing equipment, the technology will significantly reduce process complexity.

### **About Samsung Electronics Co., Ltd.**

Samsung Electronics Co., Ltd. is a global leader in technology, opening new possibilities for people everywhere. Through relentless innovation and discovery, we are

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<sup>1</sup> The observation made by Gordon E. Moore in a 1965 paper ( "[Cramming more components onto integrated circuits](#)," Electronics Magazine) that the number of transistors on integrated circuits doubles approximately every two years.

<sup>2</sup> ST has developed and commercialized Ultra-Thin Buried Oxide (UTBB) FD-SOI, whose benefits are well described in a [2012 paper](#) by Thomas Skotnicki, Franck Arnaud, and Olivier Faynot.

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\* Editors' Note: Samsung Electronics' Foundry business is dedicated to support fabless and IDM semiconductor companies offering full service solutions encompassing design kits and proven IP to fully turnkey manufacturing to achieve market success with advanced IC designs. For more information, please visit [www.samsung.com/Foundry](http://www.samsung.com/Foundry)

### **About STMicroelectronics**

ST is a global leader in the semiconductor market serving customers across the spectrum of sense and power technologies and multimedia convergence applications. 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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