

## SOITEC ANNOUNCES WIDESPREAD ADOPTION OF ITS eSI<sup>TM</sup> SUBSTRATES BY LEADING RF SEMICONDUCTOR COMPANIES

## eSI Substrates Address RF Device Cost and Performance Needs for 4G/LTE Mobile Wireless Markets

San Francisco (SEMICON West 2014), July 8, 2014 — Soitec (Euronext), a world leader in generating and manufacturing revolutionary semiconductor materials for the electronics and energy industries, has reached an early milestone in the fast-paced and widespread adoption of its proprietary Enhanced Signal Integrity<sup>TM</sup> (eSI) substrates. Soitec eSI substrates are the substrate of choice for manufacturing cost-effective and high-performance radio-frequency (RF) devices providing a power boost for 4G /LTE applications. Since Soitec began production of its eSI product, Soitec estimates that it has shipped enough of these leading-edge substrates to fabricate more than 1.4 billion RF front-end semiconductor devices. As the first-to-market supplier of these wafers, Soitec is the driving force in the RF semiconductor materials market.

As eSI offers the best cost performance trade-off, Soitec is seeing very strong and growing market demand from most of the leading RF foundries. These customers are already shipping wireless-communication ICs built on eSI substrates. As a result, Soitec is now shipping more eSI products than high-resistivity silicon-on-insulator (HR-SOI) wafers, which are also used in fabricating RF devices.

"In a very short time, our eSI product has been widely adopted by most of the leading foundries considering it to be the substrate of choice for their products," said Bernard Aspar, senior vice president and general manager of Soitec's Communication & Power Business Unit. "This shows that we have demonstrated our SOI innovation leadership and our ability to move quickly to high volume production. In parallel, we are already working on next generation products to address future LTE Advanced challenges."

Soitec's eSI substrates: Soitec's innovative eSI products, based on Smart Cut<sup>TM</sup> technology, are the first 'trap-rich' type of material in full production. These substrates, on which devices are manufactured, have a significant impact on the final devices' performance. Soitec's eSI substrates are designed by introducing an innovative material (a trap-rich layer) between the high-resistivity handle wafer and the buried oxide. This layer limits the parasitic surface conduction present in standard high-resistivity silicon-on-insulator (HR-SOI) substrates, boosting the performance of RF devices. Because this layer is built into the substrate, it reduces the number of process steps and relaxes design rules, leading to a highly competitive performance and die cost, including a smaller area per function. RF designers can therefore integrate diverse functions such as switches, power amplifiers and antenna tuners with excellent RF isolation, good insertion loss, better thermal conductivity and better signal integrity than other technologies.

**About Soitec:** Soitec is an international manufacturing company, a world leader in generating and manufacturing revolutionary semiconductor materials at the frontier of the most exciting energy and electronic challenges. Soitec's products include substrates for microelectronics (most notably SOI: silicon-on-insulator) and concentrator photovoltaic systems (CPV). The company's core technologies are Smart Cut<sup>TM</sup>, Smart Stacking<sup>TM</sup> and Concentrix<sup>TM</sup>, as well as expertise in epitaxy. Applications include consumer and mobile electronics, microelectronics-driven IT, telecommunications, automotive electronics, lighting products and large-scale solar power plants. Soitec has manufacturing plants and R&D centers in France, Singapore, Germany and the United States. For more information, visit: www.soitec.com.

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