

Press release

A new frontier in precision watchmaking

CSEM is rewarded by European innovation prize for groundbreaking silicon technology in the watch industry

Neuchâtel, 4 December, 2013 — CSEM, the Swiss research and technology organization, is one of three winners of the EARTO Innovation Prize 2013. The prize honors research and technology transfer with high potential for future applications in the economy and society. This year, CSEM's contribution to the Swiss watch industry's global competitiveness, by the development of silicon micro-components, was recognized.

"We are honored by the award given to CSEM" says Georges Kotrotsios, member of the CSEM Executive Board, who accepted the prize during the ceremony in Brussels. "Just as quartz crystal resonators revolutionized timepiece design 40 years ago, silicon micro-components produced through wafer-level fabrication are distinguishing a new generation of high-performance watches and rejuvenating the watch industry". Watchmaking is one of the rare industrial sectors to show continuous growth today. This growth is propelled by the image of innovation: introducing silicon, a material usually dedicated to microelectronics and micro devices, makes possible improved performance and new architectures, and contributes decisively to the image of an innovative industry.

Groundbreaking methods of working with silicon have led to the Holy Grail of watchmaking: unprecedented accuracy and reliability with less maintenance, meaning that watches no longer lose precision through exposure to magnetic fields, temperature extremes, shocks, or lubricant deterioration. In recent years, CSEM has worked closely with several world-famous watch brands such as Patek Philippe, Girard-Perregaux, or Swatch Group to help establish new, groundbreaking methods of working with silicon in the field of mechanical watch making: watchmakers have been able to come up with a completely new generation of micro components and to bring to time-keeping mechanisms qualities that had previously been virtually impossible to realize. Beyond distinguishing a new generation of high-end-performance watches, the use of silicon ensures the creation of jobs with added value, the maintenance of know-how, and spillover to other industrial domains including medical technologies, machinery for high-end manufacturing, and other key industrial sectors, thereby reinforcing Europe's manufacturing base.

Switzerland's watch industry is the world's number one, making over 30 million timepieces a year, producing 95% of watches in the €800+ market, and exporting €17 billion worth of watches annually. "This innovation is an excellent illustration of how RTOs can have an economic impact, on a national scale, and a proven practical application. CSEM has indeed contributed to the Swiss watch industry's global competitiveness by supporting its development of new, innovative products" explained Jan Mengelers, President of EARTO, in Brussels.

International jury

The EARTO Innovation Prize is awarded each year to a selection of the 350 members of the European Association of Research and Technology Organisations, in recognition of their contribution to recent innovations that have high social and/or economic relevance, innovative originality, and a demonstrated practical application and viability. This year's EARTO Innovation Prize was awarded in Brussels in the presence of Anne Glover, Chief Scientific Adviser, the European Commission. The independent jury

comprised: Leopold Demiddeleer, Director of Future Businesses, Solvay, Belgium; Satu Hassi, member of the European Parliament; Richard Hudson, founder and publisher of Science|Business, London and Brussels; Allyson Reed, Director of Corporate Relations, University of Warwick, United Kingdom; and Christopher John Hull, former Secretary General, EARTO.



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Patek Philippe New Perpetual Calendar Reference 5550P (left); Girard-Perregaux Constant Escapement Watch (right)

Additional information

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About CSEM

CSEM – an innovation center

CSEM SA, founded in 1984, is a private research and development center specializing in microtechnology, nanotechnology, micro-electronics, systems engineering, photovoltaics, and communications technologies. In 2012, the watch-making industry accounted for 21% of CSEM's CHF 70 million annual revenue. Approximately 400 highly qualified and specialized employees from various scientific and technical disciplines work for CSEM in Neuchâtel, Zurich, Muttenz, Alpnach, and Landquart.

Further information is available at www.csem.ch

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