

General

# The highlights of 2016

Life is busy! So you might not always have the time to keep up with imec's latest news and achievements. On this page you can find a quick overview of what imec has been doing in the past month.

At imec, research and innovation in the fields of chip technology, ICT and software remain our essential focus areas. We work with industry to translate this expertise into applications for better health, smart cities, smart mobility and efficient logistics and factories – not forgetting sustainable energy supplies. Here are 10 memorable highlights from 2016.

## Imec and iMinds become one

We announced it back in February and by September 2016 it was finally a done deal: the merger between the research organizations imec and iMinds. This merger creates a unique research center that is at the very summit in the world of nano-electronics. It also excels for its knowledge in software and ICT. The expanded innovation center – which now operates under the imec name – puts this knowledge to good use to develop disruptive technologies in areas such as healthcare, smart cities and mobility, logistics and Industry 4.0 and energy.

## **Our cleanroom expands**

On 11 March, imec welcomed Flemish Minister-President Geert Bourgeois, Flemish Minister Philippe Muyters and Mayor Louis Tobback as they officially opened the new cleanroom space. This brand-new high-tech lab, which is over 4000m<sup>2</sup> in size, will be used for researching future generations of technology that will make microchips more powerful, perform better, reduce them in size and make them more energy-efficient – all using the very latest and sophisticated chip production equipment. The new cleanroom is an extension of the existing 300mm cleanroom, which now covers an impressive 7200 m<sup>2</sup>.

## **RVO-Society blows out 15 candles**

Fifteen years ago, RVO-Society was established in memory of Roger Van Overstraeten, the founder and first general manager of imec. The aim of RVO-Society is to encourage young people, aged between 5 and 25, to become interested in technology and science. RVO-Society does this by translating the knowledge found in innovative companies and research organizations (such as imec) into fun projects and educational activities for youngsters.

More information at [www.rvo-society.be](http://www.rvo-society.be).

## **Another birthday: Holst Centre turns ten**

In April, Holst Centre celebrated its tenth anniversary. This independent research center was founded by imec and TNO, with support from the local, regional and national governments of Belgium and the Netherlands. The focus of Holst Centre's research is on wireless autonomous sensors and flexible electronics. Over the past ten years, the number of researchers has risen from 5 to 200. Today, Holst Centre works with 50 industrial partners.

## **Chip design receives boost at imec Florida**

July saw the inauguration of imec Florida, a chip design center for photonics and high-speed electronics. At the opening of the new facility a collaborative agreement was signed with the University of Central Florida (UCF), Osceola County and the International Consortium for Advanced Manufacturing Research (ICAMR).

## **Prestigious ERC grants for three of our scientists**

In 2016, Kris Myny (imec), Bart Vermang (IMOMECE) and Piet Demeester (iMinds - UGent) were awarded European ERC research grants for young scientists. These awards are among the most prestigious research grants for European scientists. Kris Myny received 1.5 million euro to improve a very promising type of thin-film transistor and to develop a new way of designing circuits that will significantly reduce energy consumption.

Bart Vermang was awarded a grant of 2 million euro. His ERC project is about improving CIGS(e) solar cells by using sophisticated technologies that are also applied to silicon solar cells. His work is aimed at producing more sustainable cells that deliver between 23% and 26% greater efficiency.

Piet Demeester received 2.5 million euro to develop a working ATTO prototype over the next five years. ATTO is a wireless technology that can be used to provide every individual object in a large group of moving objects with a superfast mobile connection of 100 Gbps, which is a connection where the signal delay is also kept to the minimum (under 10 microseconds). This is the basis for a whole series of new mobile applications that require a high level of calculating power quickly – such as intelligent ‘swarms’ (large groups, densely packed) of robots.

## **imec.academy brings top speakers to imec for ‘Nanotech for Health’ course**

Genuine innovation is found by interfacing different disciplines: this is something that they have definitely understood at imec academy. For that reason, a ‘Nanotech For Health’ course is run each year for engineers and bio-specialists. Once again this year a totally new program was put together for this 4-day course, which featured authoritative speakers from both the business and the academic world. In addition to a unique range of courses, imec.academy also organizes training courses specifically tailored for companies. Imec partner companies and staff can also consult the extensive library of recordings of the courses that have been presented in the past. Because lifelong learning is a must in this rapidly changing world! More information: [www.imec-academy.be](http://www.imec-academy.be)

## **American Cancer Society praises imec team**

Each year, imec’s ‘Levensloop’ relay team organizes a number of different programs to raise funds for ‘Levensloop Leuven’ and the Stichting tegen Kanker (Anti-Cancer Foundation). In 2016, imec also received the ‘Best Relay for Life Team’ award, selected from more than 500,000 teams involved in Relay for Life worldwide. The imec team won the award not only for the large amount of money it raised, but also for the emphasis it places on making people aware of their health and promoting a healthy lifestyle. And not forgetting the amazing passion and enthusiasm that all of the volunteers bring to the work they do on the day of the event!

There were other support and solidarity programs in 2016, too: 15 teams raised money for schoolgirls in Kuria (Kenya) who attend the Visa Academy, a school for girls escaping female genital mutilation. Imec staff also showed their support for the victims and families affected by the earthquakes in Italy, raising 3,280 euros to rebuild schools in the affected areas.

## **Gordon Moore wins imec award**

## **'s lifetime of innovation**

You could call Dr. Gordon Moore the founding father of the semiconductor industry, after all how many people have a law with their name on it that has governed and guided an entire industry worth hundreds of billions of dollars, created millions of jobs and has changed the way we all live? Our CEO, Luc Van den hove, was honored that he could visit the co-founder of Intel Corporation, and the author of Moore's law, in the beautiful surroundings of Moore's Hawaiian home. And he had a truly well-deserved present for him: this year's imec "the Lifetime of Innovation award", which is granted every year at the Imec Technology Forum (ITF) in Brussels.

In 2017, ITF and iMinds The Conference will join forces. This first XL edition of ITF Belgium will take place on May 16-17, 2017 in Antwerp. Central theme is the unique combination of nanoelectronics and digital technologies.

## **The imec.istart portfolio has over 100 start-ups**

In addition to its research activities, imec helps researchers, young entrepreneurs and start-ups to take their ideas to market successfully. One of the tools developed to do this is [imec.istart](#). When start-ups are selected for this program, for the following 12 to 18 months they are able to call on financial support, professional coaching and a whole range of facilities customized to suit the needs of the aspiring start-up business.

Since the program began in 2011, more than a hundred entrepreneurial projects have been given support. This number is despite the very strict selection criteria applied by which only 1 out of every 5 applications is approved. Between them, these start-ups have already generated more than 450 full-time jobs and a total turnover in excess of 20 million euro (in 2015). In all, they have also raised over 50 million euro in follow-up funding. Last year, imec.istart was placed 4th in the world by UBI Global in the category for 'Top University Business Accelerators' after more than 500 incubation programs were screened from all over the world.