



## Evonetix collaborates with imec to scale-up chip-based technology production for third generation DNA synthesis platform

**CAMBRIDGE, UK, and LEUVEN, Belgium, 13 January 2020** – EVONETIX LTD ('Evonetix'), the synthetic biology company developing a desktop platform for scalable, high-fidelity and rapid gene synthesis, today announced it has partnered with imec, a world-leading research and innovation hub active in the fields of nanoelectronics and digital technologies, to increase production of Evonetix's proprietary microelectromechanical systems (MEMS)-based silicon chips, enabling the platform to be manufactured at a commercial scale. The novel silicon chip is a key component of Evonetix's desktop DNA platform which, once fully developed, will facilitate and enable the rapidly growing field of synthetic biology.

Evonetix's technology utilises a silicon chip, made by MEMS processing, that controls the synthesis of DNA at many thousands of independently controlled reaction sites or 'pixels' on the chip surface in a highly parallel fashion. Following synthesis, strands are assembled on-chip into double-stranded DNA in a process that identifies and removes errors, enabling accuracy, scale and speed that is several orders of magnitude better than conventional approaches. Under the terms of the collaboration, imec will work with Evonetix to scale up manufacturing of the MEMS technology on 8-inch silicon wafers, enabling Evonetix to supply customers in volume. imec is able to leverage its experience in manufacturing silicon for life sciences applications to transfer the novel Evonetix process to their foundries and to manage further expansion in volume.

**Dr Matthew Hayes, Chief Technology Officer at Evonetix, said:** *"With the support of imec, a world-renowned leader in microchip technology, we will be able to optimise our highly parallel desktop platform for commercial supply."*

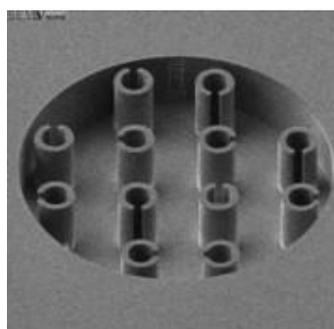
**Peter Peumans, VP Life Science Technologies at imec added:** *"We have extensive practical knowledge of chip design and technology, which we use to help develop innovative tools for the life sciences and pharma R&D. Evonetix has developed an innovative approach that integrates physics and biology to enable the production of high-fidelity long DNA in a highly parallel fashion. We are eager to contribute to their success using our nanotechnology capabilities."*

For more information about Evonetix, please visit: <https://www.evonetix.com/> or to learn more about the Company's technology: <https://www.evonetix.com/our-platform/>.

To learn more about imec, visit [www.imec-int.com/](http://www.imec-int.com/).

**ENDS**

For a high-resolution image please contact [lorna.cuddon@zymecommunications.com](mailto:lorna.cuddon@zymecommunications.com)



**For further information, please contact:**

Matthew Hayes  
Evonetix Ltd  
Tel: +44 1223 930308  
Email: [matthew.hayes@evonetix.com](mailto:matthew.hayes@evonetix.com)

Hanne Degans  
imec  
Tel: +32 486 065 175  
Email: [hanne.degans@imec.be](mailto:hanne.degans@imec.be)

Lorna Cuddon  
Zyme Communications  
Tel: +44(0)7811996942  
Email: [lorna.cuddon@zymecommunications.com](mailto:lorna.cuddon@zymecommunications.com)

*To opt-out from receiving press releases from Zyme Communications please email [info@zymecommunications.com](mailto:info@zymecommunications.com). To view our privacy policy, please [click here](#).*

**Notes to Editors**

**About Evonetix Ltd**

Evonetix is reimagining biology by developing a radically different approach to gene synthesis – a highly parallel desktop platform to synthesise DNA at unprecedented accuracy and scale. The company's platform will place DNA synthesis in the hands of every researcher and change how DNA is accessed, made and used. This new paradigm in gene synthesis will facilitate and enable the rapidly growing field of synthetic biology.

The proprietary Evonetix approach utilises a silicon chip, made by MEMS processing, that integrates physics with biology, and controls the synthesis of DNA at many thousands of independently controlled reaction sites or 'pixels' on the chip surface in a highly parallel fashion. The approach is compatible with both chemical and enzymatic DNA synthesis. Following synthesis, strands are assembled on-chip into double-stranded DNA in a process that identifies and removes errors, providing accuracy that is several orders of magnitude better than the conventional approach.

The Evonetix DNA writer will be a desktop device, available to every researcher, and providing scalable, accurate DNA synthesis to enable biological systems to be engineered with unprecedented accuracy and scale – this is third-generation DNA synthesis.

For further information, see [www.evonetix.com](http://www.evonetix.com)

**About imec**

Imec is a world-leading research and innovation hub in nanoelectronics and digital technologies. The combination of our widely acclaimed leadership in microchip technology and profound software and ICT expertise is what makes us unique. By leveraging our world-class infrastructure and local and global ecosystem of partners across a multitude of industries, we create groundbreaking innovation in application domains such as healthcare, smart cities and mobility, logistics and manufacturing, energy and education.

As a trusted partner for companies, start-ups and universities we bring together more than 4,000 brilliant minds from over 97 nationalities. Imec is headquartered in Leuven, Belgium and has distributed R&D groups at a number of Flemish universities, in the Netherlands, Taiwan, USA, and offices in China, India and Japan. In 2018, imec's revenue (P&L) totaled 583 million euro. Further information on imec can be found at [www.imec-int.com](http://www.imec-int.com).

Imec is a registered trademark for the activities of IMEC International (a legal entity set up under Belgian law as a "stichting van openbaar nut"), imec Belgium (IMEC vzw supported by the Government of Flanders), imec the Netherlands (Stichting IMEC Nederland, part of Holst Centre which is supported by the Dutch Government), imec Taiwan (IMEC Taiwan Co.), imec China (IMEC Microelectronics (Shanghai) Co. Ltd.), imec India (Imec India Private Limited) and imec Florida (IMEC USA nanoelectronics design center).

### **About synthetic biology**

With the huge increase in DNA sequence information available to mankind over the past ten years, there now exists an unprecedented opportunity to, for example, engineer metabolic pathways and organisms, improve industrial processes, create new processes and engineer genomes with new or improved traits. This opportunity, known as synthetic biology, is estimated to grow rapidly over the coming years, reaching \$40 billion in value in the mid-2020s. Synthetic biology will have a massive impact across many industries and will be fundamental to helping us manage the Earth's resources.

However, only a highly disruptive technology is likely to achieve the significant improvements in DNA synthesis required to enable and facilitate these opportunities. Evonetix believes that, by providing high-fidelity DNA at scale, without the need for post-synthesis error correction, it will be well placed to capture a significant part of the growing multibillion-dollar synthetic biology opportunity.