

# Weebit Nano begins miniaturisation phase as it progresses to build a vital future memory solution

Targeting a 300nm Kilo Bit Array prototype and a 40nm working cell by the end of 2017

22 June, 2017 – Weebit Nano Ltd (ASX: WBT), an Israel-based semiconductor company that is seeking to develop the next generation of memory technology, today announced that it has begun the miniaturisation process of its technology. This is a significant step for the company in its efforts to create a commercial ReRAM memory product that will potentially be transformative for the memory storage industry.

# Targeting 300nm Kilo Bit Array and 40nm cells in parallel

The first critical milestone is the 300nm<sup>1</sup> Kilo Bit Array. This milestone will significantly mitigate the development risk associated with reaching the 40nm ReRAM Silicon Oxide working cell target by the end of 2017. The miniaturisation towards the 40nm cell will continue in parallel with the 300nm Kilo Bit Array.

Data from both the 300nm and 40nm scaling will be analysed over the coming months with the aim of enabling full chip integration of the 40nm ReRAM prototype. Data collected will be a key input for future commercial collaboration and partnership opportunities with key players in the memory and semiconductor industries.

#### 40nm target is a major milestone

Weebit Nano's 40nm objective is significant because it is the size of current state of the art 3D-NAND technology and is necessary for use in advanced devices such as Solid State Drive (SSD) storage and other devices like smartphones. Weebit Nano expects that its ReRAM Silicon Oxide technology will demonstrate highly suitable characteristics for these market segments, as well as many new and evolving markets such as smart cars, the Internet of Things and Artificial Intelligence, where there is a demand for high-performance, low energy memory.

300nm Kilo Bit Array and 40nm milestone success will allow Weebit to initiate strategic discussions with industry leaders around possible partnerships or collaborations.

Yossi Keret, CEO of Weebit Nano, said: "This is yet another exciting step for us. We are very proud of the progress Weebit Nano has made to date and of our ability to achieve our milestones on schedule. We are now entering the exciting phase of 'miniaturisation', where we scale down our Silicon Oxide ReRAM technology to a size that is relevant to the market. Given Weebit's ReRAM is made of fab-friendly Silicon Oxide material, it allows us to rapidly execute, without the need for special preparations and cross contamination precautions. Our fab-friendly Silicon

<sup>&</sup>lt;sup>1</sup> nm stands for nanometer, which measures the size of the memory cell. 1nm is 1 millionth of a millimetre





Oxide ReRam technology is one of the major factors which differentiates Weebit within the emerging memory storage industry.

"We believe the successful completion of this miniaturisation phase will yield significant collaboration and partnership opportunities with leading memory players in the near future."

## Development to continue in Leti's world class facility

The miniaturisation process is utilising Leti's Memory Advanced Demonstrator (MAD) vehicle, which is a fully integrated chip that includes all the components a real memory device requires, such as memory arrays, CMOS logic and interconnects.

To date, Weebit Nano has successfully transferred its Silicon Oxide ReRAM technology from Rice University to Leti's pre-industrialisation facilities in Grenoble, France, where it has achieved successful electrical results that replicated the memory behaviour achieved at Rice University. In partnership with Leti, Weebit Nano is now progressing to scale-down the size of its technology to bring the company closer to commercialisation.

## **Next steps**

Following the miniaturisation of its technology, Weebit Nano expects to begin scaling up the capacity of its ReRAM prototype towards Mega Bit array blocks, which is a further significant advancement of moving towards a commercially viable memory solution. This process is expected to start before the end of 2017.

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#### **About Weebit Nano Limited**

Weebit Nano is an exciting venture that is aiming to lead the way into the future of computer memory storage, and plans to become the new industry standard in this space. Incorporated in Israel in 2015, Weebit Nano was built to address the growing need for data storage technology around a revolutionary memory technology. Weebit Nano has secured several patents to ensure optimal commercial and legal protection for its ground-breaking technology. This quantum leap aim to allow semiconductor memory elements to become cheaper, faster, more reliable and more energy efficient than the existing Flash technology. Weebit Nano has signed an R&D agreement with Leti, an R&D institute that specialises in nanotechnologies, to further develop SiOx ReRAM technology. For more information please visit: <a href="http://www.weebit-nano.com/">http://www.weebit-nano.com/</a>

