



New Generation of Nanocube Ink Prototypes

Strategic Elements (ASX: SOR) is pleased to report that the alternative prototype fabrication method investigated by its technical team has succeeded in creating a layer of nanocube ink over five times thinner than achieved previously with increased performance. The surface roughness and uniformity of the nanocube layer was also significantly enhanced.

The University of New South Wales team successfully optimised a number of fabrication parameters for the alternative fabrication method in a very short time frame and provided confidence for the Company to commence a **new generation** of prototype nanocube memory inks.

The Company is confident that greater control over the thickness and quality of the nanocube ink layer assists in extending some of the most advanced features of the technology even further.

The Nanocube technology has extremely beneficial capabilities deriving from the structure of the materials and quality of the Nanocube ink layer. Therefore, achieving the desired ink layer specifications can be challenging, since the tuneable range of thickness and surface topography is limited and strongly dependent on processing parameters and solution properties.

Recent significant intellectual property has been discovered by the Company and is being included with other intellectual property in the patent strategy being formulated with the Company's attorneys. Once this has been completed the Company will be in a position to release this information to the market and commence initial partnering discussions.

Managing Director Charles Murphy said, "We are champing at the bit to fully reveal the new generation of nanocube ink prototypes. However, revealing every aspect at this stage is obviously against our shareholders own interests. The Company is confident we will start to attract serious industry attention if we achieve our short term goals in relation to intellectual property and technology development".

Over the next few weeks the Company will design a development program to utilize and further optimise the alternative fabrication method whilst building a new generation of prototype nanocube inks. Information on the significance of the program and forward strategy for the technology will be released to the market prior to the program commencing.

Background

100% owned Australian Advanced Materials (AAM) has an exclusive global licence for the technology from UNSW and has contracted the materials group at the UNSW School of Materials Science and Engineering to assist in developing a nanocube memory prototype, improving the technology and creating new intellectual property.

- *Nanocube memory technology is based on RRAM, the type of memory technology forecast to replace flash memory, which is reaching its limits.*
- *RRAM allows faster, less power hungry, more reliable, cheaper and more scalable memory.*
- *There are many companies developing different RRAM memory solutions including Micron and Sony.*
- *However the Nanocube technology has **significant points of difference** - it is **flexible, transparent** and can be fabricated into a **liquid solution** at room temperature outside expensive high-vacuum chambers.*
- *The obvious fit is Printed Electronics (PE) where chemical, printing and electronic industries have collaborated to create a multi-billion dollar market that will be the future of electronics.*
- *PE can create flexible, transparent electronics which current semiconductors cannot. PE can also be manufactured using cheap printing methods unlike current electronics made in expensive fabrication plants.*
- *This creates opportunities to (a) allow device manufacturers to produce flexible products and (b) put electronics in places and on products that have never been able to use electronics before.*
- *In December 2015 testing results were released clearly demonstrating the potential of the technology.*
- *In March 2016 an enhanced method of prototype fabrication commenced.*

ASX Listed Strategic Elements Ltd

The Company has a special registration from the Federal Government as a Pooled Development Fund. Most shareholders pay no capital gains tax when they sell their shares in ASX listed Strategic Elements (ASX: SOR).

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