

Australian Team to Develop Flexible Transparent Transistor Tech

Strategic Elements Ltd (ASX: SOR) has formed an agreement with the University of New South Wales to license and commercialise advanced **transistor** technology with flexible, transparent and printable functionality to be used in new, innovative electronic devices.

Technology

Over \$1M in research funding has already been utilized towards flexible, transparent transistor technology by a team from the School of Materials Science and Engineering at UNSW (ranked No1 in Australia).

The transistor technology is focused on utilizing metal oxides and nanoscale particles that can be incorporated into an ink and printed onto surfaces of transparent materials, such as glass and plastic.

The technology is at an infant stage of development but is addressing a critical issue associated with transparent electronics that have an extremely large potential global market. The Company will work with UNSW to shape proof of concept development towards the most commercial outcome.

Printed transistors are available today, however their low performance or low reliability have inhibited the development of more complex and faster applications for flexible, transparent electronics. Technology to be developed at UNSW aims on enabling high performance printable transistors with high flexibility and transparency.

Further details will be released after a full review of the Intellectual Property and a commercially focused development plan has been agreed.

Transistor

The silicon transistor has been the central component of the microelectronics since its Nobel-prize-winning invention in 1948. For example, the speed of a computer is determined by the number of transistors per square inches. These transistors amplify the signal and drive logic to process the data within the electronic devices that dominate our daily life.

The current silicon transistors are expected to continue to dominate traditional electronics markets. However, they are **not suitable** for use in electronics devices that are to be bent or flexed, need transparency or are printed over large areas of glass or plastics. A market forecast to grow to at least USD 70.4 Billion by 2024.

Silicon transistors are:

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|-----------------------------------|--|
| 1. Rigid and brittle | > cannot be used in devices that bend or flex |
| 2. Not able to cover a large area | > cannot be fabricated on oversized scale substrates. |
| 3. Not transparent | > cannot create transparent electronics on glass or plastics |

The silicon transistor is known as one of the inventions that changed the 20th Century. The development of transistor technology that assists printability, flexibility, transparency and large area (**with reliability and high performance**) may have a significant impact on the evolution of printed, flexible electronics.

UNSW Technology License

Wholly owned Company, Australian Advanced Materials Pty Ltd (AAM) has received a global, exclusive licence to the transistor technology.

The Company had been in discussions with the research team to license the technology for some time due to its potential to address a very large global market. However, with the ongoing success of the Nanocube Memory technology being developed by the parties, it has now successfully been agreed to form a license on the same terms as that technology.

Key terms of the license are that there will be no upfront payments required or royalties, however the Company will work with UNSW where possible to develop the technology. If the Company has shown reasonable efforts to develop the technology within 3 years, UNSW will assign its right, title and interest in the technology to AAM.

Development

AAM intends to sign a research and development agreement with UNSW after a commercially focused development plan has been agreed.

Further information on the technology, research and development plans and market potential will be released to the market.

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More on the Company

Strategic Elements shares are listed on the Australian Stock Exchange under the code "SOR". The Company is registered under the Pooled Development Program run by the Australian Federal Government to encourage investment into SME's.

To assist Pooled Development Fund's to raise capital, the Federal Government enables most shareholders in a Pooled Development Fund to **make capital gains and receive dividends tax-free**. In return the Company must back only Australian SME's.

The Company has a current focus on the technology and resource sectors, with approx. \$7M in cash and no debts.