

Funding secures the future of Australian Synchrotron

March 28 2012, By Justin Norrie



Workers install parts at the massive Australian Synchrotron facility. Credit: AAP/Victorian Government

A \$95-million rescue package for the world-class Australian Synchrotron research centre will ensure local scientists can “remain at the forefront of the highly competitive world of fundamental and applied research”, scientists said today.

The Federal Government has contributed \$69 million and the Victorian governments \$26 million to the Synchrotron, in Melbourne’s outer east, over four years.

The Synchrotron uses particle accelerators to produce a beam of high-energy electrons. These, in turn, create synchrotron light, which can then be directed at material to probe its composition at atomic level.

Minister for Science and Research, Senator Chris Evans, said that without the funding deal, “the ongoing operation of the facility was in doubt, jeopardizing important research here in Australia.

“Research conducted at the Australian Synchrotron is cutting edge and spans the science spectrum from medicine to manufacturing.

Research conducted at the Synchrotron, which is the size of a football field, has already laid the foundations for the development of a new class of anti-malarial drugs. It has also identified the distributions of nutrients in cereal grains, which could help improve the nutritional value of foods, and helped develop an energy efficient high-temperature superconductor that could be used in motors, generators and transformers.

Each year the facility hosts more than 3000 researchers, who perform about 500 experiments.

New Zealand has given an in-principle commitment to contribute to the operational funding of the Synchrotron over the next four-year period.

Andrew Peele, the Head of Science at Australian Synchrotron, described the centre as “the most significant piece of scientific infrastructure in the country. It creates beams of light millions of times brighter than the Sun.

“The facility allows researchers to probe materials down to atomic dimensions and with unique sensitivity to elemental composition,” Dr. Peele said.

Since opening five years ago, the Synchrotron had already had an impact on day-to-day life, he said. “The facility is capable of performing such detailed forensic analysis that evidence that could not otherwise be obtained has been provided for a homicide case.

“Art conservators around the world have a keen interest in using the Australian [Synchrotron](#)’s world leading capability to scan large scale artworks to reveal hidden detail. And Australian researchers have tested the properties of new types of green cement that are now on the market.”

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