

CSIR bioplastic technology recognised for its potential to eradicate plastic pollution

A bioplastic technology developed by the Council for Scientific and Industrial Research (CSIR) has been recognised for making a positive contribution in the reduction of environmental pollution.

The Eco-Logic Awards 2018, placed the CSIR's bioplastic technology in the spotlight. The awards identify individuals, organisations and communities that positively contribute towards a sustainable world.

The CSIR technology won the silver award in the Eco-Innovation Award category for a new, innovative product that can potentially change the lives of South Africans whilst solving the earth's plastic pollution challenge.

One of the key features that made this technology a winner is that the bioplastic products are 100% biodegradable and compostable when they end up in natural environments such as land fill, compost and marine water, without any toxic residues. A further attribute of the bioplastic is that it is made from 100% renewable resources, which consists of agro waste by-products and a biopolymer. Additionally the CSIR bioplastic technology displays good mechanical properties that are similar to those of the conventional non-biodegradable polyethylene films and it can be processed using existing industrial equipment.

"We were particularly pleased to receive the CSIR bioplastic technology entry as plastic pollution has become such a huge current environmental issue that urgently needs to be addressed. We were therefore delighted that the CSIR is applying its mind to address this critical issue," said David Parry-Davies from Enviropedia, the company that established the Eco-Logic awards back in 2011.

The Eco-Innovation award category recognises a new product or service that is financially viable and sustainable, and that serves the needs of humans while being equally beneficial to the earth and eco-systems.

CSIR senior researcher in polymers and composites and lead developer of the technology, Dr Sudhakar Muniyasamy says the technology will contribute to the reduction of environmental pollution and boost local job creation in manufacturing.

"As a team we are very glad that the CSIR research and development work has been recognised in this way. This is an indication that the work will have an impact on society and reduce plastic pollution. We hope to get the necessary support to take it to the market," says Dr Muniyasamy.

The CSIR research supports the South African Government's bio-economy strategy for bioplastic materials, which is strongly aligned to the Presidential project on job creation and a green economy.