

A concrete solution to waste

After water, concrete is the most used substance on the planet. For this reason, scientist, geologist, economist and environmentalist John Harrison thought concrete was a great place to start when thinking about sustainability. The managing director and chairman of Tasmanian company TecEco, Harrison is best known for the invention of tec, eco and enviro-cements.

These materials have attracted significant global interest because of their impact on sustainability. The TecEco kiln, tec, eco and enviro-cements will have a major role in changing the technical paradigms and proving that sustainability can be economic and thus achievable.

Eco-cement incorporates magnesium oxide (magnesia) and wastes to make it environmentally sustainable. Eco-Cement uses a lower heating temperature during manufacturing, so less fossil fuels are used. Wastes such as fly and bottom ash and slags can be included, without incurring problems such as delayed reactions. Eco-Cement also absorbs CO₂ from the atmosphere to set and harden and can be recycled.

John believes that the approach to sustainability must be holistic, a bit like dieting. "The pain of either dieting or exercise is less if one does both. So it is with progress towards sustainability - reductions in energy usage as

well as massive sequestration, less rubbish (e.g. packaging) as well as new uses for it are required."

John wanted to turn waste into an asset. Inspired by nature's ability to turn waste into a resource, his aim is for his cement technologies to potentially enable city streets to become carbon absorbers, instead of carbon producers.

"We're just waiting for the big manufacturers to see the potential and start investing in sustainable, but also economically viable alternatives," said John.

A brilliant Aussie invention that could help us all breathe easier.

For more information about the eco kiln and eco cement, visit www.tececo.com
bcme Circle 63 on Reader Services card

