



DID YOU KNOW

IRL scientists are world leaders in high temperature superconductivity (HTS) – an emerging field transforming the way electricity is used with a global market that could be worth billions of dollars.

HTS enables the transmission of electricity without any measurable resistance or the loss of energy, and its applications include machines that are smaller, lighter and more efficient than those made with existing copper wire technology.



WHAT DOES THIS MEAN?

HTS technology is set to be adopted by a huge variety of industries in the next 10 to 20 years, with a global market estimated at around US\$20 billion.

IRL's leading position in this arena has led to partnerships with global players such as Siemens and General Cable, who are developing products that utilise HTS technology.

New Zealand companies in the engineering, manufacturing and power systems sectors are also reaping the benefits of IRL's 20-year research programme into HTS, through the development of products that use this technology.

Successful local commercial enterprises based on HTS include IRL spin-off company HTS-110 Ltd, which makes a range of HTS products, such as magnets for MRI scanners and Nuclear Magnetic Resonance analysers for customers around the globe, and which has experienced strong growth despite the challenging business environment.

In the coming decades, companies benefitting from IRL's HTS R&D programme will have the opportunity to take a stake in the multi-billion dollar global HTS market, enabling them to earn all-important export revenue for New Zealand.

