

# One idea, infinite markets

A large mechanical zipper, brought to market by a man with an engineering background, has caught the attention of all sorts of industries.

Jessica Gardner

Many businesses begin with a good idea which has a single application. But from the start, Joinlox was fielding inquiries from industries as diverse as building, mining and water storage.

Chief executive John Pettigrew says the challenge was not identifying a market. "The challenge for us was how do we identify the key, low-hanging-fruit markets," he says. "Which ones do we prioritise? Which ones do we attack first?"

The good idea behind Joinlox is a series of interlocking hooks held together by a key or strip that slides between the hooks.

"It's basically a large mechanical zipper," Pettigrew says. "It's an alternative or a replacement for anything that is a permanent joint."

Joinlox can be used in place of welding and adhesives, or fasteners such as nuts, bolts and screws. It can be made of a range of materials, such as plastics, alloys, metal and steel. It can also join dissimilar materials.

The versatility of the technology means its applications are diverse, but for a fledgling invention with no commercial application, such diversity could have left the team behind Joinlox paralysed by opportunity. It took a plan of attack to push the idea to commercial use.

Inventor Dean Cameron came up with the idea of interlocking hooks, after studying how clams attach to rocks and reefs through their silk filaments. His initial inspiration came from looking for a cheaper way to transport plastic tanks to developing nations for water storage and treatment.

"Instead of transporting one-piece tanks, which take up a lot of air, his idea was to make them modular and then put them together on site," Pettigrew says.

On-site assembly requires a system of joints that can be locked and unlocked easily, cheaply and



Joinlox chief executive John Pettigrew ... 'Wherever there's a screw or a weld is our target market.' Photo Nic Walker

safely. Cameron's idea won 2008 Invention of the Year on the ABC TV show *The New Inventors*.

"Out of that win came really strong mainstream awareness and generated literally several hundred direct inquiries within the first few months," Pettigrew says.

In early 2009, Pettigrew, who has a background in mechanical engineering, was brought in as chief executive to "take it from a concept to a business".

"One of my early roles was to take that inquiry list and decipher which ones were the important ones commercially to nurture," he says.

One of Joinlox's earlier customers was Xstrata Technology, a subsidiary of mining company Xstrata.

"They wanted to have a point of difference in the market, so we worked with them to demonstrate what is good for a small 3000- to 5000-litre plastic tank can be applied to a large steel tank," he says. "They were the ideal early adopter."

About half Joinlox's business has come from outside inquiry. The other half has come from internal developments of new applications.

Joinlox does not manufacture its technology, but instead designs

**The technology is an alternative for anything that is a permanent joint.**

John Pettigrew, Joinlox

applications and licenses their use to equipment manufacturers. It then earns a one-off fee and take revenue from royalties from the use of Joinlox in equipment.

By targeting manufacturers as customers, rather than end users, the company is able to manage its diversity.

"That licensing model allows us to grow the head, not the body," Pettigrew says. The company has five employees and he wants to "keep it quite lean".

Revenue for the company is less than \$1 million, but growing. "We've spent the last three years really taking the concept and invention to commercial and market-ready product applications," he says. "That's taken three years and the best part of \$3 million."

Start-up money came from family and friends and government grants, including \$395,000 from Commercialisation Australia.

Cameron is not involved in the day to day running of the business, but his family has a majority share of the company, which has just raised \$1.3 million from two unnamed investors in mining and technology equipment manufacture.

Pettigrew's growth strategy over the next 12 months is to develop an application of the technology for one large beachhead client in each of the five industries he is targeting: mining, water and pipelines, building and construction, packaging and niche industrial use.

"From there that gives us kudos and credibility in those markets.

"There's no point us taking a pipeline joint to somebody who makes shipping containers. But if we're selling our technology to a major crate and drum manufacturer in packaging, then we can enter the shipping market by saying, 'look, we already have this example'. It's not a huge leap of faith for us or them.

"The scalability of the business is almost infinite. Wherever there's a screw or a weld is our target market."