Manufacturing

TechNZ
Investing in Innovation for Business Growth

Pultron Composites
R&D gives global edge

TechNZ supports the manufacturing sector to develop new products, processes and services and improve technical knowledge and R&D ability. Up to $50 million is invested each year in New Zealand businesses to grow world-class companies through innovative technology.

The Company

Pultron's technology transforms fibre and specialty resins into reinforced materials with high strength, light weight and corrosive resistant and electrical resistant properties.

Its materials are used in harsh environments where corrosion can dramatically limit the lifespan of steel. The company makes specialised products for the construction, tunnelling and mining industries as well as sail battens and springs for recreational equipment. Pultron made the flexing rods for the Pacific Grass wind sculpture near Wellington airport.

Founded in 1983 by Bronwen and Peter Holdsworth to make electric fence posts for the farming industry, Pultron is now run by the Holdsworth's son, Jasper.

The Research and Development

Pultron has always fostered an innovative culture, researching and implementing new technologies and processes to remain successful. By creating advanced pultrusion technologies (a special manufacturing process for composite materials), Pultron has propelled itself into global status.

TechNZ – the Foundation for Research, Science and Technology's business investment programme – has invested $1.8 million since 1998 to help Pultron develop materials that are stronger and lighter than steel.

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> "As a result of R&D, 80 per cent of Pultron's composite production is dedicated to specialist, custom-designed products exported to around 30 countries. That has led to growth of 30 per cent each year for the past four years, with staff numbers increasing from 25 to 70 in the same period."

Fact File

Location: Gisborne

Staff: 70

Exporting: 80% of production to 30 countries

First major TechNZ investment: 1998

Value of TechNZ investment: $1.8 million since 1998

Projected revenue from latest R&D: US$15–20 million

Above: Pultron CEO Jasper Holdsworth, and the company's premises in Gisborne.

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New Zealand Government

Foundation for Research Science & Technology
Tūāpapa Rangahau Pūtaiao

> **Pultron has used TechNZ funding to invest in an R&D platform and move into higher margin specialty products, with 30 per cent growth year on year. This growth is expected to accelerate even faster in coming years as the company invests more in R&D capability.**
>
> Tom McLeod, Sector Business Manager, TechNZ.

Pultron's composite products have non-corrosive, high-fatigue properties, replacing traditional materials in construction and other industries. Pultron products cost at least 20 per cent less than stainless steel and give enhanced performance.

In 2004, Pultron received $450,000 from TechNZ for specialist microwaving technologies, resulting in new products and more speed on its manufacturing lines, and in 2006, Pultron received a further $940,000 from TechNZ for a $2.2 million project to develop over-molding technologies.

Ongoing R&D commitment is giving the company international, competitive advantage through unique pultrusion capabilities.

Apart from direct investment in Pultron's R&D, TechNZ also supported Mr Holdsworth's attendance at a Massachusetts Institute of Technology (MIT) course for entrepreneurs. He says this provided an opportunity to make international contacts, attend lectures from some of America's leading venture capitalists and to discuss similar business growth issues with other CEOs.

Mr Holdsworth says Pultron tends to focus its research on technically difficult projects that have low commercial risk when successfully achieved. This provides Pultron with products that are either unique, outperform other similar products, or are a combination of both these factors.

"We find that, when we are developing new technology, we often come to a point where there is a potentially lethal step that could terminate the project. "A significant amount of value is unleashed by pushing through this barrier. TechNZ investment has enabled us to overcome technical barriers and also, at times, to continue work on three different options that emerge, and sometimes the spin-offs from the investment are greater than the original objective," says Mr Holdsworth.

The Achievements

A recent deal to provide materials for mass-produced recreational equipment sold in the US has potential to reap returns of up to US$20 million.

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Pultron revenues have grown 30 per cent each year since 2004, with staff numbers increasing from 25 to 70 in the same period. The R&D team has increased from five, to more than 20. Pultron's R&D ethos attracts highly qualified people from throughout the world, in line with the company's philosophy of employing the best 'A team' it can find.

Pultron plans to open a factory in Dubai to help it access a share of the US$1billion concrete reinforcement market. It will be the first manufacturing plant of its type in Dubai and enable Pultron to make immediate deliveries to customers instead of shipping from New Zealand, effectively "cutting and pasting its knowledge into Dubai", says Mr Holdsworth.

www.pultron.com

Pultron's technology transforms fibre and resin into special lightweight materials that are strong and resistant to corrosion.

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