



ACCELERATING COMMERCIALISATION

Heuch - solar powered refrigeration container keeps it cool, even off grid

Customer Story

Containers ready for work in remote and disaster struck areas – 10 minutes to set up, no power or fuel needed.

Heuch Pty Ltd (Heuch) solar powered refrigeration solution is, in simple terms, a shipping container with solar panels on it. But, the brilliance was in making it work.

Others had previously failed, but Heuch succeeded through extensive research and development (R&D), clever design and innovation.

So much so, the Accelerating Commercialisation Grant project made the Dandenong business the 2016 Innovator of the Year at the Heating, Ventilation, Air-Conditioning, Refrigeration (HVACR) Leadership Awards. Since then, they have also been finalists in Land Defence Australia Industry Innovation awards, Land Forces 2016 awards and the Australian Institute of Refrigeration, Air conditioning and Heating's (AIRAH) excellence in innovation award and 2018 AIRAH Innovation Award for its solar refrigeration solutions.

Two years on, Heuch has commercialised its solar refrigeration technologies and launched its sister business Black Stump Technologies to pursue off-grid refrigeration opportunities, such as in isolated and remote communities and sites, mining and construction sites, defence and emergency response applications and environmentally-friendly applications. Black Stump Technologies has expanded the product range to include solar powered ice makers, Uninterrupted Power Supply (UPS) and even mortuaries. Equipment has been deployed from the baking sands of the South Australian desert to the wet highlands of Papua New Guinea.



Heuch Pty Ltd (Heuch) solar powered refrigeration solution

“The Accelerating Commercialisation Program and Commercialisation Advisers have been vital to our continued success with this project ... In fact, we could not have retained this innovation in Australia and proceeded to commercialisation without Accelerating Commercialisation support. It helps bridge the gap between proven concept and sales.”

MARTIN OAKLEY, BUSINESS DEVELOPMENT
MANAGER FOR HEUCH AND BLACK STUMP
TECHNOLOGIES.

Heuch invested considerable time and money into the R&D behind their idea before the [Entrepreneurs' Programme](#) made the final ride to commercialisation easier, awarding them an Accelerating Commercialisation Grant of \$498,860 in November 2016.

This innovation has been more than 10 years in the making.

Heuch used Accelerating Commercialisation assistance to improve the manufacturing process to help create price parity with the product's diesel equivalent. With a very attractive return on investment, these systems can replace diesel-powered off-grid options and eliminate the need for fuel and generators.

The funding also enabled Heuch to build two demonstration units which have been deployed around Australia and internationally. Immediate export markets include South East Asia and the South Pacific, with significant interest from Africa and the European Union as well. Remote Australia is also shaping up to be a strong market. Heuch and Black Stump Technologies recently finalised a partnership with Indigenous owned Bunjil Energy to bring these beneficial technologies to remote First Nations communities.

Heuch Managing Director Steve Oakley says the Accelerating Commercialisation service is a long and arduous task, but any company thinking of applying must embrace the process. He said it is well worth the effort.

“It was highlighted to us that a critical road block to growth lay ahead. To avoid going off-shore with our innovation, a potential lifeline was identified during the Accelerating Commercialisation review.”

STEVE OAKLEY, MANAGING DIRECTOR, HEUCH.

Steve and Martin said the value and importance of their Commercialisation Adviser, Peter Batchelor, and his team, who shared their knowledge and enthusiasm, could not be overstated.

The Oakleys said there was real value in the Accelerating Commercialisation process, as the proposal format serves as a critical appraisal of the opportunity and an introspective review of the true cost of development, and a future growth strategy.

Now, thanks to Heuch and Black Stump Technologies, a lack of power and infrastructure, or isolation, is no longer a barrier to refrigeration and other quality-of-life infrastructures.

All Black Stump deployable systems take just 10 minutes to set up with no specialised equipment needed. If the container option is not practical to get into certain areas, there are flat pack solutions for assembly on site with most items less than 20kg.

The aircraft deployable 10-foot container option – or the Mobile Autonomous Refrigeration Utility (MARU) as Heuch named it – was on display at the 2017 Avalon Air Show in Victoria.

This version is ideal for urgent aid or disaster zone uses. The 20-foot and 40-foot container designs are ideal for larger and long term uses.

“We wanted to make the application more user friendly in emergency disaster relief situations,”

MARTIN OAKLEY.

The commercialised product range can cater for health, medical and food supply needs, through to mortuary aid. Custom mortuary products have been supplied to the ANGAU Memorial Hospital in Lae, Papua New Guinea with Department of Foreign Affairs and Trade (DFAT) Funding and have also deployed their Air Transportable 463L Chiller to Papua New Guinea.



Steve Oakley sees endless opportunities for Heuch's innovation, including exporting internationally.

Other commercialised products have been customer deployable UPS and Workspace supplied to Royal Australian Airforce (RAAF) Edinburgh as part of the Australian Space Agency Program and customer Solar UPS built for Australian Army Trials.

Heuch continue to innovate and are now working on deployable water generation units to assist our drought struck land.

View heuch.com.au

Entrepreneurs' Programme

The Entrepreneurs' Programme is the Australian Government's flagship initiative for business competitiveness and productivity.

The [Accelerating Commercialisation](#) element helps small and medium businesses, entrepreneurs and researchers to commercialise novel products, processes and services.

Check your eligibility by visiting the [Entrepreneurs' Programme](#) or call **13 28 46**.