



COMPOSITE TECHNOLOGY

INNOVATIVE COMPOSITE TECHNOLOGIES

As a small but highly innovative country, New Zealand has drawn on its own resources rather than rely on external sources, to create technologically superior solutions for industry's problems. This imaginative and intellectually robust approach has led to the use of advanced composite materials in niche manufacturing applications.

New Zealand is recognised worldwide for its expertise in composites for marine, aviation and automotive applications. This reputation is underpinned by world-class research and development, a highly skilled workforce and a "can do" attitude to delivering complex products with technical innovation.

COMMERCIAL SUCCESS

World-class research and development facilities are centred on New Zealand's composite industry. The Centre for Advanced Composite Materials (CACM) is headed by internationally renowned Professor Debes Bhattacharyya of the University of Auckland. CACM has published research and contracts to industry in advanced technologies such as extrusion, thermoforming, and biopolymer composites.

Crown Research Institution, Industrial Research Ltd, specialises in Finite Element modelling and computational fluid dynamic analysis of composite structures. The University of Auckland has a dedicated Yacht Research Unit and achieved the first successful computational solutions for coupled structural and aerodynamic behaviour of sails. Several New Zealand companies are world-renowned for their use of marine composites, with High Modulus being an internationally-recognised example of the use of marine composites in design and specification.

New Zealand was first in the world to use modern composites for racing yachts. Locally designed and built composite boats won the highly-coveted America's Cup and this expertise continues to be showcased amongst the world's top racing yachtsmen. The winner of the 2006 Rolex Transatlantic Challenge is an example of New Zealand composite technology, containing many innovative features such as composite rigging and a cantilevered keel.

Demand for improved fuel efficiency has led to increasing use of light but strong composites in aviation. Composites are increasingly used in structural components and in the interior cabin, and Air New Zealand's advanced composite repair and maintenance facilities are used for civilian aircraft and military components.

Composites are used in interior auto components often to highly-demanding specifications, such as New Zealand's Carbon-Kevlar™ composite racing seats manufactured for DaimlerChrysler and Australia's Holden for use in performance and racing cars.

New Zealand's labour force is highly experienced in the use of composites in marine, aviation and automotive applications. The New Zealand Government supports professional education and industry training programmes. The Government is also a multi-million dollar co-funder of research and development in the private sector.

To find out how you can access New Zealand's composite materials expertise, contact Investment New Zealand, the investment promotion agency of the New Zealand Government. Investment New Zealand understands the composite industry and has extensive networks within it allowing us to identify and facilitate investment opportunities relevant to you.

www.investmentnz.govt.nz