

Case Study

Innovating and competing
at a global level at Futuris
with assistance from AutoCRC



Futuris: a world-beating international success story

- *Millions of dollars benefit from ASEA projects*
- *Increased competitiveness locally and globally*
- *High commitment to R&D and holding patents*
- *Skills development delivered increased efficiency and productivity*

Futuris is one of the great Australian automotive success stories.

With its head office in Port Melbourne, the company designs and manufactures interior solutions for automotive and non-automotive customers.

David Marino, the company's Chief Operating Officer, explains: "In a nutshell, Futuris designs and develops interior products, seats and door trims. Basically anything you touch in a car, with the exception of the instrument panel, we do. Parcel shelves, parcel trays, headliners, seats, door trims and steering wheels."

With its origins in the 1960s as a cooling systems manufacturer, Futuris today has 2,500 employees, over \$400 million in sales and 10 operating plants in Australia, China, Thailand and the US, with another soon to start up in India.

AutoCRC has been working with Futuris since 2005, providing business advisory services through AutoCRC's ASEA Business Excellence unit, as well as assistance with the company's all important research and development programs.

"We have done a number of really positive projects together," David Marino says. "Our work with ASEA has allowed us to assess our competency both locally and globally."

In 2005, Futuris embraced a new strategic direction, and decided to expand the business overseas.

AutoCRC has played a key role in assisting the company to transform itself into a globally successful operation.

"ASEA's Linsey Siede and his colleagues have been very supportive, and we have undertaken around three or four projects most years since we began working with AutoCRC," David Marino says.

"ASEA has provided an independent assessment of our business capabilities, which has been of paramount importance to us as a business looking to globalize itself and understand its skills and deficiencies.

"The projects we've undertaken with ASEA have always produced real and tangible benefits. They have at all times been based on bottom line outcomes.

"The focus has been on developing skills that ultimately lead to a more effective and profitable business. Which, of course, leads in turn to more investing and more opportunities.

"In all, we've probably completed around 20 projects with ASEA. These include global purchasing systems, logistics, human resources, manufacturing diversification, development of business opportunities in new markets, etc.

"The HR project, for example, set up the modules for how we approached our human resources structures globally.

"So there's been a deep spread of projects which have yielded value to a variety of facets of our business.

"It's been a very positive experience with ASEA. I can't think of one project that hasn't yielded significant results," David Marino says.

“Indeed, AutoCRC’s ASEA has delivered many millions of dollars of benefits to our organisation.

“It has helped Futuris compete globally with the best of them.”

A cutting edge international company has to constantly look to new products and innovation to perpetuate its success, especially in a globally competitive environment.

Futuris has three product development centres, in Australia - the largest - as well as in China and the US.

Tony Baxter, Chief Engineer of Product Development and Technical Services, says that AutoCRC has allowed Futuris to increase the company’s value for money in its innovation work.

“While Futuris is the largest automotive supplier in Australia, operating conditions are tough and very competitive.

“AutoCRC has helped us get access to all the right people in the various research organisations such as CSIRO and a number of universities: Swinburne, Deakin, Australian National University.

“They have helped us to form successful teams with these various research organisations and have assisted with the heavy lifting in this important R & D work.

“There have been some 12 R & D projects which AutoCRC has worked on with Futuris.

“The biggest of these was the knitted composite seat material project using Kevlar fibres, which began in 2005.

“The benefits of carbon fibre are well-known, but it is very difficult to mass produce and very expensive. It is seen on super expensive cars such as Lamborghinis, but is virtually unused in your average vehicle.

“Consequently we wanted to produce an alternative to carbon fibre – a composite lightweight material that is low cost and lends itself to mass production. This became a lengthy research project with AutoCRC, Deakin University and CSIRO, and was part of the Victorian Science Agenda program.

“The result was a knitted composite seating material, made out of Kevlar, which is produced like a large sock on a knitting machine.

“The knitted Kevlar is then impregnated with resin and moulded to make the seat.

“The product has a myriad of advantages,” Tony Baxter says.

“You don’t have to ship a huge seat structure all over the world. You can just ship a boxful of these composite socks to your manufacturing plant. They are then impregnated with resin and you’ve got your car seat.

“So you can put 100 seats in a box and they can easily be compacted for shipping.

“We tested the material in the seat backing of an electric vehicle based on the Holden Commodore and it yielded some very positive results.

“It reduced the seat weight by 40 percent and it was of similar strength to the steel version.

“It is also much easier to operate the seat because it was much lighter.

“The technology for this process has been patented and the next step is a large investment. We are in discussions with a number of groups towards this end.

“Another exciting project we undertook with AutoCRC is related to shape memory alloy latching devices used for electrically opening and closing car seat latches. A shape memory alloy is a metal that changes shape when an electrical current is passed through it and then regains its original shape once the current is removed.

“Traditionally, the opening and closing of car seat latches is done by manual leavers. Or some electro-mechanical drive system that is bulky, expensive and slow.

“The idea to use a shape memory alloy actually came from a transmission project. Managing Director, Mark De Wit, suggested we apply this technology to actuators and latches, and this was the catalyst for the development of this project.

“The extensive research has been completed, and Futuris is now looking at commercialization opportunities,” Tony Baxter says.

“Another project that we are working on with AutoCRC’s assistance is the Dilatant Anti-Submarine project to improve safety in vehicles.

“This centres on the issue of car seat occupants submarining, which is when they slip underneath their seat belt usually during a frontal collision.

“The anti-submarining device we are developing uses a material with dilatant properties.. A dilatant is a material that stiffens when sudden forces are applied to it. This device will replace the pyrotechnic devices (explosives) in the seatbelt buckle system that are in common use today.

“A further project where AutoCRC has assisted us has been using a re-cycled material to create garden products and other products out of completely recycled materials, such as used printer cartridges.

“Like any manufacturer we produce waste by-product.

“So rather than put this material into landfill, we have developed ways to re-use it in other products. In doing so we are, to a degree, diversifying the business away from just automotive products.

“A further project is in the area of car carpets and noise deadening in vehicles. These carpets are essentially made from recycled material.

“We worked with AutoCRC and RMIT on making a very quiet carpet – by quiet I mean in terms of increased sound insulation and therefore lower road noise inside the vehicle – made out of recycled material.

“This involved research into the best ways to achieve this which including how to remove some of the carpet and car flooring layers, improving noise insulation, which had a further desirable outcome of also lowering the weight of the vehicle.

“In the end that project went into abatement as the carpet maker relocated to another offshore production location.

“Futuris, however, has a number of patents on the processes and is watching out for future opportunities for this innovative technology,” Tony Baxter says.

It is not often fully appreciated that for companies to continue growing, employing, investing and spreading the benefits of their business activity across a number of fronts, a constant research and development effort is necessary.

Futuris is a prime example of this principle, deploying smart innovative thinking in a highly technical area, to provide benefits for the company’s stakeholders and the wider community.

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