



Society of Automotive Engineers Australasia

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Media Release

SAE-A Rewards Automotive Excellence

The 2002 SAE-A Automotive Engineering Excellence Awards were announced at the Awards Dinner on the evening of August 30, 2002. There were 8 Finalists from this year's awards submissions including: **Ford Motor Company of Australia (with 3 submissions), Orbital Engine Company, Holden Ltd, Air International Pty Ltd, and Mitsubishi Motors Australia Ltd.** The SAE-A judging panel commented on the consistently high standard of the 2002 submissions, with a quite narrow spread of points across all the entries.

This is very pleasing for the future of the Awards, with strong submissions from Supplier companies in addition to the major OEM's. The effects of nurturing the industry under reasonable tariffs, along with the ACIS scheme to encourage local R&D, by the Federal Government, as well as the encouragement to Manufacturing by the Victorian Government are seen as contributing to this growth of technological capacity and capability and furthering unique developments within the local industry. Further growth in this capability across the industry base, with related potential for export growth of the locally developed products and Patents, should see SAE-A receiving more, and even stronger, submissions for the Awards in future years.

Ken Asano, President of Toyota Australia was the keynote speaker at this year's Awards evening which was attended by over 280 guests; an increase of 40% over 2001. Mr Asano gave his key note address on Product Development Challenges for the Automotive Manufacturing Industry in Australia.

For their 4th year in a row, the Gold Award, sponsored by Hewlett Packard, went to INC Engineered Materials for their lightweight, cost effective DECI-TEX acoustic trim material based on their patented production process.

The initial reaction of some people to an Insulation material in the entries may have been to anticipate something that would not have a lot of product pizzazz to it. However, review of the submission revealed a most innovative and interesting product.

Not only did this entry score highly in every Award assessment criterion, it also has a wide range of potential applications in other industries. **INC** took a lateral approach to the design and manufacture of a dramatically improved insulating material, the product itself is largely manufactured from recycled material and is itself recyclable.

Cost, Weight and Energy savings should be achieved in the manufacture and application of the product, as well as improved Performance – what more could an automotive engineer want?? Or a company accountant for that matter?

A patent has been granted for an application of the material, which is noteworthy in relation to the awards. The product displays that innovation and excellence can still be achieved in fundamental areas of vehicle design and development as well as in the more commonly hyped electronic showcase side of technology.

The Honorable Rob Hulls, Minister for Manufacturing Industry announced the Silver Award, **sponsored by The State Government of Victoria**. The winning entrant was **Ford Motor Company of Australia** for their new design, improved function, IRS system for the 'Barra' Falcon/Fairlane range which also enabled major gains in package for repositioning the fuel tank forward of the axle and to one side, freeing up space for a much larger volume exhaust system.

The judges selected the new Barra Falcon rear suspension for the way **Ford** had taken a "whole of vehicle" systems approach to develop a package with improved performance, safety and cost efficiency. The innovative design provided major package advantages to integrate the new Control Blade Independent Rear Suspension with a new forward of the axle fuel tank, much larger volume exhaust system and new rear underbody structure.

This created a system with excellent lateral control, improved handling and durability and rear end crash performance and safety.

The end user should readily recognise the ride and handling refinement and improvement in NVH achieved from this package.

The small project team used computer systems to conduct simulations of dynamics and crash performance and refinements as part of improved engineering processes prior to the testing to prototypes.

The Bronze Award, **sponsored by RACV**, went to **Holden Ltd** for the analytical processes employed in the development of the Monaro, enabling significant savings in time and cost for the vehicle design and development and elimination of the early physical prototypes previously employed in new model programs.

Holden won for its first time use of powerful computer technologies to develop the Monaro from the Commodore platform. The judges were impressed by the use of Simultaneous Math Based Processes to enable them to eliminate two stages of physical prototypes, shorten the development by 11 months and saved \$13.6 million compared to traditional methods.

Traditionally after the Styling Freeze, **Holden** has designed and built 2 phases of physical prototypes – the Alpha and Beta phases – before committing to production tooling with Monaro this has been done with Virtual Alphas and Betas.

This technology approach has enabled Holden to develop a new and exciting niche vehicle, which may not otherwise have been affordable.

Orbital Engine Company was given the special SAE-A Award for Outstanding Contribution to Advancing Technology for the export success and emission reduction contribution of their Air Assisted injection systems and its most recent adoption in the Aprilia motor scooter.

The selection of **Orbital** for this award was based on their continued pursuit of worldwide markets for their Australian developed fuel injection system technology with their recent success in adoption of the Orbital system by the Italian company Aprilia, one of the world's leading manufacturers of motor cycles and scooters, in their 50 cc scooter.

Now launched in Australia, it has already sold 70,000 units in Europe and has demonstrated:

- A 49% improvement in fuel consumption;
- A 60% drop in oil consumption and
- Reductions in exhaust emissions of over 80%.

With its principal development centre in Perth, **Orbital** has offices and subsidiaries around the globe and they have now built up a 25 year experience base to support their activities.

All entrants are however to be commended for their efforts in 2002 and for the products and level of technology the local industry is now demonstrating.

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