



AutoCRC Updates

Issue 1
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Matthew Cuthbertson

CEO's Message

Welcome to this first edition of AutoCRC Updates. This will be the first of regular communication aimed at keeping you informed of the latest developments at AutoCRC.

AutoCRC is poised to be a significant force in advancing new technologies to sustain the Australian Auto Industry, supported by a total investment of \$97m in cash and in-kind contributions over seven years.

I am pleased to report to you all that in the six months since we officially commenced operation, we have a headquarters team in place, a recruitment drive underway and at least two new Participants close to joining AutoCRC's research program.

All of our initial projects (www.autocrc.com) are up and running, mostly with budgets and milestones locked in for the next 18 months. We are pleased to say we have taken receipt of the first full-year tranche of Commonwealth funding, and we are doing everything we can to make rapid progress on our initial projects.

We are also planning a brand new research program in the exciting field of vehicle Telematics – integrating wireless communications, vehicle monitoring and location devices.

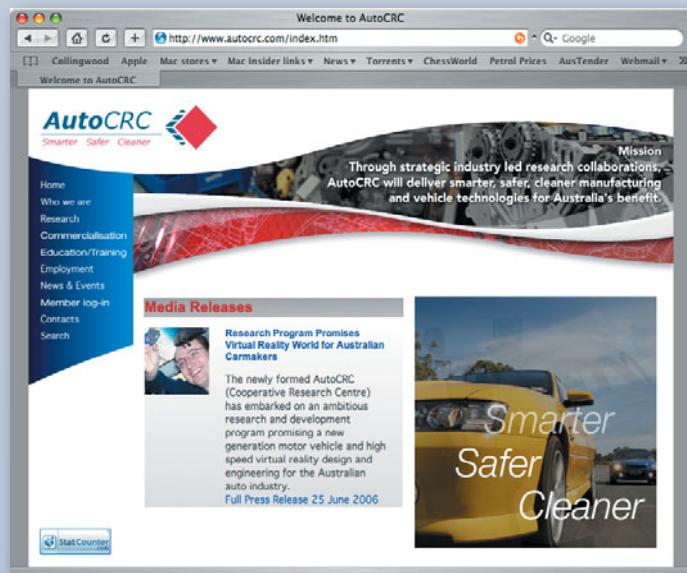
We have established our headquarters in a newly-appointed office suite at 4 Central Boulevard, Port Melbourne - right alongside VPAC and Holden Innovation. But we still have a strategic objective to locate the headquarters in the proposed Victorian Automotive Centre of Excellence at Docklands.

State of the art research infrastructure will be critical for AutoCRC and our first priority is a \$1m investment in High Performance Computing and Networked Visualisation Systems necessary for design and computer aided engineering. We shall also establish a video conferencing and data sharing system, to link our researchers in five states and additional equipment for advancing current virtual-reality technology for automotive applications.

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AutoCRC Web Site Launched

Go to www.autocrc.com and you will see our new web site - the home page is pictured here.



The design elements have been selected to represent forms often used in the industry and a rationale of simple elegance has been utilised to help the site stand out amongst other sites on the world-wide-web. The web site focus is on marketing the role, products and services offered by AutoCRC. The web site will feature regular publications of the AutoCRC Newsletter and regular press releases promoting our work.

A member's log-in feature will be followed up shortly with a back end information sharing portal for AutoCRC participants and will carry internal reports and communication.

www.autocrc.com

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The AutoCRC Board is working well and giving strong leadership to the centre, under the watchful eye of independent Chairman Barry Comben.

The Board and Management have agreed 10 key objectives for AutoCRC during its first year.

AutoCRC Top 10 Objectives for 2006

Projects

- Get all initial projects up and running - Project Agreements signed, with 18 month budgets & milestones
- Sign up 5 new participants and get projects started
- Agree the 2007 project portfolio
- Fill all open positions for 2007 - Research Fellows and PhD students
- Agreed Education and Training strategy and implement Phase 1

Organisational Development

- Increase and diversify CSIRO engagement
- State and Federal governments acknowledge relevance of AutoCRC in written policies
- Secure headquarters location in Victorian Auto Centre of Excellence from 2008
- Establish research strategy and management protocols
- Fill all HQ staff positions and establish business infrastructure

We look forward to keeping you informed about milestones in the exciting research portfolio being undertaken in both this newsletter and on our new website which is now on-line at www.autocrc.com.

Major Trends in the Global Automotive Industry

(Edited from a presentation to the AutoCRC on 3rd May 2006 by David Charles, Chairman, Insight Economics)

To begin with I would like to point out something that everyone here is aware of - that is Australia only plays a small part in the global automotive industry. But while this is so we do have excellent capabilities in design, engineering, research and manufacturing.

One or two elements characterise the Australian Automotive Industry. It is focused on a special market niche where it has strong capabilities and it has been responsive - for example exports have becoming increasingly important over the past decade. It has also had to compete and define itself within larger parent companies' global systems. Having said all that let us take a look at some of the global trends which are raising the bar to competition in the global automotive industry.

A major trend is the emergence of China, Latin America and Eastern Europe as production centres and markets. China is already a fast growing market for automobiles and could be the largest in the world by 2025. China is also becoming a significant exporter of automotive components and has ambitions to export vehicles. In Europe most new automotive assembly plants are being commissioned in low cost Eastern Europe.

This is posing the big US manufacturers GM and Ford huge challenges to restructure their operations, rebuild market share and achieve acceptable levels of profitability. In Europe, Volkswagen has already announced reductions in its workforce to bring capacity into line with market demand.

"China is headed towards being the largest automobile market in the world"

These trends when linked to the purchasing policies of leading automotive companies and their global supply chains which source best global prices for components, and the emergence of China, has placed great pressure on existing component suppliers in developed countries.

So for automotive producers based in developed countries low cost production strategies are becoming very difficult to sustain. The best way to match "Chinese prices" is to locate plants in China.

Or the other option is the high road for developed countries through innovation and delivering increased value to customers.

Automotive producers are devoting substantial resources to product and related process innovation. For example, Robert Bosch spends 9% of sales on R&D.

"The trend in developed countries is towards the mass customisation of vehicles. This is an essential element of automotive producers being able to offer superior value to their customers."

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Major Trends in the Global Automotive Industry *continued*

"Virtually all aspects of automotive design, engineering, research, production and supply chains are being impacted by ICT (information and communications technology). For example, Robert Bosch's automotive group defines its core competencies as being in chips and cars. Reflecting this, in top end vehicles more than 80 electronic controllers monitor functions. ICT is also enabling virtual engineering which in turn speeds up the development cycle and allows the automotive producers to more closely align their products to customer needs."

"The trend in developed countries is towards mass customization.."

Oil prices are adding to the innovation push - the search for fuel efficient engines and propulsion systems is speeding up and in Europe every second newly registered vehicle in 2005 had a diesel engine. Another trend linked to higher oil prices is a reduction in demand for SUVs and other large vehicles while the market share of smaller vehicles is increasing.

A lot of work is being done on "hybrids" and a large investment is being made in chasing hybrid fuels cells and the hydrogen economy. Linked to this is the parallel search for lighter vehicles. The commitment in developed countries to nanotechnology research and the development of new materials will presumably start to significantly affect the automotive industry in the next decade.

One of the key public policy concerns the automotive industry faces is the loss of life and injuries associated with vehicle accidents. Further tightening of safety regulations can be expected in the future. Another key public policy concern relates to environmental sustainability and minimising or eliminating harmful emissions into the atmosphere. In Europe, there is a further issue for vehicle manufacturers focused on the recyclability of vehicles. -

The major message behind these trends is that Australian automotive producers and component suppliers have to be innovative and have their own IP.

Innovation in both products and processes is crucial to offering an attractive value proposition to customers. With our limited resources, research collaboration is essential to future innovation capability and small automotive producers in Australia need to be agile and highly flexible in all aspects of their operations.



Jochen Heinzmann of Seeing Machines Limited, an AutoCRC participant, installing a speed sign recognition prototype - one of a range of detection systems being developed by AutoCRC for safer motoring. The message is that Australian automotive producers and suppliers need to innovate and own IP.

This is particularly so in terms of the speed and cost of designing, engineering and in bringing new vehicle models into production. These Australian vehicles will need to be at world's best practice or, if possible, beyond it in order to retain buyer acceptance.

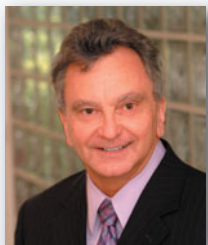
This is a critical competitive factor for exports which are important for the Australian industry. Exports are likely to increase in significance as the countries in the Asia Pacific continue to show rapid economic growth. Australia is currently negotiating at a political level to facilitate growth in exports and to achieve good outcomes for the automotive industry in the various free trade agreements.

Well educated and highly trained people are also needed to support the innovation capacity Australian car manufacturers and component suppliers need to be able to draw upon. At the top end, this means that automotive engineers educated at Australian universities need to be well connected to the automotive industry environment and the latest generation computing tools.

The AutoCRC is a powerful platform to facilitate this and collaborations will tap into of knowledge capabilities wherever they are located. AutoCRC is also potentially valuable in more closely aligning the efforts of the automotive industry, the universities and CSIRO. This will be helped by encouraging a degree of specialisation by the universities in fields of interest to the automotive industry. It will also provide a better basis for the education of next generation manufacturing automotive engineers.



The Team at AutoCRC



Chief Executive Officer
– Dr Matthew Cuthbertson

Dr Matthew Cuthbertson (FAICD, FTSE, FRACI) has postgraduate qualifications in both science and intellectual property law. His early career was spent in advanced materials research with CSIRO and in various business/technical development roles with ICI in Victoria. He then joined optical lens maker SOLA International, rising to the position of Vice President Research and Technology - with global management responsibility for process and product development and an annual operating budget of \$25m.

Matthew joined the CRC for Sensor Signal and Information Processing as CEO in 2003 and later that year he was awarded a Centenary of Federation Medal for his contributions to technological innovation in Australia. In December 2005 he was appointed CEO of AutoCRC.

Matthew serves on the boards of GroundProbe Pty Ltd and the Ian Wark Research Institute



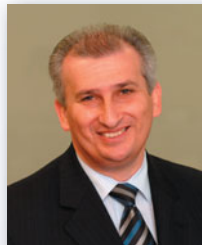
Research Program Manager
– Dr Gary White

AutoCRC is delighted to announce the appointment of Dr Gary White to the position of Research Program Manager for AutoCRC - with overall responsibility for ensuring that the AutoCRC research program is aligned to our strategic objectives and organised to deliver results.

Gary has a PhD in Engineering from Monash University and a wealth of additional training and management experience from a career with RAAF, Scalzo Automotive Research, Kenworth Trucks, ACS Consulting and (for the past six years) with GM Holden.

Gary's high level of credibility across the Australian automotive sector, coupled with his passionate commitment to the success of AutoCRC, make him an ideal candidate for this critical position in our executive team.

Gary takes up full time employment with AutoCRC on Monday, 24 July 2006.



**Business Manager and
Company Secretary**
– Tony Sama

Tony has extensive senior financial and operations experience in the automotive industry in Australia and the Pacific rim. In a career spanning two decades with Saab Australia, Tony rose to the position of Finance Director and Company Secretary - deputizing for the Saab CEO on several key assignments and represented the company in several key industry forums.

Through his broad commercial experience, Tony will contribute greatly to the operation of AutoCRC by developing compliance, finance, corporate governance and project management systems and process. The Board of Directors will be well supported by his extensive company secretarial experience.



Accountant – Jenny Fu

Jenny joined AutoCRC as an accountant in May 2006 after ten years accounting experience in various industries and five years in IT in the automotive industry. Jenny has a double degree in computing and accounting from Monash University. Her skills include financial modelling, analysis and statutory reporting, relationship management, financial control and resource allocation as well as financial strategic development.



Executive Assistant
– Bridget Bockhodt

Bridget has had a long and diverse career as executive assistant to senior management and human resources teams, with prominent organizations including the Australian Credit Union, the Crestwood Group and (most recently) Tourism Victoria.



AutoCRC Workshops

AutoCRC workshops program began in May. The first, the "Industry & Project" Leaders workshop was attended by more than 50 Industry Champions and Project Leaders, from 17 participating organisations. This was followed in June by "Seat Adjustment - Functional Ideas meet Technological Opportunity". The latter, an innovation workshop, was held on 21 June and involved all project stakeholders and selected creative minds.

Seat Adjustment - Functional Ideas meet Technological Opportunity

This workshop represents an important phase in the early stages of the design and innovation process planned in the project. Brilliant results were achieved from both social and technical perspectives, which would not be possible without developing an inclusive environment based on active participation and interaction by a wide range of stakeholders, including customers, vehicle manufacturers, suppliers, students, researchers, service providers, CRC representatives and others.

The first challenge of the day was to clearly define a target project outcome for the RMIT and Futuris research teams who are partners in the project. The outcome vision was to design, "an innovative technical concept for moving and fixing a car seat, providing better comfort, control, safety and competitive advantage taking into account the needs of the occupants".



The creative juices flowed at AutoCRC's innovation workshop where five new design ideas were developed for a new seat adjuster mechanism.

Having defined the target vision, all the associated core functions were analysed and described by the team, with a special focus on the innovation potential and competitive advantage.

Following this, in order to prepare for the creative phase, the participants were allocated to different groups each focusing on a specific topic as follows: users, actors and stakeholders, application scenarios, trends in technology and materials, interfaces between the seat, car and the user, and desirable sitting positions (adjustment options). Having all these elements described in detail, the groups then "immersed" into the innovation phase, which resulted in 5 creative design solutions that were presented by the respective groups at a joint forum session.

These concepts embodied the input from all participants, whereby each group was required to refine and integrate the different ideas proposed by individuals and reach a consensus leading to a common design concept. All participants were impressed by the creative potential of the approach, and expressed their satisfaction with the outcomes of the workshop. At the end of the day the participants shared a common feeling of success and a firm foundation for taking this AutoCRC project to a commercial outcome.

The Industry and Project Leaders Workshop

This, the first AutoCRC Workshop, began with an optimistic and insightful review of the global automotive industry by David Charles of Insight Economics and this is summarised earlier in AutoCRC Updates.

GM Holden Chief Scientist Dr Gary White (now AutoCRC Research Program Manager) also provided a valuable overview of Holden's business and technology needs for the future.

With this background information in mind, a series of workgroups then set about developing a number of very worthwhile new project ideas across of AutoCRC's major research themes i.e.

- Materials and Sustainable Manufacturing
- Powertrains, Fuels and Emissions
- Safety and Intelligent Vehicle Systems
- Virtual Design and Manufacturing

It was great to see the level of energy and commitment shown by the attendees at this meeting and clearly AutoCRC is poised to achieve great things with such a diverse and talented group of people on board.

Watch our website for latest workshop announcements.

Employment Opportunities

A number of exciting opportunities are currently being advertised for positions at AutoCRC.

These include an Education Coordinator and five AutoCRC University Fellowships.

There are a number of PhD scholarships and undergraduate research opportunities also to be advertised shortly.

For more information go to: www.autocrc.com