

Capability News

SIXTH EDITION

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New program focuses on global opportunities

Team Australia Automotive



Kenmar Corporation visit to Melbourne
(from left) Peter Yates, ICN; Graham Fountain, Kenmar Corporation; Minister for Industry and State Development, The Hon Theo Theophanous, MLC; Brad Cowdery, Kenmar Corporation; Fred Nader, Kenmar Corporation; Barry Moncur, Victorian Government; Derek Lark, ICNL; Amro Ibraheim, ICN.

Team Australia Automotive is a newly-formed group of world-class Australian automotive suppliers, backed by a grant from the Federal Government under the Supplier Access to Major Projects (SAMP) Global program.

Federal Minister for Industry, Tourism and Resources, The Hon Ian Macfarlane, MP, officially launched the SAMP Global program in April 2007.

The program facilitates access to global supply chains for Australian companies through initiatives such as Team Australia Automotive.

The Industry Capability Network Ltd (ICNL) in Australia and Austrade in the US are coordinating this initiative, in partnership with the Federation of Automotive Parts Manufacturers and the Governments of Victoria and South Australia.

Team Australia Automotive is targeting the North American automotive industry both to maintain its established supply relationships and develop new opportunities.

ICN has appointed automotive sales and marketing company,

Kenmar Corporation, based in Detroit - the Motor City - to seek out opportunities and establish networks for complete supply solutions from Australian automotive component manufacturers and suppliers.

As part of the program, Kenmar Corporation recently visited more than 20 automotive suppliers in South Australia and Victoria.

The purpose of the visit was to assess the capability of these Australian companies to compete globally in supplying to the original equipment manufacturers (OEMs).

This initiative has already proven successful in acquiring a number of requests for quotes (RFQs) to companies within the Team Australia Automotive group.

ICN will lead a Team Australia Automotive trade delegation, organised by Kenmar, to Detroit in mid-2007. The industry visit to Detroit will provide Australian suppliers the opportunity to showcase their capability directly to design engineers, product planners and purchasing teams for OEMs such as General Motors, Ford and DaimlerChrysler.

For more information about Team Australia Automotive contact: Derek Lark, ICNL, 02 6285 2033 or email info@icn.org.au

Other Global projects are as follows:

ICN NSW - U.S. Gulf Coast Reconstruction
ICN QLD - New Caledonia Opportunities Project
ICN VIC - Australian Aerospace Tooling Industry Cluster (AATIC)
ICN VIC - Australia/India Sports, Events & Major Projects Alliance
ICN WA - LNG Projects & Sub Sea Equipment

Proposed Traveston Crossing Dam to deliver local opportunities

The proposed \$1.7 billion Traveston Crossing Dam is a key element in the Queensland State Government's strategy to secure long term water supply for South East Queensland (SEQ).

The proposed dam will be located 16 kilometres south of Gympie in the Mary River catchment and will be developed by Queensland Water Infrastructure (QWI).

Stage 1 of the proposed dam is scheduled for completion in 2011, with an anticipated yield of 70,000 ML/a. Stage 2, if required, is scheduled for delivery around 2035, and when



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operated in conjunction with a raised Borumba Dam, will deliver 150,000 ML/a of additional water to SEQ.

ICN's services will provide QWI a Local Industry Participation Plan for the proposed project.

In terms of direct local opportunities, about 500 workers will be needed during the construction phase of the dam and, based on experience at the Paradise Dam on the Burnett River, some 30-40 percent of the workforce, or about 150-200 jobs, could be sourced locally.

QWI aim to undertake a number of initiatives to increase the level of involvement from local businesses, such as registrations of interest, and the use of ICN's local supplier capability database and community workshops. These strategies aim to provide full, fair and reasonable opportunities for local small businesses to participate in the project.

The completion of the dam is expected to deliver long term economic and social benefits through the realisation of new water supplies and growth opportunities in SEQ.

For further information, please contact: Meg Macaulay at Industry Capability Network (QLD) or email: info@icnqld.org.au

Aero India Trade Mission – Gippsland Aeronautics Pty Ltd

Victorian-based aircraft manufacturer, Gippsland Aeronautics Pty Ltd, has signed a formal agreement with Mahindra Plexion of India, for the distribution, marketing and servicing of the Victorian made GA8 Airvan aircraft.

Gippsland Aeronautics was part of the Victorian Government led aviation trade mission to India in February 2007, under the auspices of the Industry Capability Network (ICN). The company flew a demonstrator aircraft at the Aero India 2007 Trade Fair, Bangalore, India.



Aero India 2007 Trade Fair

(from left): Back: Greg Peters, Gary Wight, Steve Roebuck, Middle: Wayne Lewis (Commissioner to India), Rakesh Singh, David Wheatland, Bob Stevenson, Tony Viney. Front: Prue Morgan, Marguerite Morgan, Dr Arvind Sinha

Conceived as a replacement for the world's aging fleet of light utility aircraft, the GA8 Airvan is exceptionally suited to tourist, freight, medivac, homeland security patrol and skydiving operations.

"At Aero India we had very strong customer enquiry from a range of international aerospace and aviation delegates who could see the potential the GA8 Airvan could offer to their businesses," Gippsland Aeronautics Chairman Gary Wight said.

Representatives from the Victorian Government, Aerostaff Australia, Cablex, Cgear Australia, Gippsland Aeronautics, Jet Turbine Services, RMIT University and ICN took part in the mission. They were given an invaluable opportunity to see first-hand the export opportunities available in India, while also showcasing their capabilities to the international aviation market at the Aero India 2007 Trade Fair.

Participants attended meetings with the Indian Department of Defence, the Indian Department of Civil Aviation, the Australian High Commission, National Aerospace Laboratories (India's civil aviation R&D organisation) and Hindustani Aerospace Ltd (the principal defence manufacturer).

The aviation trade mission proved to be a considerable success with immediate sales or joint venture opportunities for all mission participants.

The official signing of the agreement between Gippsland Aeronautics and Mahindra Plexion took place in the Victorian Government Pavilion at the 2007 Avalon Air Show.

For further information, please contact: Bob Stevenson at Industry Capability Network (VIC) or email: info-vic@icn.org.au



GA8 Airvan aircraft in flight

Alternative to fossil fuels.

Fossil fuels have been our primary source of energy for the past 100 years but they are running out of supply and favour.

ICN NSW Consultant Klaus Baumgartel, who recently toured North America to research new technologies with the potential to replace fossil fuels, said costs and environmental impacts would ensure that reliable and economic alternatives were developed, creating a whole new world of business opportunities.

Many of these new technologies can be applied in the Australian environment, providing environmental and economic benefits.

In a four-part series for Capability News, Klaus will analyse current and future trends. Part 1, Biofuels, discusses traditional and new technologies, and the implications for Australia of adoption of new energy technologies.

Biofuels

Biofuels, such as biodiesel and ethanol, are not new. Brazil has relied on ethanol from sugar cane as a source of liquid transport fuel for decades. The main driving force has been self sufficiency to reduce the balance of payments that would result with significant oil imports.

Biodiesel has also been around for some time, predominantly in Europe. The main driving force in this case has been an attempt to reduce emissions and the consequent pollution it causes.

Today the driving forces are different. Energy security and the high price of oil, due to diminishing supplies, have led to significant interest in alternate fuel sources, especially in the USA.

At present, biofuels are only competitive due to significant government subsidies and the fact that much of the technology is being driven by waste. It is the savings in disposal costs by converting waste into gas or oil by such things as pyrolysis, (the chemical decomposition of organic materials by heating in the absence of oxygen or any other reagents) that makes these processes viable. There are technology hurdles to overcome, to make these alternatives truly competitive, but the gap will also be narrowed with rising oil prices.

There are a number of first-generation technologies for both ethanol and biodiesel that are currently in production. Australia has existing plants and many more on the drawing board.

Meanwhile, there is emerging second-generation technology at the demonstration phase, but ready to scale up. These will provide significant potential for at least partial substitution of petroleum fuels.

First-generation biodiesel

First-generation biodiesel is fairly well established with plants across Canada, the United States and a small number in



Biodiesel Producers Ltd. Plant at Barnawartha

Australia. This is a de-esterification of oils and fats to produce long-chain carboxylic acids or esters. Major input streams are animal fats (as with the plants in Barnawartha, North East Victoria, and Deniliquin, Southern NSW), Canola Oil (as in the plant in Moama, Southern NSW), Palm Oil (as in proposed plants in Darwin, NT and Geelong, Victoria), Soybean Oil, Mustard Oil as well as some more specialized sources such as Jatropha. Glycerin is a major by-product and a use, over and above existing applications, will need to be found.

The demand for biodiesel that was brought about by mandatory blend targets of five per cent in parts of North America has also led to improvements in oil extraction technology using biotechnology to reduce waste.

Recently, there has also been a move to develop plants that can accept all input streams. Traditionally plants were designed for a single or a small group of inputs.

Biodiesel is rarely used at 100 per cent as there are issues with blockage of filters in existing engines. New generation engines will be capable of using this, or high-percentage blends, but it will take time for this to work its way through the system.

Second-generation biodiesel

Second-generation biodiesel plants will be based on the pyrolysis of biomass with a subsequent reformation stage that produces synthetic oil. This has the advantage of using non-food inputs and will allow plant species with high biomass potential to be especially cultivated for the purpose. There are currently demonstration plants operating in Canada. One company, Dynamotive, produces synthetic oil with a fast pyrolysis process using biomass such as corn husks, forest waste, municipal waste, bagasse (the biomass remaining after sugarcane stalks are crushed to extract their juice), straw and so on. The oil produced can be tailored through the reformation process to maximize the desired fraction.

The catalytic reformation can be adjusted to produce the type of fuel required. Initially the main target will be diesel and heating oil, but there is already research underway to generate a substitute for petrol.

First-generation ethanol

Energy security issues and large government subsidies are largely driving the ethanol industry in North America.

First-generation technology is based on traditional fermentation technology using starch or sugar as the feedstock. The ethanol is then separated via distillation and dehydration processes. The efficiency of these largely govern whether the process is energy and greenhouse gas positive and more recent plants are positive in both areas. It should be noted that significant amounts of carbon dioxide are produced as a by-product.

Currently ethanol made from sugar cane, of which Brazil is a major producer, is the most efficient and economical process.

In the USA, ethanol is mainly made from corn, a high yield cereal crop when compared to wheat, allowing the production of ethanol with only limited effect on food production.

Australia has existing facilities making ethanol from sugar cane in Queensland. There is also a plant at Nowra, just south of Wollongong, where Manildra makes ethanol out of starch. This facility is adjacent to a milling operation.

There are a number of other ethanol plants on the drawing board. All of those in NSW are planning to use wheat as their starch source. There are plans to develop plants at Coleambally and at Yanco, both in the Riverina. These will be the front end of feedlot operations, and the brewer's grain by-product will be able to be used as feed. Others will be stand alone and will sell their brewer's grain to surrounding farmers and feedlots.

Second-generation ethanol

Second-generation plants will use cellulose as the input for producing ethanol. The process uses an enzyme as a pre-treatment to break down the cellulose before going to the fermentation stage. From there the process is the same as with first-generation plants.

There are currently demonstration plants in Canada using straw or corn stovers and wood waste. Iogen has a plant that runs on straw and that achieved a 38 per cent conversion to ethanol, with the rest of the biomass being burned to generate heat and electricity. This process does not require any external energy input. GreenField Ethanol is trialing wood waste, an abundant raw material in Canada, to produce ethanol. They also use enzymes, but different varieties.

Ethanol can also be made from bagasse or specially grown crops such as hemp or bamboo.

The likely future reality will be to have first and second-generation plants running in tandem. For example, a plant producing ethanol from sugar cane will have a second generation plant using the bagasse. Similarly, a first generation plant running on wheat or sorghum will have an adjacent operation, utilizing the brewer's grain and the straw.

There is also research being undertaken to determine the feasibility to produce ethanol as part of a pyrolysis reformation process using biomass as described above.

The development of biofuel technologies will be of particular benefit to regional Australia. As the biomass to feed the plant will be bulky, plants will be established in rural areas. This will bring new high technology to the regions and will generate good quality jobs.

Klaus released an important fact quite early in the trip: "There is no silver bullet solution for climate change or the rise in price of oil (and it's possible depletion). There will need to be literally hundreds of solutions, many specific to the particular resources of a region."

ICN has taken an initiative to develop some expertise in the area of biofuels and will be in an excellent position to help proponents. Assistance can be anywhere from making them aware of availability of technology to assisting them to find engineering capability and sub-contractors in regional areas.

For further information contact Klaus Baumgartel at the Industry Capability Network Albury Office or Email: info-nsw@icn.org.au

Major changes at ICN Queensland

ICN Queensland has already had a busy year, with a number of staff changes and a new office location.

Mr Jim Box resigned as Chief Executive Officer in March after 20 years with the company and Mr David Taylor has been appointed General Manager.

Meanwhile, former Director of Australian Industry Group and Chairman of ICN Queensland, Mr Andrew Craig, relocated overseas to become Queensland's Trade Commissioner for the Americas. Long-serving board member Mr David Harrison has been appointed Chairman of ICN Queensland.

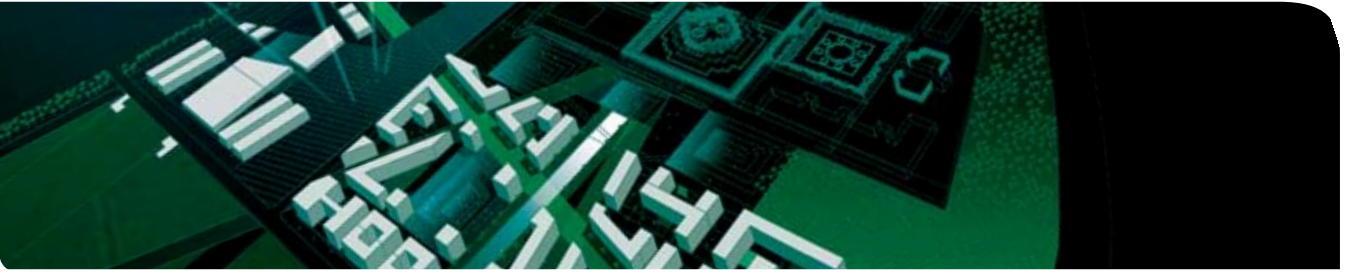
Finally, on May 10, ICN Queensland moved to new premises at Eight Mile Plains. This opportunity will allow the organisation to grow and leverage new strengths in colocation with QMI Solutions, a not-for-profit organisation dedicated to helping industry through research, education, and implementation of world class practices and technologies.

Please note ICN's new postal and physical address:

Brisbane Technology Park
Cnr Miles Platting & Logan Road
(entrance from Miles Platting Road)
PO Box 4012
EIGHT MILE PLAINS QLD 4113
Ph: (07) 3364 0670
Fax: (07) 3364 0786

For further information, please contact: Meg Macaulay at Industry Capability Network (QLD) or email: info@icnqld.org.au





Games Linkages Program – Delhi 2010 Commonwealth Games

Australian architects, Jackson Architecture and Peddle Thorp Architects (PTA), have won contracts for the Delhi 2010 Commonwealth Games, with the assistance of Industry Capability Network (ICN) through the Victorian Government's Games Linkages Program.

ICN has been working closely with Austrade and the Australia-India Council to develop opportunities for Australian involvement in the 2010 Commonwealth Games projects.

Jackson Architecture, based in Melbourne, formed a consortium with companies from Australia and India to triumph in competition against the best architects, designers and engineers the world can offer to win the contract for the Athletes' Village.

"Industry Capability Network and Austrade New Delhi have been pivotal in helping us achieve success in India. We are extremely grateful for the support and guidance ... to the right projects and the most suitable partners," Jackson Architecture Principal Daryl Jackson said.

The Delhi Athletes' Village Project is a key component in Jackson Architecture's strategy to develop its name as a leading provider of architectural services in India.

Other successes delivered through the Games Linkages Program include a consortium of Australian companies, led by PTA, being awarded the contract to construct competition venues – the Siri Fort Sports Complex, Yamuna Sports Complex and the Tyagaraj Sports Complex.



Winning Design: Jackson Architecture – Athletes Village

Other members of the PTA consortium are SMEC (Snowy Mountains Engineering Corporation), Connell Wagner Engineering, Marshall Day Acoustics, Sustainable Built Environments and SGL Group.

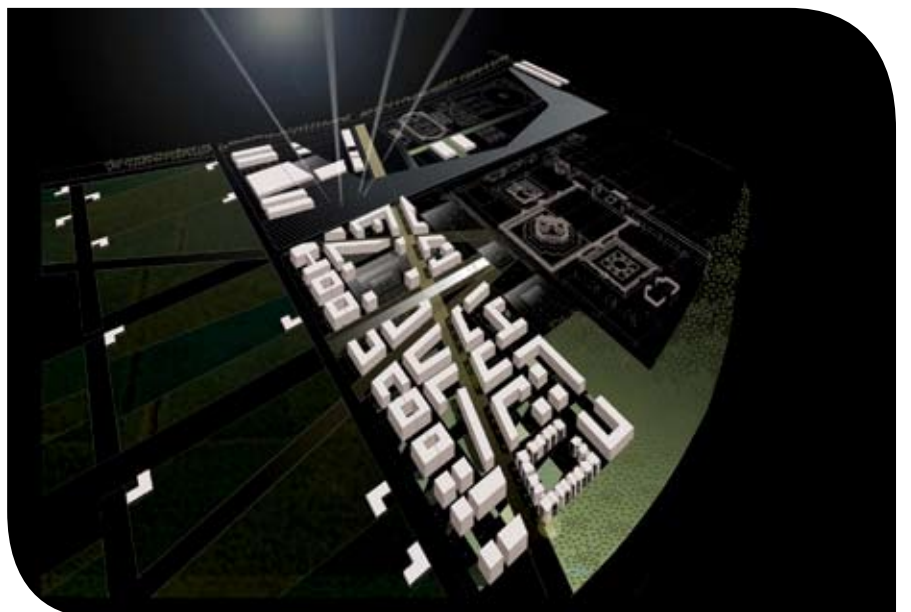
Australian companies winning overseas contracts is a testament to the success of the Games Linkages Program in developing markets for the sports and events industry.

For further information, please contact: Michael Taylor at Industry Capability Network (VIC) or email: info-vic@icn.org.au

Global Success

ICN WA's inside knowledge of procurement personnel at an international company has helped a West Australian supplier win a major contract to supply heating, ventilation and air-conditioning to an offshore oil and gas vessel.

Direct Engineering Services & Marine Offshore (DESMO) specialises in the manufacturing, installation and commissioning of heating, ventilation and air-conditioning (HVAC) systems for ships, drill ships, offshore oil and gas vessels, offshore platforms, onshore plants, process facilities, refineries and other specialised marine equipment.



Winning Design: Jackson Architecture – Athletes Village



DESMO Air Handling Unit

It has proven to be a world-class leader in supplying HVAC equipment around the globe and has won both national and international contracts for projects being managed by organisations such as Woodside, Conoco Phillips, Keppel Fels, Hyundai, Samsung and Austal Ships.

Thanks to an ICN WA tip, DESMO was able to contact the procurement person at Keppel Shipyard directly and this contact led to a successful bid to supply the Singaporean-based company with HVAC for a Floating Production and Storage Offloading (FPSO) vessel.

Woodside Energy is leasing the FPSO from Maersk Contractors for the Vincent Oil Development, which is owned by Woodside Energy Ltd and Mitsui E & P Australia Pty Ltd.

ICN's tip came about during a visit to Singapore in 2006, when Senior Consultant, Linus O'Brien, met with the target procurement contacts of Keppel Shipyard. This contact enabled Linus to connect with Keppel key procurement personnel working on the conversion of the tanker vessel Ellen Maersk, owned by Maersk Contractors, into a FPSO. Upon his return, Linus disseminated these details to Australian suppliers, including DESMO.

DESMO's Estimating Manager, David Poole, says "Whilst we knew of this project, the information we received about the specific procurement person to contact was the extra edge that we needed to ensure we got an opportunity to price the work."

ICN's achievement is a direct result of its activity leading up to successfully gaining funding from the Department of Industry, Tourism and Resources for the Supplier Access to Major Projects (SAMP) Global Program back in December, 2006.

ICN's SAMP Global activity is currently pursuing world-class Liquefied Natural Gas (LNG) projects outside Australia and the Sub-Sea Equipment sector. This was one of the initial six successful proposals under the SAMP Global Program. The other projects are: the US Gulf Coast region reconstruction; Aerospace Tooling supply opportunities globally; Sports and Events industry opportunities for the Commonwealth Games in India; Nickel Mining supply opportunities in New Caledonia; and Major Automotive supply markets in the United States.



DESMO Hazardous Air Chiller

For suppliers interested in entering the SAMP Global LNG Program, please log onto www.projectconnect.com.au to view current opportunities available or contact Linus O'Brien at ICN WA or email: info-wa@icn.org.au

Offices everywhere you need service

<p>Australian Capital Territory Canberra PO Box 243 CIVIC SQUARE ACT 2608 Tel: 1800 244 650 Fax: 02 6207 0033 Email: info-act@icn.org.au www.business.act.gov.au</p>	<p>Central West Region Tel: 02 6360 8422 Fax: 02 6360 8484</p> <p>Murray Region Tel: 02 6041 5226 Fax: 02 6041 4818</p> <p>New England Region Tel: 02 6658 5000 Fax: 02 6658 1000</p> <p>Northern NSW Region Tel: 02 6658 5000 Fax: 02 6658 1000</p> <p>Riverina Region Tel: 02 6921 4201 Fax: 02 6921 0780</p> <p>South East Region Tel: 02 4821 8000 Fax: 02 4821 8650</p>	<p>Northern Territory Darwin GPO Box 1882 DARWIN NT 0801 Tel: 08 8922 9422 Fax: 08 8922 9430 Email: info@nticn.org.au www.nticn.com.au</p> <p>Queensland Brisbane PO Box 4012 Eight Mile Plains QLD 4113 Tel: 07 3364 0670 Fax: 07 3364 0786 Email: info-qld@icn.org.au www.icnqld.org.au</p> <p>Townsville Tel: 07 4771 2045 Fax: 07 4721 2375</p>	<p>South Australia Adelaide GPO Box 1264 ADELAIDE SA 5001 Tel: 08 8303 2268 Fax: 08 8303 2960 Email: info-sa@icn.org.au www.icnsa.org.au</p> <p>Tasmania Hobart GPO Box 646 HOBART TAS 7001 Tel: 03 6233 5550 Fax: 03 6233 5551 Email: info-tas@icn.org.au www.icntas.org.au</p> <p>North Region Tel: 03 6336 2838 Fax: 03 6334 1131</p> <p>North West Region Tel: 03 6434 6276 Fax: 03 6431 9164</p>	<p>Victoria Melbourne PO Box 7492 ST KILDA ROAD VIC 8004 Tel: 03 9866 6155 Fax: 03 9866 6304 Email: info-vic@icn.org.au www.icnvic.org.au</p> <p>Ballarat Tel: 03 5320 5962 Fax: 03 5320 5998</p> <p>Bendigo Tel: 03 5441 8611 Fax: 03 5442 5452</p> <p>Geelong Tel: 03 5222 6137 Fax: 03 5222 6792</p> <p>Gippsland Tel: 03 5176 1901 Fax: 03 5176 1489</p>	<p>Western Australia Perth PO Box 6209 EAST PERTH WA 6892 Tel: 08 9365 7623 Fax: 08 9365 7480 Email: info-wa@icn.org.au www.icnwa.org.au</p> <p>New Zealand Wellington PO Box 2878 WELLINGTON NZ Tel: +64 4 910 4949 Fax: +64 4 910 4304 Email: info-nz@icn.org.au www.icn.govt.nz</p> <p>Industry Capability Network Limited PO Box 130 DEAKIN WEST ACT 2600 Tel: 02 6285 2033 Fax: 02 6285 2842 Email: info@icn.org.au www.icn.org.au</p>
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Industry Capability Network objective

The objective of the ICN is to locate and promote competitive local sources of supply, so helping to create additional employment and wealth in the community. Readers are invited to contact the ICN offices regarding the capabilities of local companies to produce goods and services which can substitute for imports.