

Capability News

SEVENTH EDITION

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Retaining and strengthening Australia's tooling industry – Backwell IXL

With the aid of ICN and TIFA (Tooling Industry Forum of Australia), Backwell IXL (IXL) developed a strategy to develop a tooling localisation project worth up to \$5 million.

Situated in Geelong, Victoria, IXL is renowned for its product innovation in the electrical appliance industry; pressed metal components and sub assemblies to the automotive industry; and for its iron and steel castings to general engineering industries.

IXL was under pressure to purchase tooling from Asia for their next re-tooling program to remain price competitive in supplying metal pressings to the automotive industry.

Determined to remain competitive and source locally available products, IXL contacted ICN Victoria Regional Program Manager, Derrick Herbert, to identify toolmakers they could use to continue their supply of wholly Australian product where possible.

Derrick nominated a number of regionally based businesses with the required capability and arranged a meeting with TIFA for additional assistance.

With the assistance of ICN and TIFA, IXL presented the requirements of their tooling program to Australia's best toolmakers at the IXL facility in Geelong.

The toolmakers were made aware of the re-tooling program requirements, schedules and costing and in turn were able to provide a competitive Australian tooling supply base.

Additionally, IXL conducted a benchmarking study of Australian tool makers providing feedback to the tooling industry to assist in remaining internationally competitive.

IXL actively sought an alternative to importing cheaper and highly competitive tooling from Asia with a local solution provided by a small number of businesses.

As a result IXL retains its "Australian Made" competitive advantage.

For further information, please contact: [Chris Reilly, Industry Capability Network \(VIC\)](mailto:Chris.Reilly@icn.org.au) or email info-vic@icn.org.au



L-R: Ross McDonald, IXL; Derrick Herbert, ICN; David Sykes, IXL



INDUSTRY
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NETWORK

Creating opportunity for Industry

ICN Partners To Australian Industry Productivity Centres

Australian Industry Productivity Centres are now open for business, providing services to help Australian businesses strengthen their operations, enhance their international competitiveness and tap into global supply chains.

The Productivity Centres aim is to provide practical assistance to SMEs to ensure they thrive in an increasingly global business environment.

SMEs will have access to a free Business Review service to assess their performance and identify opportunities for improvement. ICN is one of 45 partner organisations nationally through which a Business Review can be conducted.

Through this review, Business Advisers will be able to assist businesses upgrade their capabilities or find solutions to technical or process issues.

Malcolm Clark has recently joined the ICN team as a Business Adviser. Malcolm has been working as an independent consultant developing strategies and advising on technology and business improvement processes since leaving the corporate world eight years ago.



L-R: Peter Yates, ICN Victoria Executive Director; Dave Pallant, ICN Melbourne Program Manager; Malcolm Clark, Business Adviser

Contracted to multiple organisations, primarily targeting SMEs in both the manufacturing and service sectors, Malcolm has effectively advised on reducing costs and improving productivity by recommending lean operating procedures and business processes.

Malcolm is experienced in the management of business development, commercialisation, P&L accountability and has operational experience in the manufacturing and service industries.

Following recommendations from the Business Review, businesses will be eligible for a matched grant of up to \$20,000 to undertake improvements, or introduce new technologies and processes.

For further information, or to book a Business Review, please contact: Malcolm Clark, Industry Capability Network (VIC) or email: info-vic@icn.org.au

India comes to Canberra

The ACT Chief Minister, Mr Jon Stanhope MLA, led the first ACT Government sponsored Trade Mission to India in February this year. The delegation was an important 'first toe in the water' for the ACT as – along with the rest of the world – it comes to grips with the rapidly emerging opportunities in India.

On 22-23 October 2007, India in Focus was held. The event was held in response to the strong interest expressed by Indian organisations wanting to visit Canberra to explore further opportunities.



The ACT Chief Minister, Mr Jon Stanhope

A program of events was developed to encourage direct trade with India.

These included:

- Business-to-Business meetings co-ordinated by Austrade;
- The Canberra Technology Showcase highlighting ten of Canberra's and possibly Australia's next wave of influential SMEs. The companies featured were:
 - The Distillery, Aspen Medical, CIC Group, Simmersion Holdings, Hatrix, NICTA, 433 Location Aware Technologies, XTEK Limited, Windlab, GP Sports and Actividentity.
- A forum on 'Lessons in ICT and Education Seminar' led by ABC journalist Virginia Trioli, investigated the synergies, opportunities and areas of mutual interest from different perspectives of the ICT and Education industries. The session provided a lively and entertaining exchange of ideas and information whilst focussing on helping participants take the next steps with business opportunities.



Canberra's Parliament House

The inaugural Major Projects Symposium was held on Day 2. The program was specifically created to appeal to local, national and international investors and supplier audiences. It provided an opportunity for participants to make contact with key decision makers in both the private and public sectors. The commercial construction industry is clearly booming with more than \$4.5 billion in property development applications having been received over the past four years - about half of those received were for development in the City.



Australian cricket legend Michael Bevan

The culmination of India in Focus was the Gala Dinner. More than 250 people attended the evening which was held in the ballroom of the newly refurbished National Convention Centre. The room was magically transformed in the colours of India and showcased a spectacular fireworks display to celebrate Diwali, the Festival of Lights. The Gala Dinner was hosted by the Chief Minister and featured special guest of honour, Australian cricket legend Michael Bevan.

For further information, please contact: Sue Johnston-Vos, Industry Capability Network (ACT) or email: info-act@icn.org.au

Biotechnology to reduce waste

Waste management traditionally involves burying or burning waste, creating ever mounting pollution problems. Meanwhile, the world is running out of traditional virgin resources.

Biotechnology developments now allow for traditional waste streams to be utilised as valuable resources, reducing pollution and addressing global energy needs.

ICNNSW Consultant Klaus Baumgartel B.App Sc has recently toured North America, researching new bio-technologies with such potential.

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

Via Capability News, Klaus will inform Australian industry of the current and future trends in a 4 part series. Part 2, Biotechnology and its role in reducing waste, discusses traditional and new technologies, and the implications for Australia of adoption of new bio-technologies.

Biotechnology and its role in reducing waste

A significant area where biotechnology has found immediate application is in the area of waste management.

Bacterial and microbial processes for treating wastewater and sewerage have been around for ages, but developing technologies are far more effective. Some can be used to remove specific toxins and metals. Also processes tend to be faster.

Best advances have been in the treatment of wet waste such as sewerage and manures. Here biological processes can be used to provide useful products such as biogas, while at the same time, producing a more manageable waste product with much reduced disposal cost (or even as a saleable product). This in the future will be coupled with gasification or pyrolysis technology to produce synthetic gas or oil.

There has also been significant progress in solid waste treatment such as municipal waste, manures, sewage sludge and food waste. New processes have been developed using bacteria or enzymes that can operate at elevated temperatures and cut composting time from weeks to days. The compost produced is valued as a soil additive and some other valuable products are also produced. Composting technology can also incorporate the disposal of limited amounts of hazardous chemical wastes which are broken down by the active bacteria.

There has also been advances in soil remediation technologies. Soil contaminated by hydrocarbons and nasty chemicals such as PCBs, can now be cleaned up in situ using biological processes. The majority of firms still use the well proven thermal processes, but as biological means prove their credentials, they will become a more cost effective option. There are even biological processes which claim to be able to destroy PCBs currently in storage, awaiting some alternative to incineration.

Some specific examples will help to illustrate the potential of biotechnology in these areas.

Bio Recovery Corp in Vancouver, Canada, produce a unique class of fertility and plant fungal disease suppression products based on an enhanced autogenous thermophilic aerobic digestion.



Sources of waste from municipal organic wet wastes, municipal sewage sludge and agricultural livestock waste are digested at elevated temperatures with thermophilic bacteria in an aerobic process to produce an active compost in a 2-3 day period. The product liquid product has disease protection properties for some plants. The solid component pellets are high in nutrition and low in pathogens and can be used with existing farm equipment.

The process does require significant plant and equipment but does produce valuable, environmentally friendly products and no harmful discharge. This process would be useful in Australia for municipal waste treatment or regional waste treatment where there are feedlots as well as town wastes.



Flow from raw material to plant to drums of oil to electricity made from oil

Dynamotive have developed technology which can convert biomass (municipal green waste, forest waste, bagasse, cornhusks, wheatstraw etc) to a liquid bio-oil via a proprietary "fast pyrolysis" process. A char which can be used as a soil conditioner, activated char or high BTU solid fuel is a by product. The bio-oil has excellent combustion properties and can be used as a replacement for fossil fuels to generate power and heat in stationary gas turbines, diesel engines, kilns and boilers. They currently have a 200 tpd plant in Ontario.

Dynamotive have a technology agreement with Renewable Oil corporation Pty Ltd based in Melbourne. They are currently planning to erect two small plants in Northern Australia, mainly to utilize municipal organic waste. The bio-oil will be used to generate electricity.

Smartsoil has developed an improved process for collecting biogas from landfill sites.

Waste decomposition produces gas, which is primarily made up of methane, a greenhouse gas 20 times more powerful than carbon dioxide. Landfill gas or "biogas" is potentially dangerous and can be converted into a reliable source of energy used to produce electricity, feed industries and heat buildings (or greenhouses).

Horizontal wells are strategically installed throughout the landfill site, according to their radius of influence, in order to maximize biogas collection. Well operation parameters (extraction flow and pressure levels) are optimized in real time by SmartSoil operating software and modulators. Modulators are fully-integrated, self-contained, modular gas extraction equipment. There is a positive pressure applied within the landfill site to maximize extraction.

Composting is also developing more advanced technology to both speed up the rate and to incorporate the ability to destroy regulated amounts of hazardous chemicals, in the process, neutralizing them and without compromising the usability of the product. There are far too many technologies, most being a technological increment of the base

technology, to discuss here. It is worth noting that composting is playing an evermore significant role in the management of organic waste streams.

Fermentation is another well established technology being applied to waste management. Fermentation of organic waste such as animal manure from feedlots and dairies, municipal sewerage plants and waste streams from the food processing industry can produce a range of beneficial outcomes.

Fermentation produces methane which can result in up to 40% reduction in the mass of the waste. This is then mostly used to generate electricity. Often the remaining waste is now in a form which is either useful as a product (fertilizer, mulch, feed for pyrolysis process etc) or one which is much easier and cheaper to dispose of. One of the main drivers for these technologies is the reduction in waste disposal costs that can result.

This is a broad overview of some of the technologies that utilize biotechnology to turn waste streams into benefits for the company and the environment. The increasing cost of waste disposal will drive these technologies further, and waste will, in the longer term, make a benefit to the environment, not simply a burden as it is now.

For further information, please contact: Klaus Baumgartel, Industry Capability Network (NSW Albury) or email: info-nsw@icn.org.au



Pipeline construction within refinery



SA automotive supplier makes moves on global supply

Following on from the visit to Australia in February this year by automotive sales and marketing company, Kenmar Corporation, Adelaide-based company Intercast & Forge visited Detroit in September.

Kenmar Corporation is the sales and marketing representative for Australian automotive suppliers as appointed by Team Australia Automotive (TAA). TAA is an initiative of Industry Capability Network Ltd (ICNL), Austrade, Federation of Automotive Products Manufacturers and the Governments of South Australia and Victoria under the Federal Government Supplier Access to Major Projects Global program.

During the Detroit visit, Intercast & Forge General Manager, Sales and Marketing, Bob Thomas, took the opportunity to investigate the automotive industry supply chain in the US. Intercast & Forge is considering supplying high volume cast iron automotive parts to global markets such as the US to replace a diminishing local automotive market. The visit was hailed a success as it enabled the company to market itself to the US automotive industry as a global supply chain supplier, gain valuable knowledge on the size of the US market and establish firm contacts within the US automotive industry for future projects.

Intercast & Forge has already received several requests for quotes (RFQs) from US companies and is anticipating receiving a further three. Feedback on a completed RFQ from American company SMW Automotive has already been received.



Intercast Pouring

While being acknowledged by the Detroit automotive industry for its modern, sophisticated foundry and forge facilities and high quality processing, capacity and service, the only identified barrier to winning future supply contracts is the unprecedented current high value of the \$A. Intercast & Forge is currently completing several RFQs as a benchmarking exercise. Knowledge gained from this benchmarking activity will enable the company to identify future capital investment requirements and develop collaborative partnerships with other local businesses.

As a result of this ICN-led TAA initiative, Intercast & Forge is now regarded by the US automotive industry as a serious contender for future global supply chain contracts. Whilst hoping for a more favourable \$A, Bob Thomas expects that the company could be participating in the US supply chain from early 2008.

For further information, please contact: Derek Lark, Industry Capability Network Limited or email: info@icn.org.au

ICN celebrates 20 years in Western Australia

ICNWA celebrated its 20th Anniversary in August 2007 with over 100 project owners, buyers, suppliers, key stakeholders and the national ICN network attending a cocktail function to mark this significant event.

John Langoulant, CEO Chamber of Commerce and Industry WA, welcomed guests and gave a brief account of ICNWA's history. ICNWA (formerly known as the Industrial Supplies Office of Western Australia) was established on the 5th August, 1987 by the then Minister for Industry and Technology, Hon, Mal Bryce.

Ms Jaye Radisich MLA, Parliamentary Secretary to the Minister for Resources; Industry and Enterprise, represented the Western Australian State Government. In her congratulatory address she said that the event was a joint celebration of ICNWA's 20 years as an effective advocate for local manufacturers and service providers and also an opportunity to acknowledge that ICNWA has assisted our domestic suppliers of goods and services to capture \$1 billion worth of work against global competition.

She further acknowledged that the ICNWA has become a highly effective program that fosters job creation, industry development and skills enhancement.

ICNWA's 2006/2007 activities have led to \$70.9 million of extra work being placed with Western Australian companies. Using multipliers prepared by Australian Economic Consultants, ICNWA has created 850 additional fulltime Western Australian jobs. In the same twelve-month period, ICNWA work also secured an additional \$18.7million of import replacement work for companies in other States, representing the creation of an additional 224 Australian jobs in those states.

Speakers representing ICNWA's Clients and Suppliers also gave presentations at the function. WA's Gorgon project Australian Industry Participation Coordinator, Christine Haynes, gave an overview of ICNWA's activity on the Gorgon project and how its vendor consultancy services have been of great value to the proposed project.

John Davies, Director Modular Engineering, was very appreciative of ICNWA's assistance which has contributed to the successful growth of his company. Speaking on behalf of suppliers in congratulating ICNWA, Mr Davies said that ICNWA has been an excellent conduit for suppliers to connect with WA project opportunities and more recently with global supply chains.

ICN continues to enhance Western Australian and Australian industry by strengthening the competitive position of the buyer through increased supplier competition and creating opportunity for suppliers.

For further information please contact: Industry Capability Network (WA) or email: info-wa@icn.org.au



ICN responds to 'social/economic factors'

Here are some statistics that illustrate significant social/economic factors of life in the Northern Territory:

- 220,000 people living in an area 1/6th the land mass of Australia
- 30% per cent of the Northern Territory population is indigenous
- There are 28,641 indigenous people of working age (15 – 64)
- Of the 11,249 indigenous people living in urban areas, 2,751 are employed
- Of the 22,055 indigenous people living in remote areas, 1,912 are employed
- In excess of A\$5b worth of private and public sector projects are either underway or proposed in the Northern Territory

The challenges facing Federal, Territory and Local Governments are considerable and wide-ranging. Health and education in the Northern Territory are the headline issues at the moment with the Federal Government's 'intervention' strategy well underway. However, access to work projects associated with the NT's buoyant economy remains a real issue for indigenous people and organisations.

So what has all this to do with the Northern Territory Industry Capability Network (NTICN)? Well, there are programs aplenty aimed at generating work and ultimately indigenous employment currently on offer in the Territory. There are also obligations from private project proponents under land title implications. So, how does one identify the indigenous owned businesses and organisations?

ICN saw the need to fill a gap. The NTICN General Manager, Kevin Peters, approached the NT Government's Department of Business, Economic and Regional Development (DBERD) with a proposal to develop a database within a database. In understanding the difficulties associated with accessing

such an enormous area, the Department provided a grant of \$30,000 and the assistance of their Indigenous Economic Development Unit. The object is to develop a comprehensive profile of indigenous business capability, in both urban and regional locations.

The Northern Territory Minister for Business, Economic and Regional Development, Kon Vatskalis MLA, is thrilled with the initiative. "The Martin Government is determined to encourage indigenous businesses to get involved in both private and public sector opportunities. We have a vibrant economy up here in the Territory and we want to ensure all Territorians reap the benefits."



Kim Hill (Ministerial Adviser), Kevin Peters (General Manager NTICN) and Hon Kon Vatskalis MLA (Minister for Business, Economic and Regional Development)

"I'm very supportive of the NTICN's initiative," says Minister Vatskalis. "Their role in Government procurement and interaction with companies who have agreements to support indigenous development provides for a very practical application to the accumulated data. I'm happy for my Department to assist in both a financial and resource capacity."

The Indigenous Business-owned Database, comprising businesses which are either owned or primarily owned by indigenous groups, currently lists details of 149 companies.

For further information, please contact: Kevin Peters, Industry Capability Network (NT) or email: info-nt@nticn.com.au

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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.