



State of the Future

Clinical trial volunteer Wendy Layman and WAIMR's Peter Leedman.



World-class infrastructure in WA to boost medical breakthroughs

First signal received by ASKAP telescope

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The testing of new treatments for potentially life threatening diseases has been made possible with the opening of Western Australia's first multi-million dollar early phase clinical trials facility.

The Western Australian Institute for Medical Research's (WAIMR) facility was established at the QEII Medical Centre in Nedlands.

The purpose built 24-bed facility will be used to run early phase clinical trials that will determine the suitability of potential new drugs and treatments prior to market entry.

WAIMR Deputy Director Professor Peter Leedman said while WA had for some time been internationally recognised for its capacity to conduct later phase clinical trials

(phase-II and III), the ability to conduct early phase research was critical.

"The number of pharmaceutical companies interested in conducting phase-I clinical trials in Australia is on the rise and we've already been fielding calls and providing information about this new facility," Professor Leedman said.

"We also expect this world-class centre to lead to more phase-II and III trials taking place in WA which will give local patients better and faster access to new treatments."

Minister for Commerce, Science and Innovation Troy Buswell said WAIMR's facility would provide Western Australia with critical infrastructure to better our understanding of disease, improve diagnosis and find more specific treatments for a number of medical problems.

"It will enable local companies to conduct early phase clinical trials in the State rather than interstate or overseas, as well as

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Minister's foreword

It has been a busy start to the year and a lot is happening in the science, innovation and industry portfolios.

Last year I announced the establishment of the Council for Science and Innovation, which will be the State Government's leading advisory body on science, innovation and technology in Western Australia. For this vision to become a reality, an Interim Council for Science and Innovation has been formed and tasked with providing recommendations on the strategic direction of these key areas in WA. I am currently reviewing the submission from the Interim Council.

I recently launched the Western Australian Institute for Medical Research clinical trials facility together with the Minister for Health Kim Hames. The State Government has committed more than \$9.4 million to the construction and operation of this world-class facility which will enable early stage clinical trials to be conducted to determine potential new drugs and treatments. This sort of facility is critical to WA and will enable the State to develop key capabilities in this area.

It was very exciting to be at the launch of the floating dock, which is now fully functional and ready for use at the Australian Marine Complex (AMC). This impressive piece of engineering excellence is the final component of the State

Government's \$170 million infrastructure upgrade at the AMC Common User Facility. The technologically advanced floating dock showcases Western Australia's capabilities as a centre of excellence in the marine, defence and oil and gas industries on an international scale.

The Government is keen to continue building linkages between industry, government and academia to foster an environment of innovation in Western Australia. This includes encouraging creativity, as well as developing the capacity for innovation to be commercialised.

The 2010 WA Innovator of the Year Awards, which were launched recently, promote a culture of innovation and

entrepreneurship across the State's public, private and education sectors. I encourage all of the State's innovators from across these sectors to participate in the awards.

It is also important to nurture a generation of creative thinkers and there are number of exciting science programs available to engage the State's youth. Creating a sense of curiosity among our young people and providing them with the knowledge and skills in science, maths and technology will hopefully encourage young Western Australians to pursue science-based careers.

**Hon Troy Buswell MLA
Minister for Commerce;
Science and Innovation**

2010 WA Innovator of the Year Awards now open



WESTERN AUSTRALIA
**Innovator
of the Year
2010**

Nominations are now open for the 2010 Western Australian Innovator of the Year Awards.

The awards, coordinated by the Department of Commerce, promote a culture of innovation and entrepreneurship across the private, public and education sectors in Western Australia.

The awards support the State's exceptional innovators who have developed an outstanding product, technology or service, in the start-up or growth phase, that demonstrates

an economic, social or environmental benefit to Western Australia.

The principal sponsor of the 2010 WA Innovator of the Year Awards is the Mitsubishi Corporation. Other sponsors include KPMG, Woodside and WA Business News.

Nominations for the awards close 14 June 2010 at 5.00pm.

For more information or to apply for the awards visit www.commerce.wa.gov.au/innovator_awards

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World-class infrastructure in WA to boost medical breakthroughs

attract high quality national and international scientists to undertake ground breaking research that will benefit our community," he said.

"Pharmaceutical-industry sponsored clinical trials currently contribute around \$15 million annually to the State's economy. The facility will potentially create further economic opportunities for WA."

WAIMR's clinical trials facility will also develop unique partnerships with hospital-based principal investigators and individual researchers for early phase clinical research.

Close collaboration with Perth's tertiary hospitals and WAIMR will help source specialist physicians in a

variety of therapeutic areas.

The State Government has committed more than \$9.4 million for the construction and initial operations of the facility which will be operated by WAIMR's wholly-owned subsidiary Linear Clinical Research Limited.

For more information visit www.linear.org.au or www.waimr.org.au



State-of-the-art floating dock ready for use at the AMC



The most technologically advanced floating dock and transfer system in the world is now available for use at the Australian Marine Complex (AMC) in Henderson.

The floating dock is expected to contribute more than \$2 billion to the State's economy in the next 25 years. It is a perfect addition to the common use infrastructure available at the AMC Common User Facility.

The new \$60 million floating dock is part of a four-year \$170 million upgrade to the AMC which also includes the 512-wheeled self-propelled modular transporters, the eastern wharf and a transfer wharf.

Measuring 99 metres by 53 metres, the dock is capable of lifting vessels up to 12,000 tonnes for service and

Austral using the AMC floating dock to undertake hull cleaning of its new 102 metre trimaran.

maintenance. It will also transfer vessels and modules up to 3500 tonnes from water to land.

The dock's control system, in particular the manoeuvring system, makes the AMC floating dock exceptional. No other floating dock in the world can move in more than one direction and very few docks have the ability to transfer and offload vessels. The design of

infrastructure would significantly enhance the common use capabilities of the AMC and link Western Australian industries with the development and operation of major resources, petroleum and defence projects.

"The addition of the floating dock to this important facility will ensure it remains at the forefront of major project delivery in this

Australian Navy, commercial shipbuilding, the superyacht industry as well as testing of underwater subsea structures for the oil and gas industry.

The world's largest aluminium shipbuilder Austal, has already used the floating dock to undertake hull cleaning of its new 102 metre trimaran vehicle-passenger ferry, being completed at the

The addition of the floating dock to this important facility will ensure it remains at the forefront of major project delivery in this State.

the floating dock also allows for a second stage to be built to adjoin the dock and provide an additional 132 metres docking capacity which can be used as required.

Minister for Commerce Troy Buswell said the new

State," Mr Buswell said.

"In particular, the dock will play a major role in assisting local industry to capitalise on opportunities from the 2009 Defence White Paper."

The AMC floating dock will service the needs of the Royal

company's Western Australian headquarters.

The AMC floating dock is a joint initiative between the Department of Commerce, LandCorp and AMC Management Pty Ltd.

How can you protect your Intellectual Property?

All successful business people lock up their premises when they leave at night, but many do not share the same sense of security when it comes to protecting other assets that are crucial to the company - its intellectual property (IP).

Research by the Australian Bureau of Statistics found that 73 per cent of innovating businesses do not seek to protect this valuable asset.

WA State Outreach Manager for IP Australia Nigel Stewart said IP Australia, the government agency responsible for administering the IP system, had initiatives to

encourage more businesses to protect their intellectual property.

"IP Australia introduced a new way to protect inventions called an innovation patent which is aimed at stimulating innovation within small and medium sized enterprises (SMEs) and has proved to be popular and effective," he said.

"Many companies, however, still see IP protection as a low-order issue, compared to meeting regulatory requirements and the pressure of simply running the business.

"Ignoring IP means you may be taking a big chance with the future viability of your business."

The IP Australia website contains useful information for SMEs. The resources section of the website has a publications catalogue with a variety of free publications available for order. Other educational products include the Smart Start package which explains how IP can benefit businesses and



the IP Toolbox which provides guidance on managing intellectual property.

"A key issue is to understand the different forms of intellectual property and how each is protected," Mr Stewart said.

"Essentially, patents protect inventions, design registration protects the visual appearance of a product, registered trade marks are used to protect brand names and logos, while

plant breeder's rights protect plant varieties. All four types of protection are handled by IP Australia."

For more information visit www.ipaustralia.gov.au

Nominations open for prestigious awards

Nominations are now open for the 2010 Western Australian Industry and Export Awards.

For the past 22 years, the prestigious awards have acknowledged the hard work and enterprise of some of the State's most innovative businesses.

The awards recognise the significant contribution that individual local businesses make to the Western Australian economy and reflect the importance of exports to the

State's continued economic development.

Department of Commerce's Industry and Export Awards Coordinator, June Phillips, said the awards were open to a wide range of organisations from small developing firms, manufacturing and engineering companies and consulting service providers, to large established corporations, exporters and companies with solely local markets.

"Considerable status is attached to being a finalist or winner in any category, but simply entering the awards is likely to benefit a business," Ms Phillips said.

"The awards have helped many organisations improve their business and marketing and in fact, criteria questions have been designed to help companies develop their annual business plans."

The Industry and Export Awards are coordinated by the Department of Commerce and sponsored by Austrade, AusIndustry, Australia and New Zealand Banking Group, Australian Council for Private Education and Training (ACPET), Craig Mostyn Group, Export Finance and Insurance Corporation, Fremantle Ports, Lavan Legal, Rio Tinto and The West Australian.



"We are delighted that all the 2009 sponsors have chosen to continue their involvement with the awards program this year and in addition, we have also gained sponsorships from a further three companies for 2010."

Nominations close on 14 July 2010. For more information contact June Phillips on (08) 9263 8278, email industryexportawards@commerce.wa.gov.au or visit www.commerce.wa.gov.au/industryexportawards

First signal received by ASKAP telescope

Australia's bid to host the biggest international radioastronomy project, the Square Kilometre Array,

that will be assembled as part of ASKAP, a precursor to the Square Kilometre Array.

The first radio signals were received from a satellite and were part of a test phase to measure the shape of the antenna's surface using holography.

Holography involves combining a satellite test signal

the project is firmly on track.

The first antenna is unique as it is made up of three moving axes allowing the entire dish to rotate in unison with the sky. This feature will allow very sensitive images of the sky to be observed when the antenna's phased array receiver or 'radio camera' is installed.

Director of the International Centre for Radio Astronomy Research (ICRAR)

Professor Peter Quinn said the first antenna was a major step forward for the Australian SKA effort and a great achievement by the ASKAP team.

"Having the first ASKAP dish on site will enable us to test and quantify the superb radio quietness of the Murchison Radio-astronomy Observatory and conduct the first scientific observations in coordination with other dishes on the east coast," Professor Quinn said.

"ASKAP will be a unique and powerful radio telescope in its own right. It will conduct surveys of the sky that will produce many petabytes of data. At ICRAR, we will be working with the Pawsey High-Performance Computing Centre for SKA Science and CSIRO to process the data and produce new panoramic images of the radio Universe."

The first six antennas are scheduled to be operational by 2011 and the complete ASKAP

system is expected to be completed by 2013.



has been strengthened with the Australian Square Kilometre Array Pathfinder's (ASKAP) first antenna receiving a radio signal.

The antenna is the first of the 36 identical 12-metre antennas

reflected from the antenna's surface with the same signal received by a small 'reference' dish, producing an image that shows if the antenna's surface deviates from the 'perfect' shape.

CSIRO ASKAP Project Director Dr David DeBoer said the first time a telescope receives light or radio waves is always very satisfying and exciting. It means



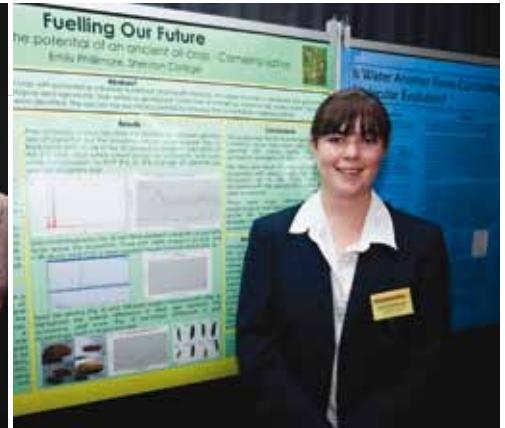
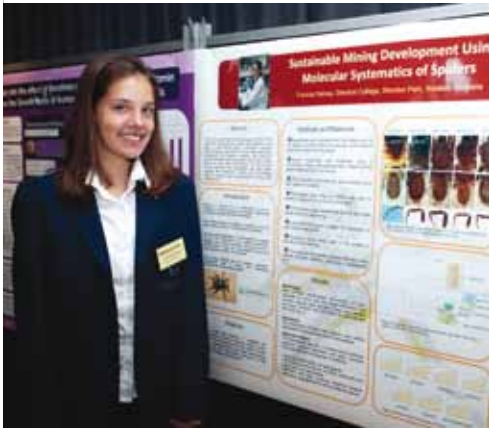
First ASKAP antenna under construction.

The first ASKAP antenna in Western Australia.

Credit: Dave DeBoer, CSIRO.



Students prove ingenious



Frances Harvey with her project poster on the structure and DNA of trap-door spiders on potential mine sites in the Pilbara region.

Left to Right: Parliamentary Secretary The Hon. Helen Morton, Frances Harvey, Emily Philimore and Chief Scientist of WA Professor Lyn Beazley.

Emily Philimore with her project poster on the genome size of the ancient European oil crop, *Camelina sativa*.

Shenton College students Frances Harvey and Emily Philimore, have been selected to represent Western Australia in the annual sanofi-aventis International BioGENEius Challenge in Chicago and compete against North America's best biotechnology students.

The sanofi-aventis BioGENEius Challenge is a competition in which school students are paired with a mentor from the science and innovation

community to complete a high-level biotechnology project.

Frances' project examined the structure and DNA of trap-door spiders to determine the number of species found on potential mine sites in the Pilbara region.

Mentored by Professor Mark Harvey, Senior Curator and Head of the Department of Terrestrial Zoology at the Western Australian Museum, Frances discovered seven different species of trap-door spiders. This information will ensure the biodiversity of

the area is upheld through sustainable mining activities.

Emily's project determined the genome size of the ancient European oil crop, *Camelina sativa*. Commonly used in Europe until the 1940s, *Camelina sativa* is an oilseed crop with a promising future as a health-food oil and a biofuel feedstock.

The information collected from Emily's project could help with breeding programs of *Camelina*.

Emily was mentored by Dr Janine Croser from the

Centre for Legumes in Mediterranean Agriculture and by Dr Kathy Heel from the Centre for Microscopy, Characterisation and Microanalysis, both from the University of Western Australia. The Western Australian BioGENEius Challenge is facilitated by the Department of Commerce.

For more information visit www.commerce.wa.gov.au/biogeneius

Stepping up to the challenge

Problem solving, teamwork, designing and building were just some of the skills that 1900 Year Nine Western Australian students from metropolitan and rural high schools experienced as part of the Science and Engineering Challenge.

Director of the Engineers Australia WA Division Janice Lake said the challenge aimed to encourage students to take up science related subjects in years 11 and 12 and provided them with real life engineering experience.

"Students got involved in tasks such as building a model of an eco friendly house, building a bridge from balsa and tape and working out a power distribution system for a city," Ms Lake said.

"Students also got to meet and be inspired by real engineers

and scientists who volunteered to assist at the competition."

A Challenge Impact Survey that was published in *Your Challenge* magazine highlighted that a growing percentage of students indicated that participating in the challenge played a significant role in their decision to study maths, chemistry and/or physics.

The WA Science and Engineering Champion School for 2009 was Christ Church Grammar School, with St Hilda's Anglican School for Girls coming in second. Both these schools are now busy fundraising to take their well-earned place at National Championships in NSW in mid October 2010.

The Department of Commerce was a major sponsor of the WA round of the National Science and Engineering Challenge.



Students from Rockingham Senior High School working out a power distribution system for a city.



Students from St Hilda's Anglican School for Girls building a bridge.

Race cars drive students' interest in science



Students race their Formula One vehicles at the F1 in Schools Technology Challenge.

It is all engines go for the Formula One in Schools Technology Challenge, where students from across the State are participating in a program involving the production of scaled down versions of the 'real' Formula One vehicles.

The challenge involves teams of students using the most innovative and cutting edge 3D engineering software tools available in the world to design, test, manufacture and race

a Formula One vehicle that can travel at 100 kilometres an hour. Students race their vehicles at regional, state, national and international finals. WA challenge organiser Arun D'Souza is Chairman of Re-Engineering Australia Foundation's WA Steering Committee. He said the challenge aimed to inspire young people to consider a career in science, engineering and manufacturing.

"Students are exposed to a number of whole-of-life skills

including public speaking, project planning, development and management, resource procurement, sourcing industry links through collaboration, graphic design as well as engineering and manufacturing," Mr D'Souza said.

Re-Engineering Australia Foundation is a not-for-profit organisation that seeks to promote the field of engineering, manufacturing and design as a career path for young Australians.

Winning students of the 2009 WA challenge from Christ Church Grammar School and Wesley College have travelled to Melbourne to represent the state at the national finals. The finals are linked to the Formula One Grand Prix via the Australian Grand Prix Corporation's support through its schools program.

For more information on the challenge please contact **Arun D'Souza** on **0417 187 588** or email **arun.dsouza@bigpond.com**

WA Innovator of the Year Schools Competition

The State's bright minds are encouraged to participate in the WA Innovator of the Year Schools Competition 2010.

The competition aims to promote a culture of innovation and creativity within Western Australian schools.

The WA Innovator of the Year Schools Competition 2010 is open to Western Australian school students from years K – 12 through participation in the Materials Design and Technology Finalist Awards, the Science Talent Search 2010 or the Value Adding Quest 2010.

The finalists from these programs will automatically be entered into the WA Innovator of the Year Schools Competition 2010 and be in the running to win fantastic cash prizes.

The competition is organised through Scitech with the support of the Curriculum Council, Science Teachers' Association of Western Australia (STAWA), technology and enterprise professional associations and the Department of Commerce.

For more information on the competition please visit **www.scitech.org.au** or email **ioty@scitech.org.au**



Entries will be assessed against the following criteria:

- Innovative concept and concept development
- Creative design
- Demonstration of useful purpose
- High quality construction techniques

.. aims to promote a culture of innovation and creativity within Western Australian schools.

Local companies secure contracts worth millions



Left to Right: Andy Wilmer and Peter Eggleston from Chevron, Minister for Commerce Troy Buswell and Howard Porter's Roy Lombardi, in front of one of the Howard Porter semi-trailers destined for Barrow Island.

Western Australia's economy is showing signs of improvement with local companies such as Howard Porter and Neptune Marine Services securing big contracts from major resource projects.

Spearwood-based transport manufacturer Howard Porter secured a \$20 million contract in June 2009 to manufacture 320 custom-built semi-trailers for the Chevron-led Gorgon project.

The contract is the biggest single transport manufacturing order ever to be awarded in Western Australia. In just 38 weeks, the company successfully delivered 240 flat tops, 34 drop decks, 20 extendables, 20 dollies and six 100 tonne floats.

Howard Porter Sales Manager Jason Bell said the company used this opportunity to strategically strengthen

its processes and the way it delivers products.

"Not only were we able to complete this project to schedule, we also managed to grow the number of orders being accepted. Our trailer delivery times are still among the best in the industry," Mr Bell said.

The Western Australian Industry Capability Network (ICNWA) assisted Howard Porter during the preparation phase of the contract. ICNWA, as an independent broker, facilitates Western Australian and Australian industry participation in major investment projects. It aims to maximise WA industry participation by introducing local companies to investment projects and global supply chains.

For more information on Howard Porter please visit www.howardporter.com.au

Another Western Australian company, Neptune Marine

Services Ltd, has been contracted by Marine & Civil Construction Pty Ltd to provide diving, survey and vessel support services on the Gorgon project.



Neptune Marine Services has been contracted to provide diving, survey and vessel support services.

Neptune's comprehensive work scope involves the installation of piping and the offshore pump station associated with the temporary desalination plant at Barrow Island and diving support for the construction of a new supply barge facility.

Neptune's Managing Director and CEO, Christian Lange, said Neptune was delighted to be involved with the Gorgon project and it sees significant opportunity to expand its role as the project progresses.

"Our participation in Gorgon further illustrates the tangible benefits accruing from our strategy of providing a broad range of engineering and offshore services. It also highlights the fact that our customers are recognising the value of Neptune's unique multi service offering."

For more information on Neptune Marine Services please visit www.neptonems.com

The Department of Commerce, through the State Government's Building Local Industry Policy, promotes the benefits of engaging with competitive local companies such as Howard Porter and Neptune Marine Services to major resource projects such as Gorgon.

Contact details

State of the Future is received by more than 4000 key industry representatives, local councils, media and other organisations. The newsletter is a great way to promote your business. In each issue we profile different companies within the science, technology, innovation, industry and enterprise fields.

If you have some news or a story to tell about what your company is up to for State of the Future please contact:

Department of Commerce
Science, Innovation and Business Division
Email: soft@commerce.wa.gov.au
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Government of Western Australia
Department of Commerce

