



**Questacon**

The National Science and Technology Centre

Working to Inspire Australia **2010-2011**



## Our Vision

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*A better future for all Australians through engagement with science and innovation.*

**“ So much of Australia’s future depends on inspiring young people across the country to respond to innovation and science and to think of careers in science and technology. ”**

**Marius Kloppers**

CEO, BHPBilliton



Australian Government

Department of Innovation  
Industry, Science and Research







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## MINISTER'S INTRODUCTION

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For more than two decades, Questacon has shown the nation that science transforms lives. It has inspired our youth, celebrated our high achievers and laid the foundations for a new Australia.

That work has never been more crucial.

Australia faces a shift in our economy on a scale we have not witnessed in two generations, driven by the biggest resource boom in our history. We are re-making the foundations of our prosperity, and choosing our path through the twenty-first century.

Through science and innovation, we can re-tool our industries and re-skill our people to claim the opportunities ahead.

The science experiences that Questacon offers open our eyes to our phenomenal potential. They are, in themselves, a testament to Australian creativity.

This year's Annual Review captures the broad and ever-expanding suite of programs Questacon has pioneered. From digital media to the travelling *Shell Questacon Science Circus*, this is a national icon with a global vision.

I am particularly proud to highlight Questacon's role in supporting Australia's joint bid with New Zealand to host the Square Kilometre Array, one of the most ambitious global science projects of our time. Questacon facilitated over 600 events across both countries, helping people from all walks of life share our vision for this giant telescope in the outback.

Questacon will build on that legacy in the years ahead through the Australian Government's new \$21 million *Inspiring Australia* program.

There is a great future ahead of this nation – and Questacon will lead the journey.



**Senator the Hon Kim Carr**

Minister for Innovation, Industry, Science and Research



Senator Carr speaking at the *Shell Questacon Science Circus* 25th Birthday celebration event, October 2010.

# CHAIRMAN'S MESSAGE

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Over eight million people have visited Questacon since the Centre opened in the Parliamentary Zone of Canberra in 1988. The experiences provided by the team at Questacon have ensured these visitors have left with a unique and inspirational memory of Questacon and science.

Questacon's style of science communication combines a mix of technology, hands-on interaction and face-to-face delivery that has positioned it as a leading science centre and an award winning tourist attraction.

Throughout the year, Questacon has gone beyond the boundaries of its iconic building in Canberra, working hard to provide equity of access to its programs and experiences to all Australians, with a focus on achieving inclusivity through geographical, technological and social means.

Questacon's excellent outreach programs have once again brought the excitement and wonder of science and mathematics, technology and innovation to regional and remote communities across Australia. During 2010–11, 139,418 visitors enjoyed a Questacon experience in their own communities, with the eight different outreach programs visiting 970 schools. Most of these schools were located in geographically isolated areas and would not have the opportunity to visit the Centre in Canberra.

I am particularly pleased to see the reinvigoration this year of the *Questacon ScienceLines* Indigenous outreach program. During the year, the *ScienceLines* team toured to schools in Western NSW, worked with the National Centre for Indigenous Excellence to deliver a program for gifted and talented students from Western Sydney and is also partnering with the Australian National University and the National Portrait Gallery to develop content for workshops to be held on the south coast of New South Wales in September 2011. Through *ScienceLines*, Questacon has built strong linkages with participating communities, ensuring the offerings of all Questacon outreach programs remain culturally relevant.

Last year Questacon began operating a new multimedia studio, which has added significantly to Questacon's program offerings. Just over 1700 students and



Questacon Chairman Leon Kempler with Director Graham Durant and Mark Paterson, former Secretary of the Department of Innovation, Industry, Science and Research, October 2010.

teachers participated in the *Shell Questacon Science Circus* Digital Tours, which supplement Questacon's face-to-face outreach tours through interactive video conference workshops with schools. In addition, Questacon delivered several special events via video conference, allowing groups of students from different schools to have real time conversations with experts from world-leading facilities, including Davis Station in Antarctica, the European Organization for Nuclear Research (CERN) in Europe and NASA in the US, along with home-grown experts on the Square Kilometre Array project and Australian burns expert Dr Fiona Wood AM. This direct interaction with our science leaders provides students with first hand experience of how inspiring, exciting and rewarding a career in science can be.

Questacon continued to stimulate public interest and engagement in science through initiatives administered as part of the *Science Connections Program*, including *National Science Week* and the *Prime Minister's Prizes for Science*.



In 2010 *National Science Week* engaged 1.6 million people across Australia and reached new audiences through innovative activities such as online Citizen Science projects, social media competitions and science/art collaborations.

As Chairman of the Questacon Advisory Council, I was delighted at the recent federal budget announcement of \$21 million over three years for the *Inspiring Australia* program. This funding will allow Questacon to build on the significant achievements made by the *Science Connections* program and ensure science communication is considered a national priority.

The strong relationships built between Questacon and our highly valued partners help us deliver our outreach programs to communities across Australia. I again offer my thanks for another year of support and collaboration to Shell Companies in Australia, the Australian National University and the National Water Commission, and acknowledge the impact these partnerships have on our ability to deliver relevant messages to the community. This year in particular we thank Tenix and Raytheon Australia, whose support has enabled many thousands of people to experience and enjoy the *Tenix Questacon Maths Squad* and *Imagination Factory—invent and play* exhibition respectively. These partnerships concluded in 2010–11.

I would also like to express my personal thanks to the Questacon Advisory Council for their work during the year: Mr John Simpson (Deputy Chairman), Associate Professor Tracey Bunda, Dr Catherine Foley, Professor Denis Goodrum, Ms Lynley Marshall and Ms Mary-Anne Waldren.

The significant support from the Australian Government Department of Innovation, Industry, Science and Research throughout the year is vital to Questacon's ongoing success.

I would further like to acknowledge and thank Professor Graham Durant for his great vision, passion and strong leadership throughout the year. He has been a driving force behind Questacon becoming a world class science centre and the development of the broader science centre sector globally.

My sincere thanks also to Lorraine Neish and Graham Smith, General Managers, whose dedication and leadership have contributed greatly to Questacon's achievements in the past 12 months.

Finally, I pay tribute to Questacon's staff and volunteers. Your enthusiasm, knowledge and creativity are invaluable in making Questacon the inspiring and vibrant place that so many Australians cherish.



**Leon Kempler OAM**  
Questacon Advisory Council Chairman





## DIRECTOR'S REPORT

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In 2010–11 much of Questacon's work has focussed on building capacity in science communication and strengthening the value of science centres globally in addressing key science-based issues faced by society.

The *Shell Questacon Science Circus* celebrated its 25<sup>th</sup> anniversary in 2010. Minister for Innovation, Industry, Science and Research, Senator the Hon Kim Carr, Ms Ann Pickard, Country Chair, Shell in Australia and Professor Ian Chubb, former Vice-Chancellor of the Australian National University celebrated the *Science Circus* partnership at an event at Questacon in October 2010. The long standing relationship between Shell and Questacon will continue with Shell reaffirming their sponsorship arrangements with Questacon.

In December 2010, the new *H<sub>2</sub>O—Soak Up the Science* exhibition was launched by Olympic swimming gold medallist, Susie O'Neill. This exhibition, developed in partnership with the National Water Commission, explores how water shapes our world, supports our climate and influences our society.

These partnerships exemplify how Questacon works through strong relationships with partners to deliver informative, interactive and relevant experiences on important science issues.

Nationally, Questacon's work in the past 12 months to implement the *Inspiring Australia* initiative has already seen strong strategic networks established that will enhance collaboration and ensure a coherent approach to science engagement across Commonwealth, State and Territory government and non-government ventures. Recommendations delivered by expert working groups



on science and the media and developing an evidence base for science engagement are now being incorporated into the *Inspiring Australia* program.

Funding of \$21 million over three years, announced in the 2011–12 budget, will strengthen and support efforts to bring together under a unified banner the many organisations working towards a scientifically engaged Australia.

Questacon continues to play a sector leadership role in many international science communication networks and science initiatives. Questacon hosted international delegations to the centre from China, Japan, Thailand and Indonesia during 2010–11. Questacon representatives have participated in many international science communication conferences in the US, China, India and the Australasia/Asia-Pacific regions, including the Asia Pacific Network of Science and Technology Centres (ASPAC) conference hosted by Guangdong Science Centre, Guangzhou, China in May 2011. Questacon continues to support the development of science centre activity in the Asia-Pacific region through the work of Brenton Honeyman as voluntary ASPAC Executive Director.

This year, Questacon has supported a number of science/arts projects through the *National Science Week* and *Inspiring Australia* initiatives. These have been successful in engaging new audiences and also in challenging them to consider how art can provide a new perspective on scientific phenomena and vice versa. The new *Science Garden* at Questacon features five new outdoor exhibits that capture the interest of visitors through both science and art. More exhibits will be installed in the next 12 months.

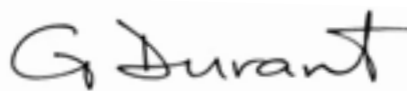
Questacon is pleased to have secured the premises for the new *Questacon Technology Learning Centre* (QTLC), to be located in the former Administration building at the Royal Australian Mint in Deakin, ACT. From early 2013, the QTLC will develop partnerships to deliver exciting technology learning programs

and showcase Australian manufacturing and design capabilities across the country. The Deakin facility will also provide staff and workshop accommodation for Questacon.

Questacon was honoured to win the 2010 Canberra and Capital Region Tourism Award in the Tourist Attraction category for the sixth consecutive year. This award recognises tourism excellence and highlights Questacon's continuing role as a significant national tourist attraction.

Questacon's ongoing success as a sustainable and innovative organisation is founded on the hard work and commitment of Questacon's staff and volunteers and I thank them for their contribution throughout the year. I would like to offer special acknowledgement to Ms Kelly Fong who was recognised at the Department's 2011 Australia Day Achievement Medallion Award Ceremony for her outstanding work in running the *Prime Minister's Prizes for Science* since 2003.

I thank Senator Carr, our colleagues within the Department of Innovation, Industry, Science and Research and our valued partners for their support. I also thank the members of the Questacon Advisory Council for their advice and advocacy throughout the year. Without the efforts of Questacon's many supporters, we would not be able to continue to provide inspiring, innovative and motivational science communication.



**Professor Graham Durant**  
Director



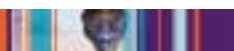


## HIGHLIGHTS 2010–11

- Implementation of initiatives for *Inspiring Australia: A national strategy for engagement with the sciences*. This included the successful delivery of key programs administered through the *Science Connections* program, including:
  - the annual *Prime Minister's Prizes for Science*; three science prizes and two science teaching prizes were awarded by the Prime Minister and the Minister for Innovation, Industry, Science and Research at a gala dinner at Parliament House in November 2010;
  - *National Science Week 2010* – more than 1.6 million people across Australia participated in over 1073 events making this event the largest celebration of science in Australia;
  - the *Inspiring Australia* conference, held in Melbourne on 28–29 March 2011, which brought together science communicators to contribute to the development of a coherent approach to science communication across Australia; and
  - conclusion of the Council of Australasian Museum Directors International Year of Biodiversity 2010 partnership project to highlight the importance of biodiversity, and the commencement of the Royal Australian Chemical Institute International Year of Chemistry 2011 project, incorporating touring exhibitions, artists contributing work for a giant periodic table and lecture tours.
- Winning the 2010 Canberra and Capital Region Tourism Award in the Tourist Attraction category (for the seventh time and sixth consecutive year) and the 2010 Australian Hotels Association Hospitality Awards in the Best Tourist Attraction category.
- Questacon's new multi-media digital studio increased community access and reach through interactive, digital broadband technology. The digital studio was used for more than 300 events in 2010–11 including *Questacon Digital Outreach* programs broadcasting directly into the classrooms of over 1500 students with interactive, hands-on science sessions. *Q Club* members also enjoyed a live stream of a video conference presentation by Dr Fiona Wood.



The Hon Julia Gillard MP, Prime Minister of Australia speaking at the *Prime Minister's Prizes for Science*, November 2010.





- In December 2010 Questacon launched the new interactive exhibition, *H<sub>2</sub>O—Soak Up the Science*.
- In October 2010 Questacon was presented with models of the Hayabusa asteroid explorer and its target asteroid Itokawa. The presentation ceremony was attended by Minister Carr, the Japanese Vice-Minister of Education, Culture, Sports, Science and Technology, the Secretary of the Department of Innovation, Industry Science and Research, and representatives from the Japan Aerospace Exploration Agency (JAXA) and the Japanese Embassy.
- Questacon coordinated over 600 Discover SKA events across the country to celebrate the Square Kilometre Array – the world's biggest telescope, in support of the bid to host it in Australia and New Zealand.
- Questacon secured accommodation in Deakin to replace the Fyshwick premises. The new *Questacon Technology and Learning Centre* is due to open in early 2013.

### **In 2010–11 we celebrated:**

- the 30<sup>th</sup> anniversary of *Questacon's Volunteer Program* with a Gala Dinner that brought together past and present volunteers and acknowledged their achievements over the past 30 years;
- the 25<sup>th</sup> anniversary of the *Shell Questacon Science Circus* with its partners Shell Companies in Australia and the Australian National University; and
- the 10<sup>th</sup> anniversary of the *Questacon Science Squad* based in Sydney.











## ACHIEVEMENTS 2010–11

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Total visitors	<b>1,117,711</b>
Visitors to the Centre	<b>430,020</b>
Visitors to outreach programs	<b>139,418</b> presentations delivered in <b>970</b> schools
School visitors	<b>129,395</b> school children in <b>2322</b> school groups from across Australia visited Questacon
Visitor satisfaction	<b>92%</b> of visitors surveyed responded positively
Travelling exhibitions	<b>448,273</b> visitors to travelling exhibitions – eight exhibitions travelled to 16 venues across Australia and one international venue
Staff	<b>231</b> staff in full-time, part-time or casual positions employed by Questacon (168.68 average full-time equivalent)
Volunteers	<b>8687</b> hours contributed by <b>94</b> active volunteers
Science shows	<b>2956</b> science shows were performed by the <i>Questacon Excited Particles</i> to <b>167,152</b> people
Q by Night	<b>20,048</b> students and teachers participated in <i>Q by Night</i> school visits
Q Club Membership	<b>4999</b> memberships – a total of <b>17,395</b> members
Questacon websites	<b>1,041,538</b> total visitor sessions to websites administered by Questacon





# QUESTACON OVERVIEW

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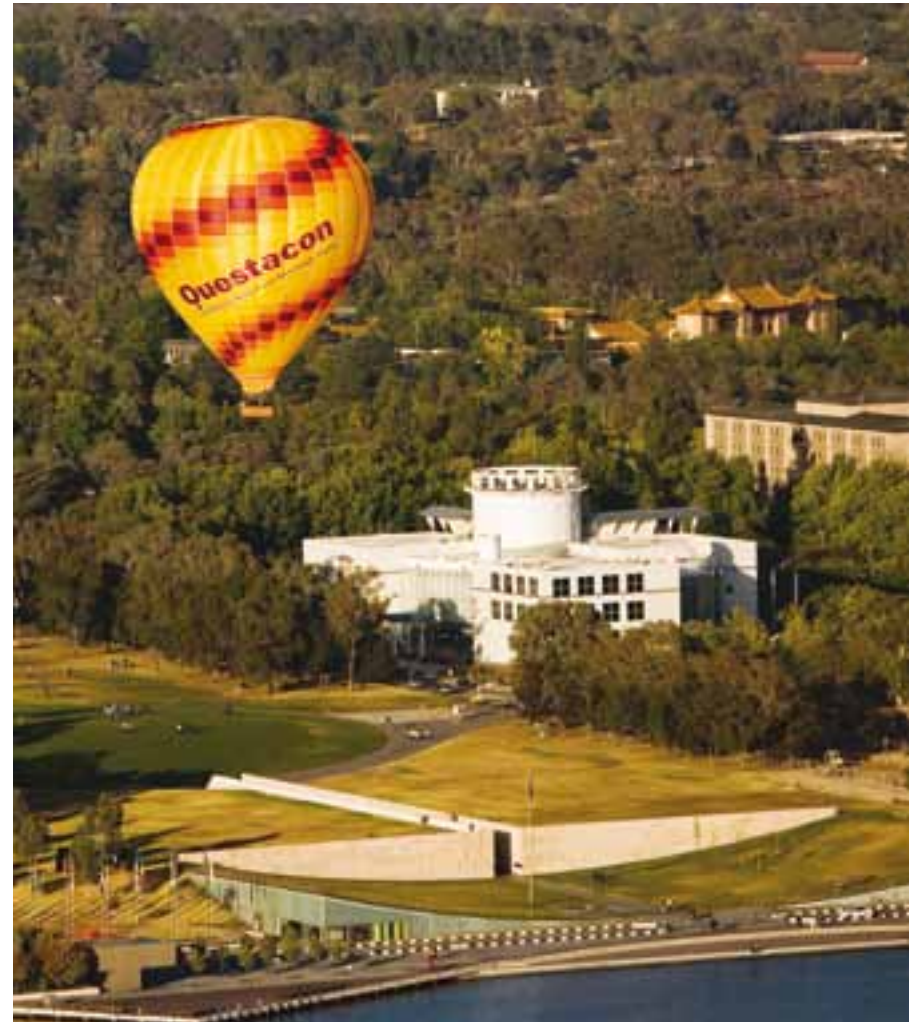
Questacon was founded at the Australian National University. It opened as Australia's National Science and Technology Centre in November 1988 in its current building that was jointly funded as an Australia-Japan Bicentennial project. Questacon is prominently located beside Lake Burley Griffin and other national cultural institutions, in the national capital Parliamentary Zone.

Questacon aspires to help Australians recognise that science, technology and innovation are essential to future prosperity. More directly, Questacon aims to help tackle the skill shortages in science and technology by inspiring interest and motivation to study science, technology, engineering and maths.

A Questacon experience may be a visit to the Centre in Canberra, a visit to a travelling exhibition at an urban or regional venue across Australia or overseas; attendance at an outreach program in regional and remote Australia; a video conference link-up or through the interactive website; or through an *Inspiring Australia* event such as *National Science Week*. This multi-faceted approach gives Questacon significant and broad audience reach across various target groups.

Questacon is a recognised leader in presenting innovative, interactive science exhibitions and programs. Hands-on exhibits, science shows and demonstrations are developed and delivered by enthusiastic and professional staff including young scientists, trained science communicators and actors. Questacon offers an experiential learning environment which promotes a positive association with science and technology.

Programs and exhibitions are developed in response to the Australian Government's strategic priorities. The exhibits are designed to present scientific concepts in an entertaining way that encourages visitors to engage and experiment. Daily science shows, which provide further interpretation and exploration of the science behind the exhibits in the galleries, are performed at the Centre by Questacon's in-house performance troupe, the *Questacon Excited Particles*.





In 2010–11 a prototyping gallery was added to the existing gallery space. This gallery is used to trial new exhibits and provide flexible spaces for science communication activities. This space has enabled *Science Time* to have a larger, more permanent performance area and allowed Questacon to deliver a variety of shows and talks to a wider range of visitors. Questacon now has eight galleries with over 200 hands-on interactive exhibits, with trained staff and volunteer explainers on hand to enhance visitor's enjoyment.

Questacon's audience is culturally and socially diverse and Questacon actively seeks to make its programs and exhibitions accessible to all. Each year Questacon takes its programs to regional, remote and Indigenous communities across Australia. These programs target a range of audiences from pre-school to senior secondary and have been developed to support national education priorities in mathematics, innovation, early childhood and primary science. Web-based educational materials supplement exhibitions and programs.

Questacon is positioning itself as a hub for digital communications technology. Recently developed capability in digital communications allows Questacon to offer a range of science experiences through online activities and digital media. Face-to-face outreach tours are supplemented by a *Digital Outreach* program, providing schools with interactive workshops and programs. Questacon's video conference program has provided opportunities for students around the country to link with each other and with leading scientists from Australia and around the world. Questacon's high quality video conferencing facility is also increasingly being used by other government agencies for video conferencing and meetings, providing a cost-effective alternative to face-to-face meetings otherwise requiring travel.



**“...the *Smart Moves* performance...  
is relevant to the study of science and  
allowing students the ability to recognise  
that ‘science’ is not beyond them.”**

**Secondary College Teacher, Victoria**



Questacon's partnerships are vital to the achievement of particular strategic goals. Long-running partnerships with corporate Australia (including Shell Companies in Australia, Raytheon Australia and Tenix) enable Questacon to deliver science engagement experiences to Australians in even the remotest parts of the country. Questacon works with many other organisations, including government agencies such as the National Water Commission, state science centres, other science-based organisations and the business community.

Questacon continually monitors emerging global trends. Links to international science centre networks allow Questacon to exchange ideas, participate in global projects, promote Australian science, education and innovation and benchmark with the best in the world. Questacon plays a leading role in developing the science centre sector internationally through facilitating the sharing of expertise and experience between science centres, especially between established centres and those under development.

In April 2011, Questacon secured premises in Deakin, ACT, for a *Questacon Technology Learning Centre*. Due to open in 2013, this new facility will deliver technology-based educational programs showcasing Australian technology, design and manufacturing. This building will also replace the current Questacon facility at Fyshwick in providing staff and workshop accommodation.

Questacon is a division of the Department of Innovation, Industry, Science and Research. Questacon has an Advisory Council comprising a Chairman and members from the business, science and education sectors, appointed by the Minister.

Questacon is open to the public from 9 am to 5 pm every day except Christmas Day.



# PARTNERSHIPS

Questacon's development of exhibitions and programs is supported through a number of successful partnerships.

Questacon's operations have benefited from valued partnerships with the Commonwealth Scientific and Industrial Research Organisation (CSIRO), the ABC, the Australian National University, the National Water Commission, various research bodies, government agencies, state science centres and corporate Australia.

Strong, long lasting partnerships, such as that with Shell Companies in Australia and the Australian National University, have enabled Questacon to take science and technology programs to regional and remote Australian communities. These partnerships are considered a benchmark model by many other leading science centres around the world. Examples of partnerships in 2010–11 include:

## Imagination Factory—invent and play

Raytheon Australia was a presenting partner for Questacon's *Imagination Factory—invent and play* exhibition from 2007 to 2010. This support has enabled the exhibition's travel to three venues, attracting a total audience of over 340,000. We thank Raytheon for their support.

## Tourism partners

Questacon continues to work collaboratively with industry and regional tourism bodies to position Questacon and Canberra as a significant tourist destination. In particular, Questacon is represented on the Executive Committee of the National Capital Attractions Association (NCAA) and the Council of the National Capital Educational Tourism Project (NCETP). Questacon actively supports these bodies' work to promote the National Capital's attractions, including Questacon, to tourists and schools and to encourage collaboration between attractions.

## The Tenix Questacon Maths Squad

The *Tenix Questacon Maths Squad* program demonstrates how maths and numeracy are fundamental skills in many areas such as science, technology, medicine and art. Tenix support for the *Maths Squad* outreach program from 2005 to 2011 ensured the program's reach and impact, with increasing emphasis on supporting teachers. The impact of Tenix's contribution to the *Tenix Questacon Maths Squad* will be a lasting one. The program inspired over 128,000 students and teachers across Australia who, in turn, have the potential to enrich Australia's future.







Shell  
**Questacon**  
Science Circus



Australian  
Department of  
Industry and  
Science



## The Shell Questacon Science Circus

The *Shell Questacon Science Circus* was established over 25 years ago in partnership with Shell Companies in Australia, the Australian National University and Questacon. Shell has recommitted to future ongoing support of the program. The program aims to expand to include a greater focus on secondary students, early childhood and the broader community.

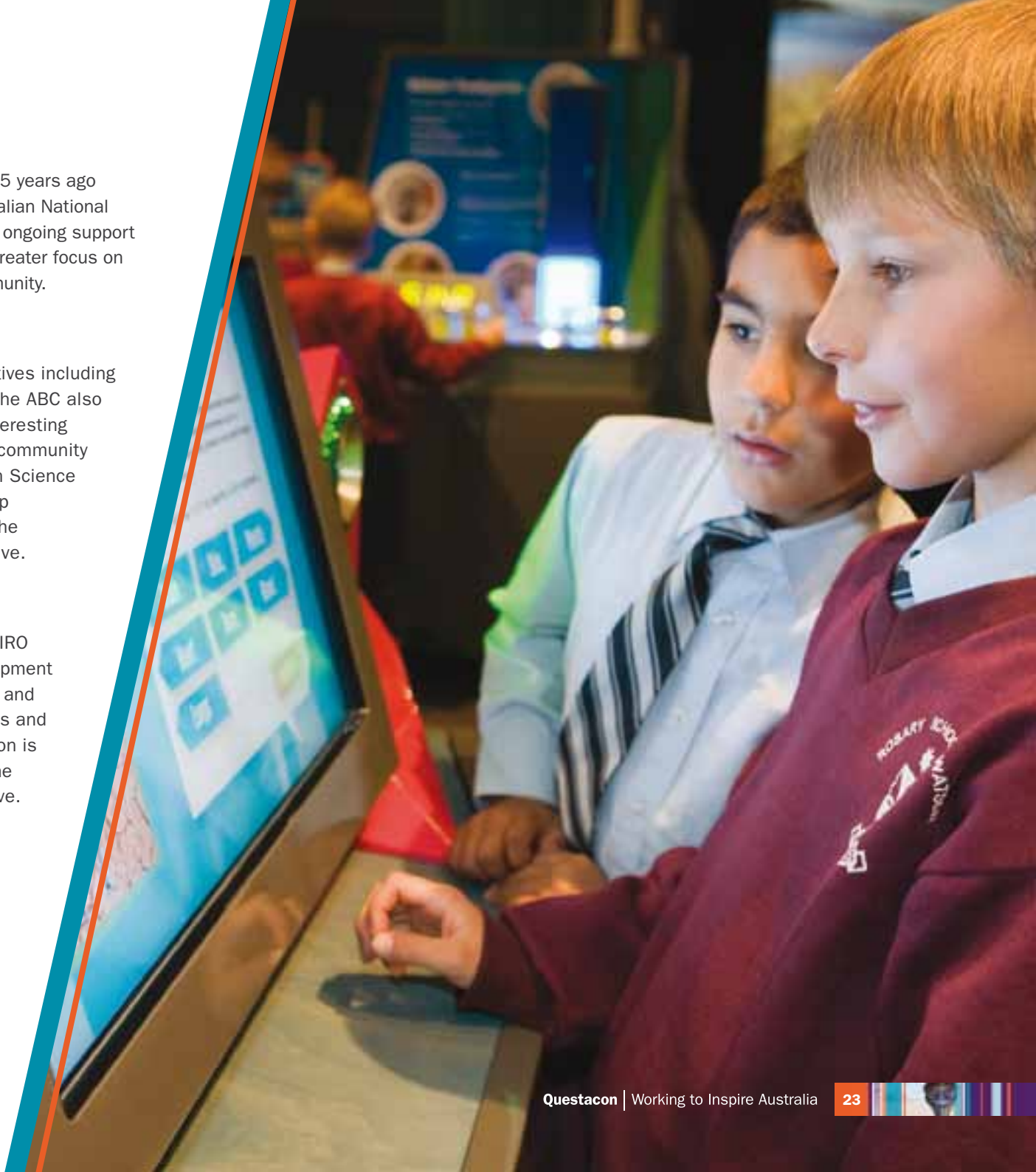
## ABC

The ABC and Questacon have partnered on several initiatives including *National Science Week* and the *Ultimo Science Festival*. The ABC also works to engage Australians with science by providing interesting and relevant stories using multiple media platforms and community connections through the ABC Science Online and News in Science websites. Questacon and the ABC will continue to develop opportunities for collaboration particularly in relation to the *Inspiring Australia* national science communication initiative.

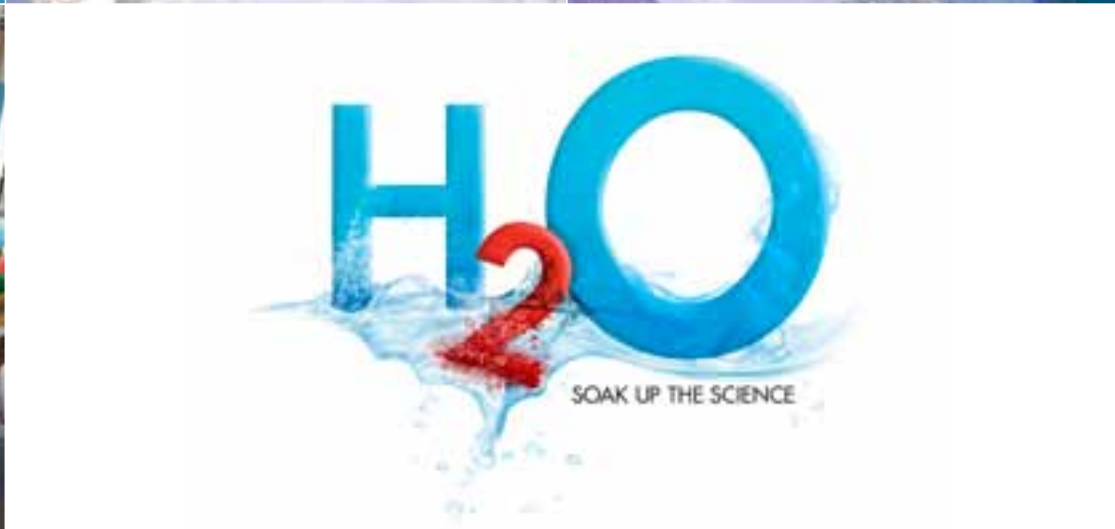
## CSIRO

Questacon has a long history of collaboration with the CSIRO covering areas such as *National Science Week*, the development of innovative young Australians through the CSIRO CREST and the *Questacon Smart Moves Invention Convention* programs and through the sharing of knowledge and expertise. Questacon is also collaborating with CSIRO on the implementation of the *Inspiring Australia* national science communication initiative.

The *Shell Questacon Science Circus* 25th birthday celebration, October 2010.  
L-R: Ruben Meerman, Amelia Swan, Prof. Graham Durant, Prof. Ian Chubb (formerly ANU), Senator Kim Carr, Ann Pickard (Shell), Laura Beeton.









## The National Water Commission Partnership

A partnership with the National Water Commission was established in 2008 for the development and delivery of a national, integrated water education and awareness program. This partnership has allowed Questacon to develop and open a new exhibition – *H<sub>2</sub>O—Soak Up the Science*.

This exhibition invites visitors to delve into water and discover the many different forms, features and compositions of this life-giving element. The exhibition explores how water shapes our world, supports our climate and influences our society. The centre-piece of the exhibition is the Hydrotram – a seven metre tall sculpture that simulates the water cycle. Other exhibits are designed to raise awareness of water and the influences it has on our everyday life. Visitors can experience the launching of a hydrogen rocket, learn how much water is used to manufacture food and clothing or design a water-efficient city.

In addition to the *H<sub>2</sub>O—Soak Up the Science* exhibition, the National Water Commission partnership program includes:

- a travelling exhibition, *Our Water*, which was launched in May 2010, and commenced a two year tour in August 2010. Since then it has visited seven venues across regional Australia and is scheduled to tour to another seven until August 2012; and
- an in-school program for secondary school students on water innovation and careers, delivered through the *Questacon Smart Moves* outreach program. This program has been delivered to over 90,000 secondary school students since it began in January 2009.







# INSPIRING AUSTRALIA

As a division of the Department of Innovation, Industry, Science and Research, Questacon is leading the *Inspiring Australia* initiative. The *Inspiring Australia* report (*Inspiring Australia: a national strategy for engagement with the sciences*), released in 2010, provides the basis for Australia's national strategy for coordinated engagement with the sciences and details 15 key principles and recommendations.

In the 2011–12 budget, the Australian Government announced funding for the *Science for Australia's Future – Inspiring Australia* program at a value of \$21 million over three years, commencing in 2011–12, as a strategic investment towards building a coordinated national science communication strategy.

Funding will be targeted towards initiatives that help to unlock Australia's full potential to engage with the sciences.

In the last year, Questacon has prepared for the full implementation of the *Inspiring Australia* strategy, through:

- Establishing an *Inspiring Australia* State and Territory Officers network to enhance collaboration and develop a coherent approach across Commonwealth and State and Territory government science engagement ventures. Through this group, jointly funded *Inspiring Australia* officers have been appointed in a number of states and territories and several events have been staged across Australia.
- Establishing *Inspiring Australia* coordination bodies within the Coordination Committee on Innovation (CCI) and the Commonwealth State and Territory Advisory Council on Innovation (CSTACI), encompassing federal government agencies with an interest in innovation, science and technology. This group will facilitate a coordinated whole-of Commonwealth approach for science communication initiatives.
- Convening Expert Working Groups on science and the media and on developing an evidence base for science engagement. Recommendations from both groups are being considered as part of the development of the *Inspiring Australia* program.



*Inspiring Australia* Conference, Melbourne, March 2011.

- Developing an *Inspiring Australia* Communications Strategy and releasing an *Inspiring Australia* brand in March 2011.
- Supporting the first *Inspiring Australia* National Conference, held in Melbourne on 28–29 March, which sought further inputs from science communication stakeholders into the development of a coherent approach to science communication across Australia.

Further work analysing opportunities for greater coordination has commenced, focussing on science engagement in desert regions, tropical regions and Indigenous urban, regional and remote communities. A case study is underway to see how institutions engaged in marine science research can work together to tell a stronger story of Australia as a marine nation.





# PRIME MINISTER'S PRIZES FOR SCIENCE

---

The *Prime Minister's Prizes for Science* are a national tribute to excellent and dedicated achievement in Australian science research and science teaching. They reward the significant research contributions that Australian scientists have made to our economic and social well-being, and the dedication and quality of our science teachers. There are five prizes awarded annually, including the Prime Minister's Prize for Science, one of the nation's most highly-regarded awards and the premier national award for scientific achievement. The Prime Minister's Prizes for Excellence in Science Teaching in Primary and Secondary Schools were introduced in 2002, to honour our inspirational science teachers.

The 2010 Prime Minister's Prizes were awarded in November at a gala dinner at Parliament House. The Prime Minister, the Hon Julia Gillard MP, presented the Prime Minister's Prize for Science and the Science Teaching Prizes, along with the Minister for Innovation, Industry, Science and Research, Senator the Hon Kim Carr. Senator Carr also presented the Science Minister's and Malcolm McIntosh Prizes.

## Prizes

Dr Matthew McCloskey received the Prime Minister's Prize for Excellence in Science Teaching in Primary Schools and Ms Debra Smith received the Prime Minister's Prize for Excellence in Science Teaching in Secondary Schools.

The Malcolm McIntosh Prize for Physical Scientist of the Year and the Science Minister's Prize for Life Scientist of the Year are awarded to scientists to recognise

and reward outstanding early-career research and to demonstrate that early-career achievement in science is not only possible but can be of world-class importance.

Dr Katherine Trinajstic received the Malcolm McIntosh Prize for Physical Scientist of the Year for her early career achievements in palaeontology. Dr Benjamin Kile received the Science Minister's Prize for Life Scientist of the Year for his achievements in molecular genetics.

The Prime Minister's Prize for Science is awarded for an outstanding specific achievement or series of related achievements in any area of science advancing human welfare or benefiting society. Professor John Shine received the 2010 Prize for his scientific research and leadership in the field of biotechnology.

In 2010–11, Questacon administered the *Prime Minister's Prizes for Science* as part of the *Science Connections Program* (SCOPE).



# NATIONAL SCIENCE WEEK

Held in August each year, *National Science Week* aims to increase community awareness and understanding of the role of science, engineering, technology and innovation in maintaining and improving our society, economy and the environment.

The program now reaches over 1.6 million people across Australia from capital cities to remote communities. The success of *National Science Week* is due to the partnerships involved and the efforts of hundreds of volunteers across the country.

In 2010 *National Science Week* was held from 14–22 August and attracted over 1.6 million participants to 1073 events across all Australian states and territories.



*National Science Week National Tour* Guest Tim Jarvis and former Chief Scientist for Australia Professor Penny D Sackett, with Biodiversity Challenge winners at the 2010 *National Science Week* launch, August 2010.

Each year, *National Science Week* includes a tour of prominent science personalities to major and regional centres around Australia for public lectures and media appearances. The 2010 National Tour featured four guests, including polar explorer and environmental scientist Tim Jarvis, microbiologist and caver Dr Hazel Barton, broadcaster and 'Naked Scientist' Dr Chris Smith, and nanotechnologist Dr Jan Herrmann. Tour guests reached over 6000 people at more than 45 events across the country, attracting significant media attention.

The annual *National Science Week* National Project, delivered in collaboration with the ABC, called for citizen scientists to help researchers gather important data on Australians' sleeping habits. More than 12,000 people contributed information via an online survey and over 3500 people kept a week long sleep diary.

## Other SCOPE Activities

In 2010–11 the SCOPE program supported a number of high-profile science engagement activities including:

- Support for the ABC Science unit to deliver and broadcast a variety of events, run citizen science research projects and to explore communication of Australian science stories through web 2.0 technologies.
- The Eureka Prizes for Science Journalism, Promoting Understanding of Science, and the Eureka Prizes People's Choice Award, awarded annually at the Australian Museum *Eureka Prizes*.
- *Fresh Science* – an annual program which provides intensive media training to 16 early career researchers, teaching them to deliver clear, informative and entertaining presentations to the public and media about the scientific research they are undertaking.
- The *Ultimo Science Festival*, held during *National Science Week*, run by four organisations based in Ultimo, Sydney: the Powerhouse Museum, the University of Technology Sydney, Ultimo TAFE and the ABC.





Senator Carr congratulates ABC journalist Ian Townsend on receiving the 2010 Australian Government Eureka Prize for Science Journalism, August 2010.

- The *National Youth Science Forum (NYSF)* – provides year 10–12 students with site visits to scientific research and industry facilities to gain an appreciation of career opportunities available through tertiary studies in science.
- *International Year* national celebrations – in 2010, for the *International Year of Biodiversity*, a partnership program was developed by Australian museums to deliver activities highlighting the importance of biodiversity for people living in metropolitan, regional and rural communities. In 2011, for the *International Year of Chemistry*, a partnership with the Royal Australian Chemical Institute has yielded five travelling exhibitions about aspects of chemistry and the commissioning and touring of an artistic work based on the periodic table of the elements.



# QUESTACON DIGITAL COMMUNICATIONS

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In recent years Australians have exhibited a strong uptake of digital media, including the internet, social media and mobile phones. Questacon has responded to this trend by establishing a specialised Digital Communications team to expand and enhance Questacon's delivery of programs and experiences through the use of digital technology.

World-class, media-rich content can now be delivered through technical resources, capability and expertise in online media, video production and video conferencing.



## Video production

Questacon's in-house video production capability includes the capture and editing of high definition video from one frame per day to 280,000 frames a second. Recent productions include:

- the *Questacon Science Play* DVD which is given to parents, carers and early childhood educators at *Science Play* sessions or professional development workshops; and
- 'Looking at the Square Kilometre Array' – a short DVD featuring leading Australian astronomers filmed at Questacon and on location at the Canberra Deep Space Communication Complex; distributed nationally and online for the *Discover SKA* project.

Questacon is also extending access to some of its Canberra-based programs through filming and post-production of *Questacon Science Time* sessions and *Questacon Excited Particle* shows for viewing online.

Questacon's digital communication team have also provided training in media and on-screen presentation skills for Questacon presenters and coordinated a live web stream of the *Inspiring Australia* National Conference.



## Online media

Over one million visitors from across Australia and around the world experienced Questacon online in 2010–11. Questacon's online presence extends in-person interactions with exhibitions and programs by providing supplementary content and activities. It also makes exhibition and program content accessible to new audiences who would not otherwise experience Questacon, and extends the message by delivering unique online-only content to a global audience.

This year over 11 per cent of online visitors to the Questacon information page accessed it from a mobile device. Questacon has responded to this trend by launching a version of the website which is optimised for mobile devices.



## Video conferencing

Questacon's video conferencing program provides audiences with authentic and intimate experiences that showcase Australia's world class research regardless of geography.

Questacon has built strategic working relationships with experts and world class facilities across the science, technology and innovation fields to provide content for video conferences.

Video conference highlights for 2010–11 include:

- *Robot World Live!* – this event brought a robot ethicist and robot enthusiasts from Canada, USA, Sydney, Queensland and Western Australia together with a live audience in Canberra.
- Students from five NSW high schools and one university conversed via video link-up with high-profile burns specialist Dr Fiona Wood AM about her career in medicine and medical research. The session was also streamed online to another 13 groups.
- A week-long celebration of the Square Kilometre Array (SKA) project, including presentations by leading Australian astronomers from Canberra, Tasmania and Perth about their research and careers and how the SKA would revolutionise their work. Students from across Australia were able to access the presentation.
- Primary and high school students chatted with Dr Barbara Weinecke at Questacon about her work with Emperor penguins, with station leader Graham Cook, and with LIDAR scientist Dr Ray Morris 'on ice' at Davis Station in Antarctica.
- School students in Ohio, USA, learnt about some of Australia's native animals in a presentation with the National Zoo and Aquarium.
- *National Youth Science Forum* participants engaged in conversation with a leading scientist from the European Organization for Nuclear Research facility (CERN) about the science behind the Large Hadron Collider.
- Former NASA astronaut Dr N. Jan Davis talked with Christmas Island District High School students about her experiences in conducting life sciences and materials processing experiments in space.

These multi-disciplinary capabilities in digital communication will enable Questacon to continue to engage visitors through the use of digital technology now and into the future.

“ **The content was...engaging, exciting and the kids are still talking about it. I now have other classes begging for the same experience. Thank you again.** ”

**Teacher feedback from Digital Outreach video conference**

Dr Fiona Wood AM presents at a Questacon video conference, March 2011.









# DISCOVER SKA

The Square Kilometre Array (SKA) will be the largest and most sensitive radio telescope yet devised, and is one of the largest and most ambitious international science projects to date. It will help answer fundamental questions about the evolution of the universe. The SKA will also drive forward leaps in technology and industry, especially in information technology and green energy solutions. Australia and New Zealand have been shortlisted by the international science community as one of two potential locations for the SKA, with the other being southern Africa.

In support of the Australia-New Zealand bid, Questacon coordinated a nationwide outreach campaign to raise public awareness and understanding of the significance of the Square Kilometre Array telescope and the global benefits it will provide.

The *Discover SKA* campaign ran between 1 April and 30 June 2011. Questacon worked closely with the SKA Taskforce in the Department of Innovation, Industry, Science and Research, as well as the Western Australian Department of Commerce, the International Centre for Radio Astronomy Research (ICRAR) and the CSIRO. The Fronterra Science and Technology Roadshow also coordinated a series of events and activities in New Zealand.

*Discover SKA* aimed to excite and inspire all Australians and New Zealanders with the idea that, together, our nations are ready, willing and able to host the SKA.

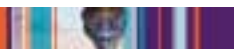
Around 40 organisations including universities, science centres, schools and community groups hosted over 600 *Discover SKA* events and activities across Australia and New Zealand. These events saw leading project scientists and astronomy outreach teams sharing their passion for the SKA with capacity audiences at public venues, in schools and remote communities. Activities included astronomy observation evenings, public lectures, careers-focussed presentations and hands-on astronomy activities.



Proposed SKA array station locations (left) and *Discover SKA* event locations

Several national programs incorporated information about the SKA into their activities, including the University of Newcastle Science and Engineering Challenge and National Maths Day. Outreach programs from Questacon, Scitech and a number of universities helped to spread the word into schools through SKA presentations. Planetariums throughout Australia and New Zealand played a promotional trailer about the SKA as part of their programs.

Questacon also held a week-long SKA festival at the Centre in Canberra, including an *Astronomy @ Questacon Day* with SKA, astronomy and space-themed shows and special presentations, a *Questacon Science Café* event featuring a panel discussion with leading CSIRO and Australian National University astronomers, and a series of SKA video conferences for high school students featuring astronomers from ICRAR, University of Tasmania and the ANU.





**“ Thank you for a wonderful and interesting evening. I thoroughly enjoyed it and wish [Australia] all the best [for the] bid ”**

**SKA Science Café attendee**

#### **Other event highlights included:**

- Minister for Innovation Senator Kim Carr helped 100 Canberra primary school students build a ‘virtual SKA’ on the lawns of Parliament House using personally decorated paper model dishes and spoke to them about the discovery potential of the SKA.
- WA State Chief Scientist Professor Lyn Beazley AO toured to several regional WA towns, giving SKA talks for schools and community groups. Over 690 students and more than 250 members of the public heard about the SKA and the state’s important role should Australia’s bid be successful.
- Astrofests in Perth and Carnarvon – the ICRAR outreach team inspired 3000 Perth and 60 Carnarvon residents at two community Astrofest events. These events included telescope observations, SKA talks and astrophotography sessions.
- Sold-out public talks at major venues – over 100 people heard University of Sydney astrophysicist Bryan Gaensler chat with astronomer and broadcaster Fred Watson at the Sydney Observatory. In Adelaide, ICRAR director Peter Quinn took his audience on an astronomical journey at the Royal Institution, looking to the SKA as the future of astronomy. Similar talks also took place in Canberra, Brisbane, Melbourne, Bendigo, and many other locations.

*Discover SKA* has raised awareness of this important project and Questacon is proud to be involved.



# QUESTACON BUILDING

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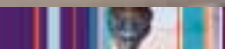
Questacon is a purpose built science centre and an iconic national institution located within Canberra's Parliamentary Zone. It has been operating for 23 years during which time visitation has more than doubled to over 430,000 people annually.

The upkeep of this award-winning destination requires continued high performance in environmental management, workplace health and safety, security, cleaning, maintenance and capital works.

## **Achievements during the 2010–11 financial year include:**

- Completion, certification and audit of the Environmental Management System and the introduction of organic material composting into the recycling program. Electricity use continues to trend downwards with a further reduction of seven per cent for the year and a total reduction of 42 per cent over the 10 years to June 2011.
- Workplace health and safety continues to be a prime focus for preventative action and risk mitigation. Questacon's incident numbers and severity continue to be relatively stable even in an expanding activity environment.
- Very high levels of cleanliness continue with positive visitor comments received about the cleaning contractors and building appearance.
- Maintenance works completed with minimal disruption to centre operations and audit findings that all maintenance Key Performance Indicators were achieved.
- Minor capital works completed including new signage and security, safety improvements to building services, structure and envelope, and upgrades to public areas including the foyer.



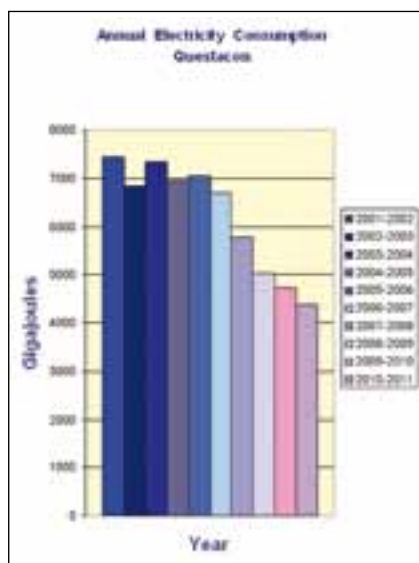




The building's level of visitor amenity and asset quality is measured by the Building Condition Index (BCI), which compares current condition against that of an as-new building. Since 2000 it has been shown that the BCI is directly related to ongoing capital funding and this year the BCI has again risen, from 86 to 88 per cent. This reflects the value and importance of the capital works program which has received funding of \$15 million over the five years to June 2011.

Further capital building works are planned for 2011–12 with funding secured for works to the Centre and to the new *Questacon Technology Learning Centre* (QTLC) to be located in the former Administration building at the Royal Australian Mint in Deakin, ACT. A leasing Memorandum of Understanding was signed in February 2011 with the Department of Finance and Deregulation for the use of the building. Pre-design studies have commenced on the fit-out which is expected to be completed in early 2013.

The QTLC will provide staff and workshop accommodation and public areas for learning experiences in technology, innovation and manufacturing. The QTLC will be central to Questacon's ability to continue delivery of world class exhibits, outreach programs and national science communication activities.



## Science Garden in the Humanities and Science Campus

The Humanities and Science Campus, the area bordered by Questacon, the National Library and Lake Burley Griffin, was completed in March 2010 and provides Questacon with a landscaped setting, safe and easy access to the building and an increased level of amenity to precinct visitors.

The Campus continues to develop with the inclusion of the first of Questacon's new external exhibits, creating a *Science Garden* which provides a relaxing and enjoyable environment in which to explore and discover aspects of science, mathematics, engineering and the environment. In February 2010 five exhibits were installed and there are plans for more to be installed in the lead up to the 2013 Centenary of Canberra.

## Parking shortfall

Changes to parking arrangements in the Parliamentary Zone have made it harder for visitors to find convenient parking, which affects the overall visitor experience.

The National Capital Authority (NCA) has set up an inter-governmental review to develop a parking strategy to alleviate parking shortfalls. Questacon is working closely with the NCA to develop a workable parking strategy. The NCA review is expected to be completed in late 2011 and Questacon will be monitoring impacts of any changes.

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# QUESTACON INTERNATIONAL

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There are over 2400 science centres worldwide attracting over 290 million visitors annually. Since its establishment, Questacon has actively participated in the global science centre community and supported many new initiatives. These international connections facilitate shared learning and experience in the rapidly growing field of science communication.

In October 2011 Questacon's Director Professor Graham Durant will conclude his second term on the Board of Directors for the Association of Science-Technology Centers (ASTC), the peak body of the science centre sector. During his time on the Board, Professor Durant has extended the network's global leadership and influence through inter-network projects such as Rio+20 initiative.

Questacon's Brenton Honeyman has been Executive Director of the Asia Pacific Network of Science and Technology Centres (ASPAC) since 2007, following his earlier terms as Secretary and Treasurer starting in 1998, contributing significantly to the development of the science centre sector in the Asia Pacific region and beyond. After a long period of leadership, Brenton steps down from this role in December 2011.

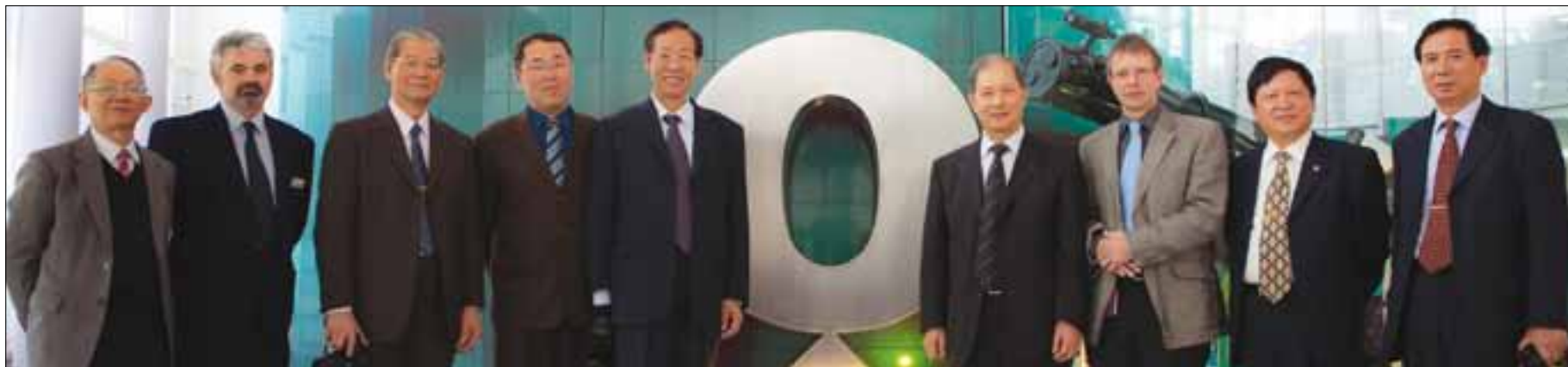
During 2010–11 international delegations from China, Japan, Thailand and Indonesia visited Questacon to learn about its programs and operations. Questacon

staff also participated in a number of international conferences, including the ASTC conference in the United States in October 2010, the South African Association of Science and Technology Centres conference in South Africa in November 2010, the 11<sup>th</sup> International Conference on Public Communication in Science and Technology in India in December 2010, and the ASPAC conference in China in May 2011. Participation in these conferences creates opportunities for exchange of ideas and examining best practice approaches in the science communication field.

In November 2010, Professor Durant also served as Co-Chair of the Space Education and Awareness Working Group of the 17<sup>th</sup> Asia Pacific Regional Space Agency Forum held in Melbourne.

Questacon is contributing to the development of the program for the 6<sup>th</sup> Science Centres World Congress to be hosted in South Africa in 2011, and to the planning of a Science Centre World Summit in 2014.

Questacon's *Fascinating Science* and *Science on the Move* exhibitions toured to Doha, Qatar in July–September 2010 where they were on display at a summer camp at the Qatar Scientific Club attended by 875 children aged 8–16.



Questacon hosted international delegations from Japan (left) and China (above). In September 2010, two *Shell Questacon Science Circus* presenters toured to Beijing, Shanghai and Guangzhou, China in partnership with Chinese science centres (far left).





# QUESTACON GALLERY EXHIBITIONS

During 2010–11, Questacon has focussed on providing a wider range of experiences for our visitors. With eight galleries including a new multi-use area, Questacon displays more than 200 exhibits at any one time. The multi-use area has enabled Questacon to deliver a range of different talks and events. The galleries are staffed by Questacon communicators and volunteers who assist visitors to explore and experience science through interactive exhibits.

Questacon's approach is based on the proven educational value of hands-on activities supported by face-to-face science demonstrations. Questacon's informal educational activity complements more structured learning in schools. As part of the Questacon exhibition development program, exhibitions are frequently renewed within the Questacon galleries to offer new engaging experiences for visitors.

Exhibitions on display at Questacon during 2010–11 included:

## Galleries:

- *H<sub>2</sub>O—Soak Up the Science* – explores how water behaves, how it shapes our world and how we use this precious resource.
- *Going Places* – a Scitech exhibition that explores different forms of travel.
- *Perception Deception* – explores perception and the senses.
- *Awesome Earth* – engages visitors with the forces that shape the earth through cyclones, earthquakes, volcanoes, tsunamis, thunder and lightning.
- *Wonderworks* – highlights the beauty and power of science phenomena to stimulate the imagination.
- *Mini Q—fun for 0–6 year olds* – encourages younger visitors, along with their parents and carers, to explore science through play.
- *Sideshow* – explores the physics, physiology and psychology of sideshow alley rides and activities.



## Foyer and ramp areas:

New exhibits were also installed in the Questacon foyer space in 2010–11, including:

- *RoboThespian* – an interactive animatronic humanoid that engages with Questacon visitors as they enter the foyer space.
- Scaled models of the *Hayabusa Explorer* and the *Itokawa Asteroid* presented by the Japanese Aerospace Exploration Agency (JAXA) for display at Questacon on the occasion of the landing of Hayabusa. Findings from the Hayabusa project (supported by several Australian Government agencies) will assist scientists to learn about the birth of the Solar System.
- *Mirror Wall* – offers a whole body experience for multiple visitors at once.



The surrounds of the ramp leading to the galleries includes a display area for science-based art and photographic works, including:

- *Over the Edge* – a touring exhibition of artistic prints inspired by the work of CSIRO Marine and Atmospheric Research scientists, produced by the Hunter Island Press (Tasmania).
- An exhibition of five images curated from previous years' entries to the New Scientist Eureka Prize for Science Photography.
- Japanese Illusions – ten visual perception illusions developed by Professor Kitaoka, Kyoto, Japan in a complementary display to Questacon's *Perception Deception* exhibition.

### Science Garden external exhibits

The *Questacon Science Garden* offers visitors an outdoor setting in which to explore and discover aspects of science, mathematics, engineering and the environment through interaction with exhibits inspired by the natural elements of sun, wind, water and rock, including:

- *Flickering Leaves* – designed and built by world-renowned artist Ned Kahn, this large exhibit's surface is covered in small stainless steel discs that ripple in the wind, echoing the effect of leaves.
- *Moëbius* – one of the classic forms in both sculpture and mathematics.
- *Rock Xylophone* – constructed of natural stone, the xylophone is tuned to the chromatic musical scale. Visitors play a tune, appreciating the unique timbre of the stone bars.
- *Sound Pillar* – a highly polished, flawless column of rock emits sound when tapped.
- *Szillassi* – discovered in 1977 by L. Szilassi, this geometric form is recognised as being the shape with the greatest number of sides (seven) that has every side touching all other sides.





# QUESTACON PROGRAMS AND OPERATIONS

## Q by Night

Questacon offers evening sessions for school groups. During 2010–11 20,048 students and teachers attended *Q by Night*.

Questacon held two special *Q by Nights* in January and February 2011 for Sports 4 All (a group of adults with disabilities competing in the national futsal competitions) and the ACT Foster Care Association respectively.

## Science Theatre

Science theatre is a unique and integrated part of the Questacon experience. Questacon's troupe of professional actors, the *Questacon Excited Particles*, performs Spectacular Science Shows, puppet shows and interactive educational presentations. The interactive performances are lively and entertaining and encourage audience participation. In addition, the *Excited Particles* present busking and impromptu performances in and around the Questacon foyer and galleries.

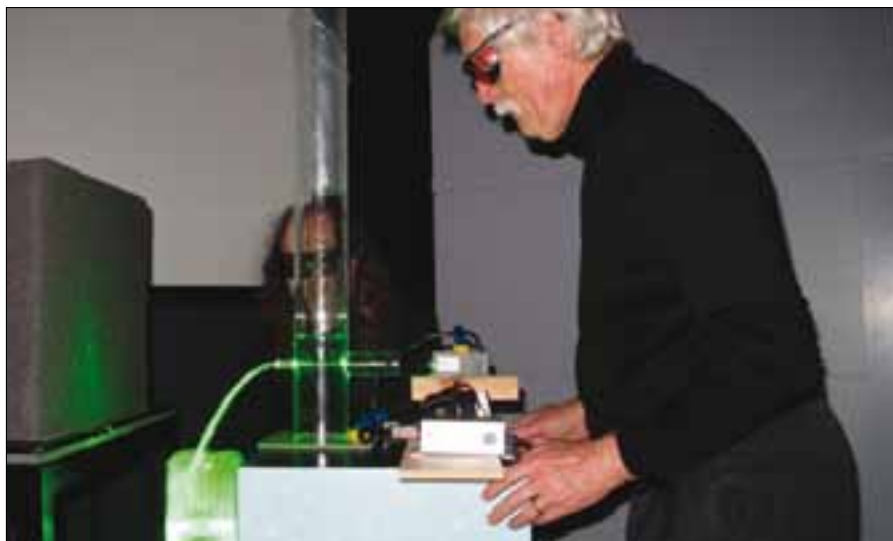
Spectacular Science Shows delivered in 2010–11 include:

- Perception Deception – the science of fooling your senses
- Rockets #101
- Boom Crash Boing – the collision show
- Instrumental as Anything – the music show
- Invasion from the Planet Fwah – the BOC Liquid Nitrogen show
- Disaster Show – the science behind natural disasters
- Science on a Plane – the science of flight show
- Move It! – the Imagination Factory show



- Tsunami – developed with Emergency Management Australia
- Tuning in on the SKA – The Square Kilometre Array Project
- Testing the Waters – new in 2011, complementing Questacon's *H<sub>2</sub>O—Soak Up the Science* exhibition.

The *Excited Particles* performed 2956 shows, talks and puppet shows and outreach programs during 2010–11, to 167,152 people.



## Science Time

*Science Time* is a fun and interactive learning experience for two to six year olds and their carers. Themes change fortnightly and include space, chemistry, the human body, balance and music.

In 2011, due to overwhelming demand and over-subscription to the program, *Science Time* launched a web-based service. Short 'webisodes' are developed for each of the topics and posted on the Questacon website. Each week these webisodes attract twice as many viewers than can attend the in-centre program.

## @ Questacon Program

On 14 May 2011, as part of the *Discover SKA* series of events, Questacon hosted *Astronomy @ Questacon* for visitors to the Centre. The day featured astronomy and space-themed activities and presentations and talks, including on the Square Kilometre Array and a Guide to the Galaxy. The event attracted more than 800 visitors.

## Q2U

The *Q2U* program is offered to Canberra and regional schools and community groups. The program delivers shows suitable for pre-schoolers through to secondary school students. A variety of show topics are available, covering physics, biology, chemistry and engineering. In 2010–11, 2837 students from 31 schools participated in a *Q2U* program.

## Science Lectures and Events

Questacon hosts occasional science lectures delivered by visiting scientists from Australian and international institutions. Additionally, Questacon provides performers and/or a theatre venue for the science-based festivals and conferences.

Highlights for 2010–11 included:

- A *National Science Week* performance of maths comedy "Planet of the Primes" by mathematician and comedian Simon Pampena;
- A lecture on the Fukushima disaster by Australian National University Nuclear Physicist Dr Gregg Lane in March 2011; and
- Dr Joseph Bevitt from Australian Nuclear Science and Technology Organisation (ANSTO) revealing the science of nuclear chemistry for the annual Royal Australian Chemical Institute Nyholm Youth Lecture in June 2011.







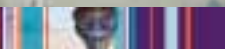
### Q Club

Questacon's membership program, the *Q Club*, provides unlimited access to Questacon, entry to the Members' Lounge, discounts in the *Q Shop* and *MegaBites Café*, as well as reciprocal entry to other science centres and museums in Australia and overseas. Membership of the *Q Club* in 2010–11 was 5000 memberships (representing 17,395 members). Many *Q Club* members reside in the ACT, however, a significant number reside interstate, particularly within metropolitan Sydney. In 2010–11, the value of a membership was enhanced through upgrades to the members lounge and improvements to the e-newsletter providing better access and information about Questacon events and science information. In December 380 members attended the *Q Club* member's night with numerous special events and shows.

### Questacon Science Cafés

In 2010–11 Questacon hosted a series of evening events for adults. These themed events allow guests to explore Questacon's galleries after hours and enjoy presentations, shows and demonstrations from leading scientists. Three *Questacon Science Cafés* were held in 2010–11, proving a popular way to extend audience reach into the adult demographic. Events included:

- Radical Wine (August 2010) – this sell-out event combined wine tasting and hands-on wine chemistry experiments with talks from local winemakers and scientists.
- Laserfest (November 2010) – over 170 people attended this event, which celebrated 50 years of lasers with presentations from leading Australian National University laser scientist Professor Hans Bachor along with the Australian Federal Police about the development, use and importance of lasers.
- Square Kilometre Array (May 2011) – leading astronomers from CSIRO and the Australian National University talked about why the SKA is 'the next big thing' in astronomy, and the bid to host the project in Australia and New Zealand.









# QUESTACON OUTREACH

Questacon is a recognised world leader in the delivery of science outreach programs. Questacon's outreach programs are designed to make science and technology accessible to communities in regional and remote areas. Eight different outreach programs target specific audiences and support national education priorities in Indigenous education, mathematics, early childhood and primary science. Outreach programs are supported significantly by partnerships with corporate Australia (including with Shell Companies in Australia and Tenix). These partnerships enable Questacon to take outreach programs to communities all over Australia on a regular two to six year cycle.

To increase community access to outreach programs, some face-to-face tours have been supplemented by digital outreach using Questacon's new multimedia studio, greatly increasing program reach through interactive video conference technology.

During 2010–11, Questacon outreach programs reached an audience of 139,418 people. Outreach programs visited 970 schools across Australia.

“**Questacon Smart Moves allowed students from our isolated, rural, small school to access an interesting, cheap science program (normally unavailable to us).**”

Secondary College teacher, Victoria

## Visitors to Questacon outreach programs in 2010–11

Outreach Program	Number of Visitors	Number of schools visited
Shell Questacon Science Circus	37,900	324
Tenix Questacon Maths Squad	14,230	112
Questacon Science Squad	25,167	147
Questacon Smart Moves	39,199	216
Questacon Science Play	3396	96
Questacon Digital Outreach	1585	32
Other programs, including Q2U, Star Labs and Questacon ScienceLines	17,941	43
<b>Total</b>	<b>139,418</b>	<b>970</b>





The Shell Questacon Science Circus at Floriade, September 2010.

## Shell Questacon Science Circus

Each year the *Shell Questacon Science Circus* completes two to four tours, travelling for up to 16 weeks annually. The *Science Circus*, through shows and a portable exhibition, aims to inspire young people to engage with science and technology. A teacher support program is also a feature of the program. The program is a major component of an Australian National University Graduate Diploma in Science Communication for 16 graduates each year.

During 2010–11 the *Science Circus* completed tours to the New England region, the Central West region of NSW and toured to remote communities in Arnhem Land and the Tiwi Islands. The *Science Circus* also undertook two 'digital tours' and ran activity-based workshops via video conference, reaching 1761 students from 49 schools. Many of these workshops were follow-up experiences for students who had previously been visited by the *Science Circus*.

The *Science Circus* also engaged over 100,000 visitors to the Floriade flower festival in September 2010 with their portable science exhibits.

The *Science Circus* celebrated its 25<sup>th</sup> anniversary in 2010. Building on this great depth of experience, the program will be expanded in 2011–12 to include a greater focus on secondary students, early childhood and the broader community.

Questacon acknowledges and greatly values the ongoing partnership with Shell Companies in Australia and the Australian National University in support of the delivery of the *Shell Questacon Science Circus* program.

## Tenix Questacon Maths Squad

The *Tenix Questacon Maths Squad* aims to increase numeracy by positively influencing attitudes to maths and highlighting the broad application and relevance of maths in everyday life. Maths is critically important to students' choice of careers in areas such as scientific research, industry and innovation.

The *Maths Squad* presenters use a combination of multimedia presentations with hands-on mathematical tasks that inspire students in the field of mathematics. Throughout 2010–11, 14,230 students from 112 schools participated in in-school workshops and presentations.

The *Maths Squad* also works with pre-service and practising teachers to increase confidence in teaching and understanding maths. During the year, the *Maths Squad* presented at several conferences and gave guest lectures at multiple Australian universities, seeing a total of 1612 people in the maths education field.

## Questacon Digital Outreach

New in 2010–11, the *Questacon Digital Outreach* program delivers a wide range of workshops to school students via video conference. The workshops include demonstrations and interactions, encouraging students to explore phenomena through first-hand experience, stimulating them to re-think and develop their understanding of the world around them. The program has pioneered an approach which sees students across Australia sharing their science learning with each other as part of the workshop experience.

The workshops are presented by a team of education officers and outreach presenters. The interactive components of each workshop, and the energy and skill of the presenters are highly regarded by teachers in evaluation surveys. During 2010–11 the *Digital Outreach* program reached 1585 students in 32 schools and received positive feedback from teachers.



## Questacon Smart Moves

*Questacon Smart Moves* focusses on secondary students, showcasing science and innovation and stimulating students to consider new ideas and entrepreneurship in science, engineering and technology. *Smart Moves* uses a combination of multi-media in-school presentations, an interactive website and the *Questacon Smart Moves Invention Convention*.

During 2010, with support from the National Water Commission, the *Smart Moves* presentations included a segment to highlight innovations and technology in water management and career diversity in the water industry. In 2011 the *Smart Moves* presentations included a segment about the Square Kilometre Array (SKA) project, as part of the *Discover SKA* project.

Throughout the year, the *Smart Moves* program visited 39,199 students at 216 different schools in Australia.


## Questacon Smart Moves Invention Convention

The *Questacon Smart Moves Invention Convention* is an intensive week-long program that brings together innovative and enterprising young Australian secondary school students. Questacon has been hosting the *Invention Convention* since 2003 and over 200 students have participated in the program.

In 2010–11 Questacon hosted its eighth and ninth *Invention Conventions*. A total of 41 delegates attended, representing mainly regional areas from all States and Territories.

During the *Invention Convention*, delegates learn about the innovation process and explore and develop their knowledge and skills in innovation and entrepreneurship in a creative environment. The program includes seminars on innovation diffusion, the skills and mindset of the entrepreneur, sustainability and sustainable design, ethics and business, prototyping, effective marketing and intellectual property protection.

Every year mentors and presenters are involved in the program, giving the delegates an opportunity to network with and learn from successful innovators and entrepreneurs.

A woman with dark hair, wearing a black polo shirt with an orange stripe, is standing and presenting to a group of students. She is gesturing with her right hand. In the background, there is a large screen displaying a blue brain graphic with neural connections. To the left of the woman is a tall, narrow banner with the text 'SMART MOVES >>' and 'Inspiring young Australians' below it. The banner also features images of people and a blue brain graphic. The students in the foreground are seen from the back, looking towards the presenter.

“Year 9’s and 10’s are considering choices for VCE next year. Your program opens their eyes to different pathways.”

Secondary College teacher, Victoria





## Questacon ScienceLines

The *Questacon ScienceLines* team is dedicated to delivering engaging science programs for Indigenous students, teachers and community members around Australia. Emphasis is placed on ensuring the cultural relevance of the program content. To ensure this, *Questacon ScienceLines* endeavours to build and maintain strong linkages with participating communities.

During 2010–11 the *ScienceLines* team toured to schools in western NSW, worked with the National Centre for Indigenous Excellence to deliver a program for gifted and talented students from western Sydney, and participated in festivals such as Vibe Alive. *ScienceLines* has also partnered with the Australian National University and the National Portrait Gallery on workshops to be held on the south coast of NSW in September 2011.

*ScienceLines* also assists with developing Indigenous content across other outreach programs including the *Shell Questacon Science Circus* and *Questacon Smart Moves*.

## Questacon Science Squad

The *Questacon Science Squad* presents science shows and workshops for schools, predominantly in the Sydney metropolitan area. The *Science Squad* program aims to improve attitudes to science and to increase scientific literacy and student retention rates in science courses. *Science Squad* shows are supported by teacher resources, quarterly newsletters and a large collection of hands-on science activities and information on a dedicated website. The *Science Squad* also delivers high-quality performances for public audiences at science festivals, community events, museums and school holiday entertainment in shopping centres. The *Science Squad* reached 25,167 students in 147 schools and other venues during 2010–11.

## Questacon Science Play

*Questacon Science Play* is a unique program that recognises the value of informal education in early childhood learning. The program travels to metropolitan, regional and remote Australia presenting engaging, hands-on science experiences for pre-school children as well as providing professional development for early childhood educators. *Science Play* encourages young children in fun and interactive science discovery and introduces them to many concepts of science, literacy and numeracy.

*Science Play* tours are supplemented with an activity booklet, a dedicated website and a professional development workshop for early childhood educators.

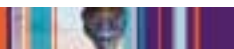
Almost 3400 children attended *Science Play* sessions in 96 venues including libraries, preschools and child care centres during 2010–11.

“**The thing I liked most about Questacon Science Play was...those that are normally shy actually joined in.**”

Director, Early Childhood Learning Centre, Darwin

## Questacon StarLabs

*StarLabs* are portable, inflatable planetaria which bring the wonder of astronomy to thousands of students in their own schools and communities. Questacon has cooperative arrangements with CSIRO Education, the Wollongong Science Centre and Planetarium and the Queensland Museum to exhibit *Questacon StarLabs*.



# NATIONAL REACH

## Shell Questacon Science Circus

Armidale	Lismore Heights
Ashford	Manilla
Baradine	Manilla
Barraba	Moree
Bellata	Narrabri
Bentley	Nimbin
Bexhill	North Casino
Black Mountain	North Star
Blandford	Pallamallawa
Boggabri	Quirindi
Boomi	Red Range
Bundarra	Somerton
Burren Junction	Spring Ridge
Casino	Tamworth
Clunes	Tenterfield
Coffee Camp	Texas
Collarenebri	Uralla
Coraki	Walcha
Delunga	Wyalda
Drake	Wee Waa
Dungowan	Werris Creek
East Lismore	West Tamworth
Emmaville	Woodburn
Garah	Wyaliba Lake Cargelligo
Glen Innes	Speers Point
Goonellabah	Coniston
Gum Flat	Sydney
Gunnedah	Holbrook
Guyra	Thornton
Guyra	Lawrence
Inverell	Lightning Ridge
Kootingal	Mudgee
Kyogle	
Kyogle	
Lismore	

## Questacon Smart Moves

Echuca	Riverton
Mildura	Balaklava
Shepparton	Moonta
Swan Hill	Port Pirie
Hamilton	Maitland
Horsham	Murray Bridge
Stawell	Munno Para West
Colac	Modbury Heights
Portland	Para Vista
Warrnambool	Angle Vale
Ballarat	Port Broughton
Bendigo	Snowtown
Kyneton	Burra
Beaufort	Jamestown
Donald	Peterborough
Charlton	Booleroo Centre
Woodend	Port Augusta
Cobram	Quorn
Manangatang	Whyalla
Ouyen	Cowell
Birchip	Port Lincoln
Robinvale	Karcultaby
Barham	Ceduna
Sea Lake	
Cohuna	
Kyabram	
Mooroopna	
Roxby Downs	
Mount Gambier	
Naracoorte	
Mannum	
North Adelaide	
Tanunda	
Loxton	
Nuriootpa	

## Tenix Questacon Maths Squad

Ararat
Ballarat
Warrnambool
Portland
Horsham
Colac
Dennington
Allansford
Mount Clear
Sebastopol
Alfredton
Bunaree
Minnipa
Port Lincoln
Whyalla
Roxby Downs
Port Pirie
Wallaroo
Moonta
Clare
Karcultaby
Wangary
Poonindie
Cowell
Whyalla
Roxby Downs
Orroroo
Peterborough
Georgetown
Crystal Brook
Balaklava
Bute
Minlaton
Stansbury

## Questacon Science Play

Atherton	Canley Heights
Babinda	Casula
Cairns	Green Valley
Dimbulah	Greenfield Park
Edmonton	Leppington
Holloways Beach	Liverpool
Innisfail	Lurnea
Malanda	Macquarie Park
Mareeba	Miller
Mossman	Moorebank
Trinity Beach	Padstow
Yarrabah	Picnic Point
Yorkeys Knob	Prairiewood
Naracoorte	Revesby
Mannum	St Peters
North Adelaide	South Windsor
Tanunda	Villawood
Loxton	Chiltern
Nuriootpa	Kergunyah
Riverton	Kiewa
Balaklava	Rutherglen
Corowa	Wahgunyah
Jindera	Wodonga
Lavington	Mildura
Thurgoona	Red Cliffs
Broken Hill	Ouyen
Menindee	Underbool
Dareton	Murrayville
Buronga	Swan Hill
Gol Gol	Manangatang
Sydney	Robinvale
Ashcroft	
Bankstown	
Bonnyrigg	
Bossley Park	

## Questacon Science Squad

Allambie Heights	Green Valley	Parramatta
Ashbury	Greenacre	Pendle Hill
Ashfield	Greenwich	Penshurst
Auburn	Greystanes	Plumpton
Balgowlah Heights	Grose Vale	Pymble
Bankstown	Guildford	Redfern
Beacon Hill	Gymea Bay	Regents Park
Beecroft	Harbord	Rockdale
Bellevue Hill	Homebush Bay	Ropes Crossing
Belrose	Hoxton Park	Rosemeadow
Bonnyrigg	Padstow	Rouse Hill
Bossley Park	Ingleburn	Rydalmere
Cabramatta	Kenthurst	Sans Souci
Campbelltown	Kingsgrove	Sefton
Campbelltown South	Kogarah	Seven Hills
Camperdown	Lane Cove	South Penrith
Canley Vale	Lansvale	St Ives
Castlereagh	Liverpool	St Mary's North
Casula	Maroubra	Strathfield
Concord	Maroubra Junction	Surry Hills
Concord West	Marrickville	Sutherland
Cromer	Matraville	Sydney
Darling Harbour	Meadowbank	Toongabbie
Dee Why	Miller	Turramurra
Dharruk	Moorebank	Ultimo
Eagle Vale	Mosman	Waitara
Edensor Park	Muswellbrook	Warriewood
Emu Plains	Narellan	Waverley
Engadine	Narellan Vale	West Pennant Hills
Girraween	Newtown	West Ryde
Gladesville	North Curl Curl	Westmead
Glendenning	Oatley	Whalan
Gordon	Orange	Warrnambool
Granville	Orchard Hills	
Green Point	Oxford Falls	



### Questacon ScienceLines

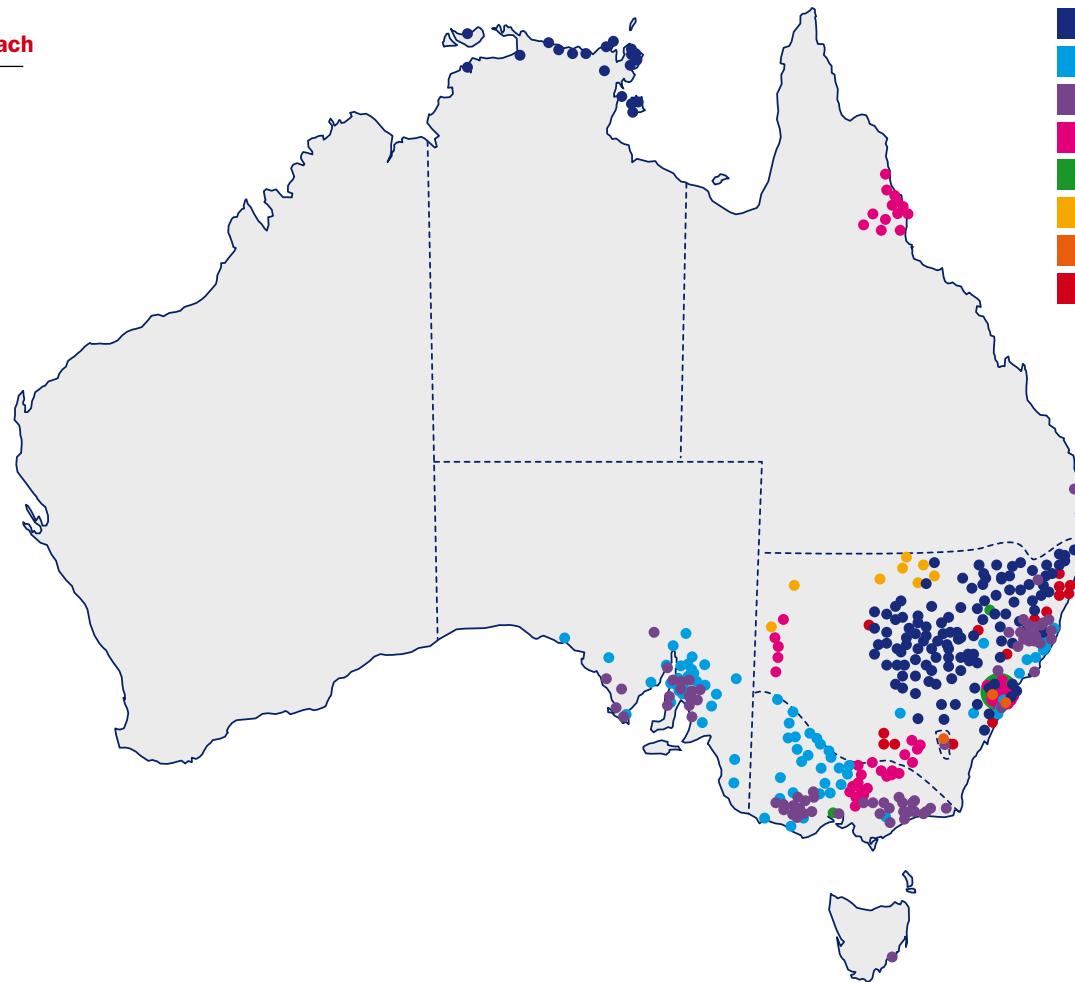
Trangie  
Lightning Ridge  
Walgett  
Goodooga  
Brewarrina  
Bourke  
White Cliffs  
Broken Hill

### Q2U

Sydney  
Warrangamba  
Canberra

### Questacon Digital Outreach

Cessnock  
Copmanhurst  
Dubbo  
Dundurrabin  
Gresford  
Holbrook  
Ivanhoe  
Port Macquarie  
Sanctuary Point  
Speers Point  
Sydney  
Tamworth  
Thornton  
Wallsend  
Jerrabomberra



- Shell Questacon Science Circus
- Questacon Smart Moves
- Tenix Questacon Maths Squad
- Questacon Science Play
- Questacon Science Squad
- Questacon ScienceLines
- Q2U
- Questacon Digital Outreach



# TRAVELLING EXHIBITIONS

Questacon provides touring interactive exhibitions to a range of regional and metropolitan venues across Australia and internationally. These interactive exhibitions are developed in-house by Questacon and encourage visitors to explore scientific concepts through interpretative and stimulating experiences.

During 2010–11 the Questacon Travelling Exhibitions team toured exhibitions to 16 Australian venues and one international venue. Questacon's eight travelling exhibitions reached 446,523 national visitors and 1750 international visitors.

The 2010–11 travelling exhibition program included:

- *Earth Quest—Outer Space to Inner Earth* is a highly portable exhibition covering astronomy, geology, geography, environmental science and biology. *Earth Quest* toured to the National Wool Museum in Geelong (Victoria) from August to October 2010.
- *Eaten Alive—the World of Predators* explores the amazing range of techniques predators use to find and capture their prey. *Eaten Alive* toured to the Queen Victoria Museum and Gallery (Tasmania) from November to February 2011 and four *Eaten Alive* exhibits remain on display there until April 2012.
- *Fascinating Science* and *Science on the Move* are two portable interactive exhibitions that explore simple scientific principles relevant to everyday life. These exhibitions toured Doha, Qatar during the last half of 2010 followed by a tour to the Albury Library Museum (New South Wales) from January to March 2011.
- *Imagination Factory—invent and play* explores simple machines, gears, cams, levers, pulleys, pneumatics, wheels and electric circuits. This exhibition is supported by Raytheon Australia and toured to Queensland Museum – Southbank, Brisbane.



- *Measure Island* examines the concepts of measurement, measurement systems and techniques and assists visitors to discover the importance of good measurement in daily life. Visitors are taken on a whimsical journey into a fictional land where exhibits are presented as monuments and statues that were built by a long lost civilisation. *Measure Island* toured to Scitech, Perth followed by a tour to Scienceworks, Melbourne.



- *Our Water* informs and challenges visitors to make decisions about water, and to examine the consequences of the different uses and re-uses of water in Australia. *Our Water* asks visitors to examine and measure how they use water at home and explore different innovative technologies to save water as individuals and households. This exhibition development and two year touring program is supported through a partnership with the National Water Commission. The two year tour of *Our Water* commenced in August 2010 has visited seven venues:

- Science Centre and Planetarium, Wollongong
- Australian Fossil and Mineral Museum, Bathurst
- Maitland Regional Art Gallery, Maitland
- Queensland Museum, Brisbane
- Cobb & Co Museum, Toowoomba
- Araluen Arts Centre, Alice Springs
- Scitech, Perth.

Our Water is scheduled to tour to another seven venues until August 2012.

- *Sea Chest Secret* is an Australian maritime mystery exhibition which explores maritime history and environmental science. Visitors use their hands and their minds in a voyage of discovery to uncover facts about the writer of an intriguing diary found washed ashore in a sea chest. *Sea Chest Secret* is on tour at the South Australian Maritime Museum, Port Adelaide.









## QUESTACON PEOPLE



The Questacon workforce is both culturally and professionally diverse. Questacon staff have wide-ranging expertise in science, customer service, design, construction, acting, education, facilities management, marketing, communication, finance, planning, IT, public administration, occupational health and safety, retail and electronics.

Questacon employs 135 staff in full time or part-time positions, with another 96 staff employed on a casual basis.

Questacon contributes to the professional development of science communicators in Australia, providing entry-level opportunities for a significant number of tertiary students and recent graduates, who are employed as science explainers at the Centre and as presenters for Questacon's outreach programs.

Questacon also has a dedicated team of 108 volunteers. This group contributed a total of 8778 hours in 2010–11. Together with gallery staff, volunteers work in the galleries providing science explanations and demonstrations to visitors and operate Discovery Trolleys (portable science exhibits) and Curiosity Corner (a hands-on science experiment station).

The staff and volunteers working throughout the public spaces at Questacon are a professional team, expert at welcoming visitors and safely guiding and assisting them throughout the galleries whilst taking every opportunity to communicate science. The team hosted more than 430,000 visitors in 2010–11 and on a peak day in the Easter holidays they successfully welcomed and hosted 3249 visitors.

Special acknowledgement goes to Questacon Volunteer Anthony Zografos who was named ACT Volunteer of the Year in the Young Person category in May 2011. Anthony's dedication to his work and his passion for science exemplifies the Volunteer's positive contribution to the visitor experience at Questacon.

Questacon also delivers a schools' training program to provide training in science communication, presenting, teamwork and customer service to secondary students; 23 students from ten Canberra colleges participated in the program in 2010–11.





## FINANCIAL MANAGEMENT

Questacon's funding is a mix of core appropriation from government and earned revenue. For the year ended 30 June 2011, Questacon's revenue earned from sources other than government was \$10.4 million. This includes income such as centre admissions, fees for programs, touring exhibitions and services, the *Q Shop*, sponsorship, venue hire, *Q Club* memberships and lease revenue.

### Q Shop

The *Q Shop* moved to a new location in July 2010. The new fit-out is more functional and allows for improved merchandising by categories – making it easier for customers to shop.

In conjunction with the move, the range of merchandise available has been adjusted to better complement the exhibits within Questacon. *Q Shop* aims to make the customer's shopping experience as much fun as their experience in the centre.

The current *Q Shop* is now a destination that encourages visitors to extend their interactive science experience through a carefully selected range of take-home activities and resource material. This allows visitors to continue to experiment with science at home and at school.



# GOVERNANCE

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Questacon is a business division within the Department of Innovation, Industry, Science and Research.

Questacon has an Advisory Council, chaired by Mr Leon Kempler OAM, which assists in the setting of strategic direction through the provision of advice to the Director of Questacon and the Minister for Innovation, Industry, Science and Research.



Questacon Advisory Council. Back row from left: Professor Graham Durant, Mr John Simpson (Deputy Chairman), Mr Leon Kempler OAM (Chairman), Professor Denis Goodrum.  
Front row from left: Associate Professor Tracey Bunda, Ms Patricia Kelly, Dr Catherine Foley.  
Absent: Ms Lynley Marshall, Ms Mary-Anne Waldren.

## Questacon Advisory Council

### Mr Leon Kempler OAM

(Chairman)  
Australia Israel Chamber of Commerce

### Mr John Simpson

Director (Deputy Chairman)  
John P Simpson & Associates Pty Ltd

### Associate Professor Tracey Bunda

Yunggoorendi First National Centre for Education and Research  
Flinders University

### Dr Catherine Foley

Chief  
CSIRO Materials Science and Engineering

### Professor Denis Goodrum

Project Director, Science by Doing  
Australian Academy of Science

### Ms Lynley Marshall

Director – ABC Commercial  
Australian Broadcasting Corporation

### Ms Mary-Anne Waldren

Executive Director  
Australian Science Festival Limited  
(Council member to 5 October 2010)

### Professor Graham Durant

Director  
Questacon

### Ms Patricia Kelly

Deputy Secretary  
Department of Innovation, Industry, Science and Research

# QUESTACON HISTORY

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## The Ainslie years (1975–1986)

Mike Gore from the Australian National University physics department visits the Exploratorium in San Francisco and is inspired to develop a similar interactive science centre in Canberra. Questacon first opens its doors in 1980 at Ainslie Public School with 15 exhibits. The Centre quickly grows in popularity with over 13,600 school children visiting in 1983, with 30 per cent from interstate.

The Australian Bicentennial Authority proposes that a national science centre be established as a lasting memorial to the 1988 Australian Bicentennial.

In 1985, the *Shell Questacon Science Circus*, Australia's first science outreach program, starts its inaugural tour to Goulburn, attracting 1500 visitors over one weekend. Shell Companies in Australia sponsors the *Science Circus* allowing for longer tours.

## Questacon in the Parliamentary Triangle – the first decade (1986–1997)

In 1986, Prime Minister Bob Hawke turns the first sod on the construction site of the National Science and Technology Centre in the Parliamentary Triangle. On 23 November 1988, Questacon officially opens in its new building as a joint Australia–Japan Bicentennial Project. Dr Mike Gore is Questacon's first Director.

By 1994, Questacon has received two million visitors and won a Eureka Award for Promotion of Science.

During the first ten years, Questacon begins its travelling exhibitions program with *Dinosaurs Alive*, establishes a second outreach program – the *Questacon Maths Centre*, and becomes one of the first science centres in the world to offer interactive activities online via a new Questacon website.

## Questacon – travelling towards twenty (1998–2007)

In 1998, Questacon celebrates its 10<sup>th</sup> anniversary as a national centre.

After more than 20 years as Questacon's Director, we farewell Dr Michael Gore in 2000 and welcome Dr Annie Ghisalberti as the new Director.

During this second decade, Questacon establishes a base in Sydney and introduces new outreach programs – Sydney-based *Questacon Science Squad* and national programs *Questacon Smart Moves* and the *Tenix Questacon Maths Squad* – taking the Questacon experience to more schools around Australia. Questacon also hosts the first week-long *Questacon Smart Moves Invention Convention* for Australia's most promising young science innovators.

Blockbuster exhibitions *SideShow—The Science Behind the Fun* and *Spiders! Alive* attract record numbers of visitors. *Eaten Alive—the World of Predators* fascinates visitors with giant animatronics and a 3D simulated shark cage dive. *Mini Q—fun for 0–6 year olds* quickly becomes a firm favourite with Questacon's youngest visitors and their carers.

In 2003, Questacon farewells Dr Annie Ghisalberti and welcomes Professor Graham Durant as Director.

Questacon, the Australian National University and Shell Companies in Australia win a 2006 Prime Minister's Award for Excellence in Community Business Partnership.



### Questacon – here and now (2008–2011)

Questacon celebrates its 20<sup>th</sup> anniversary as a national centre in 2008 with a year long program of events, including joint programs with Japan. Questacon's digital media suite opens in 2009, enabling Questacon to engage with wider audiences across Australia and globally using new media capabilities. The Australian Government's Science Connections Program becomes part of Questacon's national programs.

A year with many anniversaries, 2010 sees the Questacon Volunteer program celebrating its 30<sup>th</sup> anniversary and the *Shell Questacon Science Circus* celebrates 25 years of engaging Australia with science. The *Questacon Excited Particles* also celebrate ten years of science performances.

*H<sub>2</sub>O—Soak Up the Science Up the Science*, supported by the National Water Commission is launched by Susie O'Neill in December 2010.

In 2011, the *Questacon Science Garden* is established with the first five outdoor exhibits installed, including *Flickering Leaves*, *Moëbius*, *Rock Xylophone*, *Sound Pillar* and *Szillassi*. RoboThespian also takes up residence in the Questacon foyer, greeting and interacting with visitors.









## QUESTACON – THE NEXT TWELVE MONTHS

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Over the next 12 months Questacon will focus on providing an even greater range of engaging science learning experiences and expanding the audience reach of our science communication activities.

The *Q Lab* gallery will open in September 2011, offering a range of live demonstrations, hands-on activities and multimedia content. *Q Lab* will be a meeting place for visitors to discuss and enquire about issues of scientific interest with Questacon's science communicators. Visiting scientists will bring their knowledge and equipment from the field or laboratory to Questacon and interact with visitors.



Questacon will continue to develop the *Science Garden* as a place to engage the public in a range of science education activities. Additional exhibits will be installed over the next year, as well as increased use of the outdoor auditorium in the warmer months.

Work on the *Questacon Technology Learning Centre* will continue, developing a range of exciting technology learning programs and showcase exhibits.

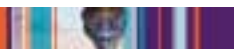
Questacon Digital Communications will continue to produce a range of science communication programs and video conferences. The capacity to extend outreach to schools and communities across Australia and engage with them through interactive media is an exciting opportunity.

Questacon will continue to tour a variety of programs and exhibitions around the country through Questacon's outreach and travelling exhibitions programs. The *Shell Questacon Science Circus* will offer an expanded program, with an increased focus on engaging early childhood and secondary school audiences, along with closer links to communities that the *Science Circus* visits.



Questacon will continue to lead the implementation of the *Inspiring Australia* program, delivering a range of initiatives that will help to unlock Australia's full potential to engage with the sciences.

Questacon will be involved in a number of international activities, including contributing to the sixth Science Centre World Congress in South Africa in September 2011 and follow-up actions.







## CONTACT DETAILS

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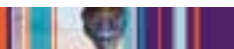
**Questacon—The National Science and Technology Centre**

King Edward Terrace  
Canberra ACT Australia  
PO Box 5322 Kingston ACT 2604

**Telephone** +61 2 6270 2800

**Fax** +61 2 6270 2808

**[www.questacon.edu.au](http://www.questacon.edu.au)**



# QUESTACON PARTNERS

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## Major Partners



**Raytheon**



## Corporate Partners

## Strategic Partners









[www.questacon.edu.au](http://www.questacon.edu.au)

  
Australian Government  
Department of Innovation  
Industry, Science and Research

**Questacon**  
The National Science and Technology Centre