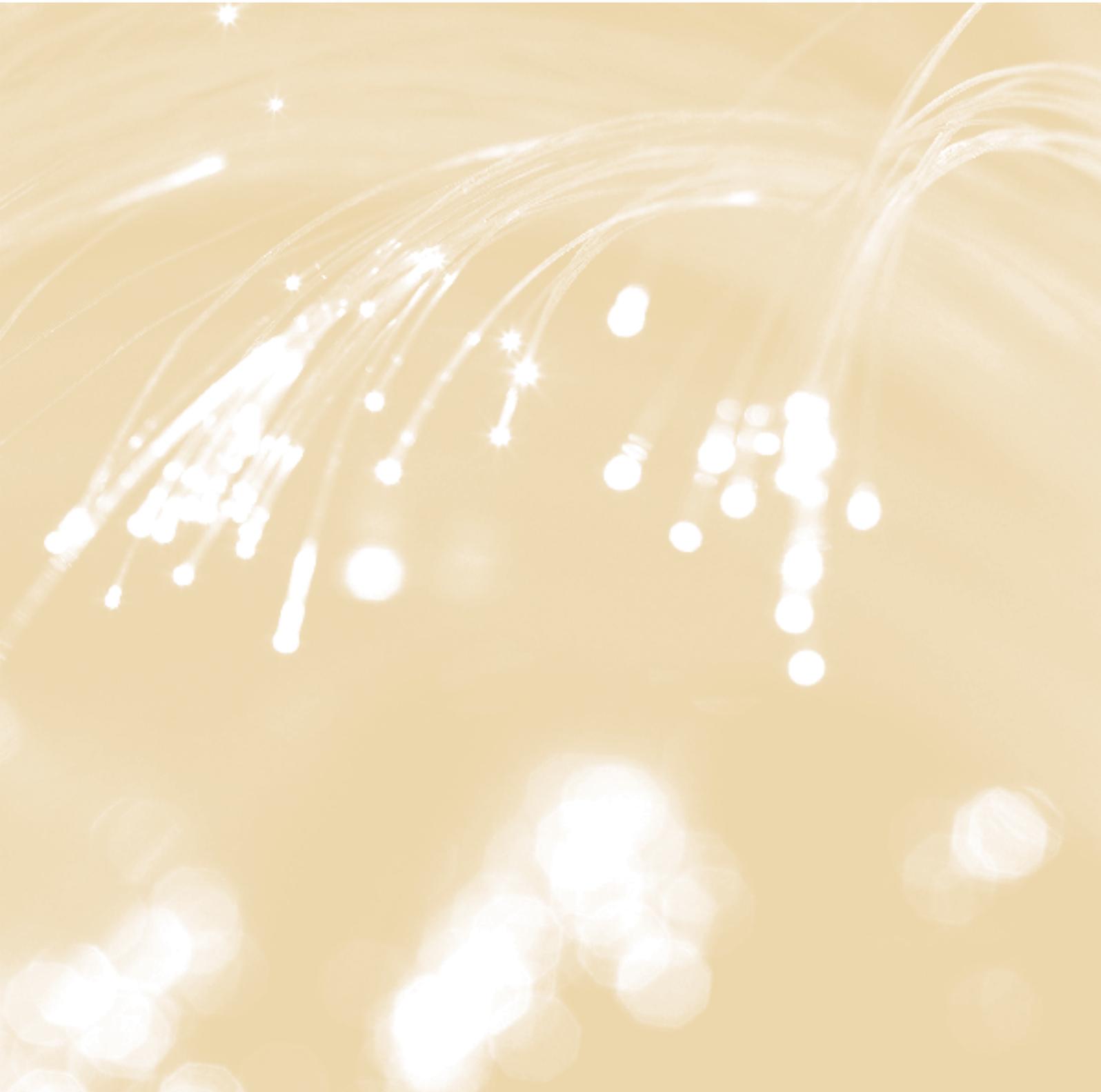


# 2008 Curtin Annual Report



[curtin.edu.au](http://curtin.edu.au)

# 2008 **Curtin** Annual Report





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# Statement of Compliance

The Honourable Dr Elizabeth Constable, MLA  
Minister for Education; Tourism; Women's Interests  
19th Floor, Governor Stirling Tower  
197 St Georges Terrace  
PERTH WA 6000

Dear Minister

In accordance with section 61 of the *Financial Management Act 2006*, we hereby submit for your information and presentation to Parliament the Annual Report of Curtin University of Technology for the year ending 31 December 2008.

The Annual Report has been prepared in accordance with the provisions of the *Financial Management Act 2006*.

Yours sincerely



**W. Gordon Martin**  
**Chancellor**



**Jeanette Hackett**  
**Vice-Chancellor**

On behalf of the University Council

Dated this 18th day of March 2009

## Chancellor's Foreword



Underpinned by the organisational values of integrity, fairness, respect and care, the strategic plan will direct and define the shift to the next era for Curtin.

2008 has been a particularly challenging year. However, it is also one in which there have been many notable achievements, and in which Curtin has set a new vision for the future.

At its retreat in April 2008, Council set the scene for a review of the University's vision, which led to the approval of a new vision statement:

"An international leader shaping the future through our graduates and research, and positioned among the top 20 universities in Asia by 2020."

To help the University meet this ambitious vision, the University Council and Executive have developed a strategic plan for 2009 to 2013, after consultation with senior managers, the heads of schools and other staff.

The plan provides a framework for the development of enabling plans and strategies across all teaching, research and administrative areas. Its success will be monitored by indicators which measure Curtin's performance in teaching and learning; research and development; student and external-stakeholder satisfaction; staff satisfaction; and financial security. Underpinned by the organisational values of integrity, fairness, respect and care, the strategic plan will direct and define the shift to the next era for Curtin.

In achieving this vision, it is critical that we are constantly aware of the need to adapt to the rapidly changing higher education and economic environments.

In 2008, the University completed its second Australian Universities Quality Agency (AUQA) audit, an important and highly visible assessment of Curtin's programs and initiatives. The audit focused on the themes of internationalisation, on ensuring the quality of the student experience, and on a review of progress on the 2002 Cycle 1 Recommendations and Commendations.

The audit was a lengthy and complex process, involving many campuses and staff. The final report is a positive assessment, and I thank all the staff, partners and students involved in the process.

In another major achievement for the University, Council approved the establishment of Curtin Singapore. Curtin has had a presence in Singapore for more than 20 years, working with long-standing partners. The campus enables the University to consolidate its range of educational activities in new facilities, and to build its brand within the region. Curtin now has two offshore campuses – in Singapore and in Miri, in East Malaysia.

During 2008, Council also monitored progress on the establishment of several important projects, including the Australian Sustainable Development Institute, the Curtin Health Innovation Research Institute and the Resources and Chemistry Precinct. More information on these initiatives is included in the body of this report.

On the financial front, the continuing squeeze in margins coupled with the dramatic decline in the global and Australian economies put even greater emphasis on the need for efficiency and financial constraint. It is satisfying, however, to note that the University ended the year with a healthy surplus, and is in a sound financial position going forward.

I would like to thank all staff of the University for their dedication and commitment through the year. Fellow members of Council also made an important contribution to Curtin, despite significant pressures on their time, and I would like to acknowledge the work of departing members of Council Mr Mark Ashley and The Hon. Dr John Cowdell. New external members welcomed to Council in 2008 were Ms Lynne Thomson, Principal of St Mary's Anglican Girls' School, and Dr Michael Stanford, Group Chief Executive Officer of St John of God Health Care.

In particular, I wish to thank the Vice-Chancellor, Jeanette Hackett, for her skill, energy and leadership throughout the year.

With the strong and motivated leadership team, a loyal and committed staff and a sound financial base, we can look forward with confidence to an exciting and successful year ahead.



**W. Gordon Martin**  
Chancellor



## Vice-Chancellor's Foreword



Education is Australia's third-largest export industry, and it is critical that we take action to allow the education sector to play a key role in dealing with the current economic downturn, and ensuring the long-term productivity of the nation.

Many significant projects and initiatives were developed in 2008 at Curtin University of Technology. In addition to ongoing work to improve outcomes in our core business of teaching and scholarship and research and development, Curtin also completed an extensive University-wide quality audit and established a new offshore campus. A new strategic plan and vision for 2009 to 2013 were also developed, and are discussed in the Chancellor's foreword to this report.

In October, Curtin underwent its second Australian Universities Quality Agency (AUQA) audit. AUQA is the principal national quality assurance agency in higher education, and is responsible for providing public assurance of the quality of Australia's universities.

Curtin's audit was a complex and exhaustive process, involving eight of our offshore partners across four countries, in addition to campuses in Sydney, Kalgoorlie and Bentley. During the audit, more than 650 Curtin staff, students and external members such as employers and alumni were interviewed. While it was a major undertaking to coordinate, the audit was a very positive experience and of considerable value in contributing to Curtin's ongoing commitment to continuous improvement.

The panel's final report provides a very positive assessment of Curtin's activities and achievements. The University has the equal highest number of commendations (the achievement of a stated goal), and the equal lowest number of recommendations (an area in need of attention). Curtin is the only university to date in this audit cycle to have no 'urgent' affirmations (areas of attention already identified by the University), or recommendations.

Among the 11 commendations, Curtin was praised for initiatives aimed at enhancing teaching and learning, including the student evaluation system eVALUate, the Curriculum 2010 course renewal project and the student orientation activities. The University's responsiveness to student concerns and the active role of the Student Guild within Curtin was also recognised. The effectiveness of Curtin's International Office and that of the Curtin Business School was noted by the auditors. The University was also commended for the conceptualisation, establishment and successful development of the Sarawak Campus. The internationalisation of research at Curtin, including the development of a research record at Curtin Sarawak, was also praised.

Curtin Singapore, the University's new campus in that country, was officially launched on 13 November 2008. The establishment of this campus enables Curtin to consolidate its current range of Singaporean educational activities, and provide improved physical facilities. Initially Curtin Singapore will offer Curtin Business School courses, but this will be expanded over time to include courses in nursing, health sciences and humanities. The campus has the capacity to accommodate 4,500 students. The opening of Curtin Singapore demonstrates Curtin's long-standing commitment to international education, particularly in Asia.

## TEACHING AND SCHOLARSHIP

Significant progress was made in teaching and scholarship during 2008. Positive results were achieved in the Curtin Annual Student Survey, with 88 per cent of respondents indicating they would "recommend Curtin to a friend, relative or other student". Also, eVALUate results for Semester 2 showed a strong pattern of improvement in student satisfaction. These results show that students are increasingly satisfied with the quality of their unit teaching and learning experiences at Curtin.

The curriculum reform project, Curriculum 2010, was identified in the draft report from AUQA as a highlight of teaching and learning, particularly our method of embedding graduate attributes and the concept of the triple-i curriculum, which was announced in 2008. Significant work has been directed to adopting consistent and streamlined processes and degree structures, and to the comprehensive review of courses and majors. By the end of the year, 26 majors and 48 courses had completed comprehensive course review, with many more well into the process. The systematic review of courses and units being offered has enabled a reduction of the number of low-enrolment courses and units.

New services focusing on the implementation of the Retention Plan in partnership with all faculties and areas were also introduced. These include the formalisation of the Student Transition and Retention Team (START), which is based in the Future Students Centre, and new services for students placed on conditional status. This approach is proving to be very effective in supporting new-to-Curtin students and students at risk of non-completion.

Curtin reached a milestone in Indigenous education, with the Centre for Aboriginal Studies celebrating its 25th anniversary in 2008. The University has long been at the forefront of Indigenous education in Australia, and has the highest number of Indigenous students at any Australian university. In 2008, it was also the first Australian university to develop a Reconciliation Action Plan.

## RESEARCH AND DEVELOPMENT

Curtin continued to display strong growth in its research funding performance throughout 2008. The University's national ranking in Research Training Scheme funding improved to 12th, with \$13.3 million (up from 13th in 2007), and Curtin ranked 18th for the

Research Infrastructure Block Grant, with \$2.4 million (up from 20th in 2007). The University maintained its national ranking of 11th in the Institutional Grant Scheme, with \$6.4 million.

Curtin achieved its first Australian Research Council Federation Fellowship, awarded to Professor Peter Teunissen. The University signed a \$10.5 million partnership agreement with Rio Tinto to develop a world-class innovation centre for strategic research and development in materials and sensing in mining. Work continued on the development of the Resources and Chemistry Precinct, the Curtin Health Innovation Research Institute and the Australian Sustainable Development Institute; key initiatives for Curtin moving forward.



Foyer of the Centre for Aboriginal Studies.

## Vice-Chancellor's foreword (continued)



The Resources and Chemistry Precinct at Curtin's Bentley Campus.

The Curtin University Sustainability Policy (CUSP) Institute was also established under the leadership of renowned sustainability expert Professor Peter Newman. More information on these and other research achievements is provided in the body of this report.

The year also saw major progress in the key research area of radio astronomy as part of Curtin's work to help Australia secure the world's largest radio astronomy project, the \$2 billion Square Kilometre Array (SKA). The Centre of Excellence for Radio Astronomy Science and Engineering, led by Curtin in collaboration with The University of Western Australia, is funded by the State Government. It will be led by Professors Steven Tingay and Peter Hall, acknowledged experts in the field.

The University also launched the new multi-million-dollar Curtin Institute of Radio Astronomy (CIRA), a new cross-disciplinary institute which is the first of its kind at any Australian university.

CIRA offers courses that combine both physics and engineering in the field of astronomy, and boasts the only Chair in Radio Astronomy Engineering in Australia. The institute provides a base for all radio astronomy activity within the University, and is a focal point for interaction with external partners. Through CIRA, Curtin will contribute key science and engineering to the global SKA project, and help build the all-important human capital for Australian and international SKA endeavours.

Curtin's radio astronomy expertise will also play a significant role in the \$20 million International Centre for Radio Astronomy Research (ICRAR) announced by Science and Innovation Minister Troy Buswell in December. The University will establish a specialised section of CIRA to focus on ICRAR projects. Co-Directors of CIRA, Professors Tingay and Hall, will serve as Deputy Directors of ICRAR.

## PHYSICAL FACILITIES

The development of Curtin's physical infrastructure continued in 2008, with construction continuing on several key projects. The \$116 million Resources and Chemistry Precinct is being built on the southern end of the Bentley Campus. It will bring together the Chemistry Centre of WA and Curtin's Department of Chemistry, with the CSIRO Minerals Research Centre located nearby. This juxtaposition will enable the creation of a world-class knowledge precinct for research and learning in the resources and chemistry sector. BHP Billiton is also a partner in the precinct. Work on the facility is expected to be completed by mid-2009.

Curtin Stadium, a state-of-the-art recreation, sporting and events facility, will officially open in 2009. It includes three international-grade sports courts, a new fitness centre with two gyms and a spin room, beach volleyball facilities and a coffee shop.



The main gymnasium at Curtin Stadium.

The design allows for the sports area to be used for large events such as graduations, examinations, design shows and formal dinners, with seating for 2,500. Its development will provide enhanced sporting facilities for students and staff, and give Curtin a much-needed indoor space suitable for large functions and gatherings.

For much of 2008, the University and its team of urban planning consultants worked in collaboration with state and local governments to review the Physical Master Plan for the Bentley Campus, to ensure future developments closely support the University's vision for the future. The principal aim of the master plan is to provide a vital physical environment in which innovation, interaction, research and learning will thrive.

The plan focuses on the creation of an urban university town, connected by a major public transit spine to the central business district and other knowledge and activity centres in the immediate region.

The plan envisages creating – over a 30 to 40-year period – a significant property endowment asset for the University as well as an exciting environment for people to learn, work, research, live and develop.

## FINANCIAL SECURITY

Curtin strengthened its financial resources with a surplus for 2008 of \$55.8 million. This is the University's third successive, strong surplus, albeit reduced by investment valuation write downs. The consistent financial discipline provides security for Curtin in the current global financial downturn. Given the uncertainty around financial matters, the University will continue to exercise caution in 2009, and work to reduce costs and increase efficiencies.

## MOVING FORWARD

Late in 2008, the Federal Government received the report of the higher education review, chaired by Professor Denise Bradley.

Curtin supports the thrust of the review and has urged government to address and implement its recommendations urgently. Education is Australia's third-largest export industry, and in light of the decline of the two largest sectors – iron ore and coal – it is critical that we take action to allow the education sector to play a key role in dealing with the current economic downturn, and ensuring the long-term productivity of the nation.

I expect 2009 to be a year of change for higher education, as the impact of the global financial crisis becomes clearer, and government implements at least some of the recommendations of the Bradley Review. Curtin moves into 2009 in a strong position to address the challenges and opportunities we will encounter.

**Jeanette Hackett**  
**Vice-Chancellor**

## About Curtin



The University's programs centre on the provision of knowledge and skills to meet industry and workplace standards. A combination of first-rate resources, staff and technology makes Curtin a major contributor to tertiary education, both within Australia and internationally.

Curtin University of Technology is Western Australia's largest university, with more than 40,000 students. Of these, about 17,000 are offshore and onshore international students, and almost 2,000 are research students. The University takes its name from the Prime Minister of Australia from 1941 to 1945, John Curtin, and its values reflect the leadership and strength associated with one of Australia's pre-eminent prime ministers.

Curtin is an internationally focused institution. A culturally diverse university, it fosters tolerance and encourages the development of the individual. The University's programs centre on the provision of knowledge and skills to meet industry and workplace standards. A combination of first-rate resources, staff and technology makes Curtin a major contributor to tertiary education, both within Australia and internationally.

The University's main campus is in Bentley, six kilometres south of the centre of Perth, Western Australia's capital city. Curtin has two additional metropolitan campuses and regional campuses in Kalgoorlie, Northam, Margaret River and Geraldton. Curtin also has a campus in the Sydney Central Business District and two offshore facilities – Curtin Sarawak, in Miri, Sarawak, East Malaysia, and Curtin Singapore.

Curtin offers a wide range of undergraduate and postgraduate courses in business, humanities, health sciences, resources, engineering and related sciences. The University is recognised for high-impact research across four defined and distinct areas of focus:

- Resources and energy
- ICT and emerging technologies
- Health
- Sustainable development.

Curtin has close links with business, industry, government and the community, and its courses have a strong practical focus, with many involving vocational or work experience components. As a result, Curtin graduates are job-ready and prepared, with skills that enable them to make a genuine and positive influence in a continuously changing world.

Curtin University of Technology is a body corporate established under the *Curtin University of Technology Act 1966*, an Act of the Western Australian Parliament. It is domiciled in Australia.

The University is not an incorporated company under the Corporations Law. Therefore it does not have an Australian Company Number (ACN), nor does it have a Certificate of Incorporation.

Curtin's Bentley Campus is located at:  
Kent Street  
BENTLEY WA 6102

The postal address is:  
GPO Box U1987  
PERTH WA 6845

Curtin's web address:  
[curtin.edu.au](http://curtin.edu.au)

## Vision, Mission and Values



### VISION

An international leader shaping the future through our graduates and research, and positioned among the top 20 universities in Asia by 2020.

### MISSION

Curtin is committed to innovation and excellence in teaching and research, for the benefit of our students and the wider community.

### VALUES

Integrity – being consistently honest and trustworthy in all activities

Respect – having regard for self and others

Fairness – ensuring just decisions through open decision-making

Care – acting to ensure the welfare of others

Curtin's strategic plan provides a framework for the development of key plans and strategies across all teaching and administrative areas.

## Strategic Plan

The University's vision, mission and strategic objectives are operationalised by its Strategic Plan 2009-2013.

Curtin's strategic plan provides a framework for the development of key plans and strategies across all teaching and administrative areas, as reflected in primary statements relating to the Teaching and Learning Plan, the Research Management Plan, the Internationalisation Plan and the Valuing Curtin Staff Plan.

The section "2008 Activity Highlights" presents Curtin's activities and achievements over the year in relation to the primary statements of the previous strategic plan.

As 2008 represented the final year of the University's previous strategic plan, work commenced early in the year on the development of a new University strategic plan. The strategic planning process has given consideration to the trends and changes in the higher education environment. The University has sought external input, and provided the opportunity to Curtin staff, executive management and Council to contribute to the development of its strategic direction.

Curtin's Strategic Plan 2009-2013 presents clear strategies and targets for positioning the University for sustainability and growth in an ever-changing environment. The plan includes a vision for 2020, which allows the University to maintain a longer-term focus for its ongoing development. In 2009, the University will undertake activities to ensure it achieves organisational alignment with the new strategic plan, and to commence its implementation.

## 2008 Activity Highlights

### Strategic focus 1 Relevance to society's needs and aspirations

#### VISION AND MISSION

Curtin's vision, mission and strategic objectives are actioned through its strategic plan. This section presents a selection of Curtin's activities and achievements during 2008, and highlights the areas of strategic focus and themes of the previous strategic plan, which covered the 2006 to 2008 period, and the priorities of the supporting enabling plans.

#### MOVING FORWARD FOR WESTERN AUSTRALIA

In 2008, Curtin announced that a focus on education and research in resources and energy, health, sustainable development, and ICT and emerging technologies would be among the University's priorities for the next decade. These areas were chosen to meet mounting demands in the sectors, and are deemed vital to the future of the State, the nation and the region. Over the next decade, partnerships with industry, business and government will be cultivated in these four key areas as Curtin builds on its global presence.

#### HIGHLIGHTS

- Curtin is building a \$116 million Resources and Chemistry Precinct, in partnership with government research body the Chemistry Centre WA and industry leader BHP Billiton. Mark Woffenden, former director and chief executive officer of the A.J. Parker Cooperative Research Centre, was appointed the inaugural Executive Director of the precinct. The precinct will address the skills shortage caused by the resources boom, and will renew student interest in the sciences. By 2010, the precinct will be a resources hub of more than 300 scientists, engineers and staff for chemistry, resources and energy-related research.
- The University formed a \$10.5 million partnership with mining giant Rio Tinto to establish a world-class research centre. The Centre for Materials and Sensing in Mining was launched in March, and is only the second research centre to be established by Rio Tinto worldwide. It will foster the development of advanced technologies, which will enable Rio Tinto's global operations to improve productivity for iron ore operations in the Pilbara, and for underground developments in the Rio Tinto Copper group.
- In March, Curtin joined with the Chamber of Minerals and Energy (CME) to help develop the capacity of the minerals and energy sector. A Memorandum of Understanding between Curtin and the CME was signed to bolster the resolve of both parties to develop educational and research programs that strengthen the Australian resources industry. Expected outcomes of the cooperative relationship include increases in the quantity and quality of students to more readily meet the resources industry's employment and research needs. The agreement also promises sustainable strategies for all minerals and energy-related programs with the Western Australia School of Mines (WASM), one of the main beneficiaries of the strategic partnership.
- Building on its scholarship and research in health, Curtin announced plans to create a bold, integrated and relevant health research institute to target problem



areas such as the ageing population, lifestyle diseases and workforce health. The Curtin Health Innovation Research Institute will make a major contribution to reshaping the existing health system and keeping people out of hospital.

- Curtin created the Australian Sustainable Development Institute. The initiative expands the University's existing delivery of courses in sustainability, including cleaner production, environmental biology, and sustainable aquaculture, tourism and communities. Curtin will not only work as a leader in sustainability research, but also further develop environmentally friendly strategies for the University's campuses.
- Curtin is playing a lead role in the Australian bid for the \$2 billion Square Kilometre Array (SKA) – the world's largest radio astronomy project. To help secure the bid, the University also established the Curtin Institute of Radio Astronomy (CIRA), following the announcement in April by the Western Australian Government that Curtin and The University of Western Australia will collaborate in the State's new \$2.3 million Centre of Excellence for Radio Astronomy and Engineering, which is led by Curtin.
- Curtin and The University of Western Australia will be equal joint partners in the \$20 million State Government-funded International Centre for Radio Astronomy Research (ICRAR) announced by Science and Innovation Minister Troy Buswell in December. The University will establish a specialised section of CIRA to focus on ICRAR projects. Co-Directors of CIRA, Professors Tingay and Hall, will serve as Deputy Directors of ICRAR.
- Curtin's highest non-academic honour, the John Curtin Medal, was awarded to Aboriginal elder Joan Winch and

community worker Helen Dullard, chief executive officer of the Hills Community Support Group (HCSG), for their contribution to the Western Australian community. Ms Winch was recognised for her tireless work to improve Indigenous primary health care in Western Australia. She established the Aboriginal Health Worker Education Program in 1983, which became the Marr Mooditj (Good Hands) foundation in 1990. Ms Dullard has been at the helm of the HCSG since its inception in the 1980s. Among her numerous initiatives, she established a safe house for young women and a program to help local Aboriginal youth in Midland to gain and maintain employment. The University presents the John Curtin

Medal each year to people who exhibit the former Prime Minister's qualities of vision, leadership and community service.

- In October, more than 450 members of Curtin Volunteers! visited more than 30 regional WA towns and metropolitan sites to take part in community service projects as part of John Curtin Weekend 2008. Projects included revitalising the Old Gillingarra School site and hall, and working with the Lancelin community on their Frogs Rock project for motorbike frogs. John Curtin Weekend is one of WA's largest annual community projects, and brings together volunteers who are diverse in age, race, nationality, religion, life experience and political persuasions.



Curtin volunteers.

## 2008 Activity Highlights (continued)

### HIGHLIGHTS

- The development of Curtin Stadium, the \$27 million recreation and events facility under construction at the Bentley Campus, continued during 2008. The facility will officially open in mid-2009, although the fitness centre opened in December 2008. The stadium will provide enhanced gym and recreation facilities for the Curtin and local community. It includes three international-grade sports courts, the new fitness centre – including a women's gym – beach volleyball facilities, a coffee shop and a patio area. The venue will also cater for large events, including graduations, with seating for 2,500.
- Curtin joined the Western Australian Department of Sport and Recreation to establish the Centre for Sport and Recreation Research (CSRR) in the Faculty of Humanities. The CSRR was launched in August by The Hon. John Kobelke MLA – the then Minister for Police and Emergency Services, Community Safety, Water Resources, Sport and Recreation. The CSRR will undertake research into some of the new challenges and opportunities facing sport and recreation in WA, including governance improvement, responding to diverse agendas on climate change, water, participation by Indigenous people, urban planning and social inclusion.
- Teams led by Professor Peter Howat, from the Centre for Behavioural Research in Cancer Control, have been awarded more than \$900,000 for two projects under the National Health and Medical Research Council (NHMRC) to investigate nutrition and physical activity intervention for mothers with young children, and for seniors.
- A team led by Professor Leon Straker, from Curtin's School of Physiotherapy, was awarded more than \$500,000 by the NHMRC to investigate whether access to electronic games decreases the physical activity of children.
- In Curtin's School of Public Health, Professor John Mamo and his team received approximately \$550,000 in NHMRC funding for an investigation into how dietary fats may influence the risk of Alzheimer's disease.
- Professors Mike Daube and Peter Howat received \$900,000 in Healthway funding to promote, support and coordinate public health advocacy in Western Australia, with the establishment of the Public Health Advocacy Institute of WA.
- Associate Professor Siobhan Austen, from the School of Economics and Finance, was awarded approximately \$470,000 from the National Centre for Vocational Education Research (NCVER) to explore the role of vocational education and training in promoting labour market participation among important groups such as older Australians, young and prime-age women, Indigenous Australians and disabled workers.

## Strategic focus 2 Student-centred learning

### INCREASED SUPPORT FOR 'AT RISK' STUDENTS

Services that focus on the implementation of the Retention Plan in partnership with all faculties and areas have been established. These include the formalisation of START (the Student Transition and Retention Team), which is a drop-in facility that provides services for students placed on conditional status. The new approach focuses on supporting new-to-Curtin students and students at risk of non-completion.

### CURRICULUM 2010

The Curriculum 2010 project and its implementation of the course-related objectives of Curtin's Teaching and Learning Enabling Plan (2005-2008) continued in 2008.

Progress made so far includes:

- revision of the Curtin award
- development of tools and models for measuring unit and course sustainability
- comprehensive review of 48 courses and 26 majors, with a further 45 courses and 24 majors currently undergoing review
- introduction of an annual course review process.

The University implemented the Curriculum 2010 project to enhance the quality of its learning and teaching performance, improve staff workloads, and determine which existing courses are sustainable in terms of strategic focus, quality and financial viability. The project was developed to compete and excel in the increasingly dynamic higher education sector.

### AUSTRALIAN LEARNING AND TEACHING COUNCIL AWARDS

Three of Curtin's academics received an Australian Learning and Teaching Council (ALTC) Citation for Outstanding Contribution to Student Learning in 2008. Professor Marjan Zadnik, from the Department of Imaging and Applied Physics, was awarded his citation for two decades of enhancing students' learning of physics through innovative and research-based curricula, and for scholarly activities and leadership in physics education. From Curtin's Office of Research and Development, Professor Leonie Rennie

was awarded a citation for her exemplary supervision and empowerment of research students through promoting high standards in research education for students and their supervisors. In the Faculty of Science and Engineering, Dean of Teaching and Learning Professor Shelley Yeo was awarded a citation for the design, development, implementation and evaluation of Curtin's approach to academic integrity, and for new plagiarism policies and procedures.

COURTESY OF ALTC



Deputy Vice-Chancellor Education Professor Robyn Quin; Professor Shelley Yeo; Professor Marjan Zadnik; Professor Leonie Rennie; and Vice-Chancellor Professor Jeanette Hackett.



## 2008 Activity Highlights (continued)

## HIGHLIGHTS

- Curtin was awarded three grants from the Australian Learning and Teaching Council (ALTC) Competitive Grants Program:
    - Professor Beverley Oliver, Director of Teaching and Learning, is the project leader of a competitive grant called Building Course Team Capacity to Enhance Graduate Employability (a two-year project funded at \$220,000). The project will be conducted in collaboration with three other universities, and will involve developing Curtin's eVALUate graduate and employer survey systems.
    - Ms Sue Jones, Dean of Teaching and Learning, Health Sciences, is on the leadership team of a competitive grant in partnership with Murdoch University. This two-year project, Unit Coordinators as Academic Leaders, focuses on clarifying, developing and valuing the role of unit coordinators as informal leaders of learning in higher education.
    - Professor Shelley Yeo and Dr Carmela Briguglio received a grant for a Moderation for Fair Assessment in Transnational Teaching and Learning project. This two-year project, funded at \$220,000, will be in collaboration with the University of South Australia. The aim of the project is to develop a framework for involving the whole teaching team, including partner organisation staff, in moderation practices in assessment in transnational programs.
  - In 2008, the eVALUate unit and teaching survey instruments were available online for undergraduate and postgraduate coursework units at Curtin's Australian campuses, Curtin Sarawak and Curtin Singapore, and in Mauritius.
- In Semester 2, our offshore partner, Hong Kong SPACE, was also included for the first time. Student response rates are increasing. The number of students who participated in the unit surveys increased from 35.6 per cent in 2007 to 40.5 per cent in Semester 2, 2008.
- The eVALUate results for Semesters 1 and 2 showed a strong pattern of improvement in student satisfaction. The results for Semester 2, 2008 indicate overall satisfaction for units is at 83.5 per cent, which increased from 82.2 per cent in Semester 1, 2008 and 81.4 per cent in Semesters 1 and 2, 2007. For Semester 2, 2008, results showed the greatest improvements were in feedback on learning, workload, teaching quality, student engagement (thinking about learning more effectively) and overall satisfaction.
  - In October 2008, iZone opened on Level 2 of the Curtin Library. iZone provides a technology-rich learning environment within relaxed, vibrant surroundings, where students can use library resources, while interacting with each other more creatively.
  - In support of Curtin's Reconciliation Action Plan (RAP) 2008, the Curtin Library established a plan describing how it will help achieve Curtin's vision under the RAP as a place of learning that respects Indigenous culture and diversity.
  - Major progress was made on the new recreation, sporting and events facility, Curtin Stadium. The facility will officially open in mid-2009, although the fitness centre opened in December 2008. The \$27 million facility includes three international-grade sports courts, the new fitness centre which comprises a gymnasium, ladies' studio and spin room, beach volleyball facilities, a café and a patio area.
- The design allows for the sports area to be used for large events such as graduations, examinations, design shows and formal dinners, with seating for 2,500.
- The International Careers Month was held in September and culminated in the International Careers Fair – the first event of its kind at an Australian university. The event was aimed at Curtin's international cohort and local students who are considering working overseas. More than 6,000 students attended the Careers Fair, with the event attracting more than 160 employers as well as accolades from the Australian Association of Graduate Employers as the best expo in Australia.
  - A Student Mentoring Program was established, with 130 senior students acting as mentors in 13 different courses in Semester 1, having an impact on the experience of more than 1,300 new students. With the smaller, mid-year intake, about 40 mentors assisted more than 400 new-to-Curtin students. The highly positive evaluation provided by all participants has led the University to plan to double the numbers of students and teaching areas involved in the program in 2009.
  - In 2008, The Learning Centre created a new website, opening more channels of communication with students. The Learning Centre assisted students by providing seminars and individual support to more than 3,000 students, addressing learning skills and language proficiency, increasing demand in fee-for-service programs and increasing customised in-faculty seminars/workshops. The centre also expanded the service to include evening and weekend seminars for postgraduate students, and successfully piloted 10-hour English language programs.

- In 2008, the chaplaincy team was expanded to include a multi-faith service, providing religious consultations for students and staff. The Curtin community positively received the introduction of an initiative that addresses student poverty – a Free Weekly Bread Distribution.
- Results from the Curtin Annual Student Satisfaction Survey indicate that student satisfaction with distance education has steadily increased over the past three years, as follows:
  - 79.86 per cent indicated staff were helpful, and 73.37 per cent thought services were readily available
  - 67.63 per cent thought Distance Education/Open Universities Australia (DE/OUA) staff were flexible in meeting their needs
  - 77.04 per cent thought DE/OUA uses effective methods to communicate with them.
- The project to migrate the University to one Learning Management System, from WebCT and Blackboard to Blackboard 7, continued to progress well in 2008. Infrastructure for the work was finalised, which included the preparation of servers for the development of the middleware and training. Specifications, analysis and design of the middleware have been completed, and software development is near completion. Blackboard was upgraded to version 8 in December for immediate staff availability. Student availability will be ready in Semester 1, 2009.
- Staff training in Blackboard commenced in July and is continuing, with more than 200 staff having accessed training. All training resources are available through flexible delivery.



iZone at the Curtin Library.

## 2008 Activity Highlights (continued)

### Strategic focus 3 High-impact research

#### CURTIN UNIVERSITY SUSTAINABILITY POLICY (CUSP) INSTITUTE

The Curtin University Sustainability Policy (CUSP) Institute was established in January 2008, headed by the renowned sustainability expert, Professor Peter Newman, and based in Fremantle. The idea of sustainability in a wide range of human endeavour is a relatively new concept but is rapidly becoming a key issue in public policy theory and practice. Sustainability policy is also developing as a recognised profession and a multidisciplinary research field in its own right. CUSP is a key player in Curtin's endeavours in this arena. The group has developed collaborative relationships, nationally and internationally, with other researchers, with industry and with government bodies. Projects include:

- An Australian Research Council (ARC) grant of \$100,000 to survey property market participants to determine the drivers for, and the barriers to, the uptake of sustainability initiatives in the commercial and residential property sectors. Professor Peter Newman leads the project.
- Development and analysis of one of the world's most ambitious exercises in citizen deliberation to date. Professor Janette Hartz-Karp, in collaboration with the Australian National University, is undertaking the project, at the centre of which is a Citizens Parliament, composed of one person randomly selected from each of the 150 federal electoral divisions in Australia. The Citizens Parliament will deliberate questions concerning governmental reform. The project will analyse citizen engagement with politics; the degree to which typical citizens can deliberate complex political issues; and how citizen preferences, capacities and judgements change in deliberation.

#### HIGHLIGHTS

- Curtin secured significant funding from the ARC for six key, collaborative research projects through its Linkage Projects Scheme. Total funding awarded to the University amounted to \$1.9 million over the life of the six projects, with partner organisations contributing another \$4.3 million to Curtin. The six projects awarded ARC Linkage Project funding span the areas of public health, physical sciences, chemical engineering, geology, geochemistry, and artificial intelligence and signal and image processing, with collaborating partner organisations from both public and private sectors.
- Curtin's commitment to ensuring research remains relevant to the broader community, and that research outcomes are disseminated, is evident in the continuing activity under the University's intellectual property commercialisation strategy. Sensear is a Curtin spin-off company, with innovative products that enable speech communication in high-noise environments, without the need to remove hearing protection. In 2008, the company was declared one of the world's most promising new companies at *launch: Silicon Valley 2008*, held by The Silicon Valley Association of Start-up Entrepreneurs and hosted by Microsoft.



- In 2008, Curtin secured a highly prestigious Federation Fellowship (recently renamed Laureate Fellowship) from the Australian Research Council. Professor Peter Teunissen, a world-renowned expert in global navigation satellite systems (GNSSs), will be undertaking a program of research to improve the integer-estimation and strengthen models for integrated GNSS, thus making them more reliable for the applications in which they are used (for example, Earth, atmospheric and space science). Professor Teunissen will be joining the strong research capability within Curtin's Department of Spatial Sciences.
- The Curtin Institute of Radio Astronomy (CIRA) was launched in December 2008 by The Hon. Barry House MLC, Parliamentary Secretary to the Treasurer; Parliamentary Secretary to the Minister for Commerce; Science and Innovation; Housing and Works. The institute will form an integral part of the multi-million-dollar Centre of Excellence for Radio Astronomy Science and Engineering – a collaborative initiative with The University of Western Australia (UWA), which is led by Curtin. The Centre of Excellence is part of a significant effort by the State of Western Australia to help Australia position itself in the global radio astronomy arena. It will be led by Professors Steven Tingay and Peter Hall. Professor Tingay joined Curtin in 2008 as a Premier's Research Fellow, along with Professor Hall as Chair of Radio Astronomy Engineering at Curtin. The Centre of Excellence is part of a broader commitment by the federal and state governments to secure the world's largest international science project – the \$2 billion Square Kilometre Array (SKA). The decision on which of the two sites – Australia and Southern Africa – will host the

SKA will be decided in 2011. The efforts of the parties involved in Australia's bid, which include CSIRO and UWA, will ensure that WA is well placed to reap significant returns, regardless of whether the SKA is located locally or in Southern Africa.

- Curtin joined the Western Australian Department of Sport and Recreation to establish the Centre for Sport and Recreation Research (CSRR) in the Faculty of Humanities. The CSRR was launched in August by The Hon. John Kobelke MLA – the then Minister for Police and Emergency Services, Community Safety, Water Resources, Sport and Recreation. The CSRR will undertake research into some of the new challenges and opportunities facing sport and recreation in WA, including governance improvement, responding to diverse agendas on climate change,

water, participation by Indigenous people, urban planning and social inclusion.

- Teams led by Professor Peter Howat, from the Centre for Behavioural Research in Cancer Control, have been awarded more than \$900,000 for two projects under the National Health and Medical Research Council (NHMRC) to investigate nutrition and physical activity intervention for mothers with young children, and for seniors.
- In 2008, Curtin's Hydrogen Storage Group, headed by Professor Craig Buckley, won an inaugural research grant from Russian aluminium company Rusal, surpassing more than 100 entries from around the globe. Effectively storing hydrogen in light metals such as aluminium will pave the way for hydrogen fuel cells in cars, and reduce the world's greenhouse gas emissions.



## 2008 Activity Highlights (continued)

### Theme 1 Productive partnerships

Strong, strategic partnerships have proven to be vital to the growth of Curtin's research activities in the past, and the University will continue to pursue these alliances in the future.



### HIGHLIGHTS

- Curtin entered into a \$10.5 million partnership with Rio Tinto to develop a world-class innovation centre for strategic research and development in materials and sensing in mining. The centre will be led by Associate Professor Vladimir Golovanevskiy, within the Western Australian School of Mines.
- Professor Rolf Gubner is the inaugural Chair in Corrosion, under a sponsorship arrangement established in 2008 with Chevron and Woodside – a partnership that builds on Curtin's reputation and strengths in corrosion research.
- Curtin and Western Power signed a sponsorship agreement in 2008 aimed at increasing expertise in the power industry. Western Power will provide the Department of Electrical and Computer Engineering with close to \$1 million over five years to fund a Chair in Power Engineering, together with undergraduate bursaries.
- Curtin has entered into an agreement with Parsons-Brinckerhoff Australia Pty Ltd for the sponsorship of a professorial Chair in Sustainability for Professor Peter Newman, from the Curtin University Sustainability Policy (CUSP) Institute. The PB-CUSP alliance is structured around a three-year Memorandum of Understanding to integrate future-focused research ideals with business pragmatism.
- Curtin will join The University of Western Australia and CSIRO in the WA Geothermal Centre of Excellence to help turn low-heat geothermal energy around Perth into a clean and cheap power source. Curtin will also be joining Murdoch University in the Centre of Excellence for Research into Energy for Sustainable Transport (CREST).
- In 2008, Curtin joined the Western Australian Department of Sport and Recreation to establish a specialist research centre in sport and recreation. The Centre for Sport and Recreation Research, in the Faculty of Humanities, was launched on 7 August 2008 by Sport and Recreation Minister The Hon. John Kobelke. The centre is believed to be the first of its kind in Australia, and will be adopting an evidence-based approach to investigating current and emerging issues within the sport and recreation industry.
- A partnership with the Chamber of Minerals and Energy (CME) was formed to develop the capacity of the minerals and energy sector to respond to the skill shortage in the resources industry. A Memorandum of Understanding between Curtin and the CME was signed on 6 March 2008 to bolster the development of educational and research programs that strengthen the Australian resource industry. The cooperative relationship will have far-reaching outcomes, including expected increases in the quantity and quality of students to more readily meet the resource industry's employment and research needs.

## Theme 2 International engagement

### HIGHLIGHTS

- In early 2008, Professor Yigang Xu, Deputy Director of the Guangzhou Institute of Geochemistry, Chinese Academy of Sciences, signed a Memorandum of Understanding with Curtin for collaborative geoscience research and training. The visit was initiated by The Institute of Geoscience Research (TIGeR), led by Professor Simon Wilde, and has formalised and strengthened long-term ties between the University and the Chinese Academy of Sciences.
- The Curtin Water Quality Research Centre is undertaking a joint project with the University of Alberta, funded by the American Water Works Association Research Foundation, on developing methods for measuring disinfection by-products in water. With epidemiologic association between chlorinated drinking water and elevated human risks of bladder cancer, there is interest in measuring possible carcinogens, produced as a by-product of water disinfection.
- Professor George Curry received \$720,000 in funding from the Australian Centre for International Agricultural Research. The project aims to raise smallholder productivity and incomes in the oil palm and cocoa industries in Papua New Guinea, through identifying, refining and promoting effective strategies for commercial sector partnerships with smallholders.
- The Council of Curtin University of Technology, at its meeting of 18 June 2008, resolved to confer on Professor Lu Yongxiang, the President of the Chinese Academy of Sciences, the degree of Doctor of Science, *honoris causa*, for his contributions to the development of fluid power transmissions, and his control and leadership in higher education and research and development in the Peoples Republic of China. The degree was conferred in a ceremony in November 2008, when Professor Lu was in Perth as part of his visit to Australia leading the Chinese Academy of Sciences' delegation to the Joint Academies' Forum on energy and resources.
- From January to December 2008, Curtin hosted 46 international visits. These included the Australian Ambassadors to Hong Kong, Vietnam, the Philippines, Russia, Thailand and Egypt, and the High Commissioner to Singapore. The Ambassadors of Iran and India also visited. Countries that visitors came from include Brazil, Malaysia, Indonesia, Botswana, Russia, Saudi Arabia, Thailand, Japan, the US, China, Oman, Ireland and South Africa.

## 2008 Activity Highlights (continued)

### Theme 3 Organisational culture focused on excellence and responsive to its environment



From left: Deputy Vice-Chancellor Academic Professor Jane den Hollander; Vice-Chancellor Professor Jeanette Hackett; The Hon. Fred Chaney; and Centre for Aboriginal Studies Director Associate Professor Anita Lee Hong at the Reconciliation Action Plan launch.

### HIGHLIGHTS

- In May 2008, the Your Voice Curtin Staff Satisfaction Survey was administered, with a 67 per cent response rate from staff (casual staff were not included). Overall, Curtin performed as well or better than 17 other Australian universities in the sector benchmark group on 21 out of the 30 management practices. Key areas for improvement related to processes, senior management development, communication, career opportunities, training and development, workload, change and involvement.
- Work areas have engaged in action-planning sessions to generate local responses to the survey results. Centrally resourced initiatives include design and implementation of Senior Executive and the Heads of School Leadership Development Programs; training sessions addressing staff bullying for at-risk areas; review and expansion of Excel Staff Awards program; consolidation of Curtin's new Organisational Development Unit (ODU); and the development of a consistent framework for workload allocation for academic staff.
- A project framework is under development to coordinate the University-wide initiatives and local area plans, addressing issues raised through the survey. The ODU and Corporate Communications are collaborating to enhance internal/cross-sectional communications, and will be supporting work areas in addressing issues they identify as priorities.
- In July 2008, the University submitted its first Equal Employment Opportunity (EEO) Management Plan to the Office of Equal Employment Opportunity Western Australia. The plan covers the period 2008-2010, and sets out a number of strategies and measurable goals in the areas of organisational culture; lack of bias in employment practices; and strategies to achieve workforce diversity. As the first Western Australian university to complete an EEO Management Plan, Curtin was pleased to be recognised as an exemplar, and the plan is now being used as an example of Best Practice for other organisations.
- In 2008, Curtin was – and is – the first Australian university to launch a Reconciliation Action Plan. The plan, which was developed in association with Reconciliation Australia, sets out steps the University will take to continue to develop reconciliation, and build relationships between Indigenous and non-Indigenous people. Launched on 27 May by the Director of Reconciliation Australia, The Hon. Fred Chaney AO, Curtin's Reconciliation Action Plan is part of the University's commitment to promoting an understanding of Indigenous culture and history; implementing strategies to increase participation of Indigenous people in higher education; and continuing a commitment to fostering partnerships in Indigenous research and development.
- Curtin's Digital Media Unit (DMU) won the education category of the 2008 WA Web Awards. The award recognises the significant work by the DMU in upgrading the University's corporate website for the Curtin and wider web community as a key source of information about Curtin and its offerings. The awards are organised by the Australian Web Industry Association.

## Theme 4

### A secure financial future



#### HIGHLIGHTS

- In 2008, Curtin achieved a healthy surplus for the third year in succession. The 2008 surplus was \$55.8 million, an outcome achieved mainly through continued revenue growth. It should be noted, however, that this result includes \$19.7 million in capital grants and \$8.1 million in unspent research monies. The University suffered \$27 million of unrealised investment losses, \$23.8 million of which is reflected in the 2008 operating result.
- Curtin's strong financial position means it has the financial capability to invest in a range of strategic initiatives and capital works programs. On top of the \$107.6 million spent in 2008, more than \$216 million will be invested in equipment, physical facilities and other assets over the next three years.

## 2008 Activity Highlights (continued)



### The Teaching and Learning Plan

The Teaching and Learning Enabling Plan sets the direction for teaching and learning at Curtin for 2006 to 2008. It aims to ensure that Curtin graduates are strategic and creative thinkers, who value lifelong learning.

### CURRICULUM 2010 PROJECT

Curtin's three-year initiative designed to implement the course-related objectives of Curtin's Teaching and Learning Enabling Plan (2005-2008), the Curriculum 2010 (C2010) project, has nurtured networks across the University to ensure key support areas connect with teaching and learning. Key activities throughout 2008, and continuing, include the Curtin Award, Course Sustainability, Annual and Comprehensive Course Review and Course Data Management. Under the Curriculum 2010 project, a new curriculum model was developed and agreed upon in 2008. The triple-i curriculum model focuses on Industry (graduate employability), Indigenous/Intercultural/International (global citizenship), and Interdisciplinary (rich educational choices) to meet both students' expectations of career-focused courses and the increasing demand by industry for highly employable graduates. The innovative model will enhance and expand Curtin's established links with business and industry, with increased work placements, internships and work-integrated learning.

## HIGHLIGHTS

- A Unit Cost Indicator was developed to enable managers of teaching areas to determine indicative costs associated with unit and course delivery. The tool will provide information to inform decision-making and ensure sustainability. It will be piloted more widely in 2009.
- The University continues to undertake comprehensive Course Reviews, using specific needs analysis and curriculum mapping templates that have been refined and adapted to provide data pertaining to courses in a usable format for staff. Processes have been streamlined as the tools used for comprehensive course review have improved. An assessment matrix has been developed and provides teaching staff with intelligence about the assessments in a course, enabled by visual representation of analysis of assessments. A process for reviewing service-taught units was introduced, which includes a consultative approach with all stakeholders, and gathers feedback to inform the review of these units.
- Curtin's annual Course Reviews have been embedded, with refinements scoped after the second year of operation.
- The Unit Outline Builder is the first of three web-based tools for managing courses to be sufficiently developed to pilot. The tool enables unit outlines to be built online, sourcing data from the student records system and other official University databases. A Course Information Tool has been scoped for further development in 2009.
- Curtin completed implementation of the eVALUate unit and teaching survey instruments for undergraduate and postgraduate coursework units at Curtin's Australian campuses, and expanded it to four international locations. There was an increase in student participation of the survey, from 35 per cent in 2007 to 40 per cent in 2008. The results showed an improvement in overall student satisfaction with the quality of their unit teaching and learning experiences at Curtin, up from 83.2 per cent in 2007 to 83.5 per cent in 2008. Graduate and employer surveys were implemented, with 71 graduate and 71 employer surveys conducted in 2008 as part of the Curriculum 2010 project.
- An Academic Leadership Program for Course Coordinators, an Australian Learning and Teaching Council (ALTC) project, was successfully launched in 2008. An ALTC Competitive Grant of \$220,000 was received for a Building Course Team Capacity to Enhance Graduate Employability project. A further ALTC Competitive Grant, of \$149,000, in partnership with Murdoch University as the lead institution, was awarded for Unit Coordinators as Academic Leaders.
- Curtin's Foundations of Learning and Teaching at Curtin Eight-Module Program, developed specifically to support academic staff, continued to receive increased participation in 2008, and resulted in an overall satisfaction with the program of 99.4 per cent.
- Curtin implemented the Turnitin plagiarism detection software across the University, after a successful pilot achieving almost 20,000 submissions in the first year.
- Curtin was awarded three Australian Learning and Teaching Council Competitive Grants and three Citations for Outstanding Contributions to Student Learning.
- In 2008, Curtin implemented a Moderation Pilot Project to investigate the University's moderation processes, involving a total of 7,853 students represented across all units involved in the project.
- Distance Education print-based material was successfully transferred to an electronic format using the learning management system Blackboard.
- A University-wide Flexible Learning Project commenced to embed contemporary learning methodologies as components of curriculum renewal and consolidation, in conjunction with the C2010 project. This will assist schools through a flexible learning, small grants program, and the flexible delivery of academic staff training.
- In reviewing the management of Fieldwork Education, the University implemented a policy; commenced development of a central repository for recording Fieldwork Partnership agreements; developed and trialled Fieldwork Preparation Online, an online program of the essential information for students undertaking fieldwork education; and developed a Fieldwork Guidelines Manual and a dedicated Fieldwork Education website.
- The Teaching Performance Index (TPI) scheme to reward excellence in teaching and learning was implemented on a trial basis. Claims could be submitted by individuals and teams for activities, achievements, publications or events occurring in 2007. The online TPI system

## 2008 Activity Highlights (continued)

was designed to draw on data from the eVALUate system. In total, 401 claims were submitted, including 280 individual claims and 121 team claims. A total of \$820,825 was distributed to the faculties.

- The University established the Student Transition and Retention Team (START), located at a 'drop-in' facility in Hayman Hall, to focus on orientation, the first-year experience and student retention. A Student Retention Plan was developed, and implementation commenced in 2008. Curtin initiated a student mentor program for more than 400 new-to-Curtin students, with the highly positive evaluation

provided by all participants leading the University to plan to double the numbers of students and teaching areas involved in the program in 2009. A Conditional Status Pilot Program was trialled, using OASIS, to take a more interventionist approach to this group of at-risk students. It is intended to use the outcomes of the pilot program to implement this intervention on a University-wide basis in 2009.

- The concept of Teaching-Research Integration at Curtin was developed to ensure that curriculum draws on latest research in the discipline, and opportunities are provided for

students to participate in research activities. This integration commenced under the C2010 project.

- Curtin conducted a pilot Mid-Course Experience Questionnaire (CEQ), targeting four major courses in Semester 2, 2008. The Mid-CEQ aimed at improving courses rather than constituent units, and was based on the Course Experience Questionnaire that forms part of the Australian Graduate Survey administered annually to graduates by DEEWR. By gathering this data mid-course, some of the concerns about the lagging nature of data in the CEQ can be avoided.

## STUDENT ACHIEVEMENTS

- Advertising student Wassim Kanaan, and lecturer Mr Blair McLeish, from the School of Art and Design, won a Bronze World Medal Award at the New York Festivals International Advertising Awards 2008. Their work for Greenpeace was recognised in the service category of the Advertising in All Media component of the awards. Entitled *Barnacles*, the project aimed to raise awareness of global warming and the impact of rising sea levels. The New York International Advertising Awards receives entries from 71 countries. Winners are selected by an international panel of 300 senior creative directors from 48 countries.
- Biomedical Sciences second-year PhD candidate Melissa Corbett won the WA competition of the 2008 AusBiotech-GSK Student Excellence Awards. Ms Corbett received a trip to Melbourne to attend the Australian Biotechnology Conference,

where she presented her research, which focuses on the metabolic functions of a particular strain of bacteria and how this information can be used to advance biomining technologies. The research will have implications for the way in which minerals will be extracted in the future. The AusBiotech-GSK Student Excellence Awards are open to first- and second-year PhD students at Australian universities, who are working on projects that potentially have a commercial application.

- Yoshio Takagi, a second-year student undertaking a Bachelor of Arts (Design) Product and Furniture Design major at Curtin's School of Design and Art (SODA), won two awards at the Melbourne Fringe Festival in 2008. Mr Takagi won the Fringe Furniture 2008 People's Choice Award and Best Design Award for his origami-inspired table, titled Molentje.

- Eighteen-year-old Economics and Finance student Tara Franzinelli won the fourth Western Australian Business Icon competition. Ms Franzinelli was one of 40 Western Australians, aged between 18 and 25, who were selected from hundreds of entrants for the 10-day test to uncover the State's sharpest young business minds. The Business Icon competition is designed for young people to test their business skills. Contestants were challenged through a series of complex tasks. After a process of elimination, each of the four finalists had to create a management plan to assess and deal with the possibility of a disaster striking Kwinana and effectively wiping out WA's diesel supply. Ms Franzinelli won the award for her presentation skills and for delivering a simplified message.

- Maggie Edmonds, a student in the Growth Program offered by Curtin's Centre for Entrepreneurship, was named the Western Australian Rural Woman of the Year for 2008, and was also runner-up for the national title. She was selected from seven state and territory winners. The Rural Industries Research and Development Corporation Rural Women's Award is designed to recognise and encourage the vital contribution women make to rural Australia.
- In March 2008, Communication and Cultural Studies student Sam Carmody won the Mary Grant Bruce Short Story Award for Children's Literature in the 2007 Fellowship of Australian Writers National Literary Awards. Mr Carmody won the award for his short story *Vincent*. The Mary Grant Bruce Short Story is awarded to the best manuscript for readers 10 to 15 years of age. The award carries a prize of \$600 and the honour of being recognised by the Fellowship of Australian Writers.
- In early 2008, Ben Cole, who is studying a Master in Environmental Health at Curtin, won the first prize of €20,000 (approximately AUD\$40,000) in the international Business in Development (BiD) Challenge 2007. Mr Cole competed against 2,275 participants from 144 countries, and was awarded first prize in the start-up category. His winning idea was based on a high-quality protective facemask that contains a layer of activated carbon cloth and dust filter to capture chemical pollutants. Mr Cole designed the mask to protect commuters in Vietnam from air pollutants. The competition aims to contribute to economic growth and employment in developing countries.



## 2008 Activity Highlights (continued)



Vice-Chancellor Professor Jeanette Hackett with graduates from the Centre for Aboriginal Studies Bachelor of Education Conversion Course.

### GRADUATE ACHIEVEMENTS

- Actuarial Science graduate Bhavesh Haria is Curtin's first graduate to have completed the necessary examinations to qualify as a Fellow of the Institute of Actuaries Australia. He joins only 17 qualified actuaries working in Western Australia.
- In February 2008, 25 Indigenous graduates formed the largest class to date to graduate from the Bachelor of Education Conversion Course offered by Curtin's Centre for Aboriginal Studies. All graduates had been working as Aboriginal and Islander Education Officers statewide, and converted this qualification to a Bachelor of Education after studying for four years full-time at Curtin. Graduates posted to regional or remote areas helped ease the teacher shortage.
- First Class Honours Chemical Engineering graduate Sebastian Bunney secured a position with energy company Chevron, through one of the resource industry's best graduate engineering programs. Mr Bunney was appointed to work on the lucrative North West Shelf Joint Venture project in his first of the five-year graduate program. The position followed his three-months internship at Chevron, in Houston, Texas.
- Elissa Down, who graduated from Curtin's Film and Television course in 1998, won three prestigious Australian Film Industry Awards in 2008 for her debut film *The Black Balloon*. Ms Down, director and co-writer of the film, won awards for Best Direction and Best Original Screenplay, with the film taking out the Best Film award. *The Black Balloon* was also awarded a Crystal Bear at the 2008 Berlin International Film Festival.
- Urban and Regional Planning graduate Martin Keen won the esteemed Urban Development Institute of Australia (UDIA) (WA) Young Development Professional

Scholarship 2008. The scholarship is awarded annually to the most outstanding young person aged 30 years and under, who is currently working in the industry. Mr Keen is the youngest Senior Planner at the East Perth Redevelopment Authority. He completed a Bachelor of Arts (Urban and Regional Planning) with Honours at Curtin in 2006.

- In 2008, Dr Melinda Redmond received a commendation from Curtin's Chancellor for her PhD thesis about the effect culture has on the varying prevalence of depression in different countries. Dr Redmond, who completed her postgraduate studies at Curtin's School of Psychology in 2007, took up the position of Clinical Psychologist Registrar at Perth Clinic in 2008.



Dr Melinda Redmond

- Matthew Ngui, a graduate from the Department of Art, was co-curator of the Singapore Biennale 2008, the city's largest international contemporary visual arts exhibition. Mr Ngui is a visual artist who works in installation, video, performance and site-specific works. He has widely exhibited locally and abroad. He graduated from Curtin in the late 1980s, when he was the Department of Art's third international student.



Matthew Ngui

© National Arts Council, Singapore

## 2008 Activity Highlights (continued)

### The Research Management Plan

The Research Management Plan provides the framework to guide Curtin towards expanding and improving its research program. It addresses three broad issues: increasing research capacity, research differentiation and knowledge transfer.



From left: Professor Jeanette Hacket; Professor Steven Tingay; The Hon. Barry House MLC; Professor Richard Schilizzi; and Professor Peter Hall at the CIRA launch.

### HIGHLIGHTS

- Curtin continues to provide leadership through participation at a high level in discussions on Australian and State Government policy, including the Review of the National Innovation System, the Senate Inquiry into Research Training and Research Workforce Issues in Australian Universities, Excellence in Research for Australia (ERA) and the Review of Australian Higher Education.
- Curtin secured a highly prestigious Federation Fellowship from the Australian Research Council. Professor Peter Teunissen is a world-renowned expert in global navigation satellite systems (GNSSs). He is undertaking a program of research to improve the integer-estimation and strengthen models for integrated GNSS, and make them more reliable for the applications in which they are used (for example, Earth, atmospheric and space science).
- The Curtin Institute of Radio Astronomy (CIRA) was launched in December 2008 by The Hon. Barry House MLC, Parliamentary Secretary to the Treasurer; Parliamentary Secretary to the Minister for Commerce; Science and Innovation; Housing and Works. The institute will form an integral part of the multi-million-dollar Centre of Excellence for Radio Astronomy Science and Engineering – a collaborative initiative with The University of Western Australia (UWA), led by Curtin – which is part of a significant effort by the State of Western Australia to help Australia position itself in the global radio astronomy arena. The centre will be led by Professors Steven Tingay, a Premier's Research Fellow, and Professor Peter Hall, Curtin's Chair of Radio Astronomy Engineering, who both joined the University in 2008.
- Professor Chun-Zhu Li was appointed Director of the new Curtin Centre for Advanced Energy Science and Engineering, in October 2008. Professor Li is an authoritative expert in coal science and technology. The centre will focus on developing novel technologies for both fossil fuels and renewable energy sources, in light of the global priority to secure cheap energy supply and reduce greenhouse gas emissions.
- Growth in research activity continued in 2008, building on strong growth in 2006 and 2007. Income from Australian Competitive Research Grants increased 9 per cent in 2007 compared to 2006 figures. Research income showed strong growth of 21 per cent in 2007, while publications growth was at 15 per cent.

## RESEARCH GRANTS

- In 2008, successful projects under the Australian Research Council (ARC) and National Health and Medical Research Council (NHMRC) were awarded as follows:
  - Professor Julian Gale, of the Nanochemistry Research Institute, was awarded a prestigious Australian Professorial Fellowship by the ARC and \$900,000 to advance computer simulation methods in order to understand the complex structures of nanoparticles. The research will allow the mimicry of natural selectivity and thereby design of technological materials.
  - The Director of the Nanochemistry Research Institute, Professor Eric Bakker, was awarded a prestigious Australian Professorial Fellowship and \$800,000 by the ARC to develop miniaturised and thin-layer ion sensing materials, to introduce the concept of calibration-free sensors. The research will help in future sensing applications, such as remote sensing and inexpensive hand-held monitoring devices.
  - In the Centre for Behavioural Research in Cancer Control, teams led by Professor Peter Howat were awarded more than \$900,000 for two projects under the National Health and Medical Research Council (NHMRC) to investigate nutrition and physical activity intervention for mothers with young children, and for seniors.
  - Associate Professor Anna Heitz, Director of the Curtin Water Quality Research Centre, in collaboration with the Water Corporation and GHD, received approximately \$600,000 for an ARC Linkage project to investigate the removal of chemicals of concern from drinking water, which will translate into treatment plant design. Recycling treated wastewater for drinking water is becoming one of the most important strategies for drought-proofing Australian water supplies.
  - Professor Svetha Venkatesh, in collaboration with the Lions Eye Institute and the Association for the Blind WA, was awarded an ARC Linkage grant of \$480,000 to develop computational solutions to address fundamental issues for people with vision impairment and blindness.
  - Professor James Semmens, of the WA Centre for Population Health Research, received \$390,000 in NHMRC funding to investigate the patterns of burn injury, health service utilisation, economic costs, treatment pathways and outcomes for all patients hospitalised with burn injury in Western Australia for the period 1999 to 2008. An important focus will also be on developing preventative injury education strategies. The proposal outlines a new collaborative initiative between the Burn Service of WA and Curtin.
  - Associate Professor Tony Butler, from the National Drug Research Institute, was awarded \$270,000 from the NHMRC to investigate the link between traumatic brain injury and offending behaviour.
  - Dr Ricardo Mancera, Senior Research Fellow in the Department of Pharmacy, was awarded an ARC Linkage grant, in collaboration with industry partners Alcoa Alumina and Worsley Alumina, and the Botanic Gardens and Parks Authority, to develop cryo-preservation for high-value provenance collections of recalcitrant plant species used in post-mining restoration.
  - Professor Robert Donovan, from the Centre for Behavioural Research in Cancer Control, was awarded an ARC Discovery Project grant of \$270,000 to investigate whether perceptions of morality of alcohol, tobacco and cannabis use influence uptake in high school.
  - Associate Professor Peter Taylor, from the Science and Mathematics Education Centre, was awarded an ARC Discovery Project grant of \$115,000 to look at preparing Australia's future citizens for informed decision-making through socially responsible science education.

## 2008 Activity Highlights (continued)



Curtin Singapore.

## The Internationalisation Plan

The International Enabling Plan aligns closely with the University's Strategic Plan 2006-2008 and includes outcomes related to staff, students, culture and core activities with an international perspective. Strategies to increase international student numbers, internationalise the curriculum and develop an international culture among Curtin staff are the aims of this plan.

### HIGHLIGHTS

- In 2008, Curtin's international student population (both onshore and offshore) grew by 2 per cent to 17,521. This was achieved in a competitive market, where international student recruitment has become increasingly difficult. The increase highlights Curtin's strong international branding and considerable skill in promoting the benefits of a Curtin research and/or teaching and learning experience.
- The number of international students enrolled at Curtin's Bentley Campus in 2008 increased to 9,734, with a marked increase in enrolments from China and India. Curtin continues to attract a strong flow of students from Malaysia, Singapore and Indonesia.
- In 2008, 7,787 students enrolled in Curtin's offshore programs in a range of countries, including Singapore, Malaysia, Hong Kong, China and Sri Lanka.
- The Australian Universities Quality Agency (AUQA) audit of Curtin University of Technology was completed in 2008. The compulsory audit theme focused on a review of Curtin's international activities. AUQA commended the effectiveness and efficiency of Curtin's international offices. In addition, the conceptualisation, establishment and successful development of an international campus at Curtin Sarawak was commended.
- In December 2008, the latest Curtin international teaching facility was opened in Singapore. Curtin Singapore consolidated Curtin's Singaporean offshore operations onto a purpose-built campus. The University will diversify course availability to include new program offerings (for example, increasing the range of courses offered by Health Sciences). This modern campus was developed to provide students with access to the facilities expected of a complete Curtin campus.



Curtin Sydney.

- Curtin Sydney grew successfully in 2008, with student numbers increasing to 1,692 – an increase of 25 per cent on 2007. New postgraduate courses were also added to the Sydney Campus.
- More than 650 international students sponsored by the Australian Government [AusAID], foreign governments and universities, and international companies were enrolled at Curtin in 2008. The International Sponsored Students Section provided assistance and support to sponsored students, including individual case management, pastoral care for students and their families, and opportunities to participate in social events.
- During the year, good progress was made in the development of higher educational relationships with international institutions, and Curtin hosted numerous delegations from overseas universities. This activity resulted in the development of several new memoranda of understanding, student transfer agreements and student exchange agreements.
- Curtin continued to provide student mobility opportunities in 2008. Grants were available to assist students during periods of study overseas. The number of Australian students who participated in international exchanges increased to 144 (up 20 per cent on 2007). Also, more than 200 Health Sciences students joined overseas study tours or clinical placements. The experiences gained during these types of activities are an important element in broadening the international perspective of Curtin graduates.
- Curtin's International Office supported the International Students' committee to stage the Pasar Malam (night market) – a highlight of Curtin's Multicultural Week. The continued popularity of this event was demonstrated by record numbers of stalls and patrons.
- Curtin's International Office was awarded the Best International Office of the Year as voted by various International Student Associations (at the Australian National Liaison Committee Conference). Also, Curtin's International Students Committee was awarded the Best International Student Association, with the University's Student President recognised and awarded Best International Student Ambassador of the Year.

## 2008 Activity Highlights (continued)

### The Valuing Curtin Staff Plan

The Valuing Curtin Staff Plan is the University's plan for the support, development and growth of its people, work environment and organisational culture. The plan outlines the key people, management strategies and targets that relate directly to the University's Vision, Mission, Values and Strategic Objectives.



### QUALITY ENHANCEMENT

- Curtin's Organisational Development Unit (ODU) finalised the Curtin Framework for Leadership and Management Development as a part of its review to strengthen the University's leadership and management programs.
- Four Senior Managers' Forums were held during 2008. In addition, a two-day Senior Managers' Conference, titled "Curtin 2020", was held in June, which helped shape the University's new strategic plan and prepare Curtin for the 2008 AUQA audit. An executive development initiative, centred on a 360-degree feedback process, commenced, and an executive coaching program was established.
- A new 18-month development program for Heads of School commenced in October 2008. Staff completed the Academic Leadership for Course Coordinators Program and the Frontline Management Program (Certificate IV in Business).
- A range of workshops was delivered for professional staff to develop management skills.
- Curtin's ODU completed its first full-year of operations. During 2008, the ODU conducted 119 events for staff, addressing the needs of 2,181 participants.
- The ODU reviewed the University's Induction Guidelines, Corporate Induction, Sessional Induction, and Approaches to Online Staff Development, IT Training and Compliance Training.
- Curtin continued to develop initiatives to encourage cross-cultural professional development and internationalisation of staff. The Fly In Fly Out Induction Program for staff working offshore was developed and conducted four times during 2008.
- The ODU supported the implementation of the Work Planning and Performance Review Policy and Guidelines by facilitating 23 workshops for staff and managers. More than 450 participants attended the workshops, as at November 2008.
- During 2008, the ODU undertook 40 consultancy/advisory assignments with faculties, schools and areas in a continued effort to improve staff performance and satisfaction.

## LEADERSHIP

- A leadership role to help drive Curtin's commercial success, physical development planning and overall information technology initiatives was created within the University's executive. Mr Geoffrey Searle was appointed to the role as Vice President Corporate Services, and commenced in September. In his role at Curtin, Mr Searle heads the finance, IT, property, facilities, legal services, corporate risk and executive support areas, and will spearhead the strategic direction and policy development for these areas.
- In August, Curtin appointed Professor John Neilson as Pro Vice-Chancellor for the newly established Curtin Singapore, which opened in December. Professor Neilson is responsible for establishing all academic aspects of Curtin Singapore, which include providing academic and strategic leadership, and managing the quality of its programs. He has been with Curtin for more than 17 years, serving as Head of the School of Accounting from 1998, and as Acting Pro Vice-Chancellor of Curtin Business School over a number of periods.
- Curtin continued to attract high-calibre academic leaders to its senior positions.
  - In January 2008, Professor Jill Downie was appointed Pro Vice-Chancellor Health Sciences. Professor Downie was Head of the School of Nursing and Midwifery and Professor of Nursing at Curtin for six years, and acted in the Pro Vice-Chancellor Health Sciences role from August 2007. She is an established national and international researcher and author, and is a non-executive director on the Boards of Churches of Christ Homes and Community Services Inc. and Bethesda Hospital.
  - Professor Duncan Bentley was appointed Pro Vice-Chancellor of Curtin Business School. He succeeded Professor Geoff Crockett, who retired from Curtin in February 2008. Professor Bentley joined Curtin from Bond University in Queensland, where he was Pro Vice-Chancellor Teaching and Learning. He has a strong understanding of issues in the higher education sector, and is an expert in business, taxation and law.
- Professor Kevin McKenna, Deputy Vice-Chancellor International, retired from Curtin in October, after a 33-year career with the University. Among other roles, Professor McKenna held the positions of acting Executive Dean of Curtin Business School for 18 months, prior to being appointed the inaugural Pro Vice-Chancellor of Curtin Sarawak. He led the Sarawak campus for five years before moving to the International Office, where he made a significant contribution to the University's international activities.



## 2008 Activity Highlights (continued)



### AWARDS

- Researchers from Curtin's Faculty of Health Sciences have won the 2008 WA Inventor of the Year Award (Early Stage category) with their simple diagnostic kit that identifies people at risk of chronic pain. The Cold Pain Test Kit will contribute to the quality of patient care provided by GPs.
- The Curtin New Inventor Competition is organised annually by Curtin's Office of IP Commercialisation to encourage the development and eventual commercialisation of innovative new research out of the University. In 2008, Dr Trilochan K. Mukkur, from the School of Biomedical Sciences, won the \$10,000 first prize in the competition for his invention of a non-invasive, long-lasting whooping cough vaccine. Whooping cough is a highly contagious disease that results in about 300,000 deaths a year worldwide, and is the least well controlled of all vaccine-preventable diseases.

Dr Mukkur's new vaccine is in its early stages of development, but it can be delivered intra-nasally, and is expected to offer longer immunity and potentially fewer side effects, if any, than the existing injection vaccine.

- Three Curtin academics received an Australian Learning and Teaching Council (ALTC) Citation for Outstanding Contribution to Student Learning in 2008. Professor Marjan Zadnik, from the Department of Imaging and Applied Physics, was awarded his citation for two decades of enhancing students' learning of physics through innovative and research-based curricula, and for scholarly activities and leadership in physics education. From Curtin's Office of Research and Development, Professor Leonie Rennie was awarded a citation for her exemplary supervision and empowerment of research students through promoting

high standards in research education for students and their supervisors. In the Faculty of Science and Engineering, Dean of Teaching and Learning Professor Shelley Yeo was awarded a citation for the design, development, implementation and evaluation of Curtin's approach to academic integrity, and for new plagiarism policies and procedures.

- Curtin's VC Excel Awards recognise the excellent work of Curtin staff across the University. In 2008, four awards were presented. In the Individual Category, Professor Rob Donovan, from the Centre for Behavioural Research in Cancer Control, and Ms Haslina Abdul Malek, Manager University Life at Curtin's Sarawak Campus, received awards. In the Team Category, Housing Services at the Bentley Campus and the Graduation Team at Curtin Sarawak received awards. All recipients demonstrated innovation and dedication to the University.
- There were nine winners in the Curtin 2008 Excellence and Innovation in Teaching Awards. Six awards were presented for Teaching Excellence, and three awards were presented for Programs that Enhance Learning. Winners received a certificate in recognition of their contribution to the quality of student learning, and \$5,000 to enhance teaching and learning.

## STAFF ACHIEVEMENTS

- Emeritus Professor John de Laeter was inducted into the Western Australian Science Hall of Fame. He was recognised as part of the Premier's Science Awards 2008 for his lifelong dedication to science in WA. Professor de Laeter facilitated collaboration in science between government, industry and universities. He has helped advance science education, and influenced the direction of physical sciences research. Professor de Laeter was instrumental in founding Scitech in 1988, and worked with government to establish Technology Park in Bentley. He was also inducted into the Australian Prospectors and Miners Hall of Fame in October, for his seminal research into mineral exploration technology, which led to improvements in mining exploration practices.
- Professor Zheng-Xiang Li, of the Department of Applied Geology and The Institute for Geoscience Research, was a winner in the 2008 Australian Thomson Scientific Citation Awards. The prestigious awards are made annually to the most pre-eminent researchers selected on the average number of citations per paper that their published research has generated over a period of time. Professor Li achieved 591 citations on seven papers, with an average of 84 citations per paper.
- Professor James Semmens was awarded the Royal Australasian College for Surgeons Medal for services to the College, in early 2008. The medal is in recognition of the work of Professor Semmens and his team in developing the Safety and Quality of Surgical Care Project, the Western Australian Audit of Surgical Mortality and the NSW version, called the Collaborating Hospitals Audit of Surgical Mortality.
- Professor Michael Alpers OA was elected as a Fellow of the Royal Society, the world's oldest scientific academy in continuous existence since 1660. His appointment is a rare honour that recognises researchers who have made an outstanding contribution to science. Professor Alpers joins only a handful of Australians to have received the award, and is among other noted fellows, including Isaac Newton, Christopher Wren and Charles Darwin.
- Professor Roland De Marco, Dean of Research, Faculty of Science and Engineering, was awarded the 2008 Royal Australian Chemical Institute Analytical Chemistry Division, Lloyd Smythe Medal for excellence in research.
- Dean of Engineering Professor Moses Tadé was the only Western Australian academic to be given a place in the prestigious *Engineers Australia* magazine's Top 100 Most Influential Engineers in 2008. Professor Tadé was recognised for his outstanding leadership and advocacy for Curtin's outreach scheme, as well as for his role in securing a number of industry-sponsored scholarships for engineering students. The Top 100 engineers list focuses on present influence rather than historic achievement, and is compiled each year by an eminent panel of advisers.
- Information Studies lecturer Dr Margaret Pember won the 2008 J Eddis Linton Award for records management in the category of Outstanding Individual. Dr Pember was commended for her tireless promotion of records management as a profession, and her dedication in educating recordkeeping professionals over the last 20 years, as well as for her research activities. The Records Management Association of Australasia presents the award annually.
- Dr Lizzie Finn, from the Centre for International Health, won the WA Department of Health's 2008 Mental Health Good Outcomes Award in the category of Mental Health Research and Education. Dr Finn won the award for her doctoral research into GROW, a community mental health organisation which operates mutual help groups for mental health around Australia. Her research was an important part of raising community awareness about mental health, and emphasised the importance in mutual help groups of empowerment and enhancement of quality of life.
- Associate Professor Ian Phau, from Curtin Business School, was awarded Outstanding Reviewer at the Emerald Literati Network Awards for Excellence. Associate Professor Phau, who coordinates the Marketing Honours program and founded the Curtin Marketing Association, received the award for his dedication and significant service as a reviewer for the *Journal of Young Consumers*.
- Nine staff were promoted from Associate Professor to Professor. Thirteen staff were promoted from Senior Lecturer to Associate Professor, and 13 staff were promoted from Lecturer to Senior Lecturer.