



Visualisation and Information

Clients Drive Innovation?

QUT a university for the real world CRICOS No. 000213J

SASBE2003

- QUT with CMU and Salford
- CIB Co-sponsored
- Attended by delegates from 19 countries in all 6 continents
- Over 90 presentations + keynotes



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Invitation & 1st Call for Papers

QUT Research Week

4-8 July 2005
Queensland University of Technology, Brisbane, AUSTRALIA

Includes:

- * COBRA – the Construction Research Conference of the RICS Foundation
- * AUBEA
- * 3rd CIB Student Chapter International Symposium




Australasian Universities' Building Educators Association




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A place for exciting things ...

- A leading University of Technology
- World class strength in selected areas
- Extending real world partnerships to make a difference ...
- An Australian University in a global context



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QUT Blueprint

Selected Areas of Strength ...

- Institute of Health and Biomedical Innovation
- Information Security Institute
- Sustainable Living Initiative
- Creativity and Innovation Initiative



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QUT

What's a joint like you doing in a girl like this?

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Correction of Spinal Deformity

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Inflatable Rescue Boats (IRBs)

QUT

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Driving Over a Wave

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What Drives Innovation in the Real World? Social Responsibility

Strong History of Successful Partnerships ...



Research Partnerships ...

- Chair in Transport Research
- Chair in Orthopaedic Research Queensland Orthopaedic Research Trust
- Chair in Avionics
- Chair in Power Engineering
- Research Fellows - Spine Research
- Chair in Traumatology
- Castrol Research Fellow

Chair in Power Engineering



- Research in Power Engineering
- Electricity Supply Industry postgraduate courses
- Knowledge Development in Asset Management

CII - Global Research Alliances



Successful Leaders of CRCs ...

- Integrated Engineering Asset Management
- Construction Innovation
- Satellite Systems
- Interaction Design
- Rail



CIEM Australia's Hub for Asset Management Innovation

Logos: Ansto, SunWater, Connell Wagner, CRC, Defence Science & Technology, Oronoco, Manufacturing Australia.

CRC for Construction Innovation Building our Future

Leading the Australian property and construction industry in collaboration and innovation

Logos: ARUP, Bovis Lend Lease, Woods Bagot, Rider Hunt, Building Commission, John Holland, Queensland Government, dem.

A new breed of partnership

- Living laboratories
- Work Integrated Learning
- Working across disciplines in themes

Logos: BAC, QUT, CRCOS No. 000213J

Research Partners QUT BAC Australia

Logos: QUT, BAC Australia, CRCOS No. 000213J

Make the most of your journey.

Your journey is satisfying. A seamless trip. Start to finish.

Logos: QUT, BAC, CRCOS No. 000213J

Shopping & Dining | Visitor Guide | To & From Airport | Airport Real Estate | Airlines & Cargo | Corporate Centre | Media Centre

Make the most of your journey.

BAC-QUT Partnership

Brisbane Airport Corporation Limited (BAC) and Queensland University of Technology (QUT) have made a significant mutual commitment to the intellectual, economic, social and cultural development of the Greater Brisbane region.

BAC Managing Director and CEO, Koen Rooijmans, said the BAC-QUT partnership is an Australian first for an airport and represents a commitment of approximately \$700,000 in funding and in-kind support from BAC over the next three years. He said the partnership includes a range of joint venture research projects between the two organisations that will deliver tangible and "real world" outcomes for both, with a dual focus on the built and natural environment and social and economic development.

"This unique partnership is a joint effort to leverage the research strength and depth of QUT to assist Brisbane Airport in better understanding its development objectives and impacts on the surrounding environment as we seek sustainable future outcomes," Mr Rooijmans said.

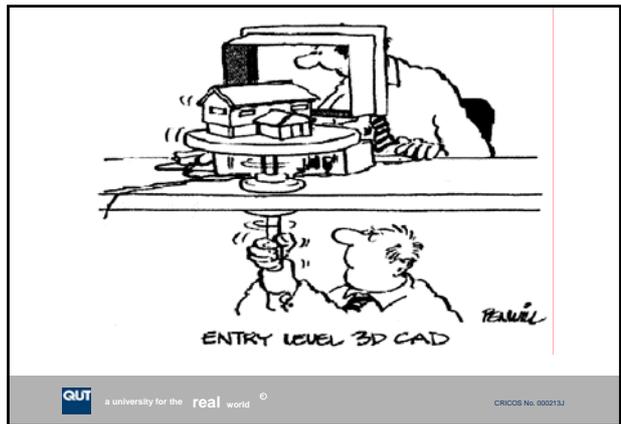
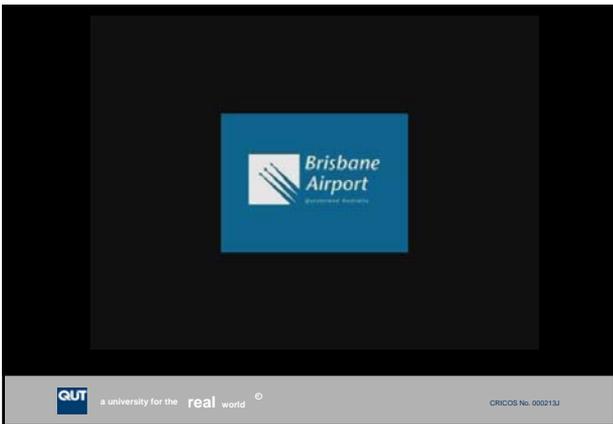
QUT Vice-Chancellor Professor Peter Coaldrake said the Brisbane Airport precinct is a valuable research field for the exciting joint research activities covering multi-disciplinary fields such as environment, sociology, economics, communications, engineering and marketing.

Logos: QUT, BAC, CRCOS No. 000213J



What Drives Innovation in the Real World? Legal Responsibility

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BAC ... our living laboratory
QUT ... your R&D arm

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What Drives Innovation in the Real World? Long Term Responsibilities

Sustainable Living Initiative

Our focus

- Fast developing, sub-tropical environments
- Across the disciplines
- Working in living laboratories



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- Information Security Institute
- Sustainable Living Initiative
- Creativity and Innovation Initiative



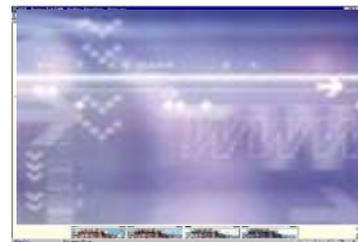
On-line Remote Construction Management



Case Study Project (CSP1)

CSP1 Statistics	
Client	 Queensland Government Department of Main Roads
Project description	: Widening & overlay of Highway
Value at completion	: Aus\$ 4.1 million
Contract delivery system	: Traditional
Contract time	: 220 calendar days
Completion date	: March 2001
Primary Contractor	: PNC
Internet-based IT System	 http://www.projectcentre.net
CSP1 Participants	: Including - Contractor; Engineer; Project Manager; ProjectCentre Administrator; Superintendent & Representative.

Potential of "Web-tools"



Internet Based Project Management



"ALDOME NOT HAPPY WITH CHOOSING MY FIRM'S CAD LAYERING AS THE PROJECT STANDARD. CAN DISCUSS IT WITH LUIGI OUTSIDE..."



What Drives Innovation in the Real World? Client Authority

QUT Blueprint Selected Areas of Strength ...

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From 3D to nD

'...taking 3-dimensional computer modelling of the built environment to an almost infinite number of dimensions'

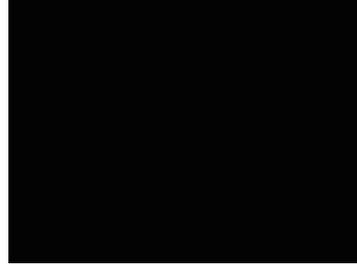


MARTIN FISCHER SAID SOMETHING ABOUT WORKING IN THE FIFTH DIMENSION. THEN VANISHED..."

What does an nD model do?

- Predict and plan the construction process
- Determine cost options
- Maximise sustainability
- Investigate energy requirements
- Examine people's accessibility
- Determine maintenance needs
- Incorporate crime deterrent features
- Examine the building's acoustics

all at the same time!!



What Drives Innovation in the Real World? Responsibility to Learn from Others



COMPUTER AIDED DESIGN

Virtual Environments (VE)



Community Consultation and VE






**What Drives Innovation in the Real World?
Responsibility to People**

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Transportation Research @ QUT




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Other Partners....

-  BP
-  Australia Post
-  Ford Australia
-  Exxon Mobile
-  BlueScope Steel
-  Coles Myer
-  Fosters Group
-  News Corporation
-  Shell

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Emerging Transit Systems



Community Consultation and VE

Virtual Consultation Terms and conditions



This study aims to obtain feedback from you on the suitability of TOSUD developments within your current community. Your responses will be kept and used within later analysis however your identity will remain anonymous. If you would like further information on the study, please contact sam bucolo on s.bucolo@qut.edu.au

Agree

Disagree

Community Consultation and VE



What Drives Innovation in the Real World? Responsibility to Stakeholders

ICT Future





What Drives Innovation in the Real World? Individual Responsibility and Opportunity

Integrated Construction & Engineering Information

Martin Betts
Sam Bucolo
Adrian Burgess
Stephen Kajewski
Lin Ma
Tony Sidwell
Debbie Smit
Achim Weippert



- CIEAM - Cooperative Research Centre for Integrated Engineering Asset Management



- CRCCI - Cooperative Research Centre for Construction Innovation



And partners in living laboratories ...

- A Vision for future use of Visualisation & Simulation tools.

Boeing 777 Twinjet
Virtually designed
Virtually built
Virtually tested



Case studies are being organised to establish the way that ICT is managed, the attempts towards strategic exploitation and examples of successful ICT exploitation.



QUT - The Institute of Health and Biomedical Innovation ("IHBI"), Brisbane, QLD:



Portside Wharf Development - Brisbane, QLD:



Lane Cove Tunnel Motorway development project, Sydney, NSW



What Drives Innovation in the Real World? Client Authority and Multiple Responsibility

