

An Overview of the Concrete Institute of Australia

Presented by David Millar, CEO
Concrete Institute of Australia

ACI International Forum
ACI Spring 2015 Convention, Kansas City









National Portrait Gallery, Canberra, 2009
Global award winner for excellence in concrete



Spun concrete pipe, Adelaide, 1910

First produced in Australia, patented all around the world



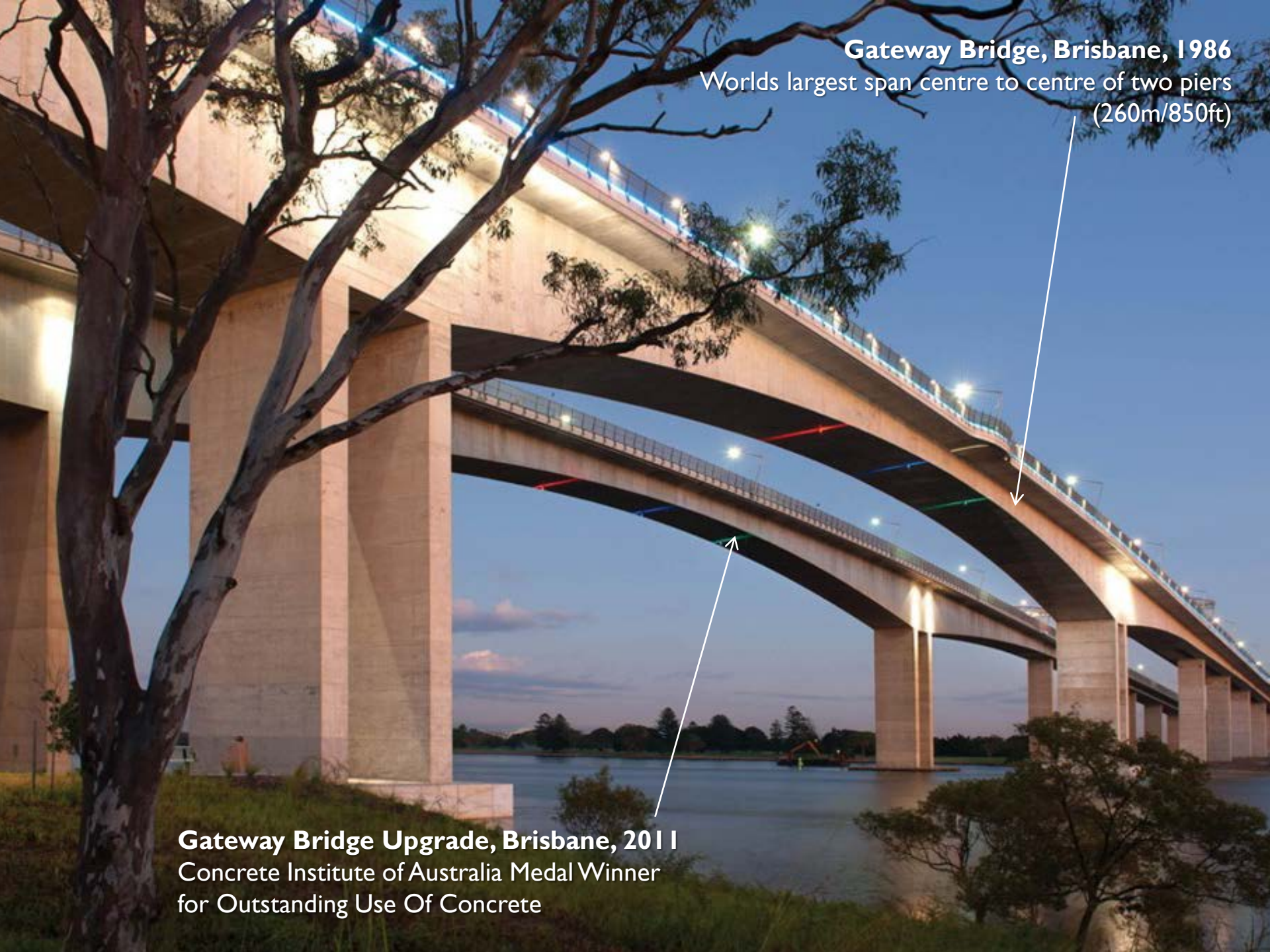
Gladesville Bridge, Sydney, 1964
Worlds largest concrete arch span



Sydney Opera House, Sydney, 1974

World record number of precast concrete panels





Gateway Bridge, Brisbane, 1986

Worlds largest span centre to centre of two piers
(260m/850ft)

Gateway Bridge Upgrade, Brisbane, 2011
Concrete Institute of Australia Medal Winner
for Outstanding Use Of Concrete

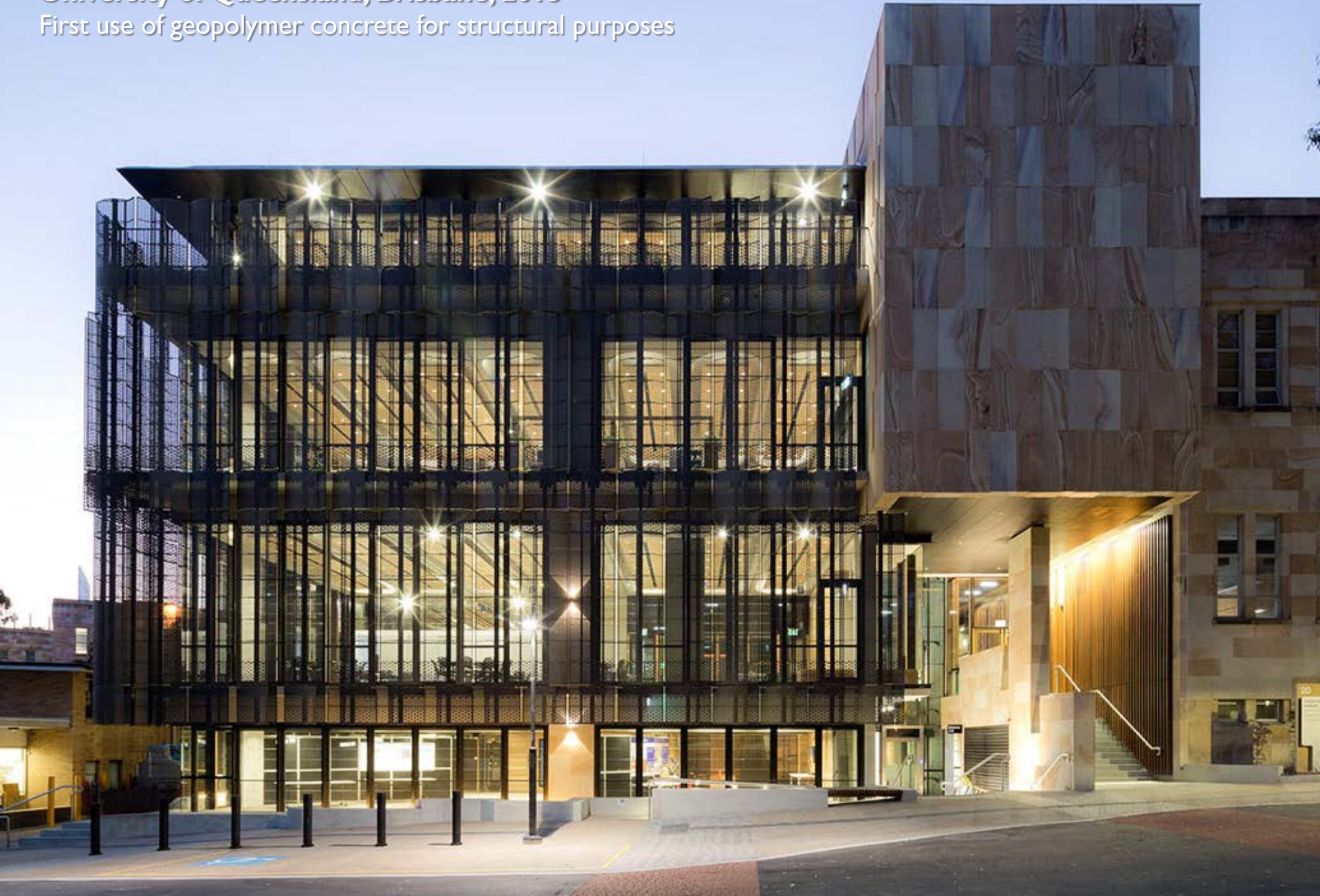
Weipa Bauxite Mine, North Queensland, 1980's
Bauxite aggregate concrete used for all structural works





Burdekin Falls Dam, Ayr, Queensland, 1987
First modern concrete gravity dam in the world
constructed horizontally with conventional concrete

Global Climate Change Institute,
University of Queensland, Brisbane, 2013
First use of geopolymers concrete for structural purposes



Australian Age of Dinosaurs Museum, Winton, 2013
Concrete Institute of Australia Medal Winner
for Outstanding Use Of Concrete



What do we do?

The mission of Concrete Institute of Australia is –

To promote and develop excellence in concrete technology, application, design and construction throughout Australia.

How -

- Provide a forum for Members to share knowledge and experience
- Promote Membership to increase representation and balance
- Promote academic research and development
- Facilitate communication and encourage participation
- Increase public and industry awareness of concrete and construction
- Represent the concrete industry locally and globally

About us!

The Concrete Institute of Australia

- Started in 1970 – 45 years young this year!
- Over 2000 Members
- Board, Council and 6 State Chapters
- Strategic Committees – Membership, Technical, Standards, Education, Recognition, International, Journal, Planning
- Journal – “Concrete in Australia”, distributed quarterly to 6000+ people
- 2014 – 75 events, > 3,800 delegates
- 27th Conference “Concrete 2015 - Research into Practice”

CIA and ACI

- International agreement since 2003
- Over 200 ACI Members in Australia
- ACI publications and resources well recognised in Australia
- Number of CIA Members are:
 - Members of ACI
 - Fellows of ACI
 - Voting members of technical committees
- Potential for CIA to:
 - Facilitate closer technical liaison with ACI
 - Facilitate an ACI Chapter in Australia



American Concrete Institute
Always advancing



Hosted by the Concrete Institute of Australia

Held in conjunction with 69th RILEM Week

30 August – 2 September, 2015

Melbourne, Australia



Challenges

- Face to face v online learning
- Change in skill set at consultants – service not design
- Globalisation - large consultants becoming harder to engage
- Everyone wants training but no funds available
- Engaging young professionals
- Less focus on networking
- Time poor – volunteers have less time to contribute
- Committee structures and culture
- International standards and codes – why re-invent the wheel
- Cross over – many Industry Associations in a small market

Technical & Research Areas of Current Interest

- Supplementary materials in cement
- SCM's
- Geopolymers
- Ultra high performance concrete
- Early Age Cracking
- Fibres in concrete
- Design of tall buildings
- Sustainability
- Life Cycle Analysis
- Durability rationalisation
- Durability modelling
- Durability testing
- Serviceability
- Fire design for concrete
- Seismic design for concrete
- Wind design for concrete
- Failure modes/risk analysis
- Research into practice
- Specification – performance v prescription

International Engagement

- Bringing the concrete world to our Members
- Don't reinvent the wheel – modify it to suit our “roads”
- Open the doors of global industry groups to our Members
- Take our expertise to the rest of the world
- Learn from others and see how it works
- Representation at overseas events and conventions
- Technical liaison between International groups including ACI
- Engage with international chapters in Australia
- Be the International Chapter in Australia

Snowy Mountains Scheme, largest engineering project in Australia

International engagement – workers from over 30 countries



Burj Khalifa, tallest building in the world
International engagement – design and durability experts



Linsum Bridge, Malaysia - longest single span UHP ductile concrete bridge
International engagement – research, teaching, practice



**Look forward to saying g'day to the International
concrete community in Melbourne later this year!**

Thank You!

