Crowne Plaza, Canberra
12 April 2011

Department of Innovation, Industry, Science and Research

Built Environment Research Forum

Professor Margaret Sheil
CEO, Australian Research Council
Built Environment and Design

An ERA Overview of the Research Landscape
- 12, Built Environment and Design (HCA)
- 12, Built Environment and Design (EE)

An ARC Overview of Investment in Research
- Government investment in research
- ARC organisation

Steps Forward: Industry Ownership & Leadership
- Developing the roadmap (Recom. 8 & 3)
- Building cooperation (Recom. 7)
- Integrated working and supply chains (Recom. 9)
An ERA Overview of the Research Landscape

Build Environment and Design (HCA)
Build Environment and Design (EE)
Excellence in Research for Australia (ERA)

- Volume and Activity
- Journal Quality
- Citation analysis or peer review
- Research Income
- Applied Measures
- Esteem

Please note – no weightings

Research Evaluation Committee
# Research Strength

## 1201 Architecture

<table>
<thead>
<tr>
<th>% assessed UoEs rated at or above world standard</th>
<th>FTEs</th>
<th>Esteem count(s)</th>
<th>Patent(s)</th>
<th>Res. comm. income ($)</th>
<th>Average National Rating</th>
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<td>75%</td>
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## 1205 Urban and Regional Planning

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<td>73%</td>
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# Research Improvement

## 1203 Design Practice and Management

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<th>Patent(s)</th>
<th>Res. comm. income ($)</th>
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## 1202 Building

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<th>Patent(s)</th>
<th>Res. comm. income ($)</th>
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<td>45%</td>
<td>135</td>
<td>1,537</td>
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Web: arc.gov.au  |  Email: info@arc.gov.au
# Research Gaps

## 1204 Engineering Design

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<th>% assessed UoEs rated at or above world standard</th>
<th>FTEs</th>
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<th>Res. comm. income ($)</th>
<th>Average National Rating</th>
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<tr>
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<tr>
<td>Research income $</td>
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<tr>
<td>UoEs assessed</td>
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<table>
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An ARC Overview of Investment in Research

Government investment in research
ARC organisation
Government Investment in Research 2010-11

- Universities: 21%
- ARC: 8%
- NHMRC et al: 12%
- CSIRO: 9%
- Energy and Environment: 6%
- CRCs & Other Science: 9%
- Other R&D Agencies: 11%
- Other business: 6%
- Industry Tax Concession: 18%

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National Competitive Grants Program
$708M

Discovery & Fellowships
$423 M

Linkage & Centres
$285 M

Evaluation and Policy

Excellence in Research for Australia

- Statutory Agency established 2001
- Mission: to deliver policy and programs that advance Australian research and innovation globally and benefit the community
- Fund direct costs to universities and partners
- All disciplines except clinical medicine & dentistry
- Operating budget of $22.117 million (2.2% for NCGP)
## Built Environment and Design Funding

<table>
<thead>
<tr>
<th>Scheme</th>
<th>Commencement Year</th>
<th>Total</th>
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<tr>
<td></td>
<td>2006</td>
<td>2007</td>
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<td>Discovery Indigenous Researchers Development</td>
<td>$16,000</td>
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<tr>
<td>Discovery Projects</td>
<td>$255,000</td>
<td>$549,294</td>
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<tr>
<td>Future Fellowships</td>
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<td>3</td>
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<tr>
<td>Linkage Infrastructure, Equipment and Facilities</td>
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<tr>
<td>Linkage Projects</td>
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<td>$2,502,266</td>
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<tr>
<td>Total Number of funded Projects</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Total Funding Allocated</td>
<td>$1,412,594</td>
<td>$3,237,560</td>
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Future Fellows

Professor Helen Lingard
Integrating strategies to improve Occupational Health and Safety in the construction industry

Professor Michael Ostwald
Complex and nonlinear pattern analysis in architectural space, form and program: developing computational tools to support social and cultural design

Professor Quentin Stevens
What is successful public art today? Exploring how contemporary public art and memorial design shapes public engagement, perceptions and behaviour
Linkage Projects

- **Professor Graham Treloar**
  Modelling environmental and financial performance of construction

- **Professor Christine Garnaut**
  Cultural heritage in the sustainability of remote planned communities

- **Professor Bill Randolph**
  An integrated information model to support metropolitan planning, management and analysis
Discovery Projects

• **Associate Professor Christina Martinez-Fernandez**
  Achieving urban vitality: skills & employment development in shrinking cities

• **Associate Professor Jago Dodson**
  Strengthening Australia's suburbs: advancing urban planning knowledge to limit oil vulnerability and build household resilience

• **Professor Peter Newman**
  Green shoots? Exploring the genesis and development of a green economy in Australia
Step Forward: Industry Ownership and Leadership

How does the ARC help in:

1. Developing the research roadmap
2. Building cooperation
3. Integrated working and supply chains
1. Developing the Research Roadmap

Recommendation 8

- A foundation document
- Focus on areas of most value to industry
- Optimise investment in research & respond to future drivers of change
- Address basic, strategic and applied research needs.

Recommendation 3

- Establish common performance metrics
Be part of the process –
ERA 2010 Reviews for ERA 2012

Targeted Reviews
- Ranked Outlets
- Research Evaluation Committees (REC) process
- Applied Indicators
- ERA Submission Guidelines

Broad Feedback
- Low volume thresholds (plus outputs that contribute)
- FORs allocated to clusters
- Indicator matrix for each discipline
- Definitions/timeframes: reference periods and researcher eligibility
2. Building Cooperation

**Recommendation 7**

- Rigorous research base to build a world class industry
- The importance of these sectors in the Australian economy
- Rally industry support
- Encourage a more collaborative effort, with a strong industry focus
### Building Cooperation through NCGPs

<table>
<thead>
<tr>
<th>Evaluation of <em>Linkage</em> Projects</th>
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<tbody>
<tr>
<td>Consultation paper on the <em>Discovery</em> Program</td>
</tr>
<tr>
<td>Changes to <em>Discovery</em> Projects and <em>Discovery</em> Indigenous</td>
</tr>
<tr>
<td>Two additional <em>Laureate Fellowships</em></td>
</tr>
<tr>
<td>Simplified NCGP Funding Rules</td>
</tr>
<tr>
<td>New schemes (DECRA and RITA)</td>
</tr>
</tbody>
</table>

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Researchers in Industry Training Awards (RITA)

• Up to 200 Awards will be available initially, 100 each in 2012 and 2014;

• Each Award will include a minimum research student stipend of $30,000 per year; to be supplemented by funding from institutions and the industry partner to attract the best researchers.

• The individual Award recipients must spend a substantial period of their candidature working directly with the industry partner(s).
3. Integrated Working and Supply Chains

Recommendation 9

- Collaborative working practices
- Integrated working and supply chain arrangements
ARC Strategic Overview

• To support excellence in research
• To build Australia’s research capacity
• To provide informed high-quality strategic policy advice to government
• To enhance research outcomes through effective evaluation
• To raise the profile of Australia’s research effort and be an effective advocate for its benefits
The ARC aims to:

• Provide opportunities for researchers at every career stage
• Foster a range of different cohorts

Researchers in industry
Women
Indigenous
Research-only
Teaching and research
The ARC does not:

• Employ researchers directly or aim to provide a complete externally funded career structure

• Fund all the excellent research proposals it receives

• Have full responsibility for building and fostering connections
Ownership and leadership is the key

Developing the Roadmap
- Engage
- Participate
- Advise

Building Cooperation
- World-class industry
- Collaborate with industry
- Encourage your industry focus

Integrated Working & Supply Chains
- Foster working /research foundation
- Integrate working and supply chain