



**Australian Government**  
**Australian Research Council**

*Crowne Plaza, Canberra*  
*12 April 2011*

*Department of Innovation, Industry, Science and Research*  
***Built Environment Research Forum***

Professor Margaret Sheil  
*CEO, Australian Research Council*

*Research*

# 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)



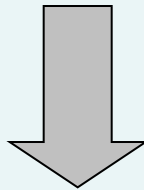
# *An ERA Overview of the Research Landscape*

*Build Environment and Design (HCA)*

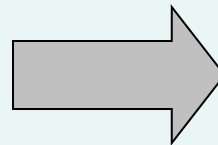
*Build Environment and Design (EE)*

# Excellence in Research for Australia (ERA)

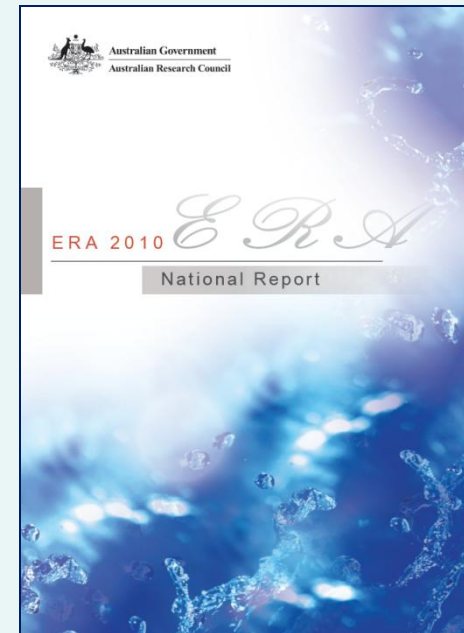
- Volume and Activity
- Journal Quality
- Citation analysis or peer review
- Research Income
- Applied Measures
- Esteem



Research  
Evaluation  
Committee



**Please note –  
no weightings**



# Research Strength

## 1201 Architecture

% assessed UoEs rated at or above world standard  <b>75%</b>	FTEs	289	Esteem count(s)				10	Average National Rating  <b>3.0</b>
	Research outputs	2,527	Patent(s)				1	
	Research income \$	13,131,803	Res. comm. income (\$)				1,637	
	UoEs assessed	16						
	Rating:	1	2	3	4	5	Total	
Distribution:	0	4	8	4	0	16		

## 1205 Urban and Regional Planning

% assessed UoEs rated at or above world standard  <b>73%</b>	FTEs	139	Esteem count(s)				15	Average National Rating  <b>3.1</b>
	Research outputs	1,452	Patent(s)				0	
	Research income \$	17,900,875	Res. comm. income (\$)				0	
	UoEs assessed	15						
	Rating:	1	2	3	4	5	Total	
Distribution:	0	4	6	5	0	15		

# Research Improvement

## 1203 Design Practice and Management

<b>% assessed UoEs rated at or above world standard</b>	FTEs	229	Esteem count(s)				1	<b>Average National Rating</b>
	Research outputs	1,322	Patent(s)				1	
	Research income \$	5,278,904	Res. comm. income (\$)				0	
	UoEs assessed	8						
<b>50%</b>							<b>2.5</b>	
	Rating:	1	2	3	4	5	Total	
	Distribution:	0	4	4	0	0	8	

## 1202 Building

<b>% assessed UoEs rated at or above world standard</b>	FTEs	135	Esteem count(s)				1	<b>Average National Rating</b>
	Research outputs	1,537	Patent(s)				2	
	Research income \$	11,663,141	Res. comm. income (\$)				0	
	UoEs assessed	11						
<b>45%</b>							<b>2.6</b>	
	Rating:	1	2	3	4	5	Total	
	Distribution:	0	6	3	2	0	11	

# Research Gaps

## 1204 Engineering Design

% assessed UoEs  
rated at or above  
world standard

**n/a**

FTEs	10	Esteem count(s)	0
Research outputs	34	Patent(s)	0
Research income \$	527,922	Res. comm. income (\$)	0
UoEs assessed	0		

Average National  
Rating

**n/a**

Rating:	1	2	3	4	5	Total
---------	---	---	---	---	---	-------

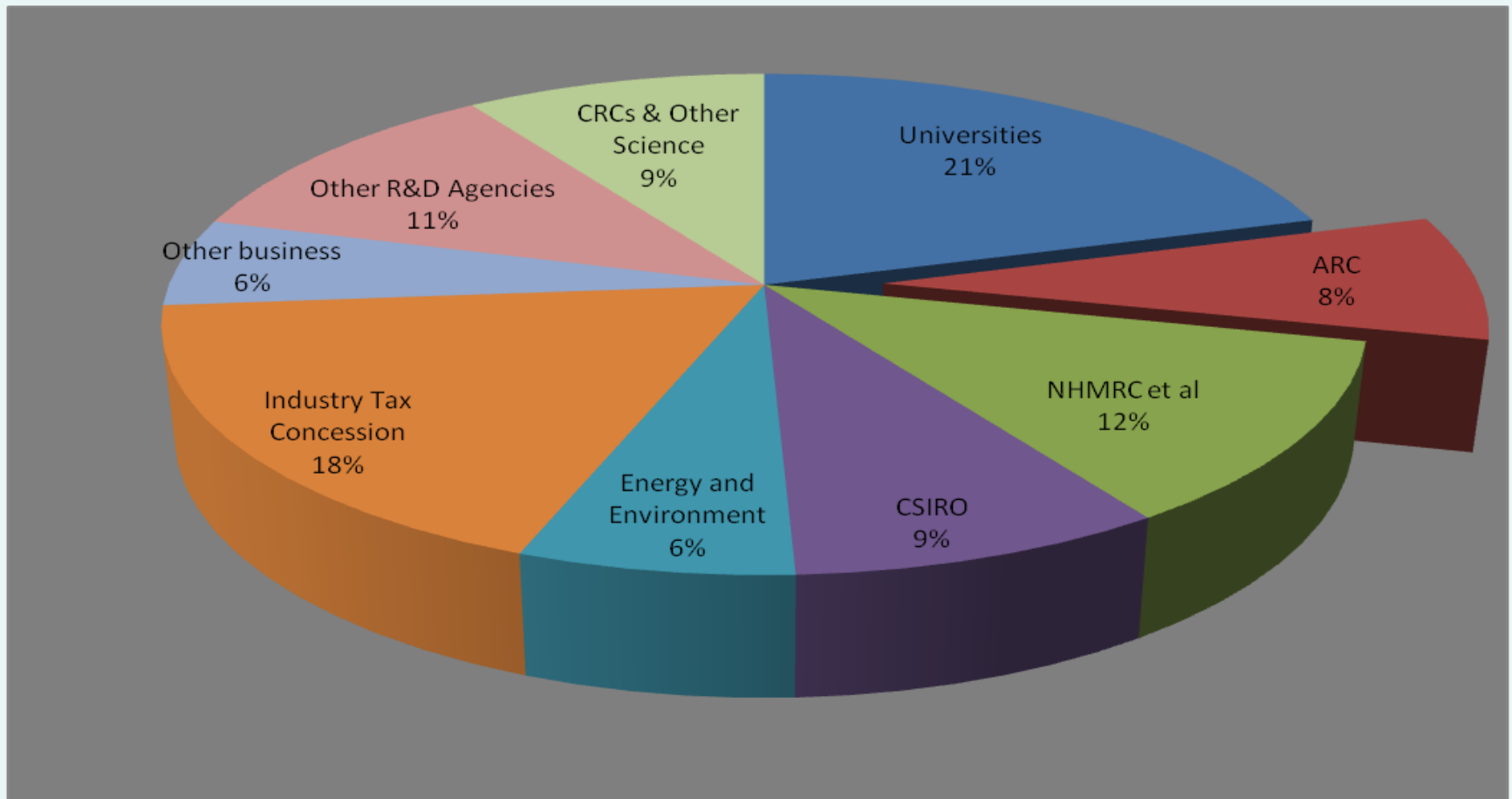
Distribution:	0	0	0	0	0	0
---------------	---	---	---	---	---	---



# *An ARC Overview of Investment in Research*

*Government investment in research  
ARC organisation*

# Government Investment in Research 2010-11



**National Competitive Grants Program**  
**\$708M**

**Evaluation  
and Policy**

**Discovery &  
Fellowships**  
**\$423 M**

**Linkage & Centres**  
**\$285 M**

**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

Scheme	Commencement Year						Total
	2006	2007	2008	2009	2010	2011 <sup>3</sup>	
Discovery Indigenous Researchers Development		1 \$16,000					1 \$16,000
Discovery Projects	1 \$255,000	2 \$549,294		4 \$970,028	5 \$1,947,000	8 \$2,491,573	20 \$6,212,895
Future Fellowships				3 \$2,347,219			3 \$2,347,219
Linkage Infrastructure, Equipment and Facilities		1 \$170,000					1 \$170,000
Linkage Projects	6 \$1,157,594	8 \$2,502,266	8 \$2,414,871	10 \$2,343,573	8 \$1,911,135	3 \$950,999	43 \$11,280,438
<b>Total Number of funded Projects</b>	<b>7</b>	<b>12</b>	<b>8</b>	<b>17</b>	<b>13</b>	<b>11</b>	<b>68</b>
<b>Total Funding Allocated</b>	<b>\$1,412,594</b>	<b>\$3,237,560</b>	<b>\$2,414,871</b>	<b>\$5,660,820</b>	<b>\$3,858,135</b>	<b>\$3,442,572</b>	<b>\$20,026,552</b>

# 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

Evaluation of *Linkage* Projects

Consultation paper on the *Discovery* Program

Changes to *Discovery* Projects and *Discovery* Indigenous

Two additional *Laureate Fellowships*

Simplified NCGP Funding Rules

New schemes (DECRA and RITA)

# 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

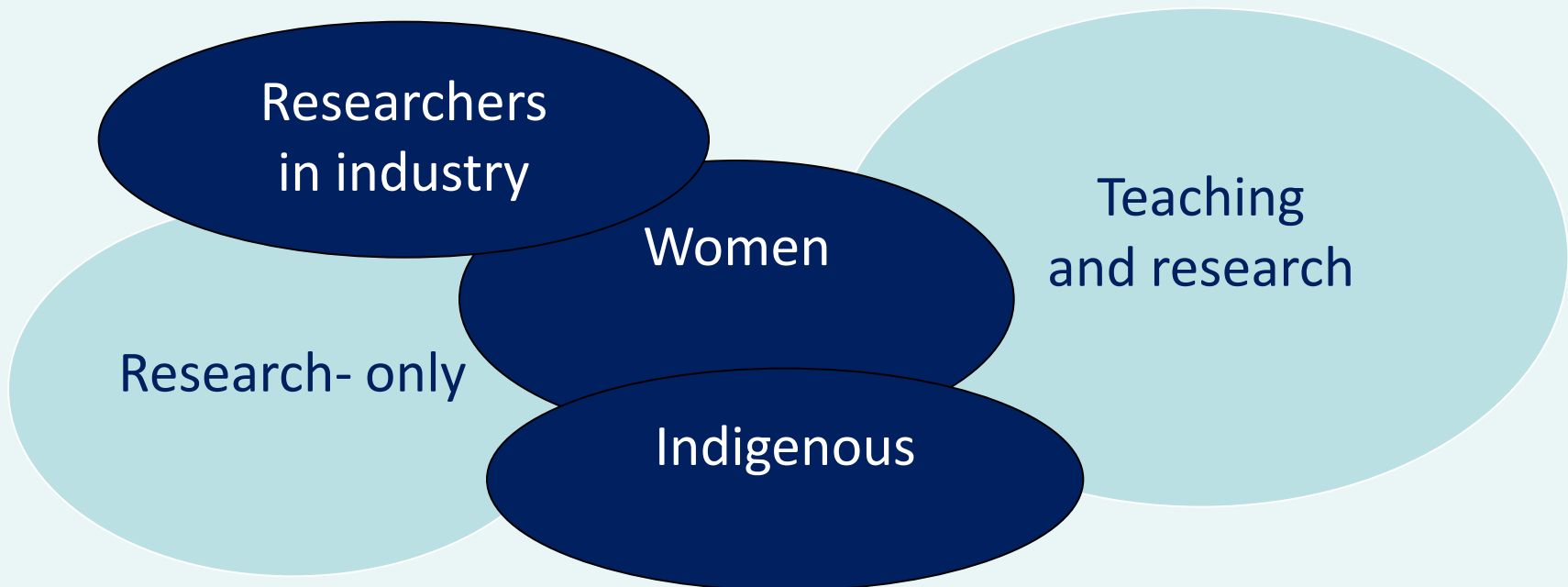
- Collaborative working practices
- Integrated working and supply chain arrangements

## 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



## 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