



Australian Government
Australian Research Council

University of New South Wales

Collaborative Research Linkage Projects Scheme

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Australian Research Council Overview

- Federal Government agency supporting all R&D
 - except medical and dental research
 - competitive, peer-reviewed proposals by investigators
 - limited strategic direction in specific fields
- Annual funding to University sector ~\$600m (FY08/09)
 - about 10% of total Federal spend on R&D
 - increase from ~\$250m in FY02/03
 - by FY10/11 will increase to ~\$750m/yr
 - assess >5,500 proposals per year
 - 35 Centres of Excellence, Special or Co-funded Centres
 - 25 Research Networks
- Mission
 - to advance Australia's research excellence to be globally competitive and to deliver benefits – public good and commercial – to the community





Research Partnerships

Competitive Schemes

| | CRC Programme | ARC Centres of Excellence | ARC LP Scheme |
|-------------------------|-----------------------------|---------------------------------|-------------------------------|
| Duration (years) | Min: 7 Max: 14 to ? | Min: 5 Max: 8-9 | Min: 1 Max: 5 |
| C'wlth \$/Centre | \$2m to \$4m per year | Min: ~\$1m/yr Max: ~\$3m/yr | Min: \$20k/yr Max: \$2m/yr |
| No of Industry Partners | Required Av: 7-9 per CRC | Not Required Av: 4-6 per CoE | Required Av: 2 per grant |
| Focus | programmatic, thematic | programmatic, thematic | project, thematic |
| Call Frequency | 2 years | 2-3 years | 6 months |
| Success Rate | 10%-20% | < 10% | 40%-50% |
| C'wlth \$/year | ~\$200m | ~\$65m | ~\$120m |





Importance of Co-Funding

- Co-funding is a “revealed preference”
 - confirmation of research need
 - “pre-selection” process
- Co-funding is quantifiable
 - \$ ARC + \$ co-funder = \$ project



- Happy co-funders are influential spokespersons
 - to whom others really listen



Linkage Projects

- **Primary aim**
 - Encourage and extend cooperative approaches to research by strengthening links within Australia's innovation system and within innovation systems internationally
 - Economic, social, environmental, policy or scientific benefit
- **Participant roles**
 - Chief Investigator, Partner Investigator
 - APAI (Aust. Postgraduate Award, Industry)
 - APDI (< 3 years from PhD),
 - Linkage Industry Fellowships (LIF)
- **Partners**
 - Private sector; private non-profit organisation; a Govt org with funds not committed to internal research or any other purpose of research, evaluation and/or consultancy.
 - Does not fund medical and dental research & training



Linkage Projects – 2009 Funding Rules

Major Changes

- Upper limit to each proposal - \$2m per year
- Support for CI to be relieved of other duties – limit of \$66k pa per CI. Justify in proposal; maximise interaction of CI with project and Partner Organisation
- Overseas higher education organisations are eligible to be Partner Organisation; requires at least one Australian Partner Organisation with proposal
- Citizenship requirement for APAs (post-grads) removed
- Travel requests clarified





Linkage Projects

| Funding Year | Proposals received | Requested (\$M) | Number Funded | Allocated (\$M)** | Success Rate (%) |
|--------------|--------------------|-----------------|---------------|-------------------|------------------|
| 1998 | 742 | 125.0 | 345 | 50.6 | 46.5 |
| 1999 | 873 | 130.0 | 407 | 51.7 | 46.6 |
| 2000 | 982 | 152.0 | 458 | 58.9 | 46.6 |
| 2001 | 1,085 | 168.8 | 485 | 62.1 | 44.7 |
| 2002 | 908 | 146.6 | 470 | 72.7 | 51.8 |
| 2003 (R1&R2) | 1,175 | 231.0 | 588 | 101.1 | 50.0 |
| 2004 (R1&R2) | 1,047 | 225.3 | 532 | 115.2 | 50.8 |
| 2005 (R1&R2) | 1,048 | 255.8 | 488 | 111.4 | 46.6 |
| 2006 (R1&R2) | 1,106 | 308.1 | 400 | 110.5 | 36.2 |
| 2007 (R1&R2) | 957 | 333.2 | 425 | 119.7 | 44.4 |
| 2008 (R1&R2) | 911 | 323.3 | 410 | 125.9 | 45.0 |





Linkage Projects

- **Selection Criteria**
 - Investigators' Track Record 20%
 - Project significance and innovation 25%
 - Project approach and training 20%
 - Project national benefit 10%
 - Partner Organisation commitment 25%





Assessment Process(es)

- Specialty Readers (not for LP Scheme)
 - match with sub-discipline or field
 - read a small number per round
- General Readers
 - strong experience of discipline or field
 - read between 10 and 20 per round
- College of Experts
 - leaders of discipline or field; expert researchers
 - read many proposals per round

**RFCD or FOR Codes
Project Summary**





Eligibility Checks: All Schemes

- ARC conducts a range of checks based on requirements described in the scheme Funding Rules
 - as proposals are logged into system
 - prior to Panel/SAC meetings (by ARC staff &/or College members)
 - during Panel/SAC meetings
 - prior to recommendations to Minister
- Eligibility checks may occur any time during the assessment process
- Two committees evaluate potential ineligible applications
 - convened by the ARC
 - Panel/SAC during meetings
- A third committee hears appeals



Common Reasons for Ineligibility

- Incomplete applications
 - Pages/sections missing
 - Letters missing
 - Current/past funding list inaccurate/incomplete
 - Signatures missing
 - Reports missing
- Centre overlap – letter not included or explanation not accepted
- NH&MRC Overlap
- Eligibility criteria for particular investigator roles
- Limits on numbers of projects or applications



If RO/Researcher is unsure

Eligibility Rulings

- Most ARC Schemes have formal processes to request ruling(s)
 - Apply for an exemption or ruling
 - Scheme 'Eligibility Ruling Request Form'

Seek clarification

- Contact your Research Office
 - Assistant Director for Scheme in ARC

The closing time is **THE** closing time

- Last minute additions/replacements
 - emails and faxes will not be accepted





NH&MRC Overlap

6.6.1the ARC does not fund Medical and Dental Research

- **Medical and Dental Research** means research and/or training which, in the opinion of the ARC, has **a significant focus on clinical medical (including dental) outcomes.**

For LP Scheme:

9.4.2 Notwithstanding subsection 9.4.1 and Section 6.6, a Proposal which focuses on the development of novel materials, technologies, tools and other innovative applications may be recommended and approved for funding if, in the opinion of the ARC, the Proposal **has demonstrated that the expected outcomes are likely to have significant relevance or application beyond the medical and dental context.**

9.4.3 The ARC reserves the right to determine at its absolute discretion conclusively whether:

- a. proposed research involves Medical and Dental Research; and
- b. the expected outcomes of a proposed project are likely to have significant relevance or application beyond the medical and dental context.



Conflict of Interest

- Clarification of Col responsibility
 - All parties involved in or associated with proposals
 - Required to disclose to the ARC and to all other parties on proposal
 - Disclose manner/methods to manage the Col
- Common with LP Scheme due to other affiliations and/or POs
- Eligibility exemption request can be sought



Strategies to Manage Cols

- If on a Board, absent the CI/PI from the meeting while decision is made
- Depending on size of project, form a management committee with clearly defined representation for all parties (note key CI may also absent from decisions)
- Use an independent third party to negotiate key issues for agreement between AO and PO; follow above
- Extreme case: CI resign from Board of PO



Common Responses in EERs

Type 4: Conflict of interest exemption

Q2. Please outline mechanisms/actions planned to address.....

“....Prof. Xs association with the Partner Organisation complies with the Funding Rules.....”

“...a committee will be formed between senior management (CEO) of XYZ Company and the University or their appointed representatives to resolve Col issues. The CI will.....”

“....to avoid the potential for conflict of interest at management committee meetings...it is proposed that Prof Y will be present during scientific discussions.....but if decisions are to be made that have potential to give Prof Y a personal financial benefit, then s/he will be absent from the meeting.....”

“...should the application be successful, the CIs will remove themselves from the room when the Board has to make decisions or discuss the project, including funding and other Board members' involvement.....”





Common Responses in EERs

Type 5: Partner Organisation

A: PO eligibility

**Provide sufficient information to make a decision on PO eligibility
(i.e. re-read Appendix 2)**

B: PO minimum cash exemption

Q B3 Please provide detailed financial information and justification for why the organisation does not have ready access to sufficient cash reserves to meet

“...the organisation.... does not have dedicated funds for research activities.”

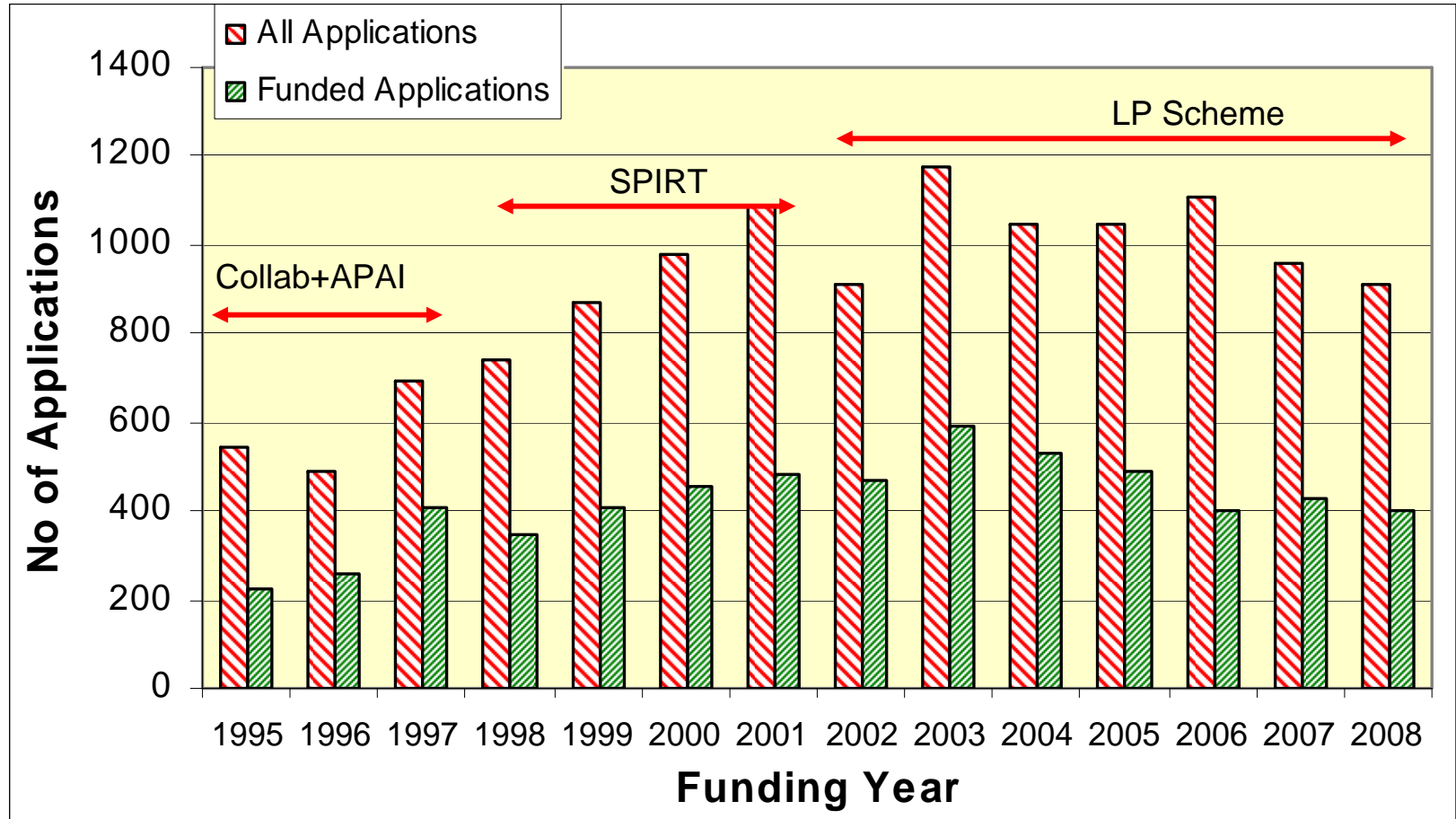
“...does not have the cash reserves to meet the above requirements as they are a small organisation.”

“... is not currently funded by any government body and relies on member subscriptions for.... as noted in the financial statement.....”



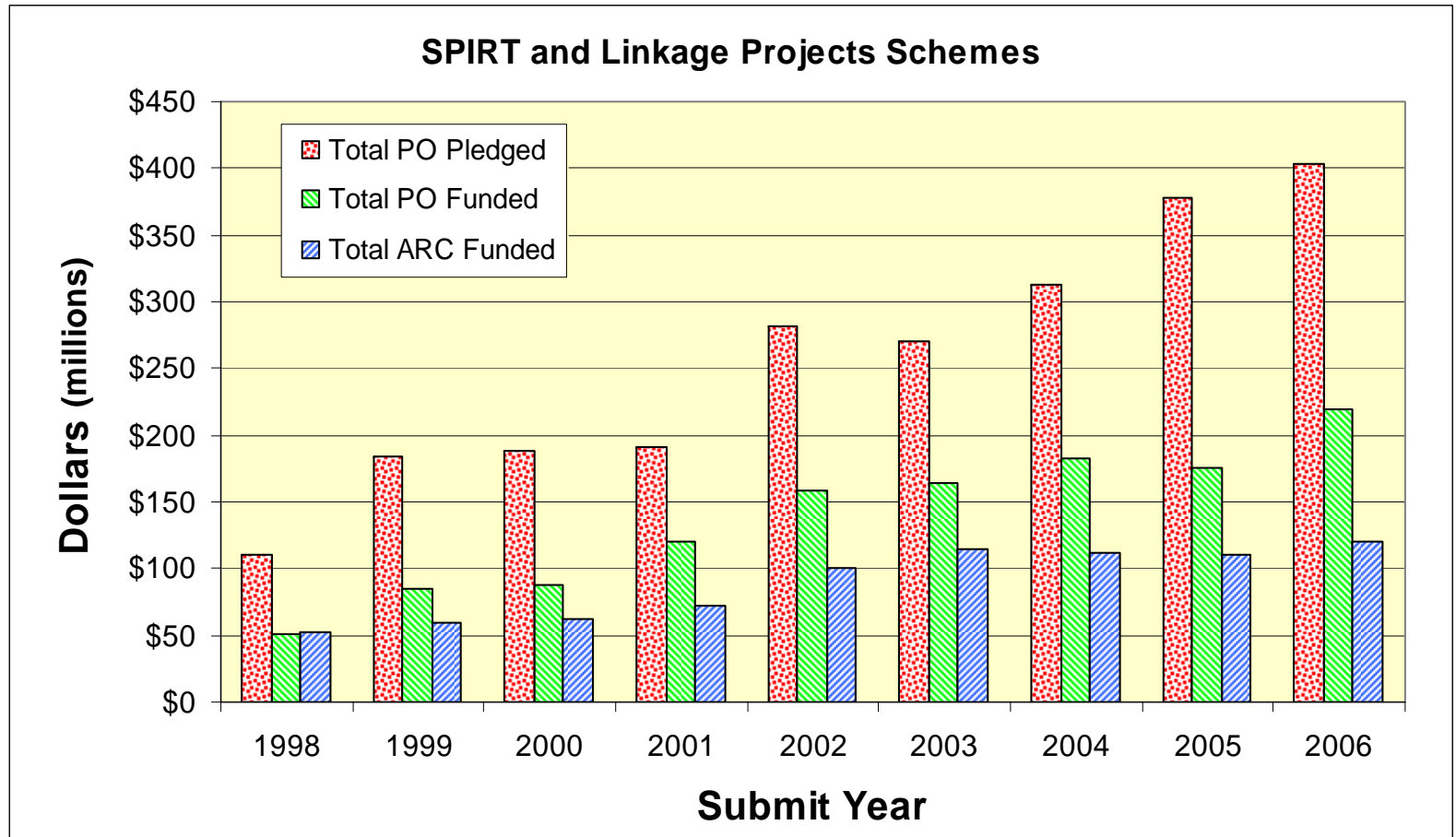


ARC Collaborative Projects (All Fields)





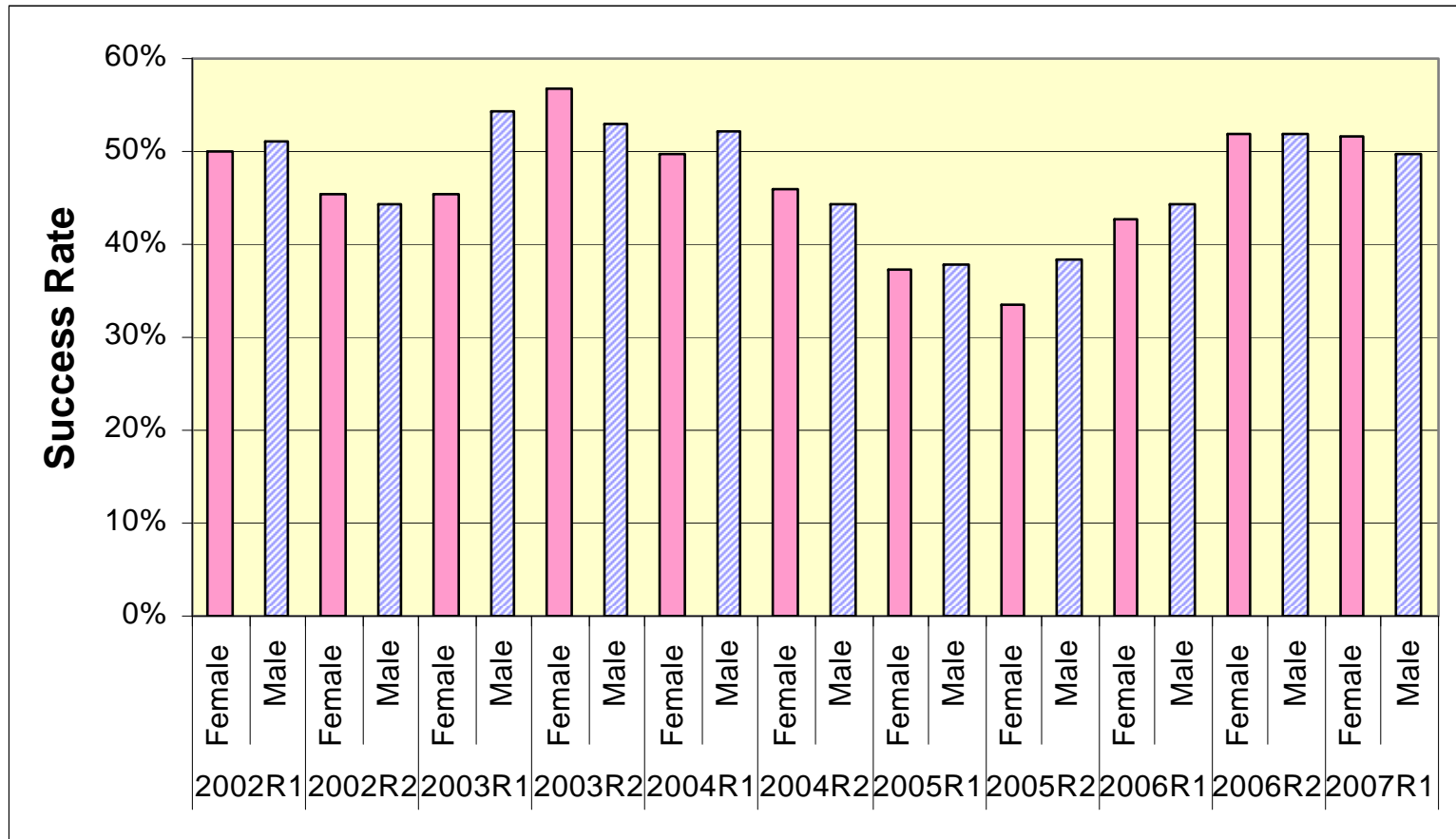
Partner Organisation Commitment (Cash + In-kind)





Linkage Projects Scheme

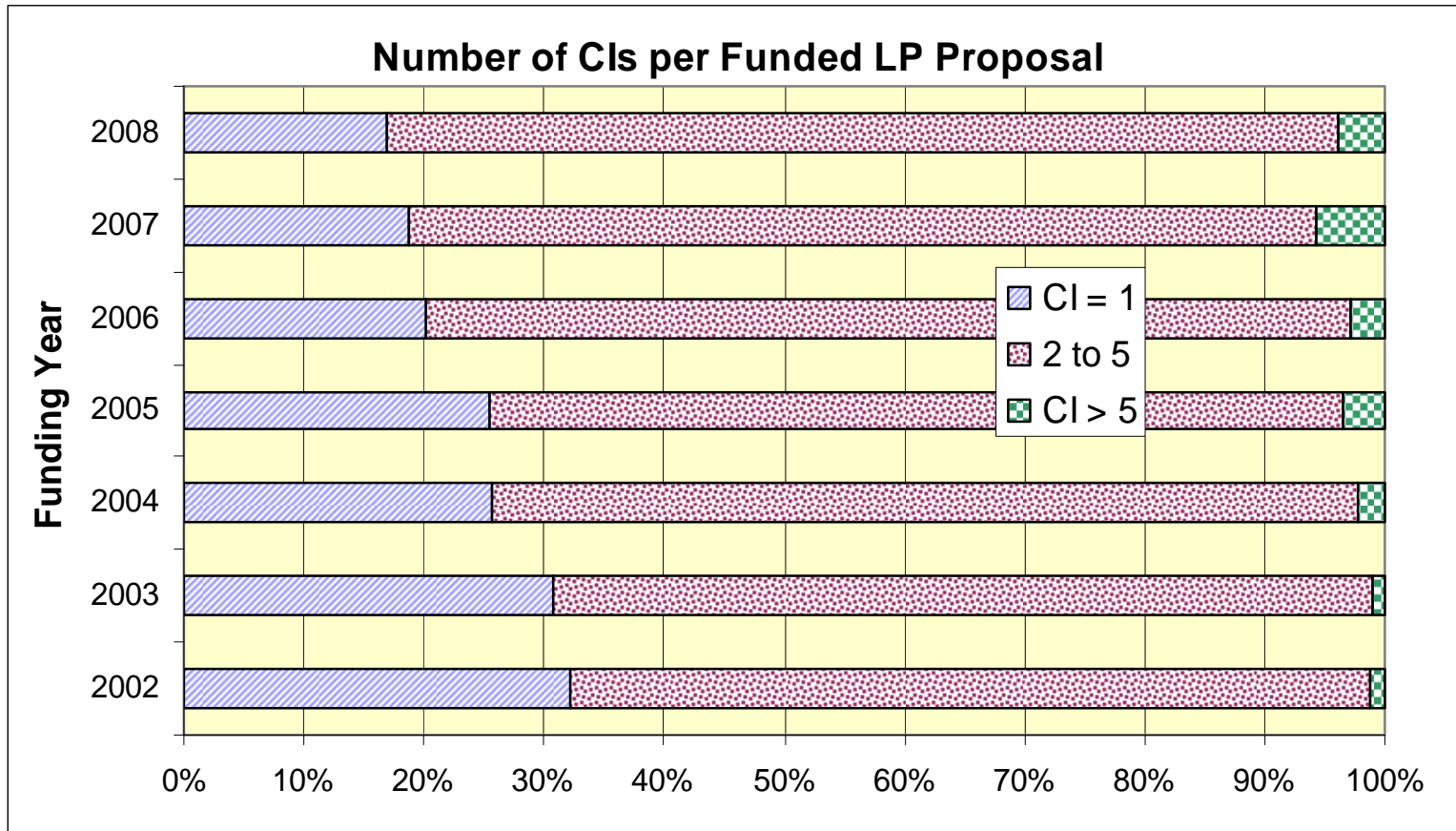
Gender by Submit Year





Linkage Projects Scheme

Collaboration

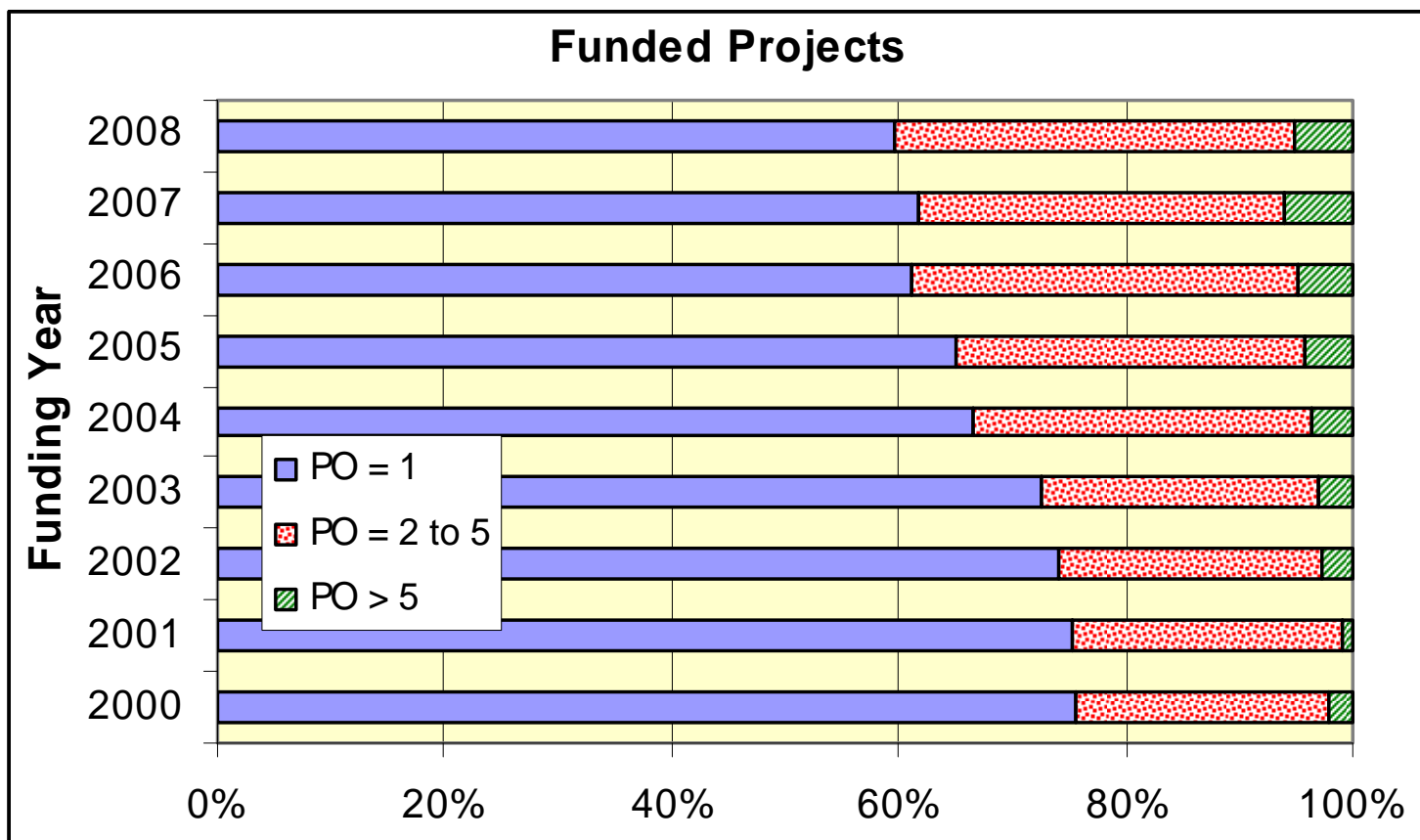




Linkage Projects Scheme

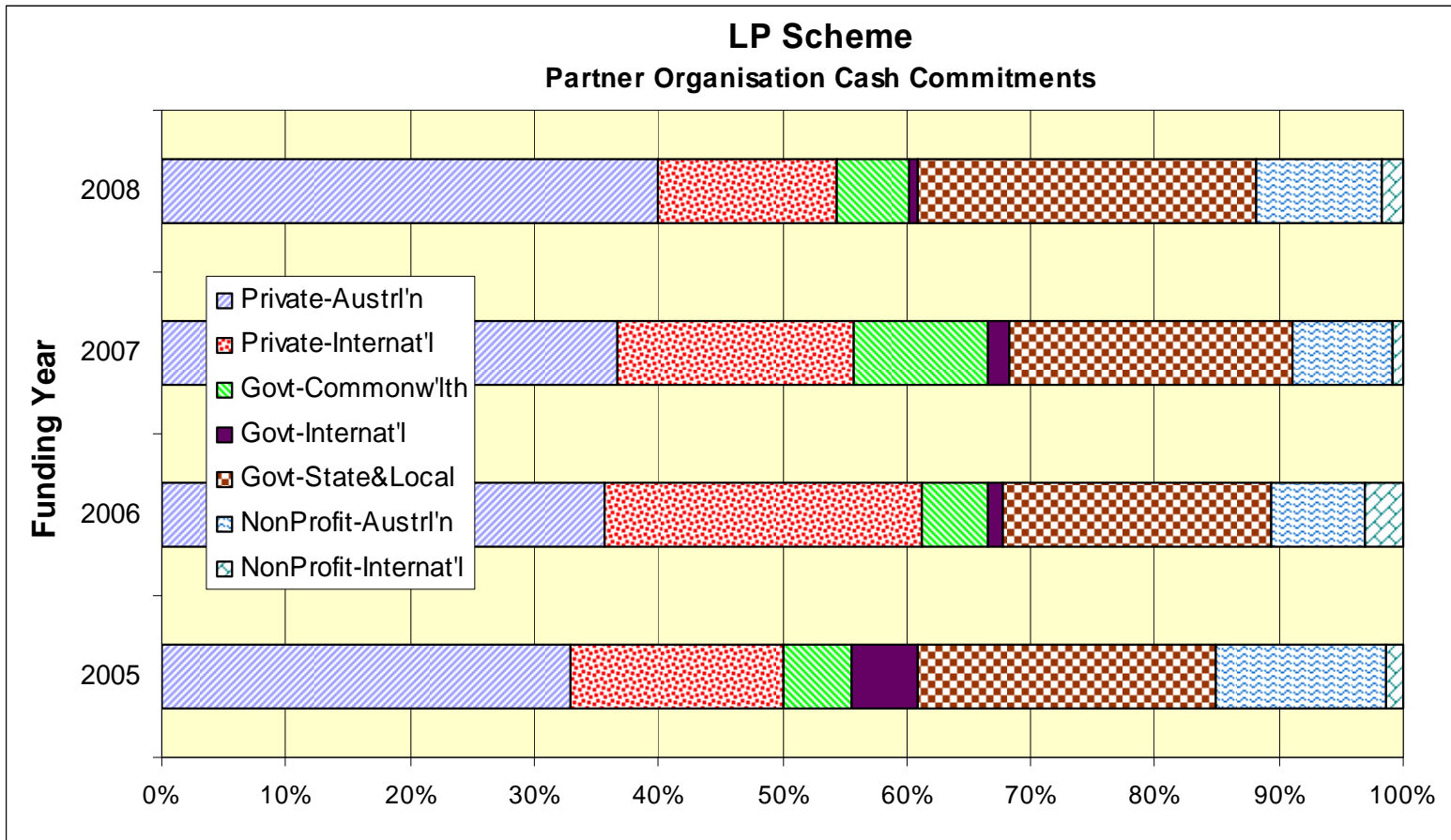
Collaboration

Number of POs per Project





Partner Organisation Profile 2005-2008





Partner Organisation Contributions 2005-2008 (millions)

| | Cash | % | In-kind | % | Total | % |
|-------------------|----------------|---------------|----------------|---------------|----------------|---------------|
| Private Sector | | | | | | |
| Australian | \$89.8 | 36.5% | \$164.5 | 37.1% | \$254.3 | 36.9% |
| Overseas | \$46.9 | 19.1% | \$68.6 | 15.5% | \$115.6 | 16.8% |
| Sub-total | \$136.7 | 55.6% | \$233.1 | 52.6% | \$369.9 | 53.7% |
| Government Sector | | | | | | |
| Australian | \$17.2 | 7.0% | \$21.3 | 4.8% | \$38.5 | 5.6% |
| State & Local | \$58.9 | 23.9% | \$126.1 | 28.5% | \$184.9 | 26.8% |
| Overseas | \$5.1 | 2.1% | \$5.1 | 1.2% | \$10.2 | 1.5% |
| Sub-total | \$81.2 | 33.0% | \$152.4 | 34.4% | \$233.7 | 33.9% |
| Non-Profit Sector | | | | | | |
| Australian | \$23.7 | 9.6% | \$50.9 | 11.5% | \$74.6 | 10.8% |
| Overseas | \$4.3 | 1.8% | \$6.5 | 1.5% | \$10.9 | 1.6% |
| Sub-total | \$28.1 | 11.4% | \$57.4 | 13.0% | \$85.5 | 12.4% |
| Totals | \$246.0 | 100.0% | \$443.0 | 100.0% | \$689.0 | 100.0% |

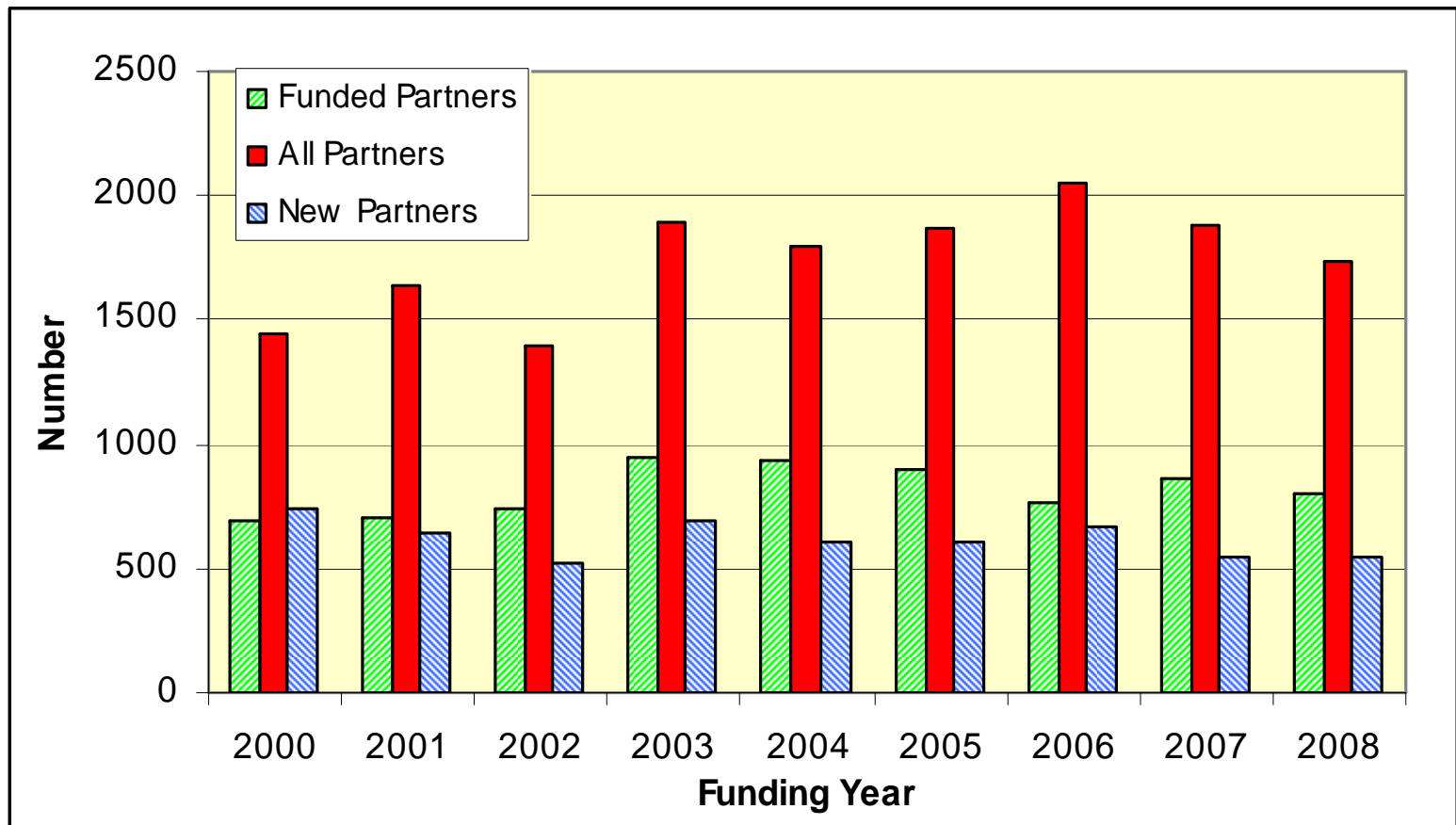
Total ARC Commitment: \$467.5m





Partner Organisation Participation

Linkage Projects Scheme

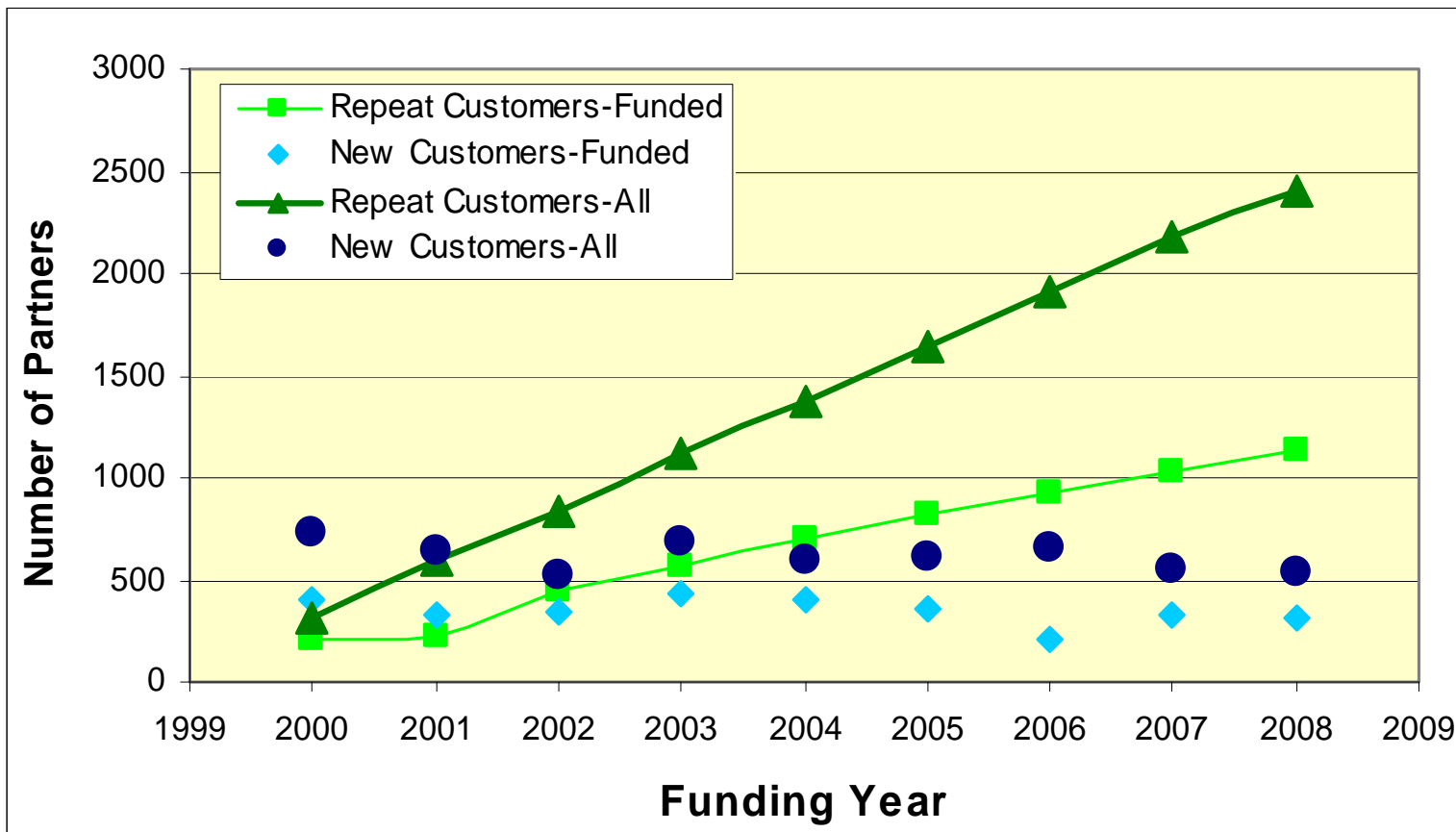


*New Partners: first occurrence as Partner Organisation on any project (since 1995)
Total for Period: 3,118 (funded)



Partner Organisation Participation

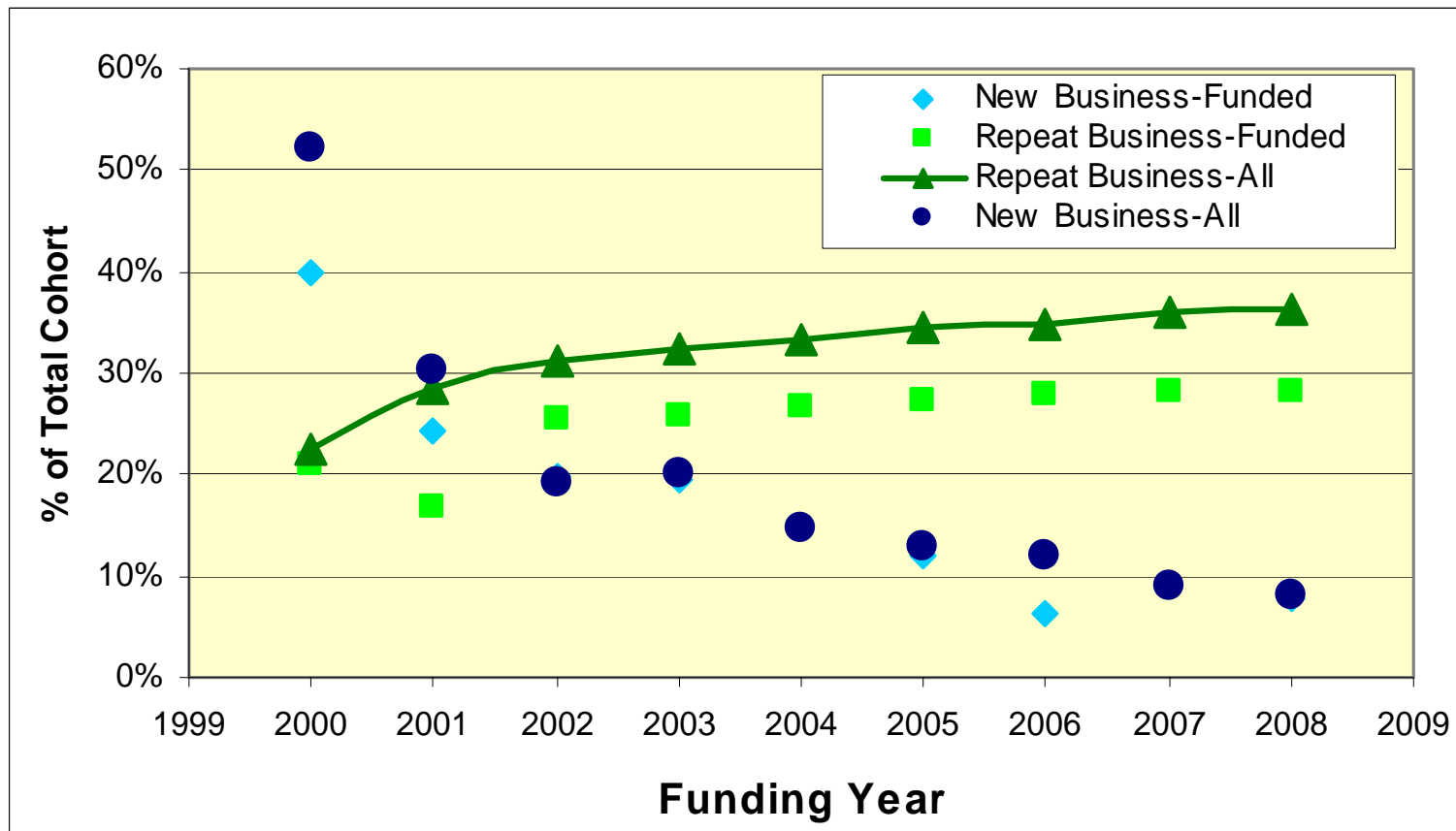
Linkage Projects Scheme





Partner Organisation Participation

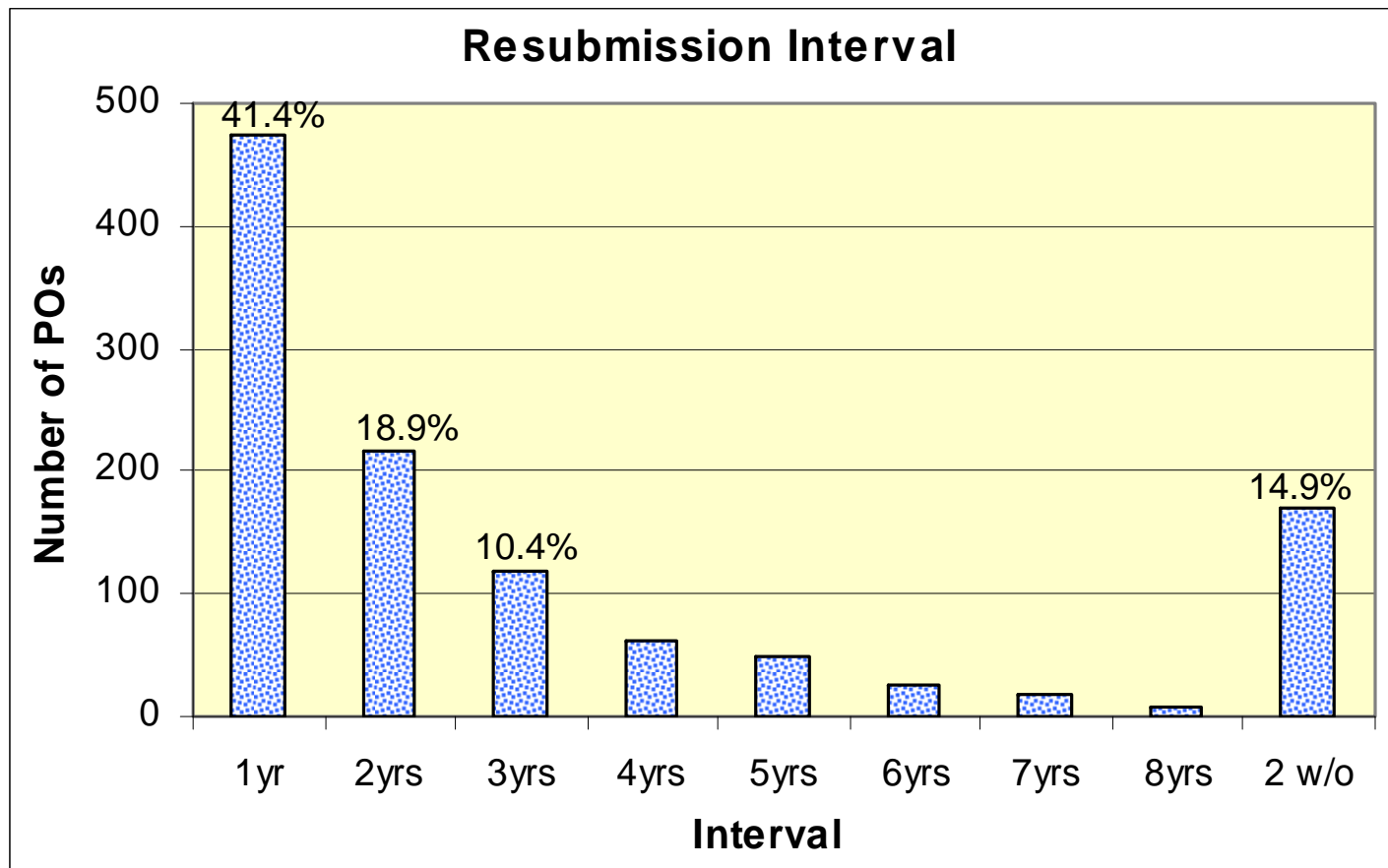
Linkage Projects Scheme





Partner Organisation Participation

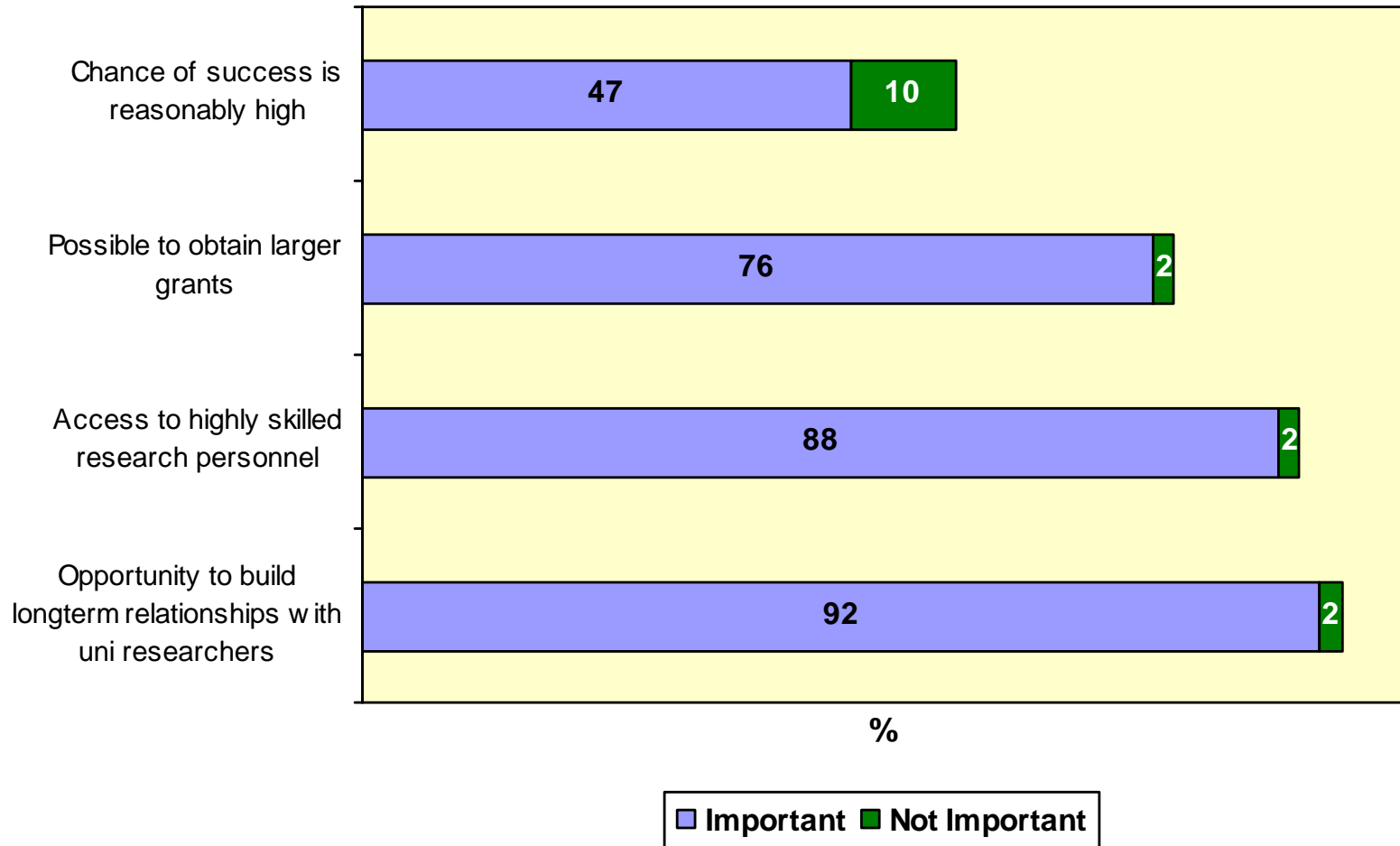
Linkage Projects Scheme



More than 70% of “2 proposals” cohort resubmit within 3 years



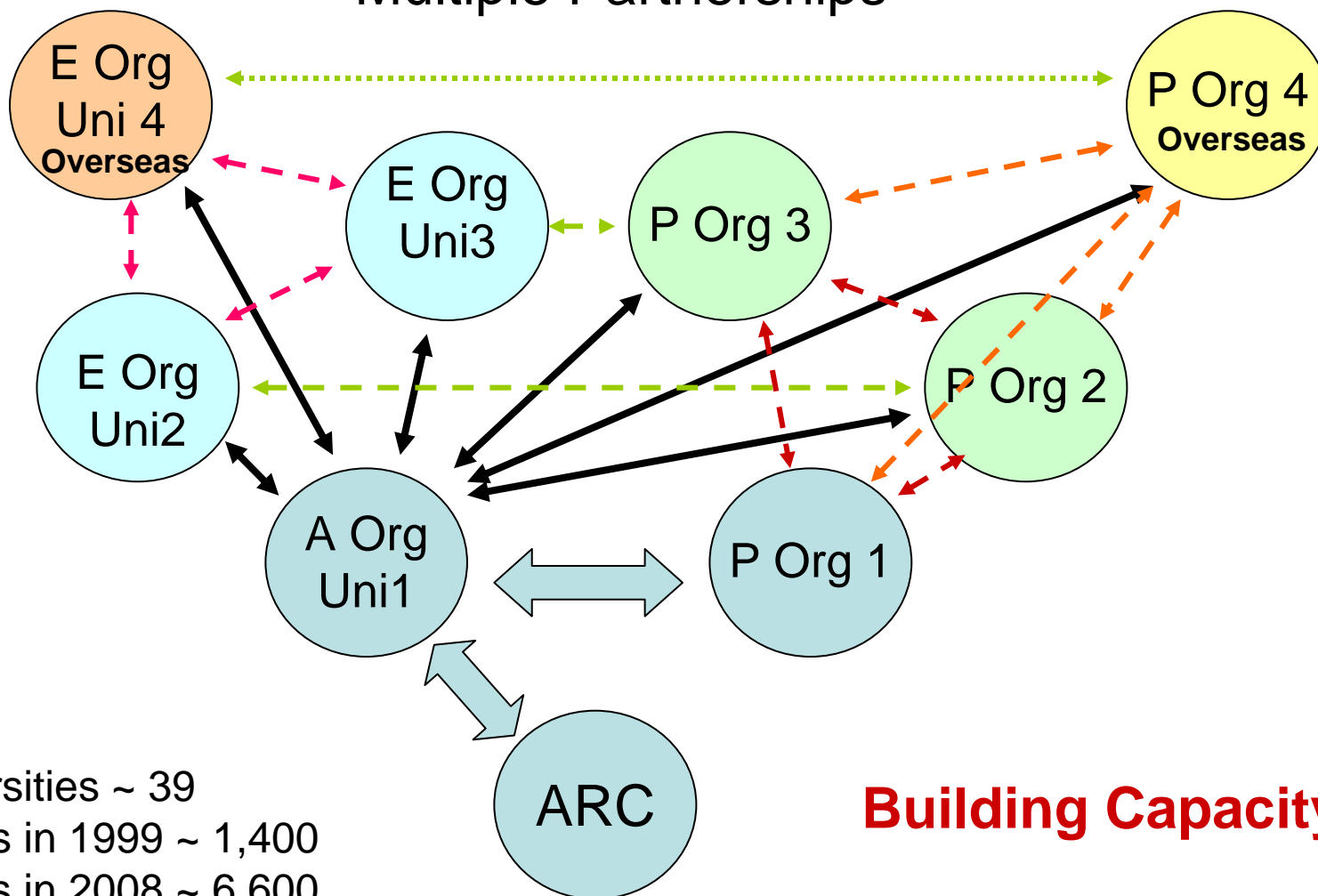
Partner Organisation Views: Why Use LP Scheme ?





Linkage Projects Scheme

Multiple Partnerships



Universities ~ 39
P Orgs in 1999 ~ 1,400
P Orgs in 2008 ~ 6,600

Building Capacity



Examples of Partner Organisations

Alcoa
 BAE Systems Australia
 BHP Billiton Ltd
 BlueScope Steel Ltd
 Brisbane City Council
 CSL Limited
 GlaxoSmithKline Aust Pty Ltd
 Hydro Tasmania
 Rio Tinto Ltd
 Telstra Corp Ltd

Bartlett Grain Pty Ltd
 Gold Coast City Council
 Lastek Pty Ltd
 Leica Geosystems
 Micronisers Pty Ltd
 National Australia Bank Ltd
 Native Seeds Pty Ltd
 Orica Australia Pty Ltd
 Ridley Aqua-Feeds Ltd
 Ronin Films
 Saltgrow Pty Ltd
 Santos Ltd
 Sialon Ceramics Pty Ltd
 Suncorp General Insurance
 Tissue Therapies Ltd
 Ulan Coal Mines Ltd
 Williams Boag Architects
 Wind Prospect Pty Ltd

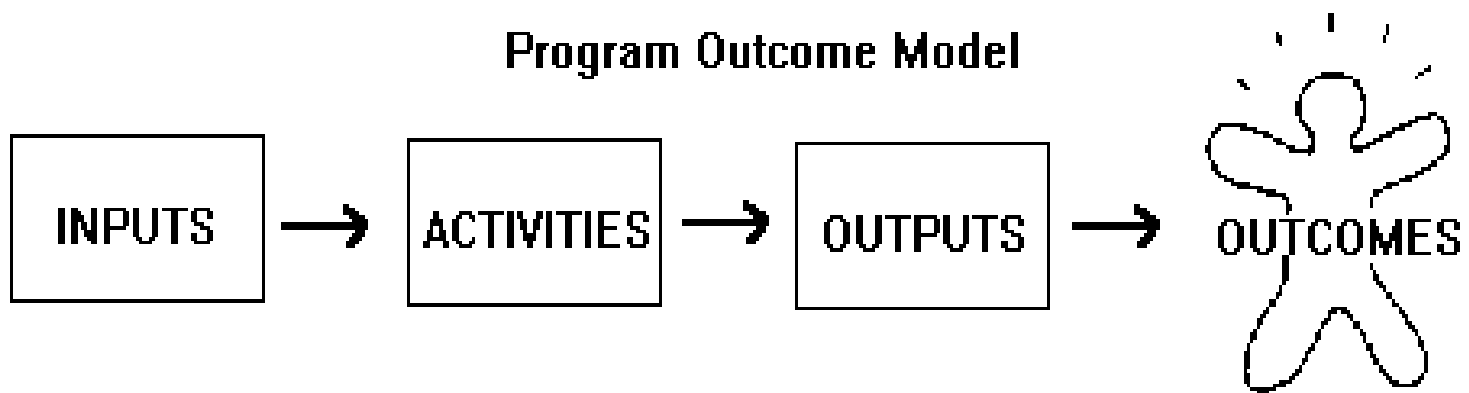
Dupont-Pioneer
 Kaltim Prima Coal
 Microsoft Pty Ltd
 Optus Networks Pty Ltd
 Sprint Advanced Technology Labs
 Yokogawa Electric Corp

Aged Care Queensland Inc
 Agricultural Producers Commission
 AIDS Council of NSW
 Australian Football League
 Australian Macadamia Society
 Australian Institute of Sport
 Brotherhood of St. Laurence
 Delfin Lend Lease
 Diabetes Australia
 Electoral Council of Australia
 Flora Hill Secondary College
 Forestry TAS
 Greening Australia Ltd
 Illawarra Retirement Trust
 Lifeline Australia Inc
 Linux Australia Inc
 Macquarie Library Pty Ltd
 McDonalds Australia Ltd
 National Heart Foundation
 Neporendi Aboriginal Forum Inc
 Oxfam Australia
 QLD Health

Australian Museum
 Barwon Health
 Bawanninga Aboriginal Corp
 Boulia State School
 Bureau of Sugar Experiment Stations Ltd
 Central Darling Shire Council
 City of Greater Geelong
 City of Rockingham
 WA Dept of Environment
 Geological Survey of VIC
 Gippsland Coastal Board
 Goulburn Murray Water
 Healthy Waterways
 Hunter Water Corp
 Legal Aid QLD
 Maribyrnong City Council
 Midland Redevelopment Auth
 Museum VIC
 NSW Fisheries
 NSW Police
 Perth Zoo
 Powerhouse Museum
 Royal Flying Doctor Service
 St Vincent de Paul Society
 SA Museum
 Timbercorp Ltd
 Unions WA
 VIC Dept of Education
 Westmead Hospital



Where & Why “Outcomes”?

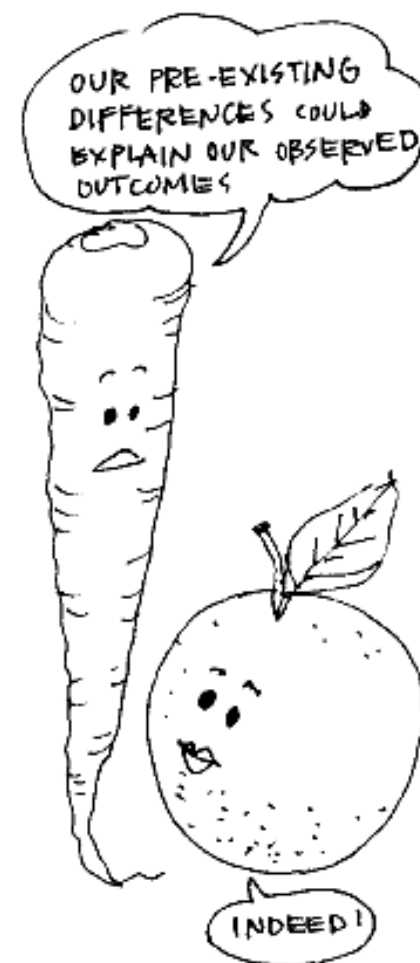


Real outcomes from ARC-funded research are a reasonable expectation of Government and the tax-payer



Types of “Outcomes”

- Economic
 - *generate wealth; create employment in sustainable industries*
- Social and Cultural
 - *improve equity, quality of life; reduce social risk*
- Environmental
 - *protect/restore environment; sustainable development*
- Policy & Administration
 - *improve decision making & governance*
- Scientific Advancement
 - *understanding ourselves & nature!*





Example: Environmental & Economic

- A 2000-2002 SPIRT project (ARC \$125,897 + industry co-funding) UNSW, ANU and SCU researchers studied chemistry and soil/water behaviour in cane farms w acid sulphate soil acidity
- Modified land management practices
 - decreased drains, laser levelled fields, retained surface trash, harvested green cane, etc
- Implemented best practice guidelines *via* co-operative
- 30% increase in production
- Decreased acidic flux during one in two year floods by 90%
- After two years, 100% compliance w best practice



- 2xLP projects + other funds from industry
- William McKell Award
- Practice became whole of government policy



Summary

- Linkage Projects Scheme
 - trend toward increased collaboration
 - Partner Org cohort is diverse and committed
 - 50%-60% of total PO cohort is private sector
 - 20%-25% of total PO cohort is international
 - > 3,000 new POs in R&D between 2000–2008
 - repeat business >30% for past seven years
 - PO : ARC requirement has been exceeded since 1999
- Partner Organisations look to build relationships
 - LP proposals may take longer to prepare
 - long-term strategic R&D & understanding
 - plan in terms of outputs and outcomes
 - establish fundamentals of contract(s) early





Thank You

