

Research Engagement for Australia (REA)

Measuring research engagement between universities and end users

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The Context

ERA is excellent at measuring research quality

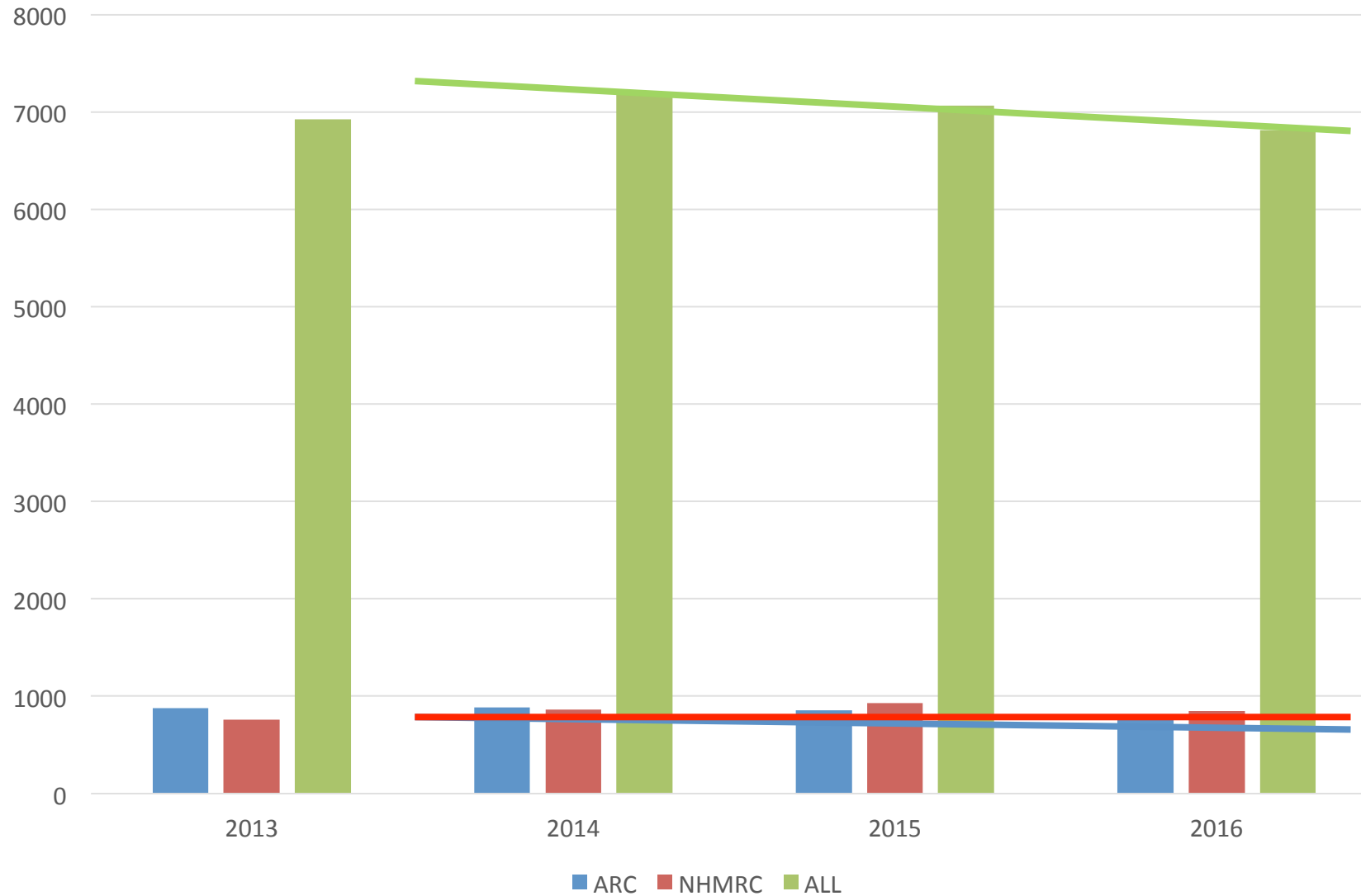
but does not measure engagement

ATSE, ATN, Go8 and others have expressed concern that ERA inadvertently deters engagement with industry and community

Australian Government consistently expresses concern

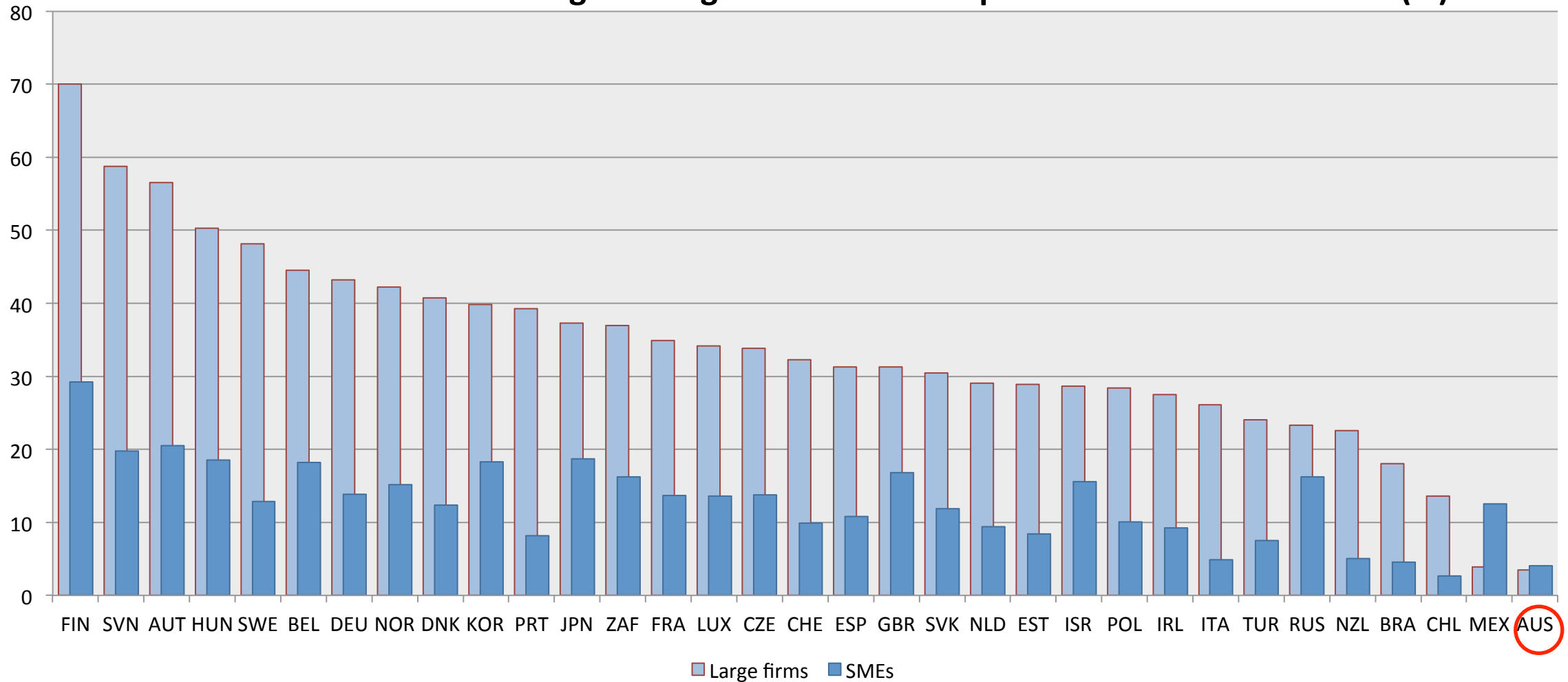
“Boosting the commercial returns from research” 2014

Annual government research budget



OECD data on Australian research collaboration

Innovative firms collaborating with higher education or public research institutions (%)



Policy background

Two aspects affecting Australia's ability to translate research into broad benefits for the nation are:

- Ensuring high levels of engagement between Australia's university researchers and research end-users
 - across the private and public sectors
- Fostering an entrepreneurial university research culture capable of creating
 - new and innovative industries
 - highly skilled job growth.

Research impact

Discussion to date focussed on measuring research 'impact'

- RQF, trial by ATN in 2012, UK REF etc.
- Limited by methodological difficulties
 - attribution of impacts
 - establishing causal links between research and broader impacts
 - expense of case studies
 - Lagging indicator

Research engagement

- Engagement is a forward indicator of innovation and ultimately impact
- Easily identifiable, broadly common across disciplines and already collected
 - funding from partner organisations
 - joint research projects with private and public sector partners
 - commercialisation income
 - international income

REA – Research Engagement for Australia

Conceived in August 2014 by ATSE

REA measures engagement and commercialisation

to encourage increased collaboration between Australia's universities and research end-users

Practical considerations

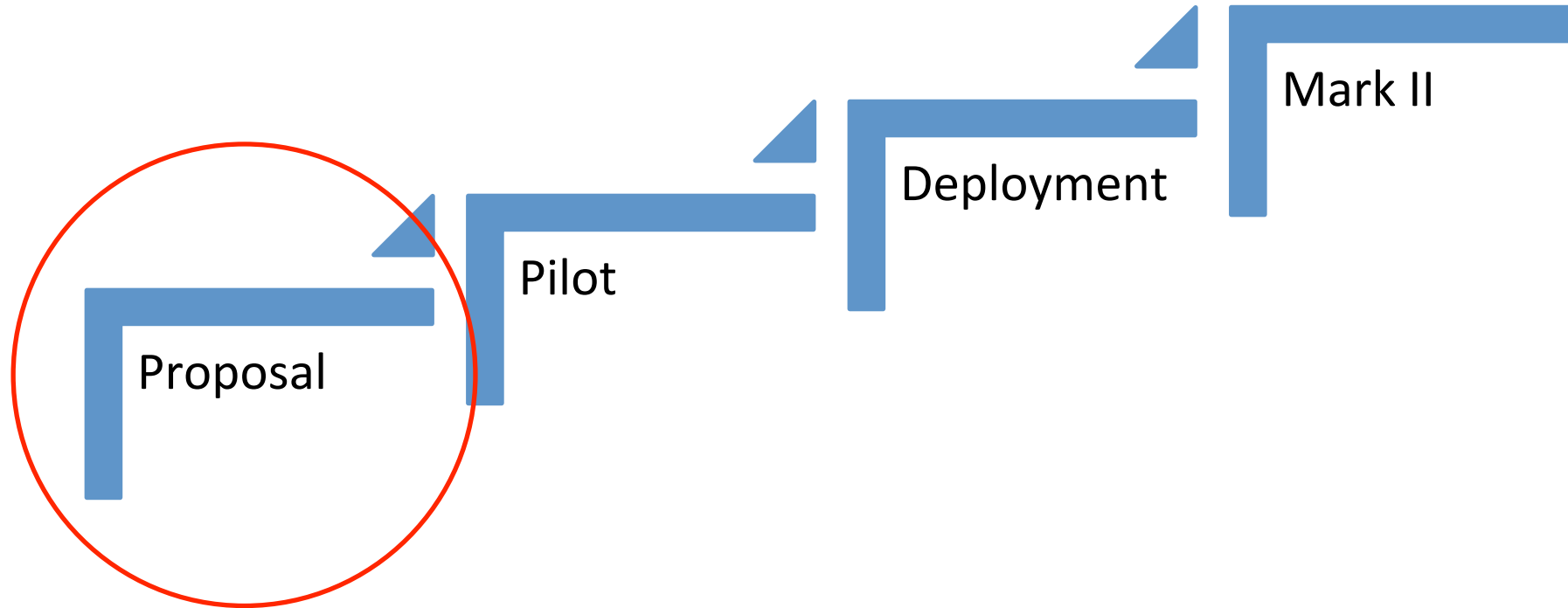
metric based: to minimize judgment calls

pragmatic: use already reported data

cooperative: new metric proposed to work alongside ERA, not instead of ERA

- to ensure that collaboration is appropriately recognised
- does not imply a loss of value of basic, curiosity-driven research

REA – Research Engagement for Australia



Steering Committee

Academies	Government
Peter Gray (ATSE), Chair	Dom English (Dept Education and Training)
John Bell (ATSE)	Virginia Hart (Dept Education and Training)
Alan Finkel (ATSE)	Lisa Schofield (Dept Industry and Science)
Paul Greenfield (ATSE)	Sector
Margaret Hartley (ATSE)	Aidan Byrne (ARC)
Peter Laver (ATSE)	Margaret Sheil (University of Melbourne)
Tanya Monro (ATSE)	Terry Nolan (University of Melbourne)
Lesley Johnson (AAH)	
Oliver Mayo (AAS)	
Mark Western (ASSA)	
Steven Schwartz (CHASS)	

Additional consultation

Universities Australia

ATN

Go8

IRU

RUN

Concept supported by

State and Federal chief scientists

BCA leadership

CRC leadership

REA Proposal

- ATSE began work on REA Proposal in October 2014
- Support from
 - Department of Education and Training
 - Department of Industry and Science
 - ARC
- Scope of REA Proposal
 - define key terms (research engagement, collaboration, etc.)
 - construct a matrix of what measures exist, or could be developed, mapped across all individual discipline areas

Data used in REA Proposal

- 2-digit (FoR) ERA data is used throughout as best level of granularity
 - Comparison between universities is *within disciplines*
- ARC provided de-identified ERA 2012 data under strict privacy provisions

Proposed Metrics

Constant numerator

Relevant ERA/HERDC income data (Relevant Cat 1, Cat 2, Cat 3, Cat 4 & commercialisation)

Three denominators

Research FTE



*Engagement
per FTE
(M1)*

Share of income for
discipline



*Share of National
Engagement Activity
(M2)*

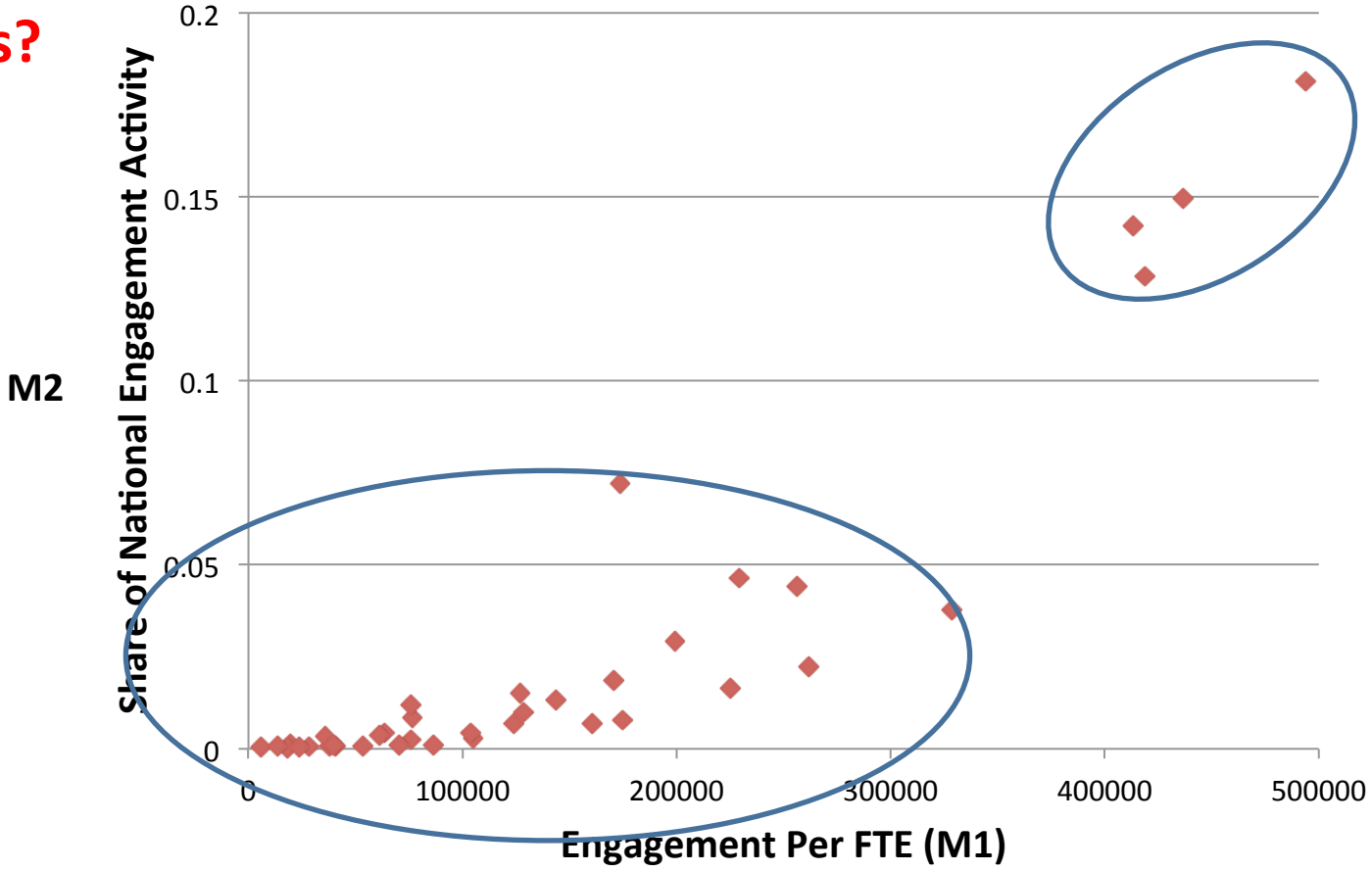
University operating
income



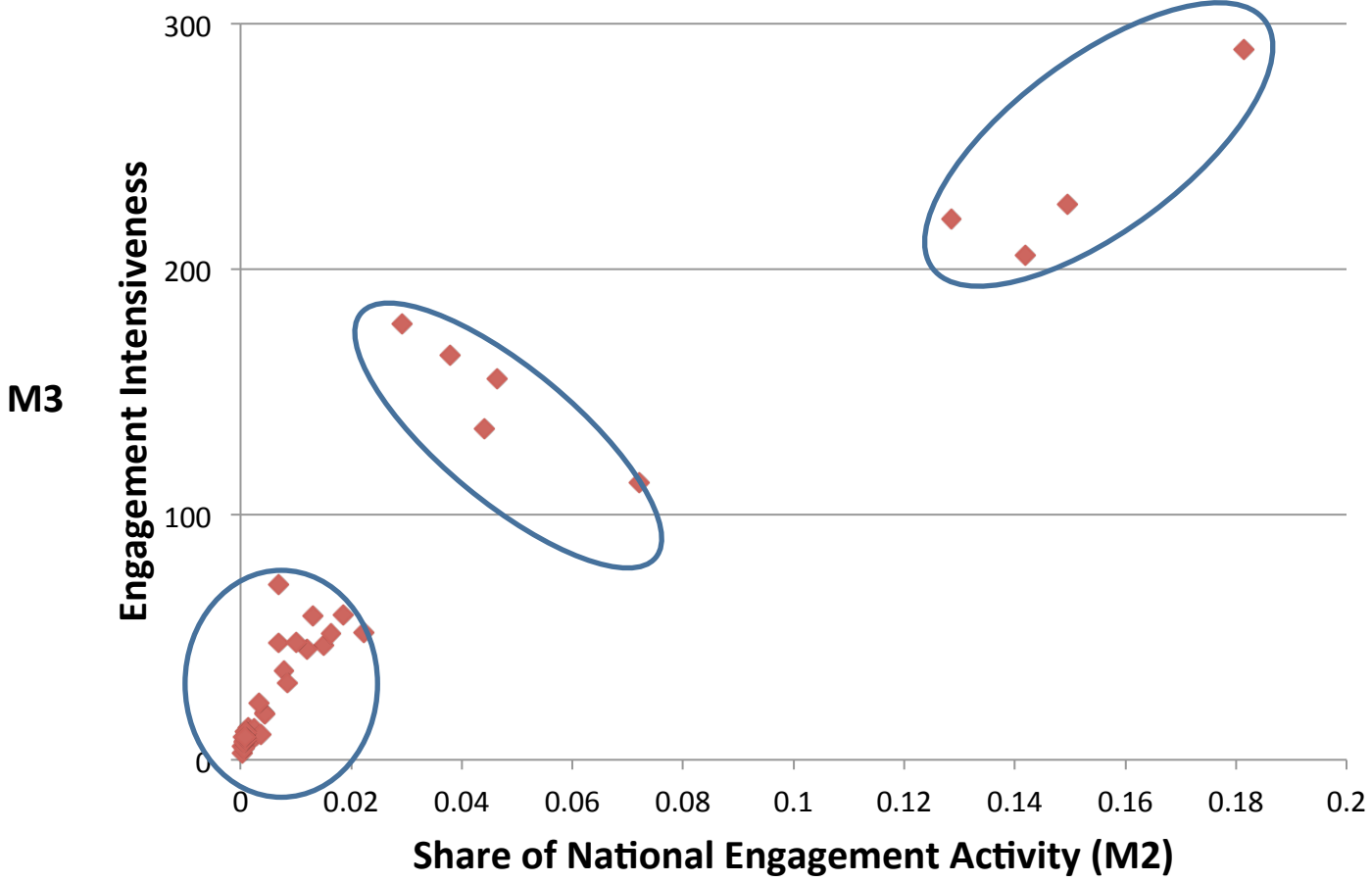
*Engagement
Intensiveness
(M3)*

REA Proposal metrics compared for Medical and Health Sciences (FoR 11)

Clusters for ratings?

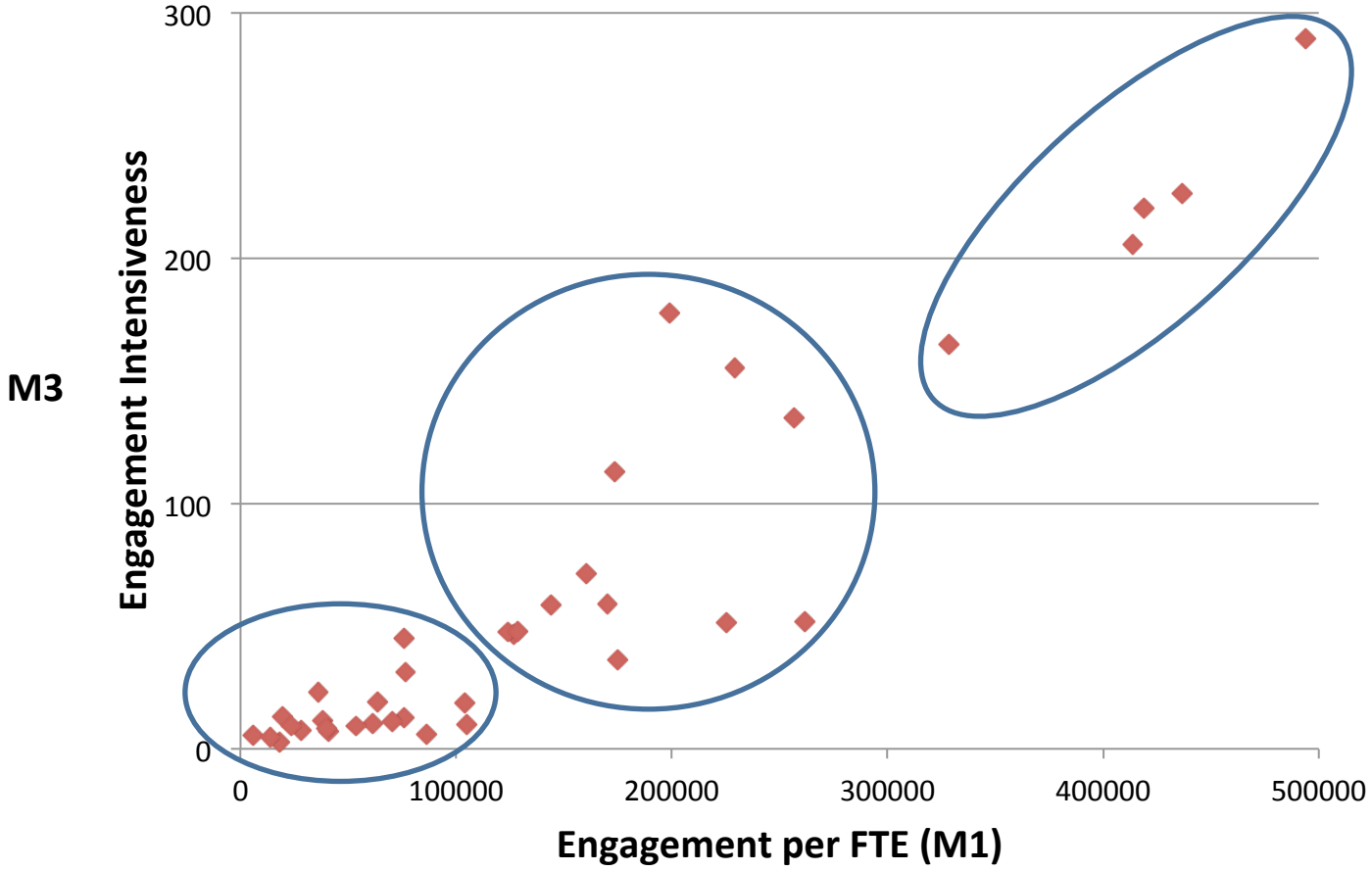


REA Proposal metrics compared for Medical and Health Sciences (FoR 11)

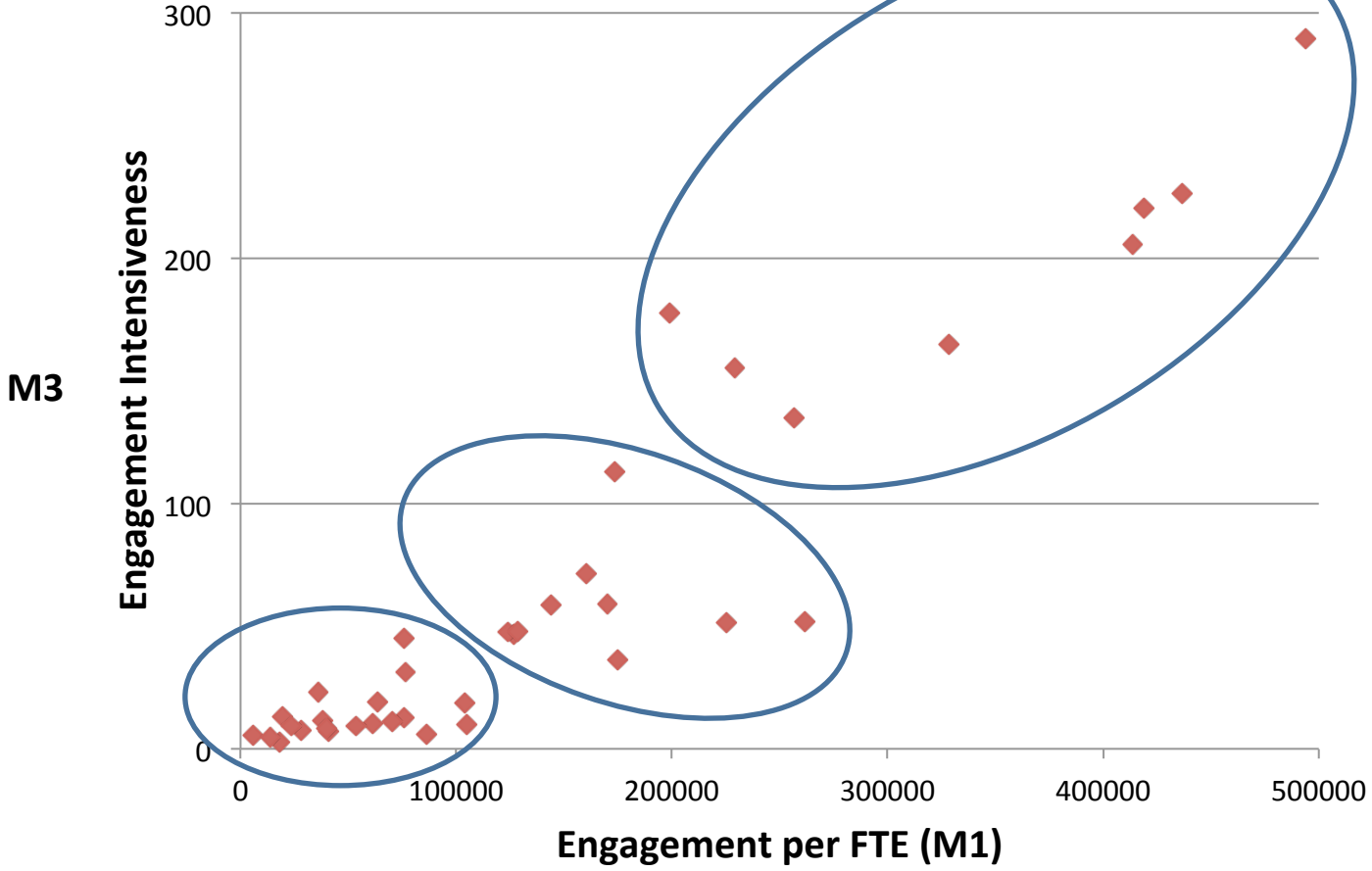


REA Proposal metrics compared for Medical and Health Sciences (FoR 11)

Determine cluster boundaries



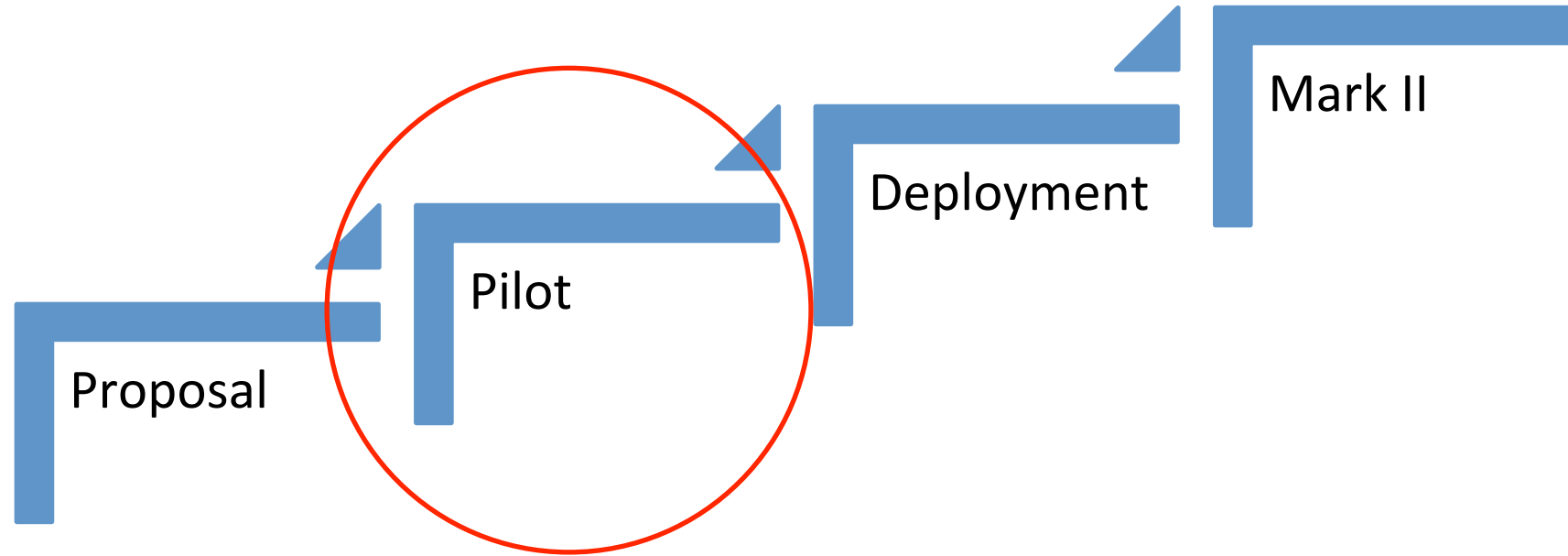
REA Proposal metrics compared for Medical and Health Sciences (FoR 11)



Findings – REA Proposal

- There is sufficient data to identify engagement income
- It is feasible to create meaningful research engagement metrics
- Results for each metric can be sorted into ordered lists to create rankings
- Alternatively, use multidimensional mapping and clusters to create ratings

REA – Research Engagement for Australia



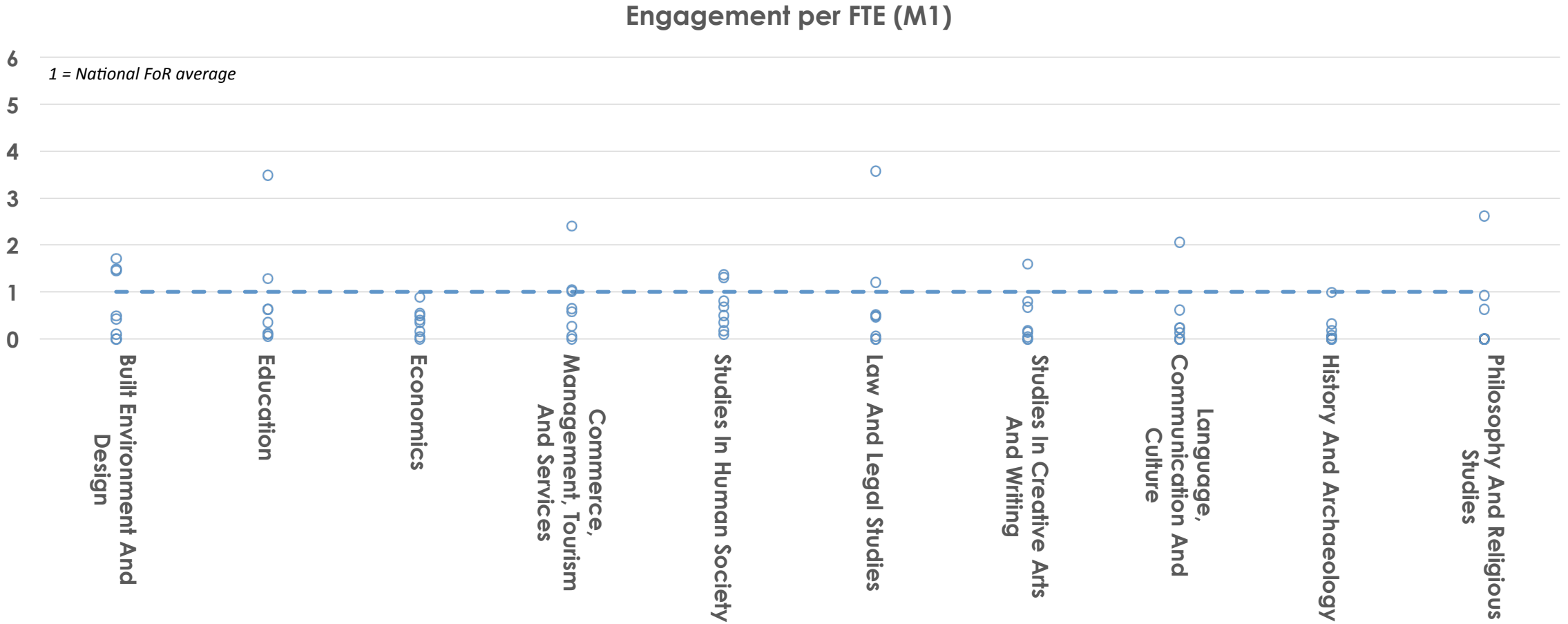
Research Engagement for Australia – Pilot

- Following the release of the REA Proposal, ATSE received additional support from South Australian and Queensland State governments to conduct a Pilot of REA:
 - *To demonstrate that universities can participate in REA without creating additional resourcing burdens; and*
 - *To work with South Australian and Queensland universities to refine the REA metrics and methods for future use.*

Outline of REA Pilot

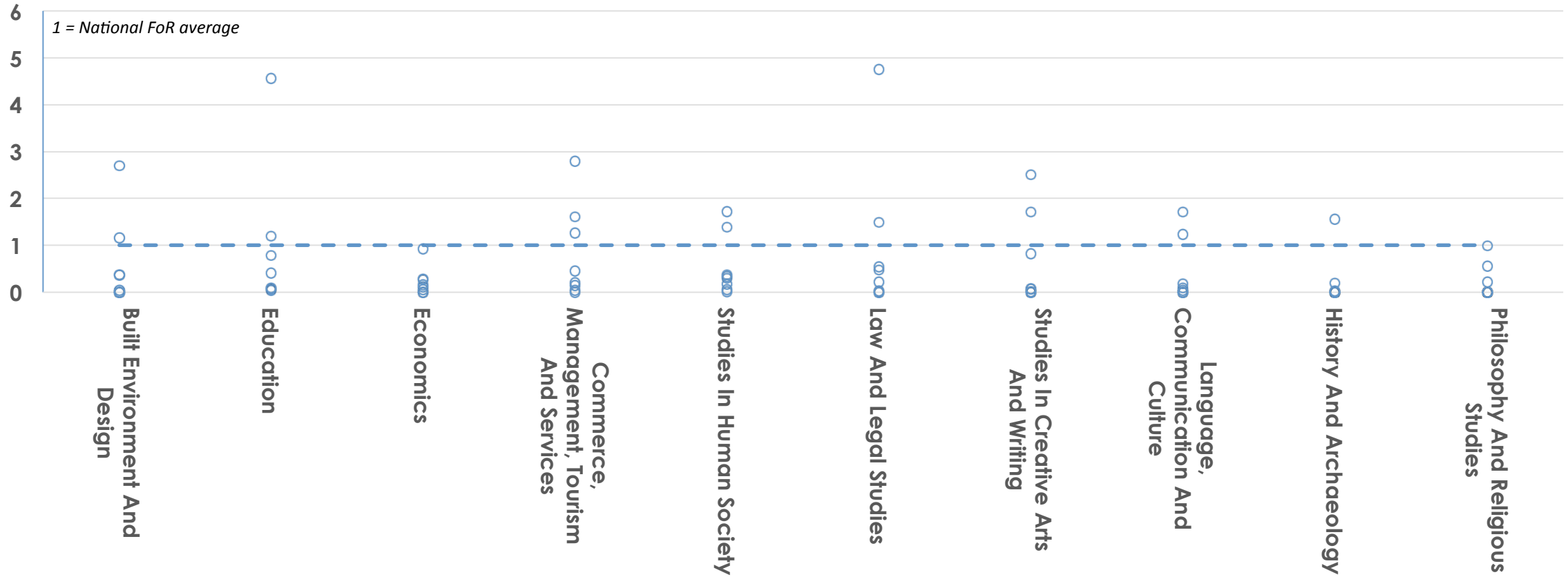
- Pilot Exercise using REA metrics on 'live' data from SA and QLD universities (ERA 2012 and 2015 data)
- Recommendations
 - Incorporate additional financial inputs such as Rural Research and Development Corporation (RRDC) income and relevant 'research extension income';
 - Include explanatory vignettes to assist in interpreting the outcomes of REA;

QLD Universities Pilot – HASS



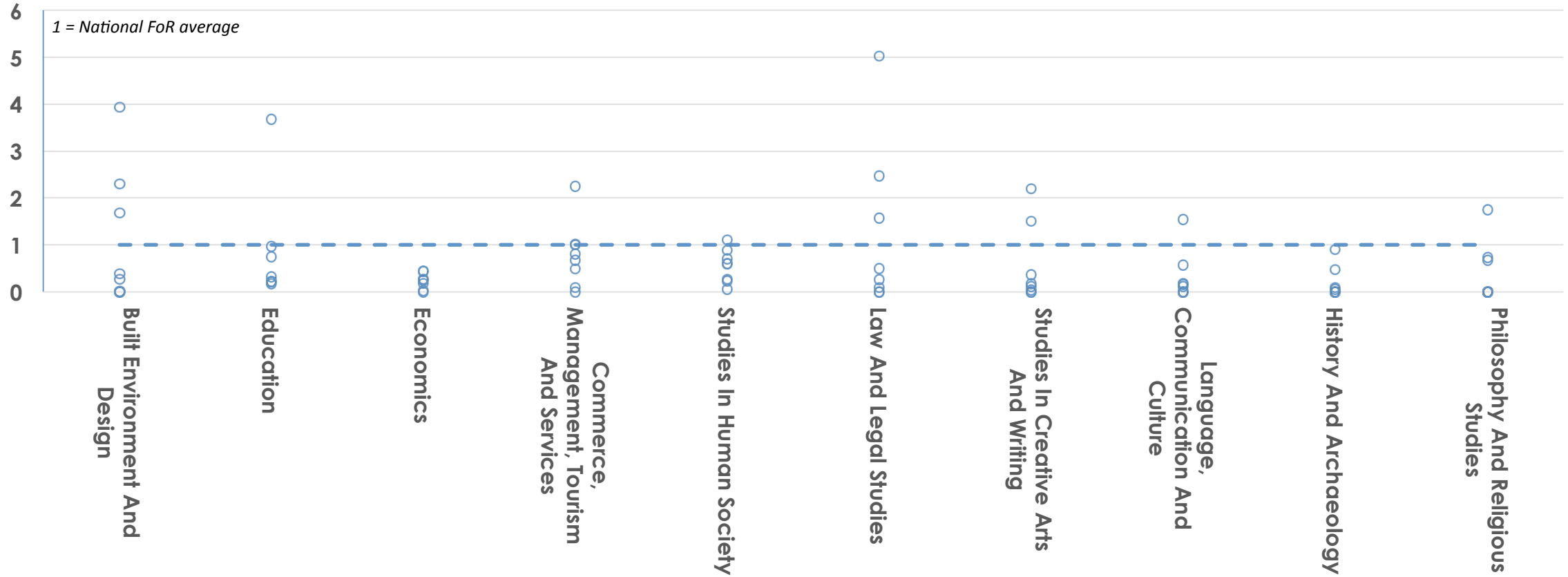
QLD Universities Pilot – HASS

Share of National Engagement Activity (M2)

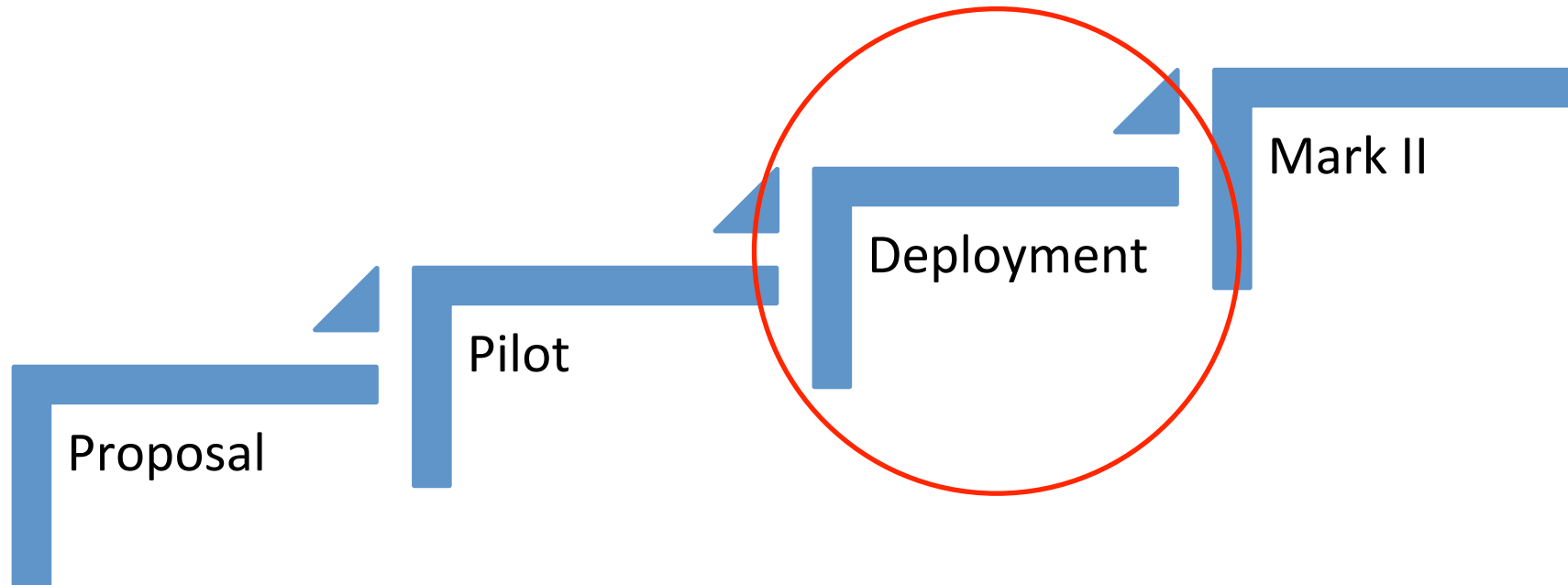


QLD Universities Pilot – HASS

Engagement Intensiveness (M3)



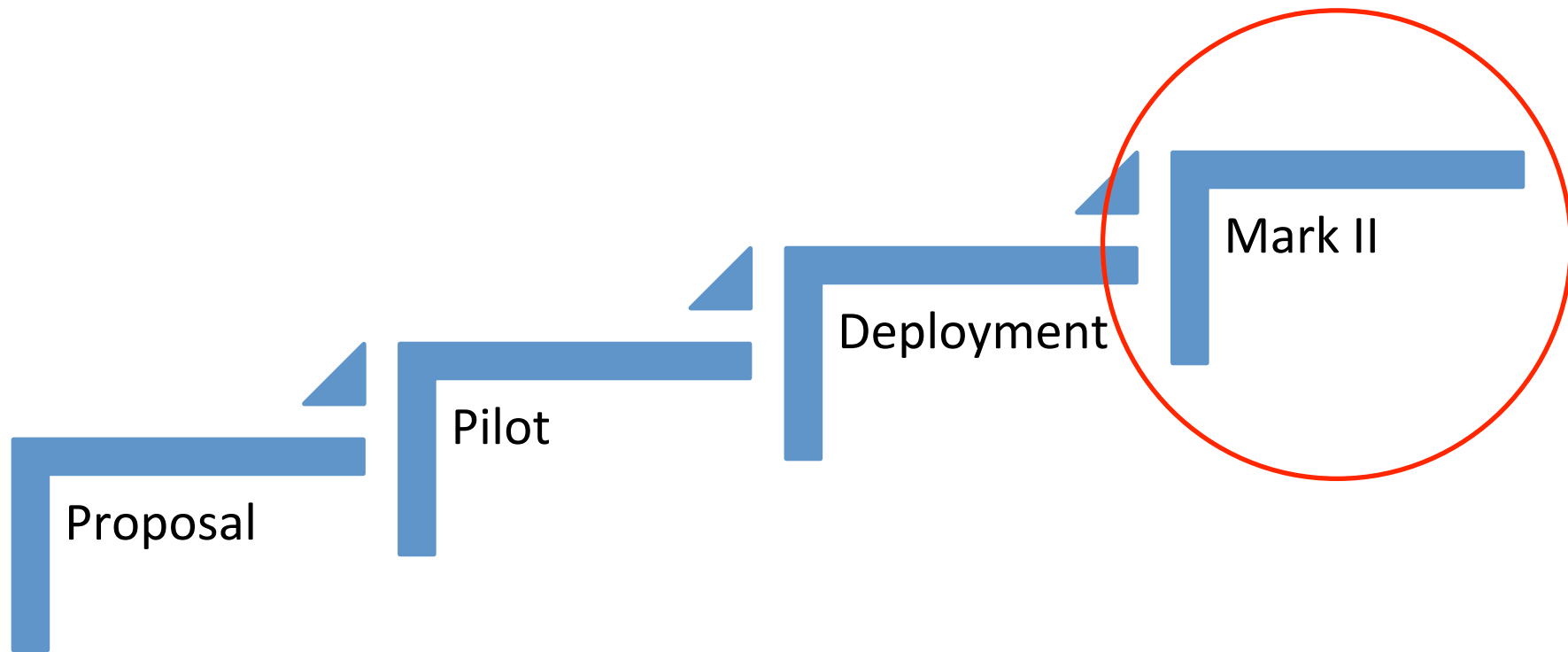
REA – Research Engagement for Australia



REA Deployment

- Next year? Will require adoption by Australian Government
- What drivers for behaviour modification?
 - Reputation
 - Financial

REA – Research Engagement for Australia



REA Deployment Mark II?

What would we do if there was an appetite for collecting more data?

Research benefits beyond research engagement?

- financial metrics. income from professional publications, income from professional development courses (non-credit bearing), income from outreach activities/public events, number of active license agreements
- non-financial metrics: eg, number of university researchers on government committees or industry boards, in-kind contributions

Thank you