



THE AUSTRALIAN NATIONAL UNIVERSITY

The Fenner School of Environment & Society

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The Fenner School at ANU ...

- **Aspiration**

a nationally- & internationally- distinctive academic community for transdisciplinary research and education on complex environment-society issues.

- **Mission**

address ... most pressing environmental & sustainability challenges through research and education of the highest quality.

- **Activities**

- pioneering new forms of integrative research & education ...
- research intensive education for C21 leaders, citizens & researchers
- engaging across ANU & externally to co-produce & communicate
- reflection on & adaptation in research, education & partnerships



The Fenner School community ...

Faculty

- 25 academics (50% research, 50% research + teaching)
- 25 research fellows (external funding)
- 15 active visiting fellows
- 15 support staff

Research students

- 100 PhD students
- 20 Honours students

Coursework students

- 20 EFT graduate coursework students
- 180 EFT undergraduate students
(science 50%, arts et al 25%, professional 15%, sustainability 10%)

Annual budget: \$5.2 M "recurrent", \$6.6 M external

The Fenner School activity structure

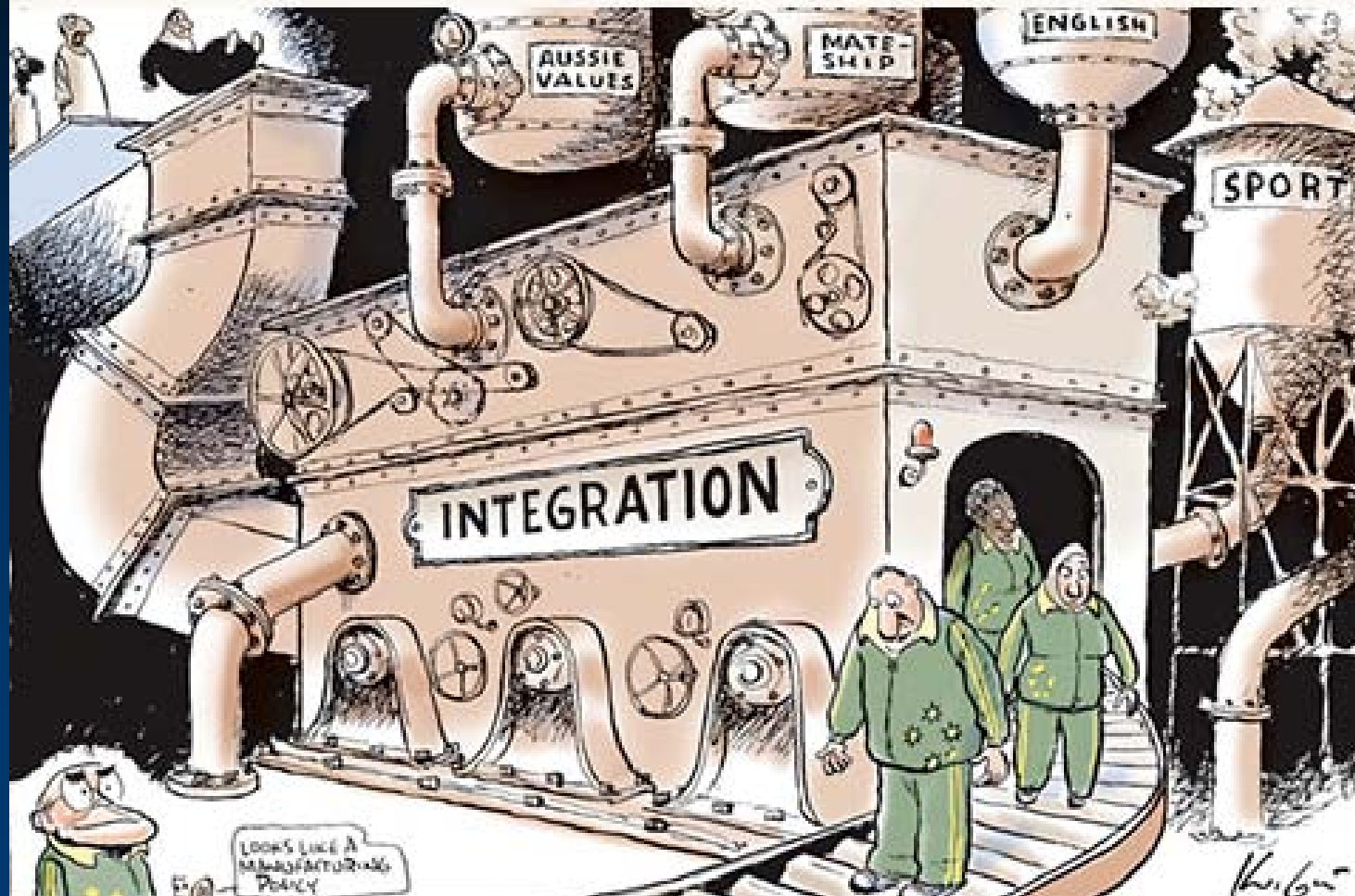
- 4 research & teaching themes

Activity (%) by theme, 2006	Integration	People & environment	Global Change Science	Terrestrial Landscape Science
Academics	15	30	15	40
Grants	10	20	5	65
Publications	10	20	10	60
HDR students	10	35	5	50
Coursework students	15	35	10	40

The challenges of integration ...

Integration

Mark Knight — Herald Sun, 13 December 2006



1. History helps (& hinders) ...

- History of collaboration

- across intra-institutional boundaries
- evolving as “disciplines” & institution evolve:
 - 1980s: Geography moves from Arts to Science
 - 1990s: virtual School (CRES, Forestry, Geography)
 - 2001: Forestry + Geography = SRES
 - 2002: cross-campus ANU Institute for Environment
(www.anu.edu.au/environment)
 - 2007: CRES + SRES = Fenner School

- Emerging integration w/i entities & larger research groups

- CRES: established as an interdisciplinary endeavour
- geography: human + physical traditions
- forestry: added social sciences in early 1990s
- iCAM & Ecology: interdisciplinary research teams ...

2. Challenges of integration ...

- historically (& still) undervalued institutionally
(within ANU science paradigm, by most funding agencies;
profile diminished by reporting & evaluation processes)
⇒ little incentive (at best)
- progress dependent on individuals' commitment,
initiative & persuasion ...
- academics' commitment & capacity varies;
academic freedom as (convenient) defence
- disciplinary language, traditions & values

2. Facilitating integration - our experience

1. Create common cause, ie specific "projects"

- teaching - especially team-taught courses
- research - both conceptual & "real" projects
 - eg: conceptual - Mind the sustainability gap (TREES 22 (12))*
 - real - Canberra & region sustainability*
 - ANUIE initiatives (climate, energy, water)

- Prerequisites for successful projects (Wasson & Dovers 2005)
 - a real problem that motivates participants
 - solid but flexible management
 - "integrators" to enable & guide
 - adequate resources to complete
 - outcomes relevant to both problem & academe
 - a conducive physical working environment

2. Facilitating integration - our experience

2. Institutional incentives *cf* constraints

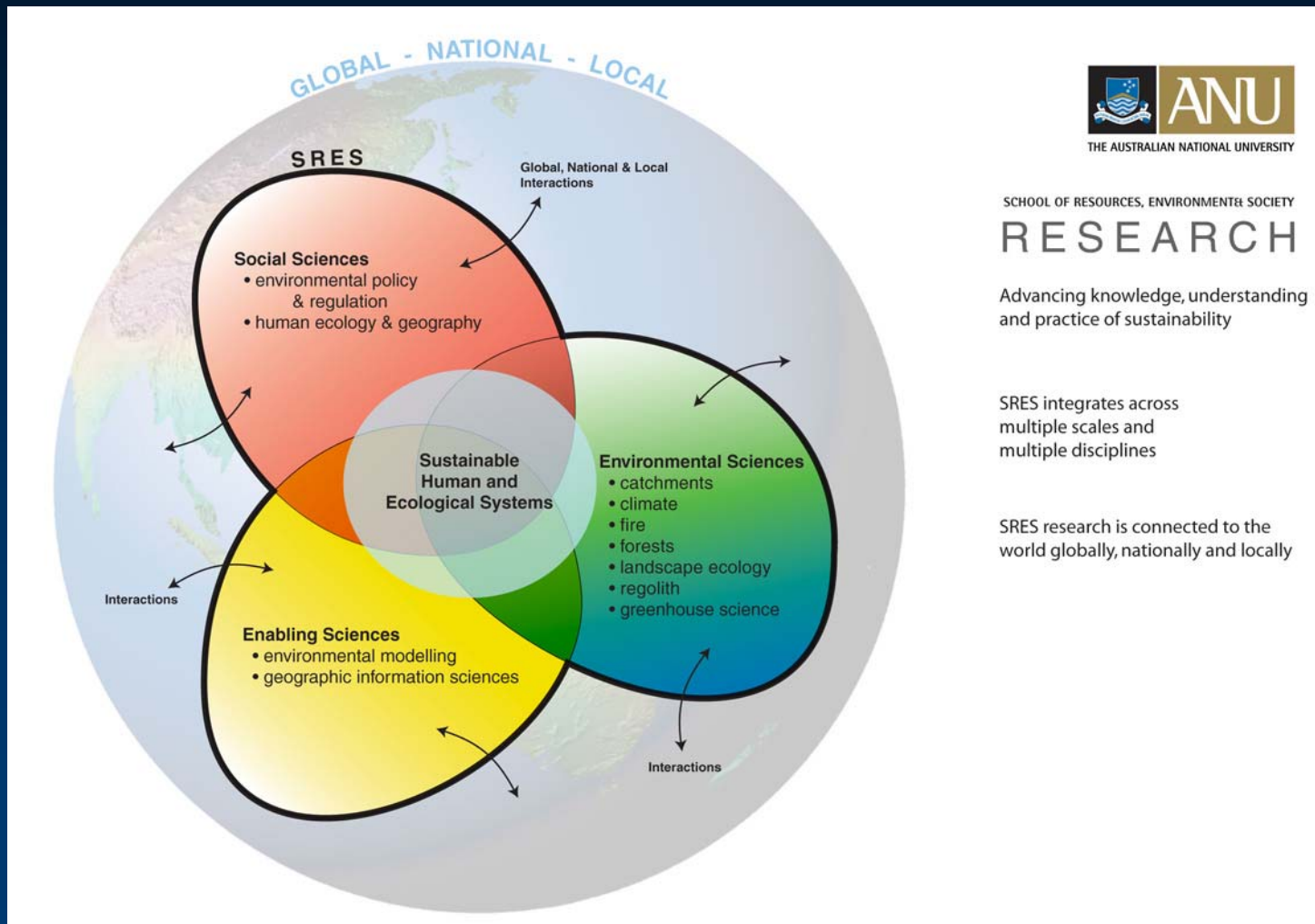
- rewards for collaboration
- addressing structural barriers to cooperation
- appointments, performance, promotions, recognition

3. Foster community

- both formal & informal processes
- across ANU, not only in Fenner - ANUIE
- with external partners

Example - appointment strategy

Pre-Fenner case - appointments "towards centre"





The Fenner School - external support 1

- Functional external partnerships critical to success; complementary resources (as well as \$)
- Traditional research funding sources remain essential, but shift to co-development of research agenda/ projects:
 - local - Canberra sustainability study
 - regional - Greening Australia biodiversity projects
 - national - carbon accounting tools & processes
 - international - various ACIAR projects
- Limited but significant infrastructure contributions:
eg ACT Government climate centre co-investment
- Building & sustaining relationships remain central?



The Fenner School - external support 2

Diverse portfolio:

- Tier 1 (Σ \$3 M)
 - ARC Discovery & Linkage
 - Australian Government agencies
 - CERF

- Tier 2 (Σ \$3.5 M)
 - CRCs
 - RDCs
 - CMAs
 - State Government agencies
 - NGOs & Trusts



The Fenner School - interdisciplinary impacts

- *Australia burning* (Cary, Dovers & Lindenmayer 2003):
 - interdisciplinary approach + fortuitous timing;
 - strong influence on COAG National Bushfire Inquiry
- CRC for Forestry *Communities* project (Schirmer et al):
 - social sciences informing plantation forestry practice;
 - changed behaviour of plantation companies
- iCAM (Tony Jakeman, Carmel Pollino *et al*);
new CERF hubs?
- *Sustainability* undergraduate degree:
 - graduates with core integrative knowledge & skills,
+ two complementary majors
 - graduates with attitude & skills for interdisciplinary work



The Fenner School - international comparisons

- Informed by:
 - Will Steffen's long experience at IGBP et al
 - Peter Kanowski's recent experience at UBC et al
 - many others' international networks & collaborations
 - ANU's participation in IARU: www.iaruni.org
- Many universities are grappling with interdisciplinarity; ANU doing ok, relatively, but some imperatives clear ...
- Many have "bottom-up" initiatives; extent of "top-down" commitment & support varies; both necessary?
- Contrasting examples:
 - UBC College for Interdisciplinary Studies: www.cfis.ubc.ca
 - UMinn Institute of Environment: environment.umn.edu



The Fenner School - challenges & priorities

- Promote culture & understanding of collaboration, within School & within ANU ...
(many significant barriers remain!)
- Develop established relationships, nurture embryonic partnerships
(both human & \$ resources limiting?)
- Build strategic national & international collaborations, without overextending or misdirecting ...
- Continue to deliver,
& sell the message effectively within & outside ANU...