ATNF Operations

Douglas Bock

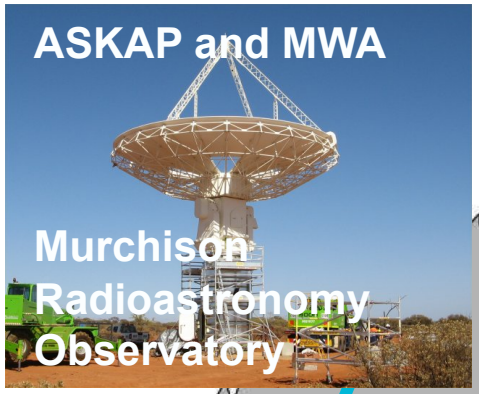
ATUC – 24 NOVEMBER 2015

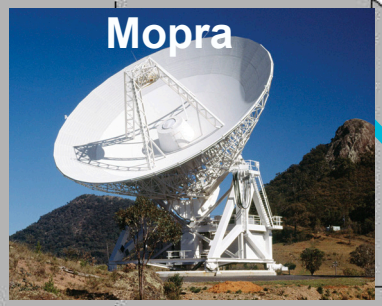
Current AT Users Committee Members

(Dates of first and last meetings are shown.)

	Chair		
	Dr Virginia Kilborn (email: vkilborn_at_astro.swin.edu.au)	(2014 - 2017)	Swinburne University of Technology
	Secretary		
	Dr Joanne Dawson (email: Joanne.Dawson_at_csiro.au)	(Oct 2014 - May 2017)	Macquarie University / CSIRO Astronomy
	Members		
★	Dr Stuart Ryder (email: sdr_at_aao.gov.au)	(Oct 2015 - May 2018)	Australian Astronomical Observatory (AA
	Dr James Miller-Jones (email: James.Miller-Jones_at_curtin.edu.au)	(Oct 2014 - May 2017)	Curtin University
	Dr Stas Shabala (email: Stanislav.Shabala_at_utas.edu.au)	(Oct 2014 - May 2017)	University of Tasmania
	Dr Paolo Serra (email: Paolo.Serra_at_csiro.au)	(Oct 2014 - May 2017)	CSIRO Astronomy and Space Science (C
★	Dr Willem van Straten (email: wvanstra_at_astro.swin.edu.au)	(Oct 2015 - May 2018)	Swinburne University of Technology
★	Dr Vanessa Moss (email: vmoss_at_physics.usyd.edu.au)	(Oct 2015 - May 2018)	University of Sydney
	Student Members		
	Ms Claire-Elise Green (email: claire.elise.green_at_gmail.com)	(Oct 2014 - Nov 2015)	University of New South Wales
★	Mr Andrew Butler (email: andrew.butler_at_icrar.org)	(Oct 2015 - May 2016)	International Centre for Radio Astronomy

The AT Steering Committee appoints new members to ATUC. New members usually start their first meeting in October and finis
May ATUC meeting in their last year. Students are appointed for one year (two meetings). The AAO also has a Users' Committee,





Radiophysics Laboratory

Pawsey HPC Centre

The round up

Strategy for Parkes (on a slide)

- Operations sustainable financially (↓ Rx changes, rem. obs., experts)
- Core infrastructure upgrades (power, remote obs.)
- Other users (Breathrough etc.) consistent with science mission
- Next generation receivers with wide capabilities, no routine changes, external financial support

1. UWB Low
1. PAF
2. UWB High

(funding, maintaining core science)

- ATUC special meeting on Parkes (February 2012) – see Carretti paper.
- ATUC Science Day (October 2012)
- ATUC Receiver workshop (December 2013)

Bonn PAF on Parkes

- Purpose is to commission both the PAF **and Parkes** for future PAF
- Install February
- Remove ~August
- (no MB-20cm during April 2016 semester)
- Expect to be able to support a small number of collaborative shared-risk projects
- Discuss with CASS/MPIfR staff prior to submitting any proposal

For more information:
http://www.atnf.csiro.au/observers/apply/MPIfR-PAF-on-Parkes.html

ATCA Legacy Projects

- Data of “Lasting use and importance”
- 2000 hrs + ; open data; up to 25% of time
- Call every 2+ years
- Expressions of interest due in March

…

[CASS to facilitate … teams, goals, resources]

…

- Proposal(s) due in June

- Many thanks to ATUC for out of session advice

For more information see NEWS item: “ATCA Legacy Projects”

RFI monitoring at the MRO

- Operations expected February 2016

What is ASKAP Early Science?

- ASKAP Early Science is an observing program aimed at producing scientifically useful data.
- It will begin when ASKAP-12 has been commissioned and scientifically verified.
- Early science observations happens in parallel with the deployment of phased array feeds on further ASKAP antennas.

Early Science Priorities

- Demonstrate the unique capabilities of ASKAP
- Provide data sets to the astronomy community to facilitate the development of analysis and interpretation techniques
- Provide a mechanism for feedback to CASS on the performance and characteristics of the system and opportunities for improvement
- Achieve high scientific impact

Although early science is a high priority, the installation of the remaining phased array feeds and commissioning of ASKAP will remain the overarching goal.

The Early Science Program

- **A wide area continuum survey**
  (1 MHz and 18.5 kHz resolution, full Stokes, 700-1800 MHz, 6-12 hours per field)

- **A few 30 square degree fields studied in neutral hydrogen**
  (18.5 kHz resolution, 1130-1430 MHz, 120 hours integration time per field (TBC).

- **A single deep HI field**
  (18.5 kHz resolution, 1000-1300 MHz)

- **A science program at high spectral resolution** (details TBC)

- **A science program to probe the variable and transient radio sky (details TBC)**

Other ideas requiring very small observing times (e.g. MWA EoR field) may be observed on an "opportunistic" basis as part of commissioning.

For further information: Lisa Harvey-Smith

ASKAP tied array mode

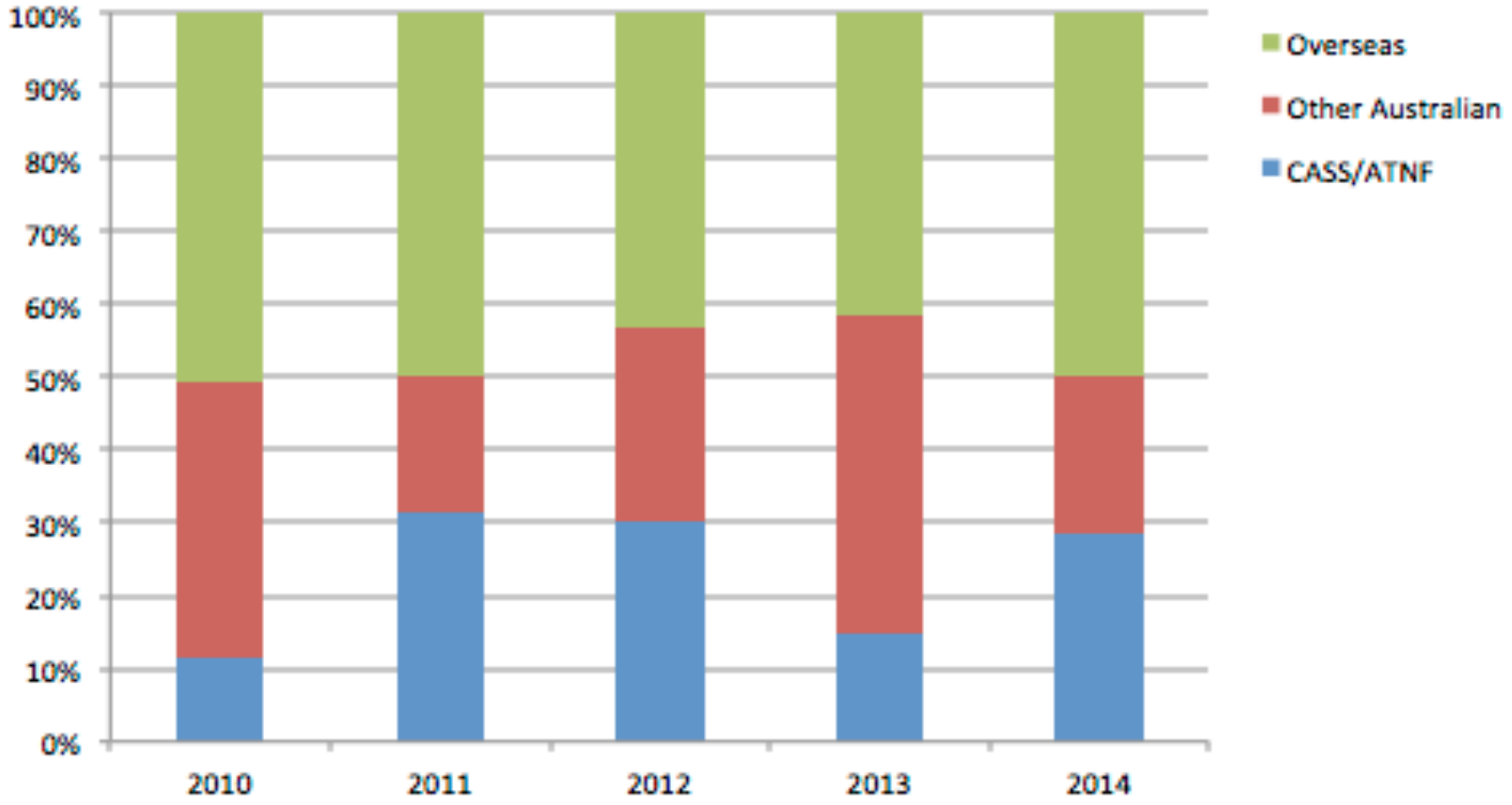
- Tied array mode required for VLBI, COAST, CRAFT SSPs, possibly SETI
- Requirements very demanding and not met with current resources

-> Potential for a delay or de-scope

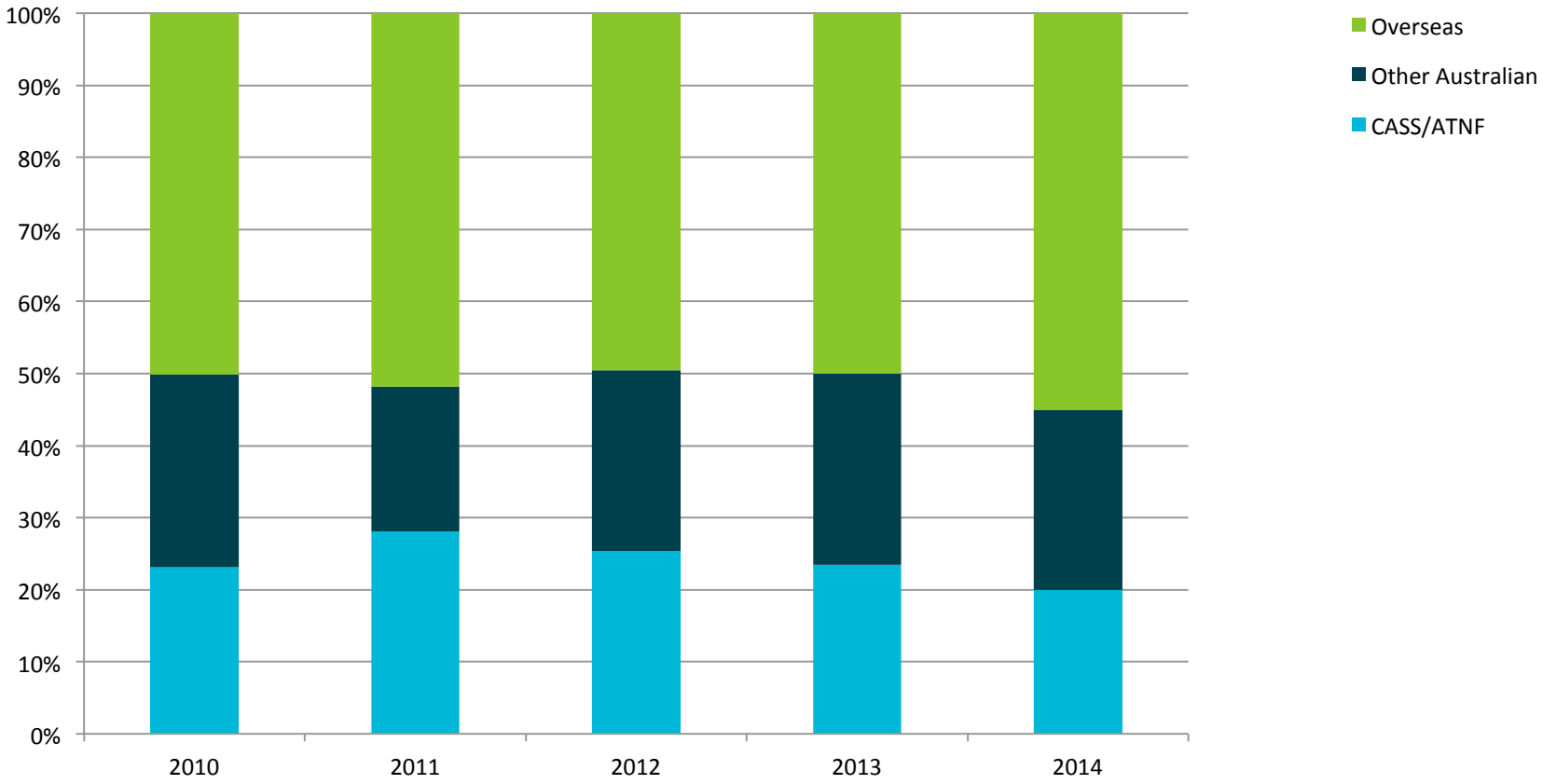
- Re-assessing science requirements
- SSP science priorities will guide
- Possible this mode will be delayed/cancelled

Lisa Harvey-Smith will be coordinating input

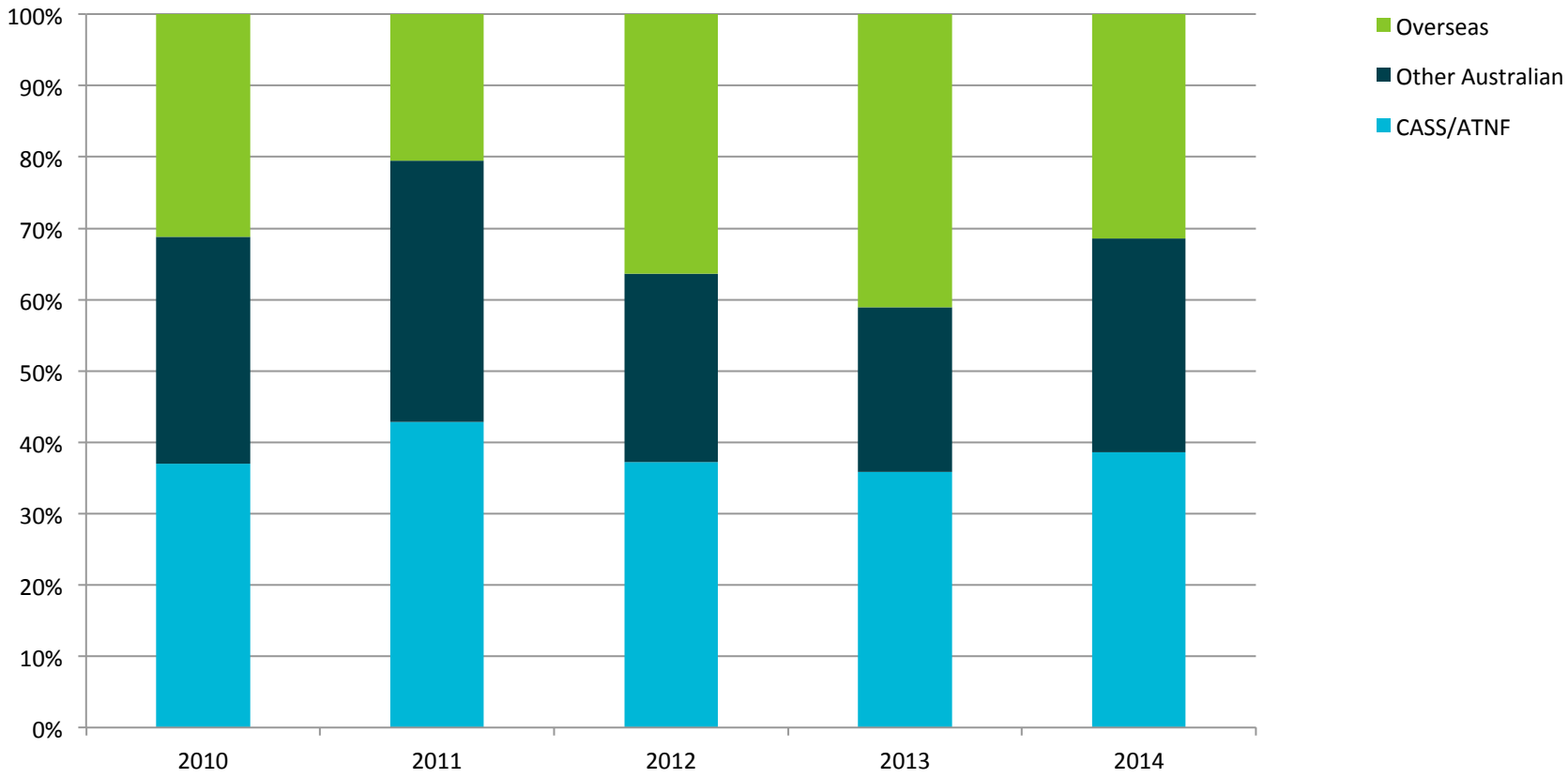
ATCA time by PI – 2014



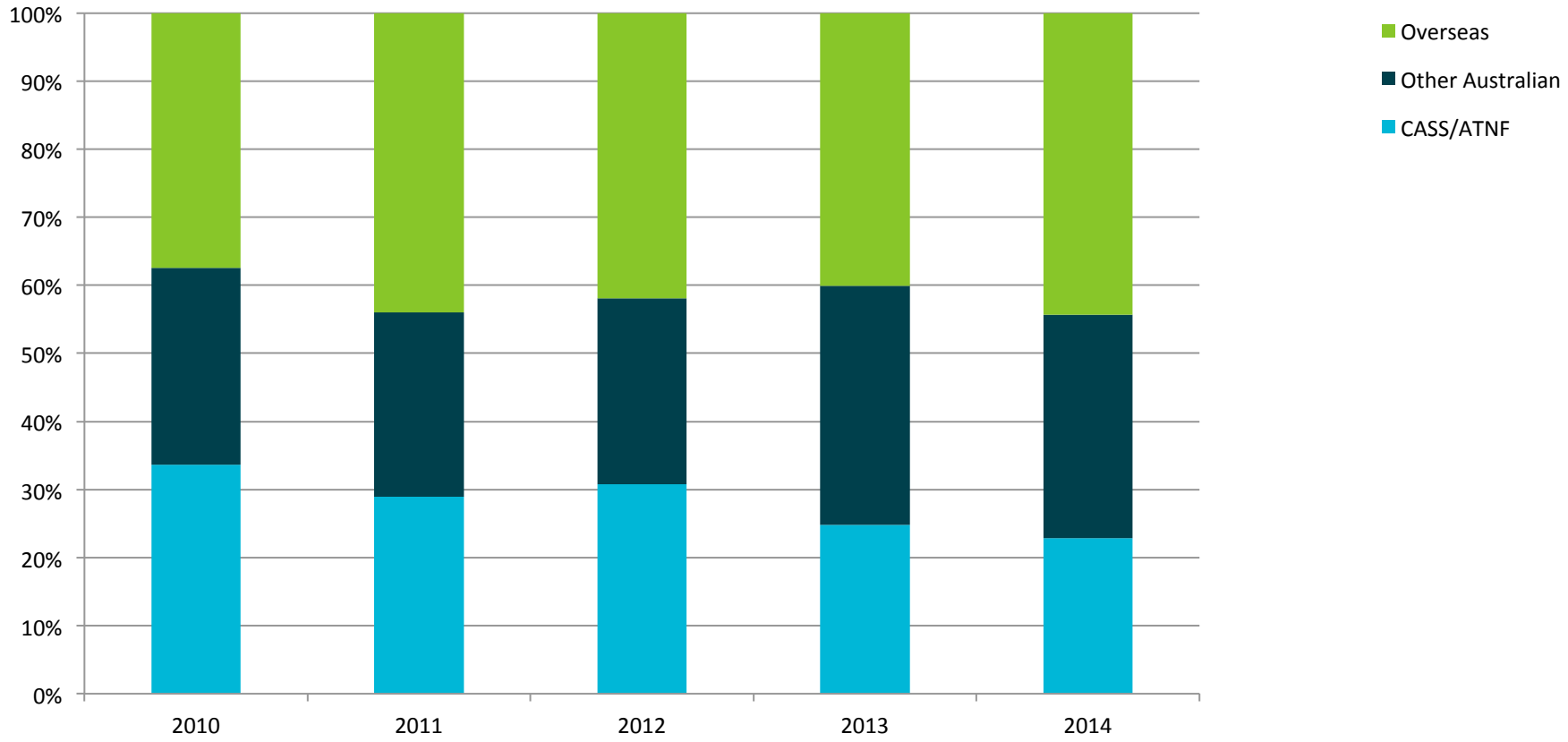
ATCA time by all investigators – 2014



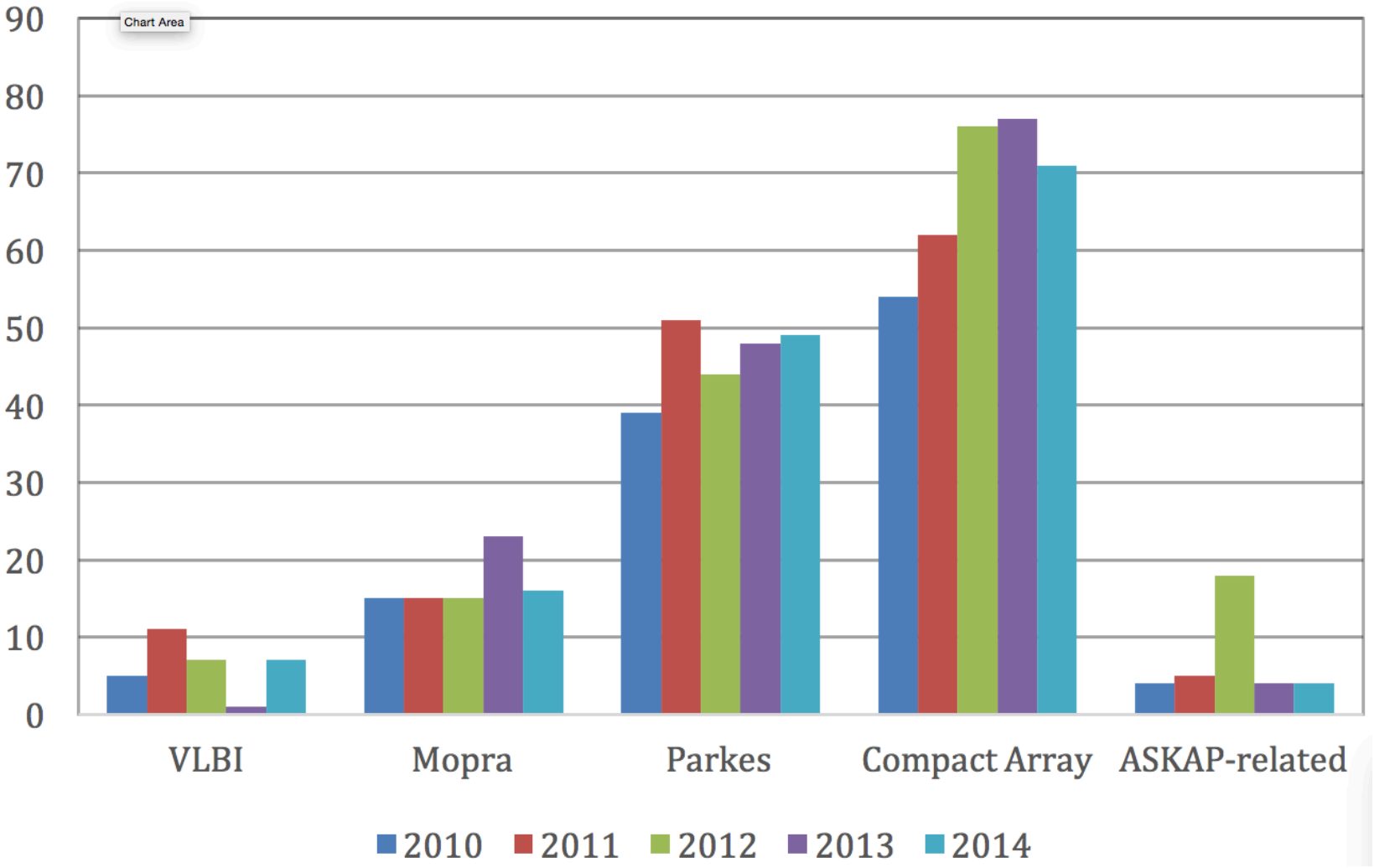
Parkes time by PI – 2014



Parkes time by all investigators – 2014



Publications



Budget realities

Direct costs of facilities in FY15/16 is:

- ASKAP $8.3m
- ATCA $3.5m
- Parkes $2.2m
- Common items (including LBA) $1.4m

Have already made substantial savings at Parkes, ATCA, Mopra

- New NCRIS funding of $3.7m in FY15/16 (plus $1.7m residual funds), comprises 18% of total costs (including overheads, x depr.)
- NCRIS remains critical to keeping all facilities going
- ASKAP energy costs to grow by ~$0.5m in FY16/17, but appropriation and NCRIS are unlikely to grow.

Staff movements

Welcome

- Haydn Rowan, Geoffrey McDougall (Geraldton)
- Cormac Reynolds, Ian Odgen (Perth)
- Raja Wasim (Sydney)
- James Cole (Narrabri)

Farewell

- Dave Brodrick, Bev Wilson, Liza-Jane McPherson

Coming soon:

- Jimi Green (Lead Scientist Parkes - Sydney)

Key user contacts:

Lisa Harvey-Smith, Project Scientist ASKAP

Jamie Stevens, Lead Scientist ATCA

George Hobbs, Lead Scientist Parkes

Chris Phillips, Lead Scientist LBA

Helga Dénes, ATNF Friend for Tidbinbilla

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