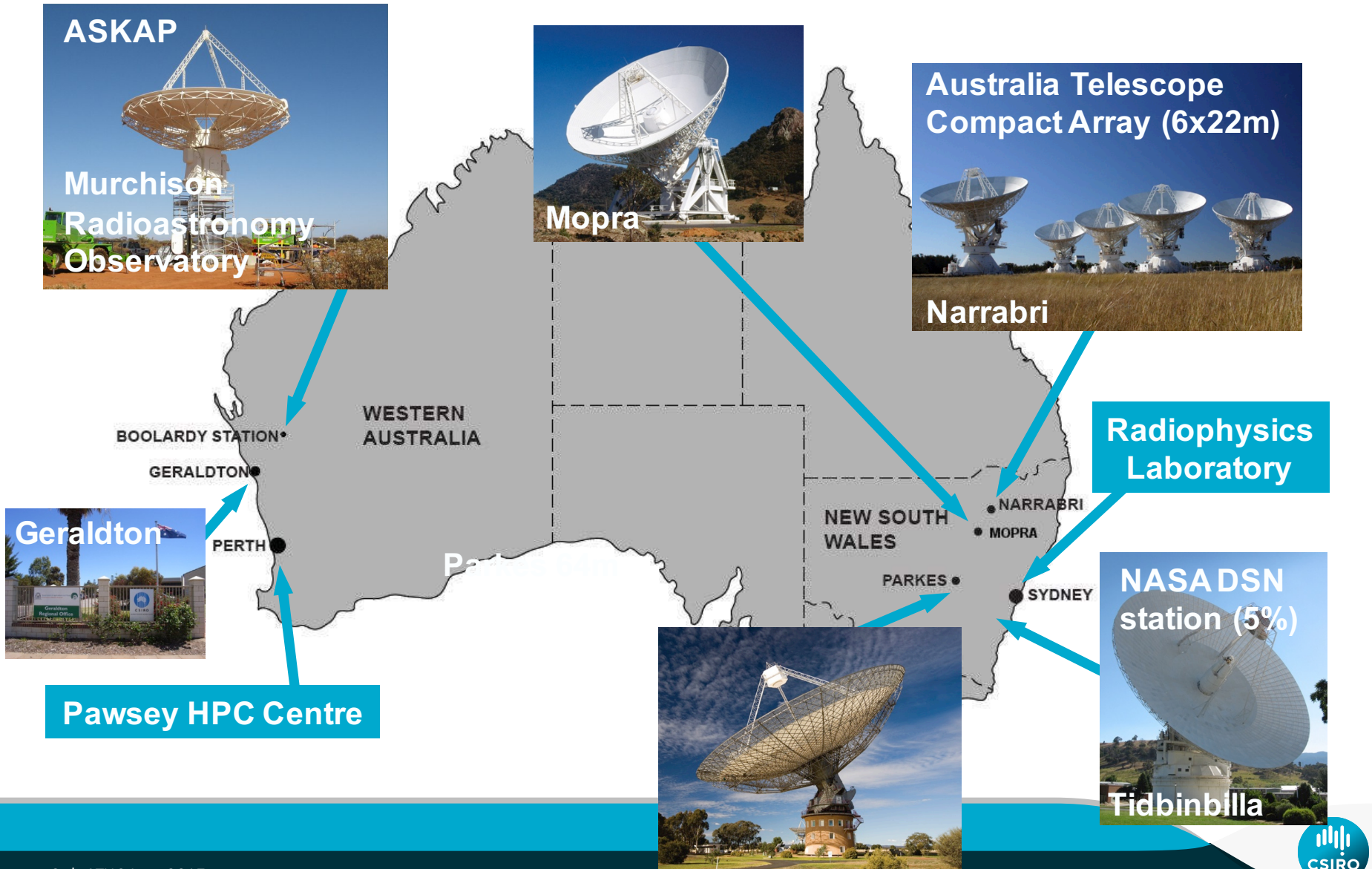


ATNF Operations

John Reynolds



The ATNF

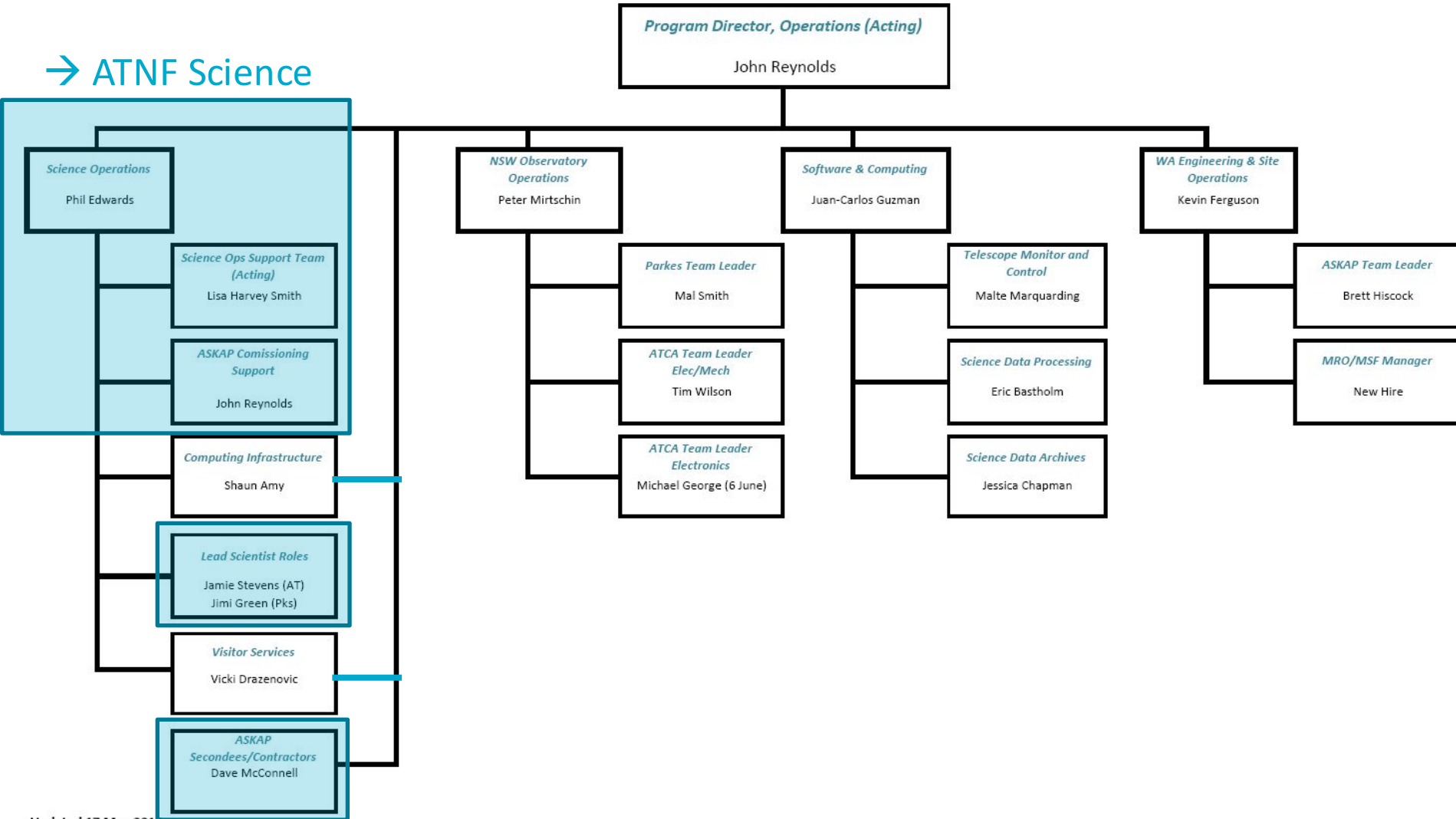


ATNF - Restructure

- Merger of Astrophysics and Science Operations → ATNF Science
- Dave McConnell to give the details

ATNF Operations – re-organization

→ ATNF Science



Updated 17 May 2016

Status & Impact

Parkes Highlights

- 20cm Multibeam receiver back on Dec 2016, replacing MPI PAF
- “Breakthrough Listen” proceeding well
full GPU deployment in June 2017
- UWB receiver and backend available Q2 2018
- LIEF grant submitted for cooled PAF
(UWA, Curtin, USyd, WSU, MU, CSIRO)
- 50th anniversary Apollo 11 in 2019 – major event window

more in Jimi's talk!

ATCA Highlights

- Legacy Projects: Four highest ranked proposals up and running (C3132, C3157, C3145, C3152) allocated ~300h each in Apr2017 (3~5 year completion)
- Rapid response automatic override systems for NAPAs close to ready (TAC policy change – coming up later)
- SIEF application lodged for GPU backend upgrade (WSU, SUT, Curtin, CASS)
 - doubled bandwidth,
 - RFI mitigation,
 - maintainability

more in Jamie's talk!

Mopra Update

- UNSW funding for 2017 winter season in place
- U.Adel. leads submitted ARC proposal for 2018 season
- Technical discussions for support for WFIRST mission are continuing at low level

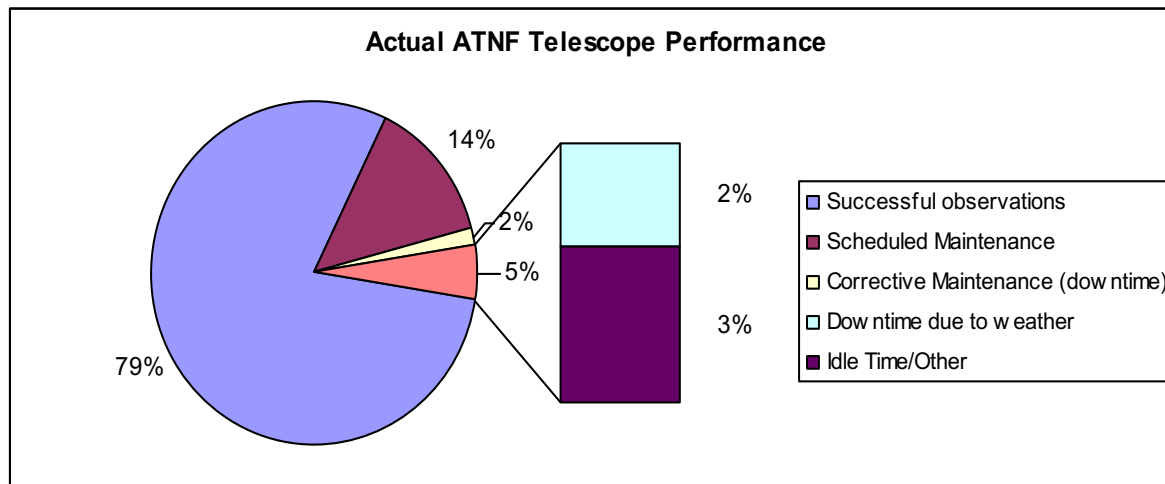
ASKAP Update

- 30 Mk-II PAFs now installed – remainder by ~Oct 2017
 - ADE-12++ operational with 192-240MHz BW
 - Early Science started (for Wallaby, EMU close)
 - Full zoom mode demo delayed
 - Currently working to solve f/w problems
 - 20 ODC systems installed - being characterised
 - Incoherent CRAFT mode working well
 - New 1.9PB filesystem at Pawsey
-
- Survey science commencement ~end 2018
 - Review of SSPs in planning

More from Aidan, Keith, Juan, Wasim

KPIs: performance metrics and stats

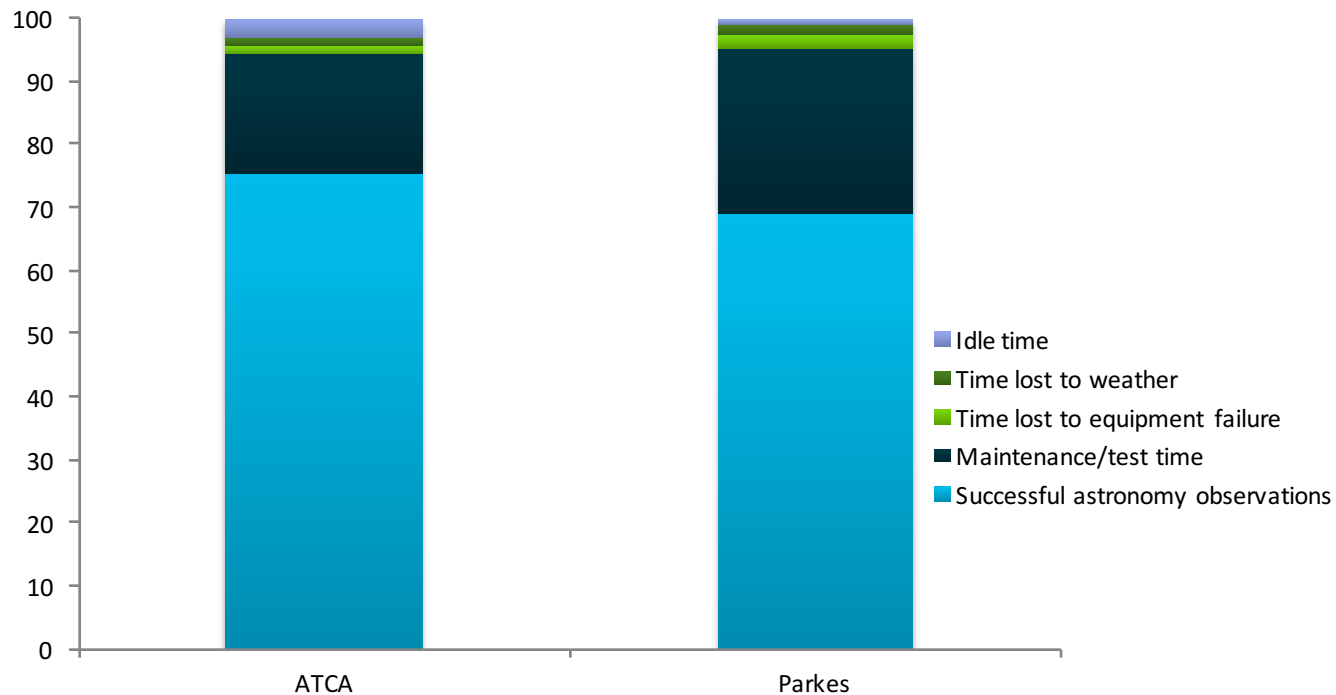
Performance Parameter	Comment	Objective
Successful astronomy observations	Observing time with no significant faults	$\geq 70\%$
Maintenance, Weather	Scheduled maintenance, testing, system upgrades, windstow and lightning activity	$< 30\%$
Downtime due to failure or malfunction	failure of equipment, plant or software during scheduled observations	$\leq 5\%$



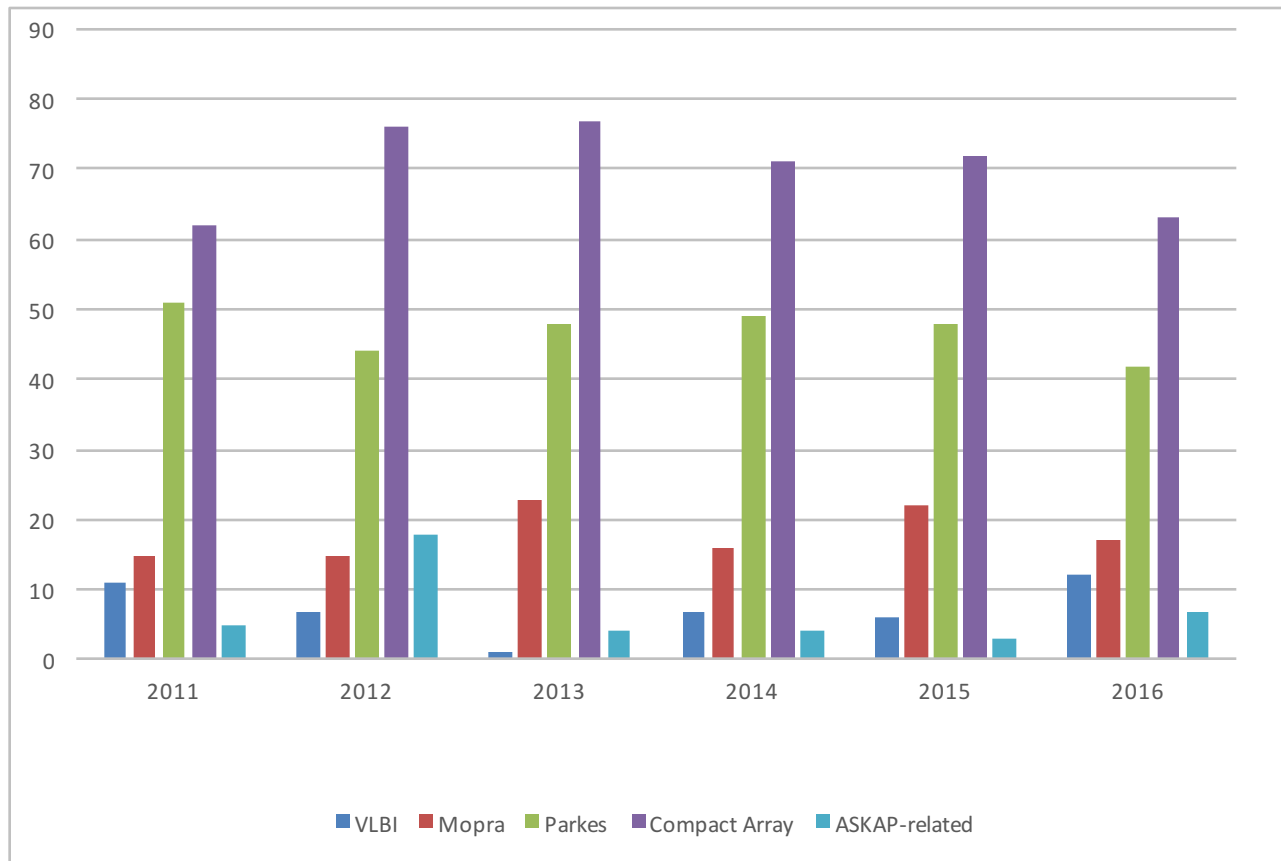
Averaged performance for Parkes+ATCA over last 10 years

KPIs: downtime statistics

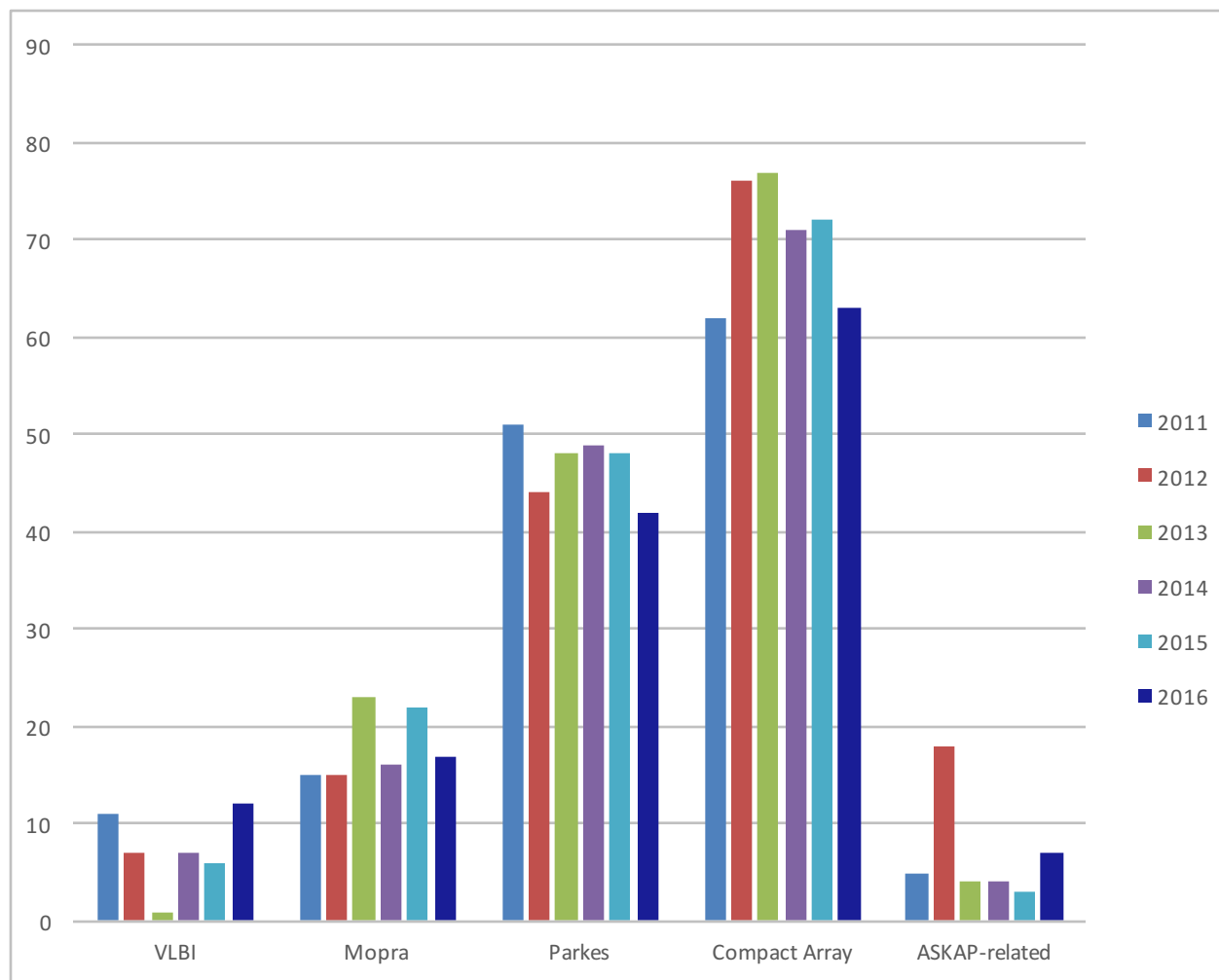
	Successful astronomy observations	Maintenance/test time	Time lost to equipment failure	Time lost to weather	Idle time
ATCA	75.3	18.9	1.5	1.2	3.1
Parkes	68.8	26.5	2.2	1.5	1



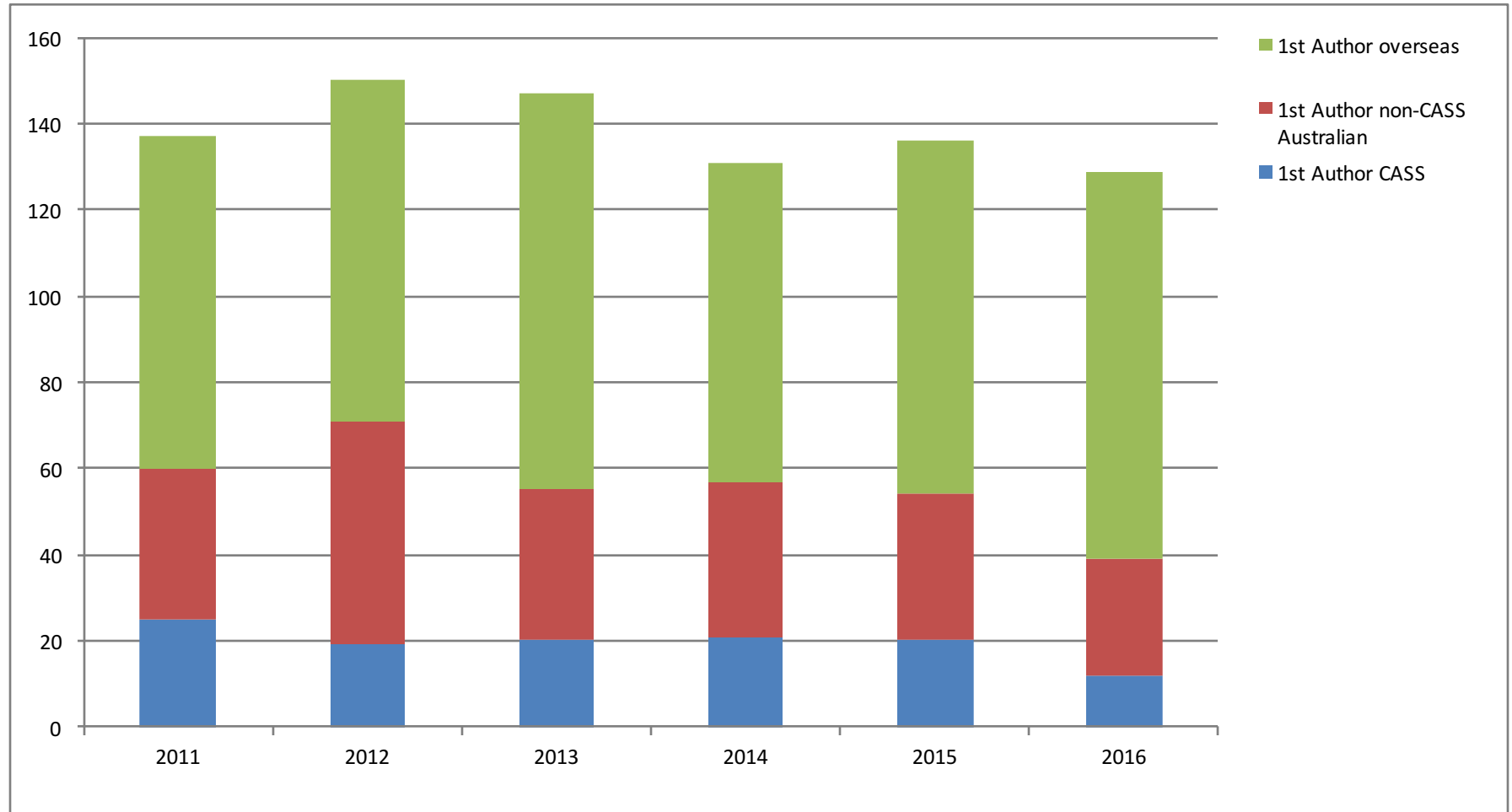
Publications by year



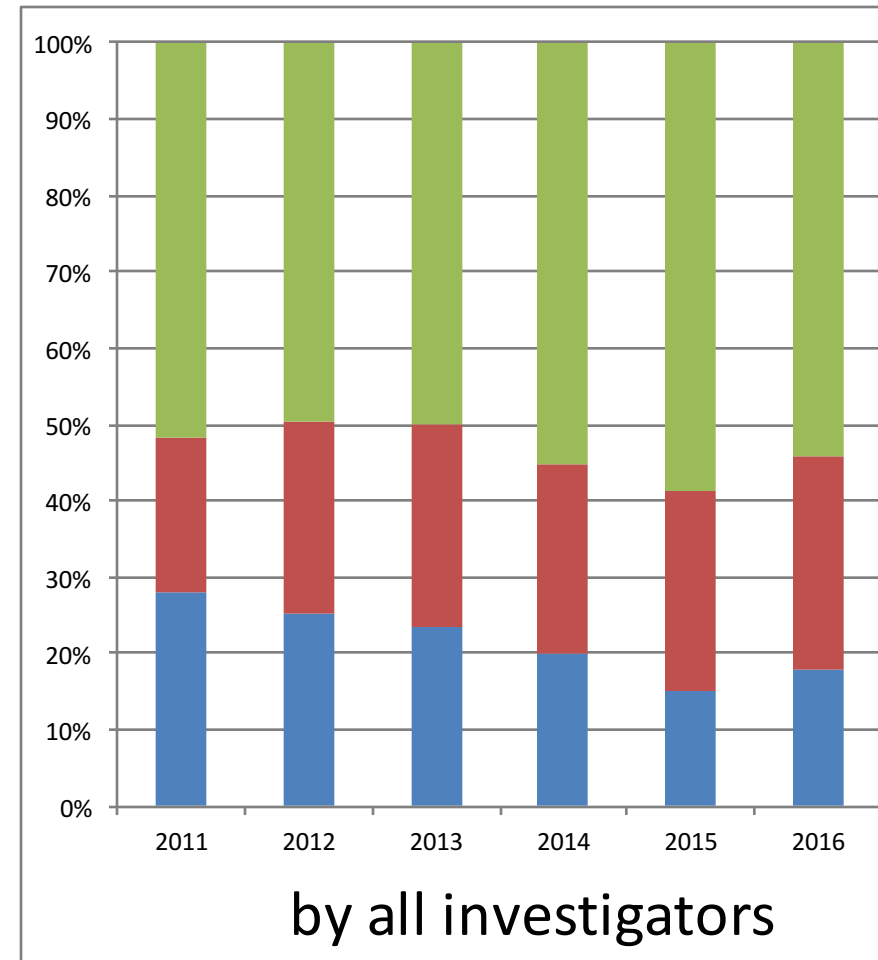
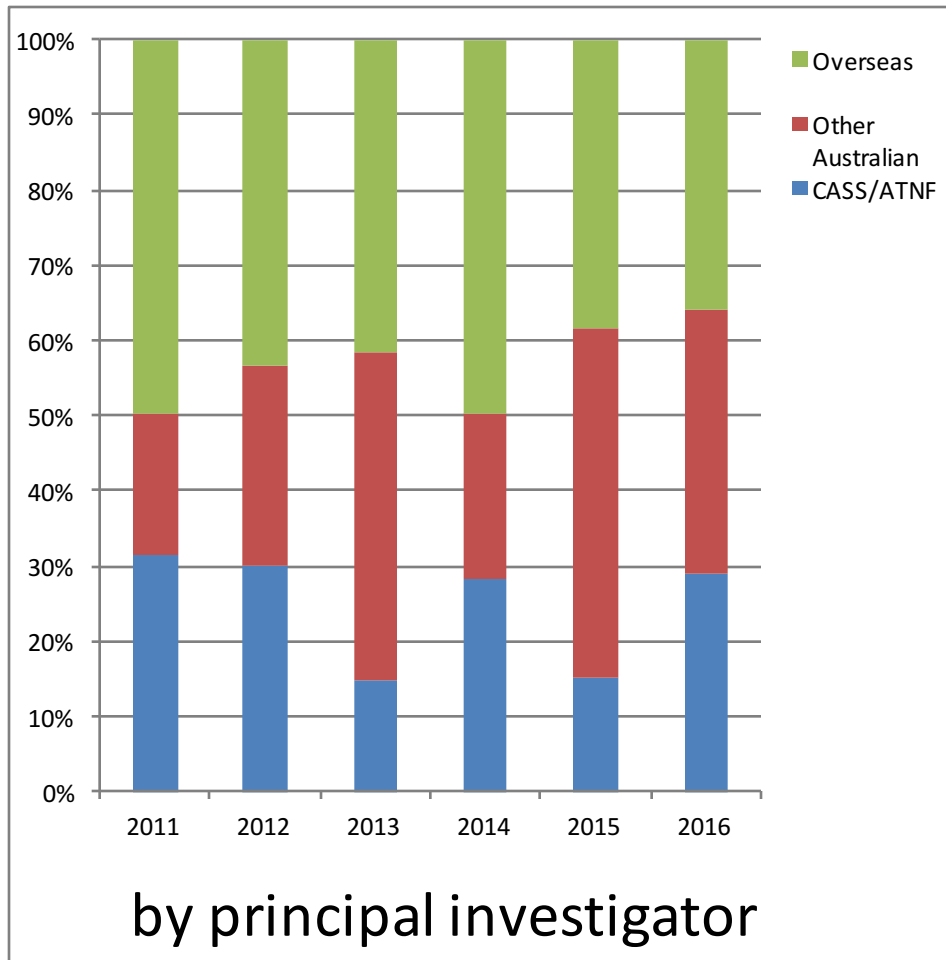
Publications by facility



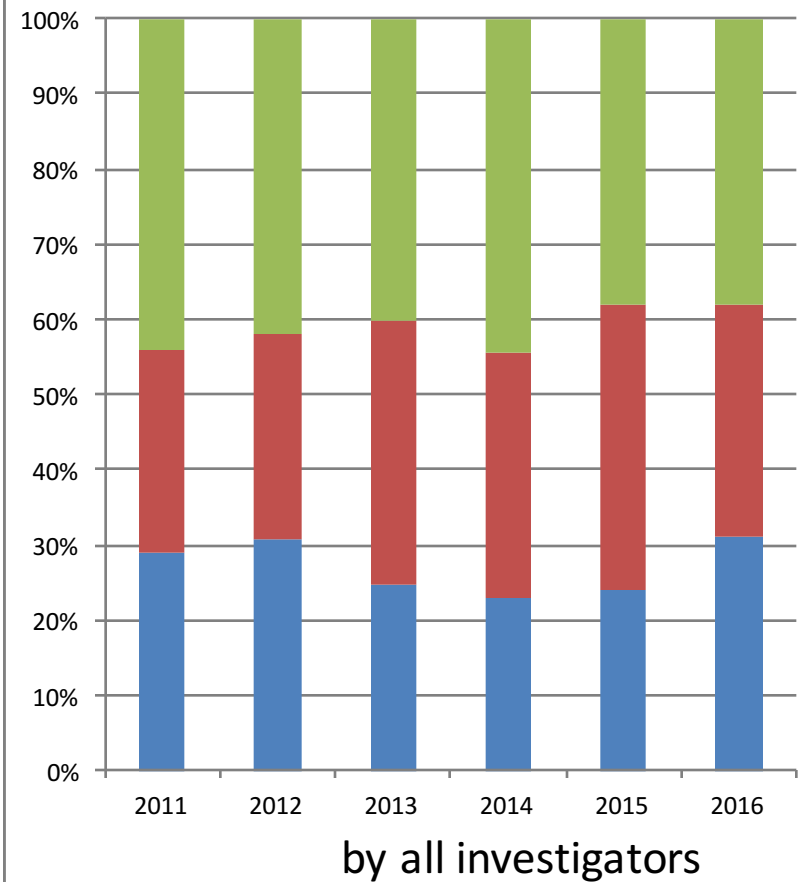
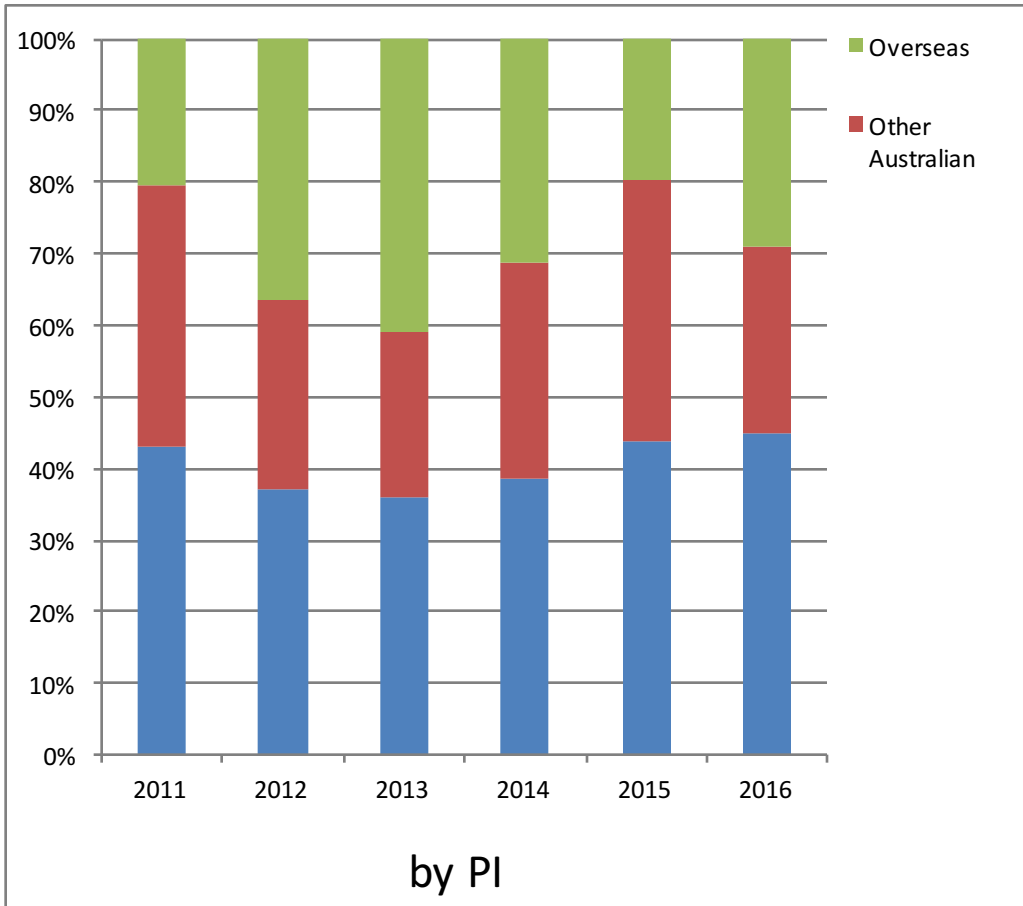
Publications by PI affiliation



ATCA time allocation by affiliation



Parkes time allocation by affiliation



Postgraduate students affiliated with CASS



Media impact



02 Dec 2016



Cool theory on galaxy formation



08 Nov 2016



**Search for ET underway with
CSIRO's Parkes radio telescope**



18 Nov 2016



**Galaxies sail on a tranquil sea,
cosmic flash shows**

STARGAZING LIVE
With **Brian Cox & Julia Zemiro**

ABC iView Aired on: Friday 7 Apr 2017, 2:00pm RPT
Watch on iView

[Go to website](#) [Program Credits](#) [Play Trailer](#) [Share](#)

Visiting ATCA, MRO

ATCA

- 4 single + 1 double Lodge rooms available
- Also flat – 1 bedroom (double+single), and sofa bed
- No observing support – experienced observers required.

MRO open day concept

- Annual all-comers open day, timed with local Astrofest
- Visitors get themselves to/from the MRO
- Astronomer open day, timed with Perth conference (WA radio school?)

Housekeeping

- ATNF Staff Directory – at last!
Google “ATNF Staff list” – follow the link
- Contact address cass-enquiries@csiro.au
For general enquiries and specifically media/outreach

“First light” for

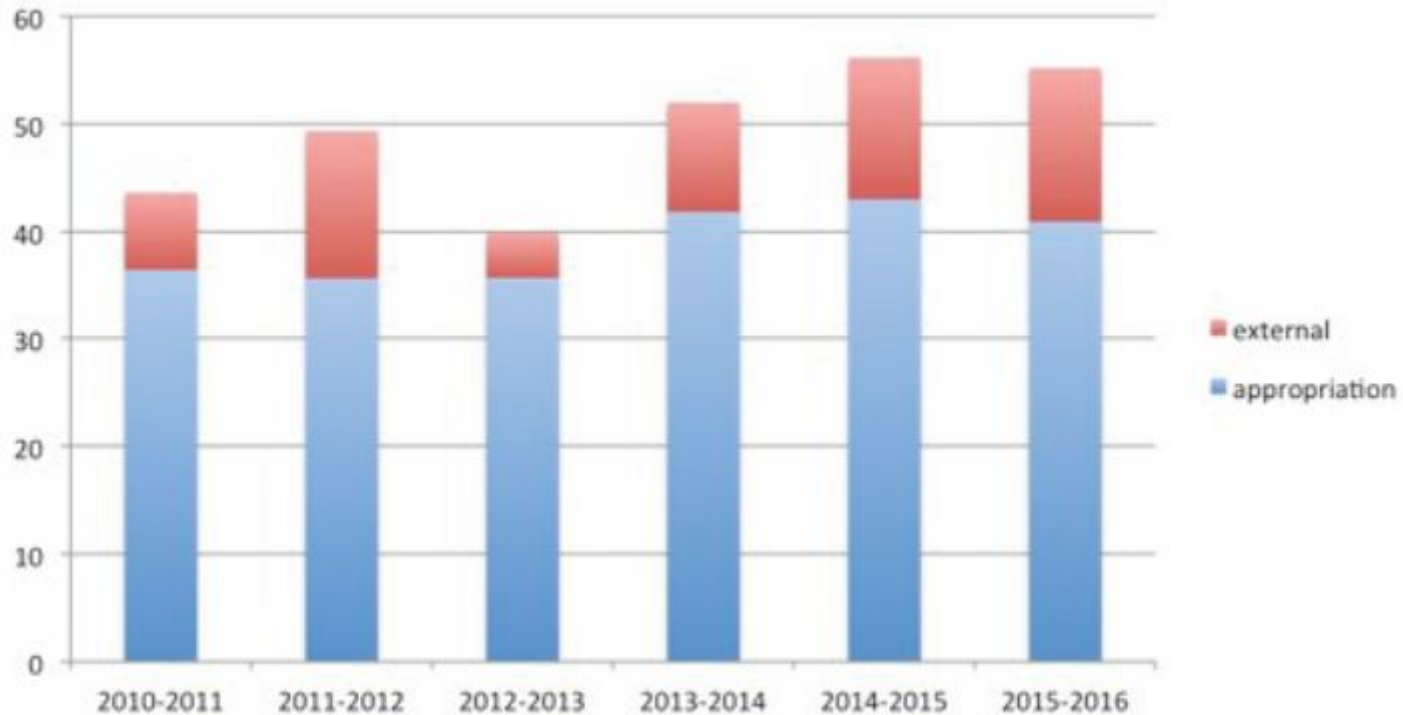
Cass-enquiries@csiro.au

Image request from
Smithsonian NASM

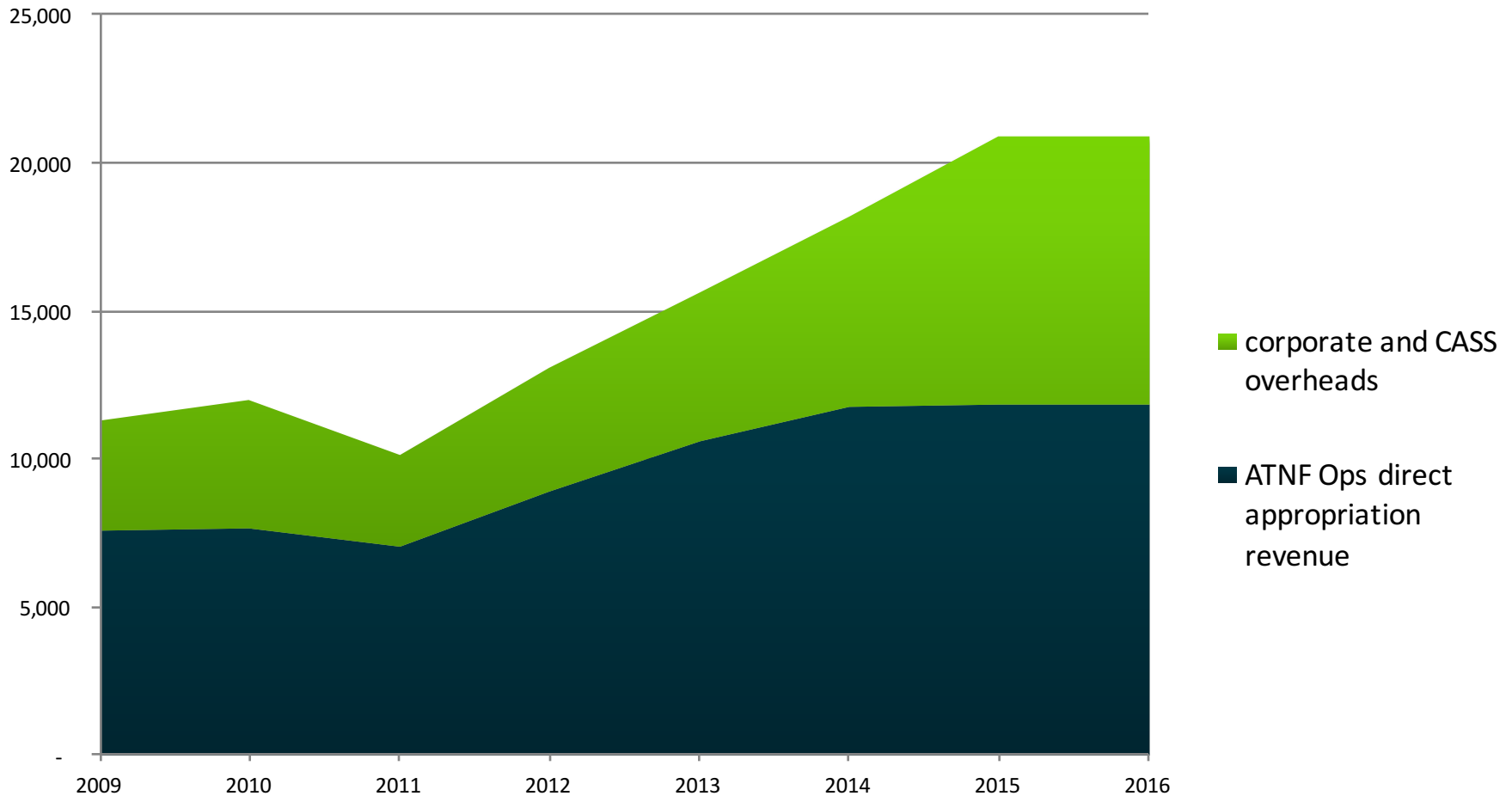


Funding

Funding history – CASS/ATNF radio astronomy



Funding history – telescope operations



ATNF Budget Plan - Revenue

	FY15/16	FY16/17	FY17/18	FY18/19
Appropriation	11.9M	11.9M	11.9M	11.9M
NCRIS (ASKAP)	4.8M	3.1M	1.0M	1.0M
Breakthrough Listen	-	0.9M	1.8M	1.6M
Sale of Telescope Time	-	-	0.3M	0.6M
MRO cost recovery	-	-	0.9M	0.9M
Visitor Centres	0.7M	0.7M	0.7M	0.8M
Fibre rental	0.1M	0.1M	0.1M	0.1M
Misc + Mopra	0.2M	0.3M	0.1M	0.1M
Total External	5.8M	5.1M	4.9M	5.0M

ATNF Operations Finances 2015-2019

	FY15/16	FY16/17	FY17/18	FY18/19
Revenue	17.7M	17.0M	16.8M	16.9M
ATCA	2.9M	2.9M	3.0M	3.0M
Parkes	2.1M	2.3M	2.3M	2.4M
ASKAP	7.9M	8.1M	8.1M	8.3M
Mopra	0.15M	0.16M	-	-
Visitor Centres	0.78M	0.79M	0.81M	0.82M
Common	1.6M	1.8M	1.8M	1.9M
SKA	0.34M	0.35M	0.35M	0.36M
Support Services	0.34M	0.35M	0.36M	0.36M
Result	+1.5M	+0.2M	+0.05	-0.16

Sale of Telescope Time

- Call for EoI in Nov 2016, following ATSC endorsement pricing principles, base charge rates, quoting framework

Parkes – pulsar timing & VLBI (China), FRB searches/follow-up

ATCA – large legacy-style survey, satellite tracking

Mopra – already in this model, to some degree

DoD – early interest in space situational awareness – follow-up

Sale of Telescope Time proceeds on top of existing commitments;

- 25% of Parkes time committed to BL
- 35~40% of ATCA to Legacy Projects
- 70% of ASKAP time committed to surveys

We acknowledge the Wajarri Yamatji people as the traditional owners of the Murchison Radio-astronomy Observatory site

CSIRO Astronomy and Space Science

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