

# *Australian Academy of Science*

## **National Committee for Astronomy**

### **2016-2025 Decadal Plan Timelines and Working Groups**

**June 23 2014**

The Australian astronomical community carries out a formal strategic planning process on a 10-year time scale; with reviews as/when appropriate. This process is run by the National Committee for Astronomy (NCA) and provides the opportunity for Australian astronomy to carry out a stock take of its capabilities, assess its impact both nationally and internationally, provide a vision for the future and to set priorities and develop strategies on how that vision might be implemented.

The resultant Decadal Plan can then be used as a highly influential document to present our vision to key stakeholders outside the research sector. This includes Australian Astronomy's key stakeholder, the Commonwealth Government, as well as industrial/research partners both nationally and internationally.

The currency of the last decadal planning process ran from 2006 and will conclude in 2015. There was a midterm review published in 2011. It is now time, therefore to consider the next decadal planning process for the period 2016-25.

The following timetable outlines decadal planning activities:

<b>Time</b>	<b>Activity</b>
June 2013	-Determine timeline for Decadal Plan activities -Propose working group structure -Set terms of Reference for the working groups and Decadal Plan
<b>July 2013</b>	-NCA presents structure and timing of Decadal Plan activities to the ASA -NCA solicits feedback on structure of working groups and process -NCA solicits interest in working group membership
12th Sept 2013	-Deadline for feedback on structure and expressions of interest in WG
Sept-Oct 2013	-NCA selects chairs of working groups -NCA advertises working groups and process
<b>December 2013</b>	-Working groups present work plan to NCA
Feb-May 2014	-Working groups conduct town-hall meetings
<b>22<sup>nd</sup> July 2014</b>	-National workshop reporting on outcomes of working groups at ASA
August 2014	-Working group reports provided to the NCA
November 2014	-First draft of Decadal Plan submitted to NCA by Editorial Board
<b>3<sup>rd</sup> Dec 2014</b>	-Review of draft by NCA, and feedback provided to the Editorial Board
January 2015	-Release exposure draft of Decadal Plan to the Australian community
Feb-March 2015	-Road-show to present major findings and recommendations of the plan
March 2015	-Submission of near-final Decadal Plan to AAS Council for comment
April-May 2015	-Final revision by Editorial Board
June 2015	-Endorsement by NCA and AAS Council
July 2015	-Community release of Decadal Plan document at the ASA
	-Launch of Decadal Plan at the Australian Academy of Science

## Decadal Plan Working Group Context

Reports provided by Working Groups will provide the basis for the Australian Astronomy Decadal Plan for 2016-25, to be drafted by an Editorial Board appointed by the NCA. The plan will seek to identify opportunities and prioritise requirements, with the goal of maximising the benefit to Australia from astronomical research over the coming decade.

The Editorial Board will compile the draft Plan based primarily on the Decadal Plan Working Group reports, with further input from the Working Group chairs as appropriate. In drafting the Decadal Plan, the Editorial Board will be charged with joint consideration of the implications of outcomes and recommendations from all working groups.

It is currently envisaged that the Editorial Board will draft the Plan in the context of the Big Questions in astronomy, currently envisaged as:

1. What is the nature of Dark Matter and Dark Energy and how do they shape the structure of the Universe and individual galaxies?
2. When and how did the first luminous objects form in the Universe and how did they affect their environments?
3. What is the frequency and nature of planetary systems in the Galaxy, and what drives their diversity and habitability?
4. How are elements processed through stars and galaxies to produce the cosmic chemical environment in which we live?
5. Do the same physical constants and physical laws apply throughout the Universe, regardless of age, temperature, density and gravity?

Where appropriate, Working Groups may wish to frame their reports addressing these, and any other "Big Questions" they may wish to identify.

## Decadal Plan Working Groups

Input into the Decadal Planning process is via the following working groups.

Working Group	Chair
1.1 Galaxies and cosmology	Andrew Hopkins
1.2 Stars and Planets	Michael Ireland
1.3 The Galaxy	Jill Rathborne and Naomi McClure-Griffiths
1.4 High Energy and Fundamental Astrophysics	Duncan Galloway
2.1 International scale facilities	Karl Glazebrook
2.2 National and institutional scale facilities	Kate Brooks
2.3 eScience	Darren Croton
3.1 Demographics	Sarah Maddison
3.2 Education, training and Careers	Amanda Bauer and John O'Byrne
3.3 Industry	Carole Jackson
3.4 Research funding	Chris Tinney

## **Decadal Plan Working Group Terms of Reference**

1) By considering how best to position Australia in the international astronomical landscape of the coming decade, the Decadal Plan Working Groups are each requested to compile a report that:

1. Reports on progress against objectives of the previous Decadal Plan
2. Provides a stock take of current or future capabilities/resources in the area
3. Identifies any new national or international opportunities/requirements in the area over the period 2016-25
4. Suggests strategies and the resourcing levels required to maximise these new opportunities

2) The working groups are encouraged to consult widely, through whatever means appropriate, with all key stakeholders (both national and international) in developing their report.

3) Each of the Working Groups 1.1 - 1.4 should form sub-groups with responsibility for reporting, as part of the working group report, on the progress and opportunities for survey science, theoretical astrophysics, and radio/sub-mm and optical/IR observation.

4) Each working group is asked to submit to the Chair of the National Committee for Astronomy, by 30th November 2013, a report on activities and an outline plan (with milestones) for the delivery of the final Working Group report.

5) Each working group should submit their final Working Group report to the NCA, through the Chair, no later than August 30 2014.

## **Decadal Plan Working Group Guidelines**

The terms of reference are intended to enable the working groups to approach their task from a number of different directions. The working groups may wish to look at the issues in their area from a variety perspectives e.g. current resources verses future needs, existing capability mapping, SWOT (Strengths, Weaknesses, Opportunities & Threats) analysis.

Inevitably, there will be overlaps between different working groups. Working groups should (i) check with other groups regarding potential overlaps, and (ii) tend to be inclusive and cover anything they think is relevant to their topic, even if it is being covered by another working group.

Working groups should focus on producing strong arguments, meaningful statistics, telling examples and comprehensive lists. The report should include as many useful tables and figures as possible. Working groups should generate the valuable content for the Decadal Plan, emphasising substance over style, quantitative arguments over qualitative. It is the role of the Editorial Board structure and polish the material.