# The AAO and the Decadal Review for 2006-2015

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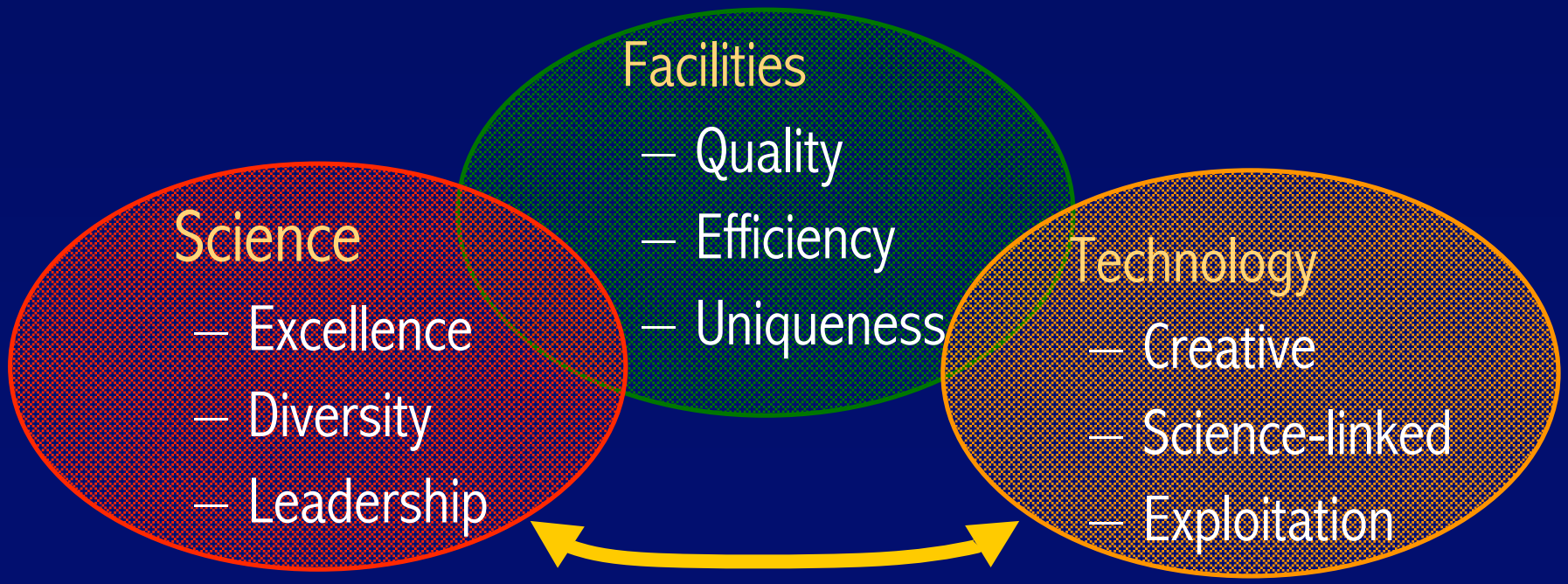
# Fundamentals

- Statement of purpose:

  *The main purpose of the AAO is to facilitate the best possible science through the provision of world-class optical and infrared observing facilities for British and Australian astronomers. It also takes a leading role in the formulation of long-term plans and strategies for astronomy in both countries and, through its research and development of new instrumentation, to the advancement of astronomy internationally.*



# "The AAO of the Future"

- "The AAO of the Future" (July 2000) addressed some critical issues:
  - The AAT is a 4m in an $8m^+$ world (and on an indifferent site).
  - UK and Australian requirements for the AAO are diverging.
- The challenges for the AAO:
  - To continue doing world-class science with the AAT;
  - To satisfy the differing science priorities of the AU and UK communities;
  - To keep the AAT Agreement in force.
- The key elements of the plan:
  - Focus on the unique world-class science that can be done with the AAT/Schmidt.
  - Identify savings of up to 50% in the AAT operational budget, and use these to…
  - Develop instruments for telescopes/programs given high priority by both AU+UK.
  - Operate Schmidt on cost-recovery basis for externally-funded science programs.
- "The AAO of the Future" is (nearly) the AAO of the present - but new challenges are looming…

# The new AAT Agreement

- New AAT Agreement runs from 2006 to 2010
- The UK share of time is determined by the share of AAO income from PPARC (contribution, grants etc.)
- UK contribution halves in 2006-7; again in 2007-8
- Min. UK share is 25% in 2006-7; 12.5% thereafter
- If AAO obtains PPARC funds (available competitively) (e.g. for GWFMOS) then UK share could be larger
- Opportunity exists to buy 'unfunded' AAT nights for specific projects (terms & conditions t.b.d.)

# 2006-2010: AU and UK diverge

- What are the common goals? Where do the requirements diverge?

**AU**

- Needs an on-shore, major-partner, general-purpose observatory?
- Needs a second major optical/IR instrument and technology centre?
- Where does the AAO sit in Australian priorities in the coming decade w.r.t. Gemini, an ELT, LOFAR, SKA...?
- The AAO is the nearest thing Australia has to a national optical observatory - how can AAO support Gemini & ELT?

**UK**

- Need for a "survey astronomy" facility?
- Need for another specialized instrumentation & technology centre?
- Can AAO add value to higher-priority programs (Gemini, ESO, ELT etc.)?
- Can AAO instrumentationn program have a future independent of the AAT?
- Tension between desire to save by cutting back/off AAO funding and perceived value of strategic alliance?

- What scientific/instrumental programs and organizational structures will allow the AAO to most effectively meet these different requirements?
- This will be a continuing and developing issue for the AAO for the foreseeable future, and subject to ongoing discussion in both communities.

# 2011-2015: the Australian Astronomical Observatory?

- The Decadal Review must include a clear vision for the AAO beyond 2010, recognizing the likelihood that it will be an entirely Australian entity.
- Long-view questions for the Decadal Review include…
  - AAO facilities: In what form, with what instruments, and for how long, will the AAT/UKST be valuable to Australia beyond 2010?
  - AAO services: What observatory services are required of the AAO? Operating the AAT/UKST? Operating other national O/IR facilities?
  - AAO technology: How should the AAO's instrumentation and technology programs be developed for the benefit of Australia?
  - AAO identity: If the AAO is to become some form of 'Australian Astronomical Observatory', how should it be funded and managed?