



# Future Science with ASKAP

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# Beyond the Survey Science Projects

- Full surveys with ASKAP are getting underway, but a large-scale upgrade for ASKAP will take years of planning and preparation
- An open and ongoing dialogue about progress and possibilities will help identify the best way forward
- Many factors remain uncertain:
  - How long will it take to wrap up observations for the existing SSPs?
  - How long can we keep ASKAP's current hardware fully operational?
  - What might the community's future science priorities be?
  - What capabilities might other facilities provide in 5 to 10 years?



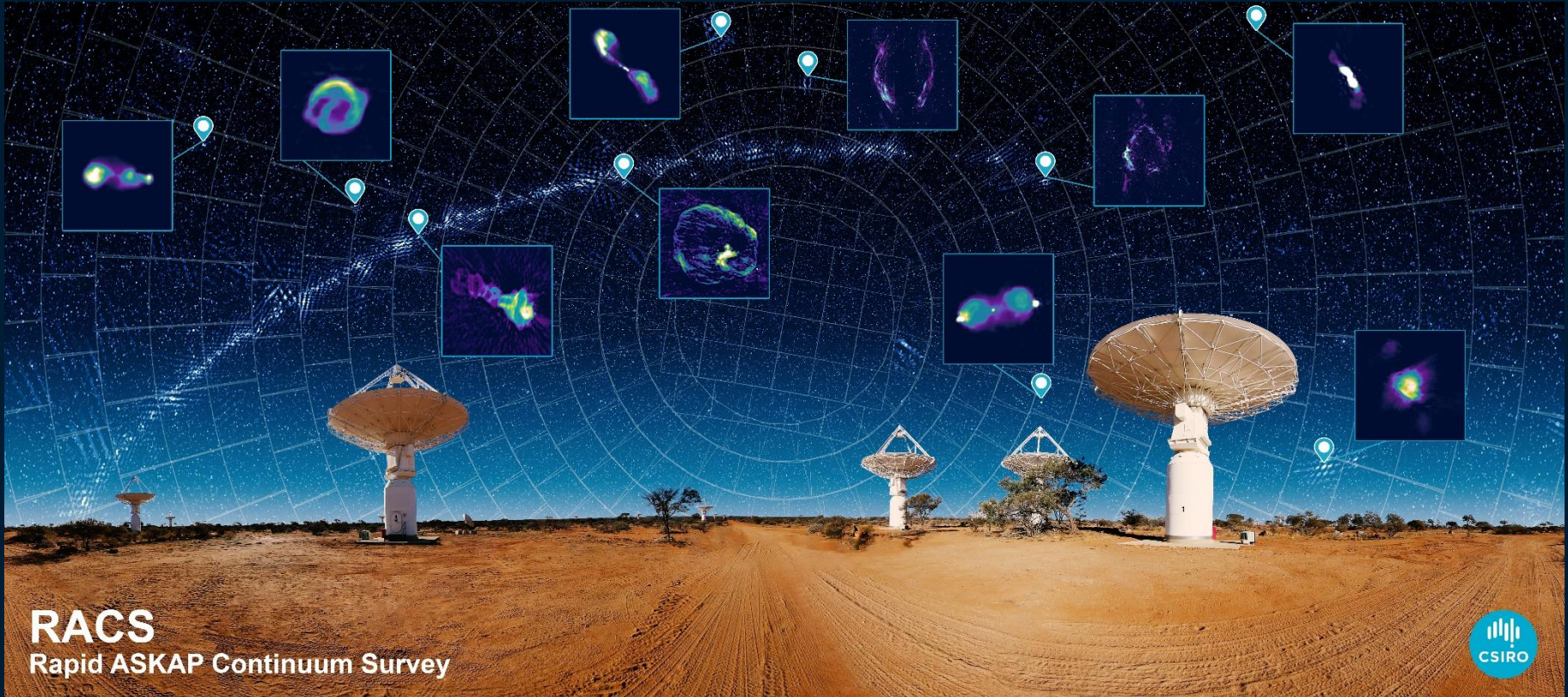
# What makes ASKAP unique in the SKA era?

- Field of view and low RFI at 20cm radio wavelengths
- Wide-field polarisation capability
- Integrated supercomputing and science-ready data products
- Efficient autonomous end-to-end operations model
- Active beam-forming used to improve data quality
  
- The above combine to maximise *achievable* survey speed
  - Demonstrated as a unique role with the Rapid ASKAP Continuum Survey
  - Well placed to remain at the forefront of time domain radio astronomy





Transient & synoptic science, multi-messenger, rapid response, radio sky model, finding rare objects & the unknown



**RACS**  
Rapid ASKAP Continuum Survey



# Key points for discussion

- What might our future science priorities be?
  - Impact of discoveries arising from the SSPs and other facilities
- Are there capability gaps in the era of ngVLA, DSA2000, SKA, etc.?
  - Field of view, frequency coverage, time domain
- Should we focus on filling capability gaps or compete directly?
  - Can we secure adequate access to world-class data products?
- Should we focus on existing strengths or diversify?
  - Instrument flexibility vs raw power from collecting area