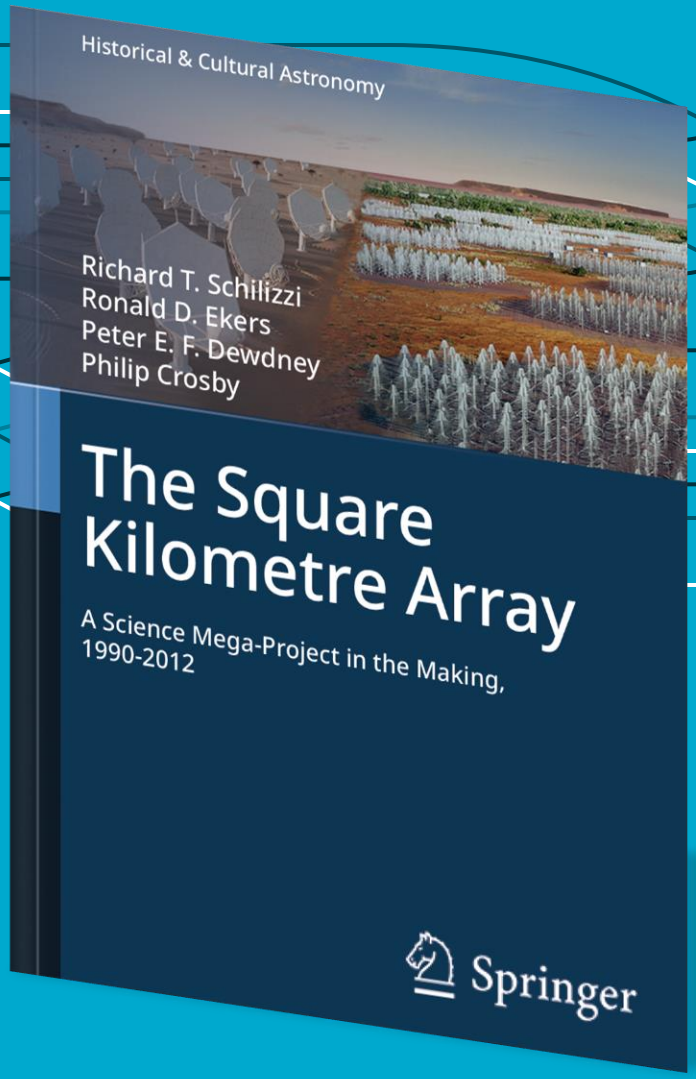


Ron Ekers

8 July 2024

The only thing we learn from history is that we learn nothing from history.

Georg Wilhelm Fredrich Hegel (1770 -1831)

1990 - born global

Clear vision

URSI 1998 LTWG

- *angular resolution better than the Hubble Space Telescope*

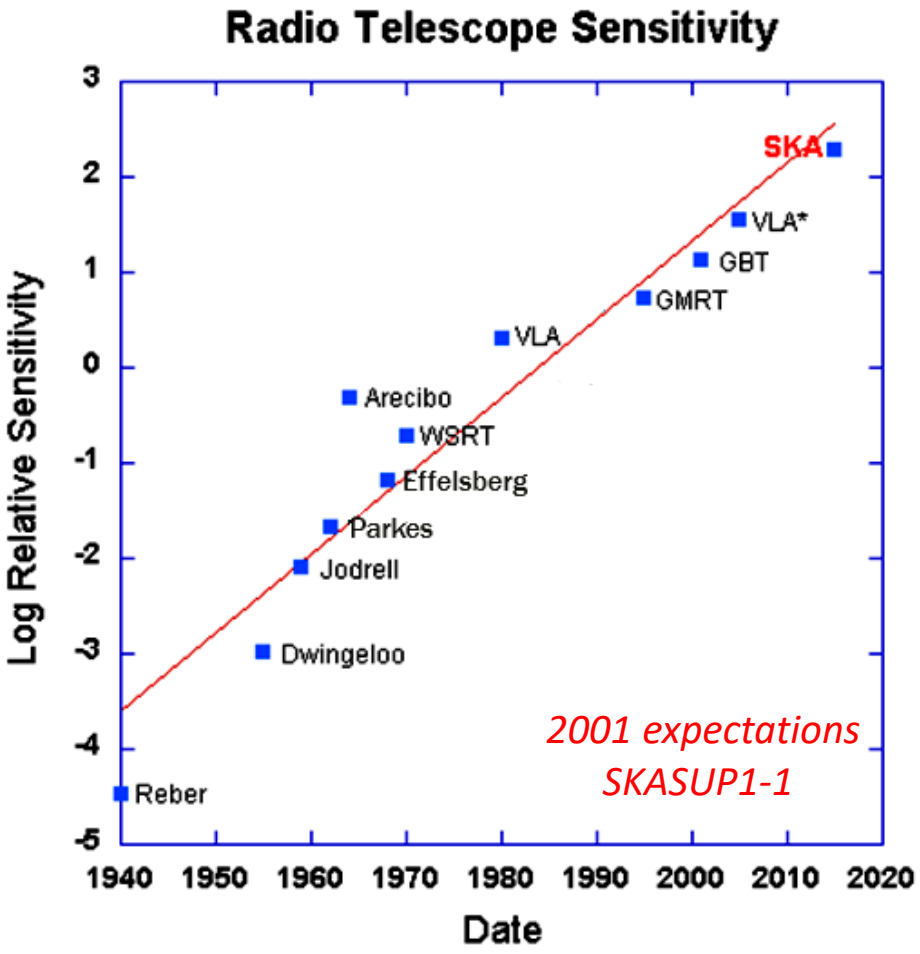
  (< 0.1")

- *field of view significantly larger than the full moon*

  (~ 1 square degree)

- *and all at a sensitivity about 100 times the VLA.*

SKAHB-123



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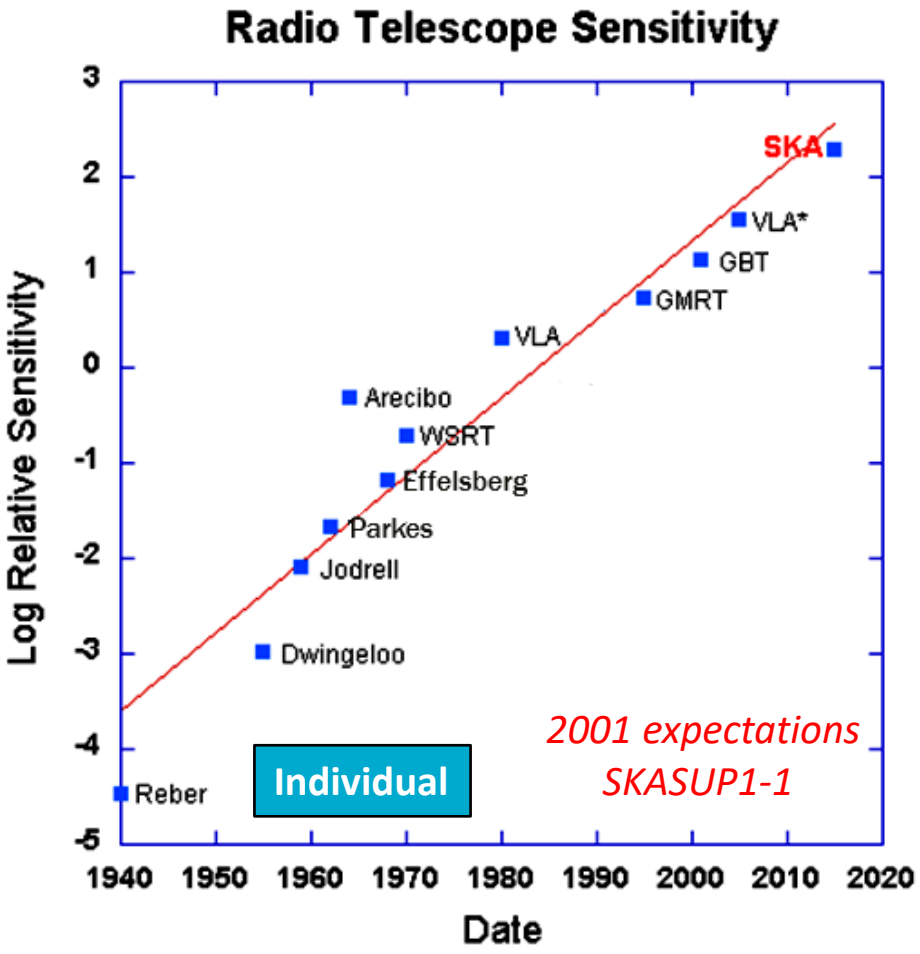

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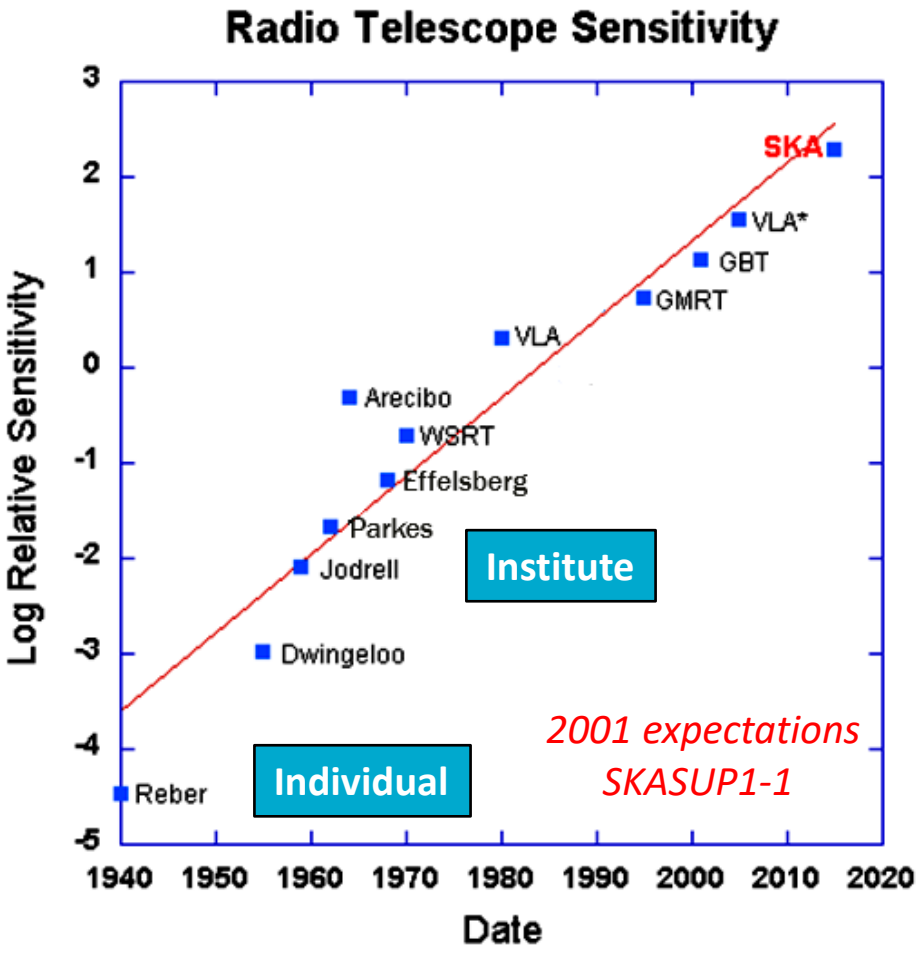

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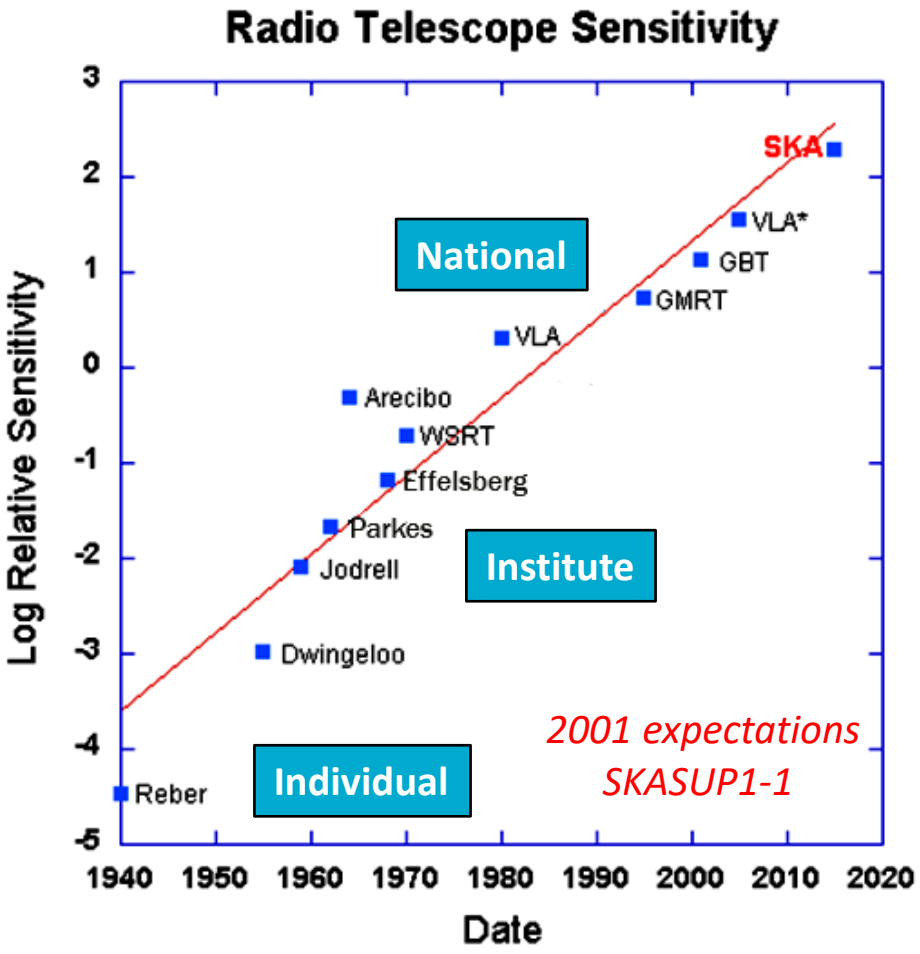

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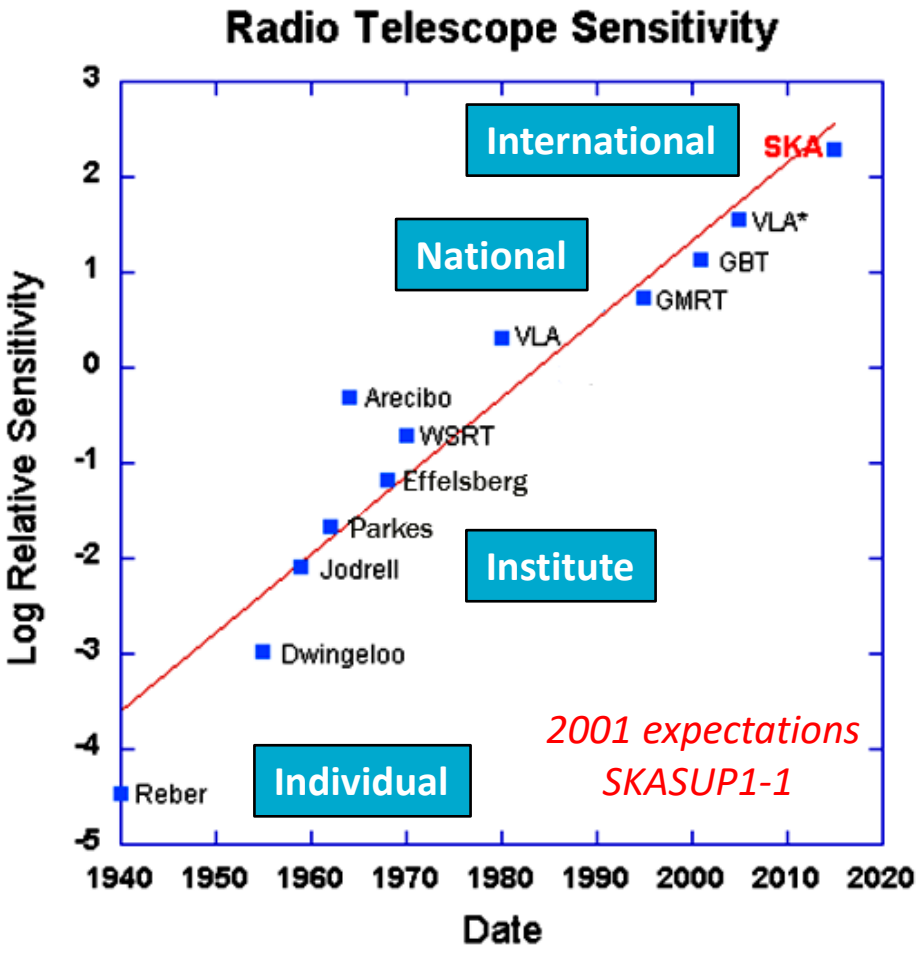

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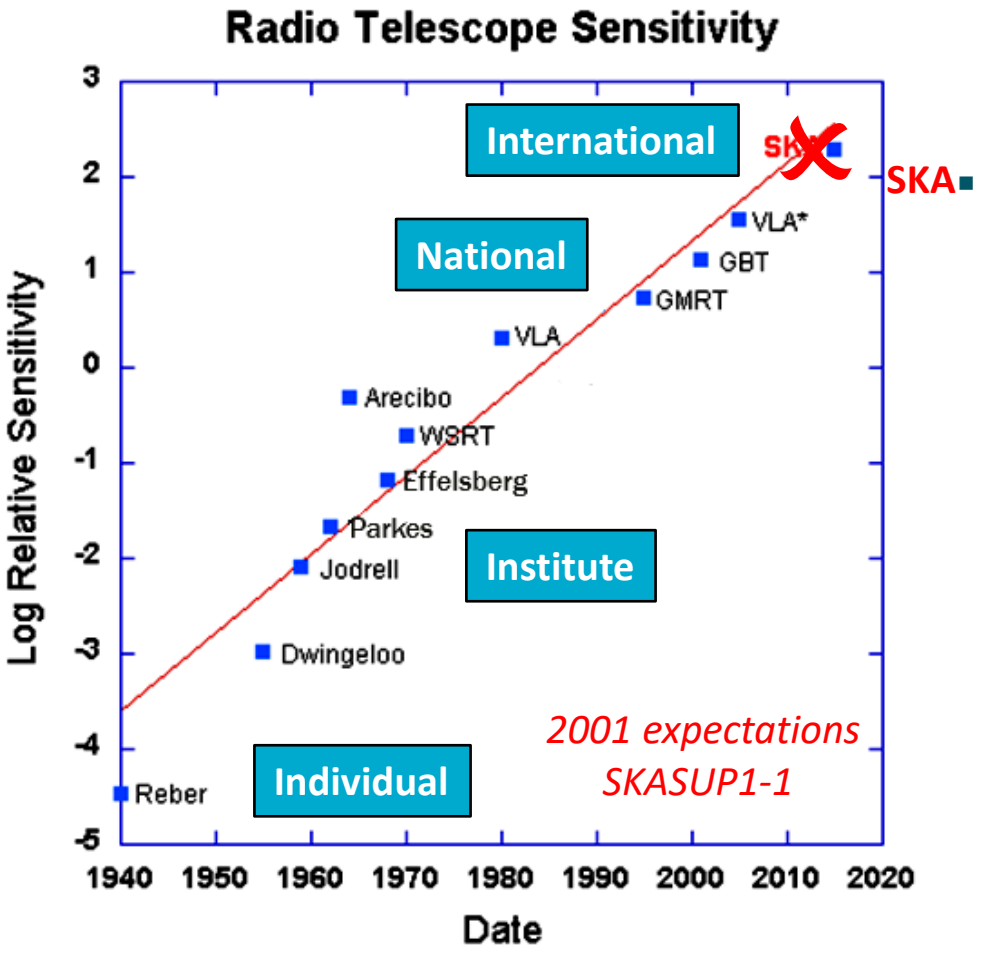

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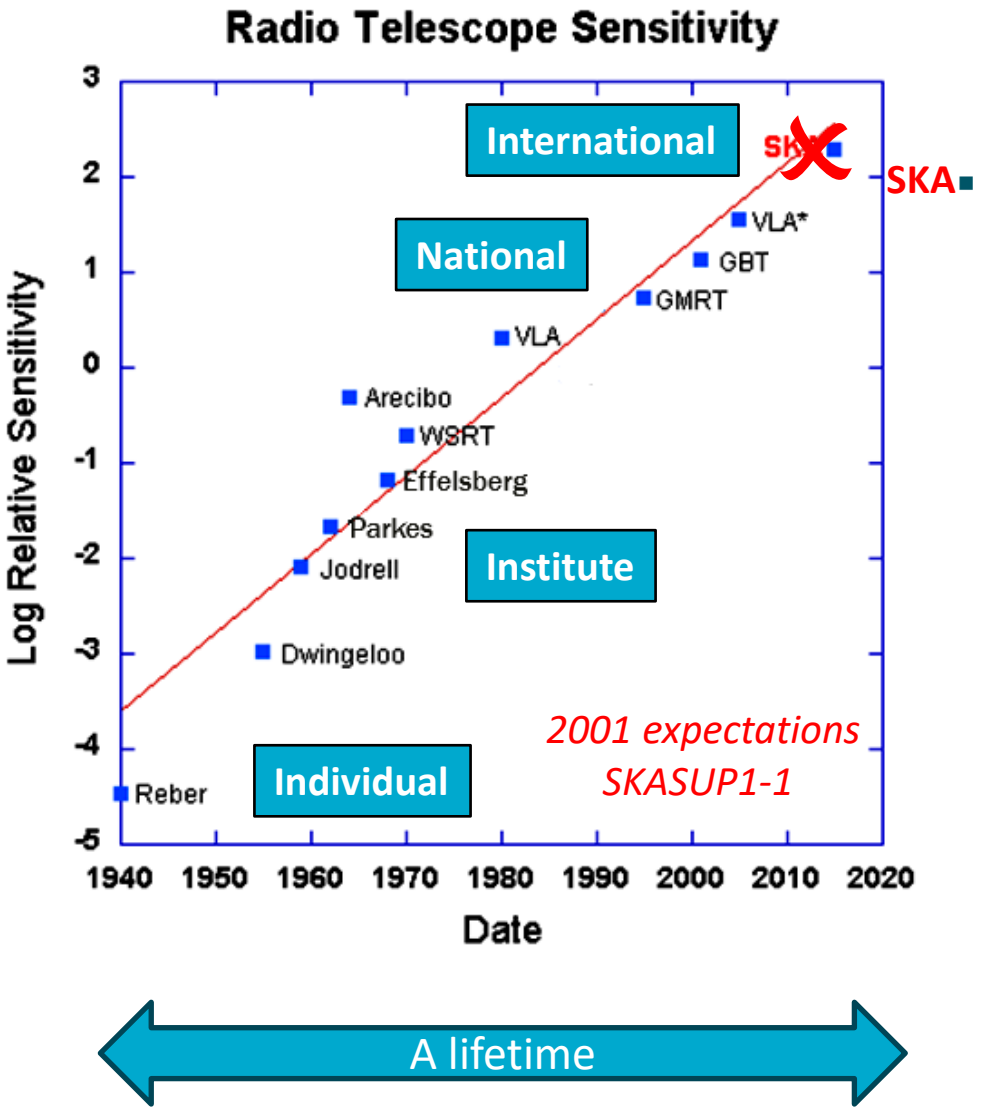


SKA an International Mega-project

- Global has profound benefits, especially in a conflicted world.

- International Scientific Unions involved from its conception
  - URSI
  - IAU

- OECD Mega-Science Forum

SKAHB-125

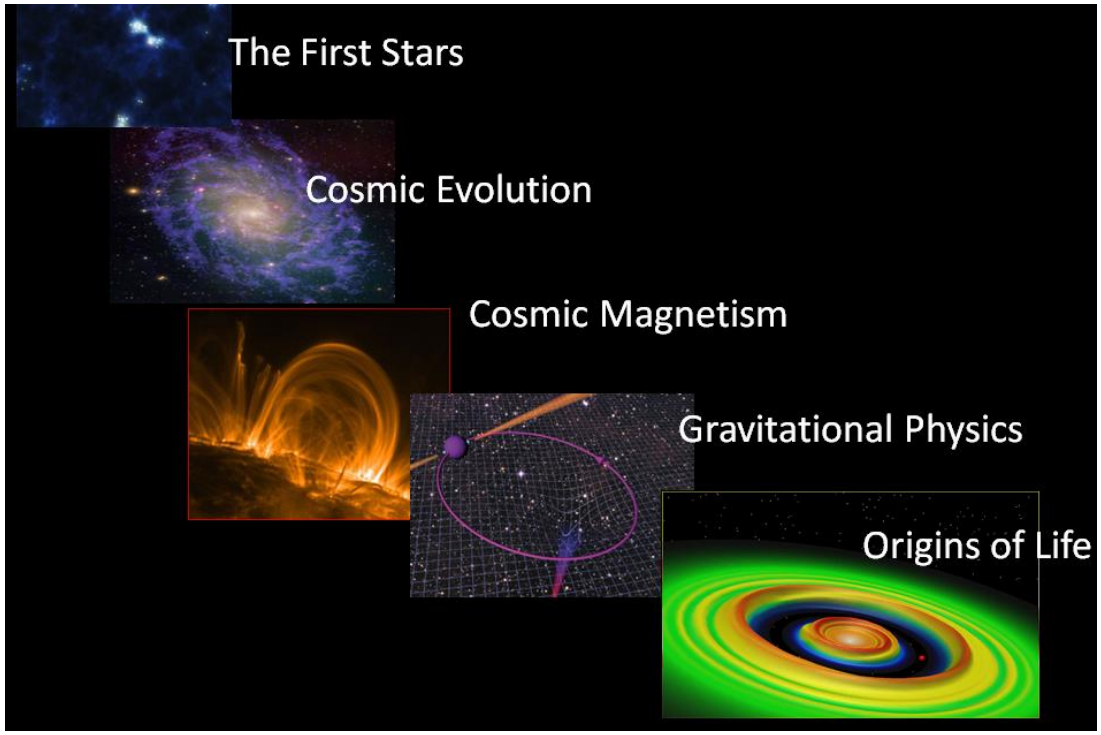
  - Report of the OECD Global Science Forum Task Force on Radio Astronomy and the Radio Spectrum

SKAHB-435

- Exponential growth
  - needs Global to break the National cost ceiling
  - But global costs in time and complexity

Key Science Projects (KSPs)

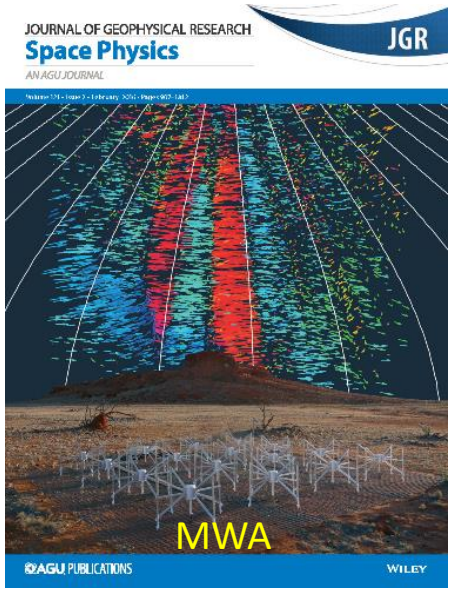
- Tension between KSPs and exploring the unknown
- Do we need KSPs? See11.4.2 for some answers



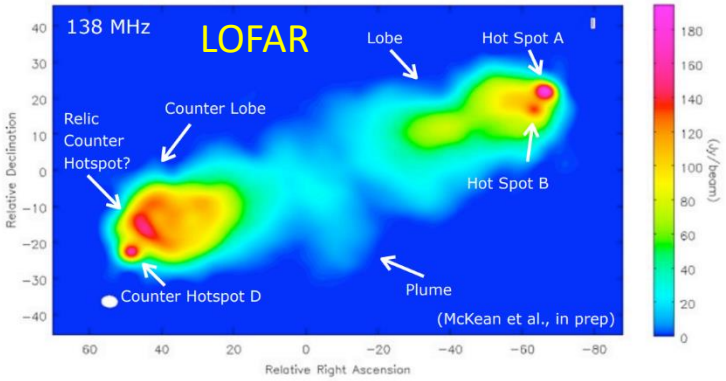
- History tells us that the science drivers are rarely the most important discoveries with new instruments.

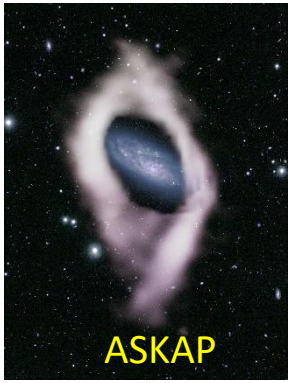
Kellermann & Bouton (2023)

The SKA is already a success

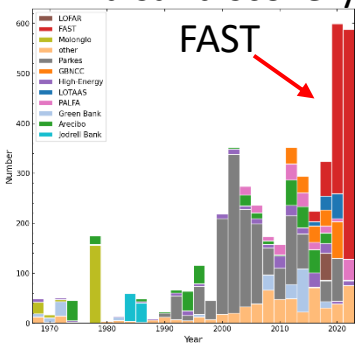


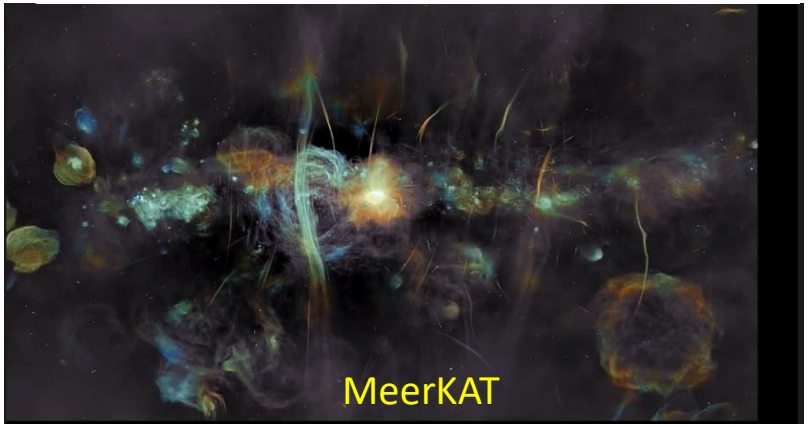
- Precursor and Pathfinder discovery science LOFAR
- The drivers of innovation





Pulsar discovery





The Future - SKAO as an observatory

- SKA has evolved to a concept with multiple sites, multiple instruments, a separate headquarters, and perhaps the prospect of a longer-term life as a scientific enterprise.
- Martin Gallagher (formerly an ASG member from Australia) raised the question of whether the SKA project would become an ESO-like Observatory for radio astronomy.