



# NRF / SKA SA Dish Concept: Costs and plans for PEP Phase

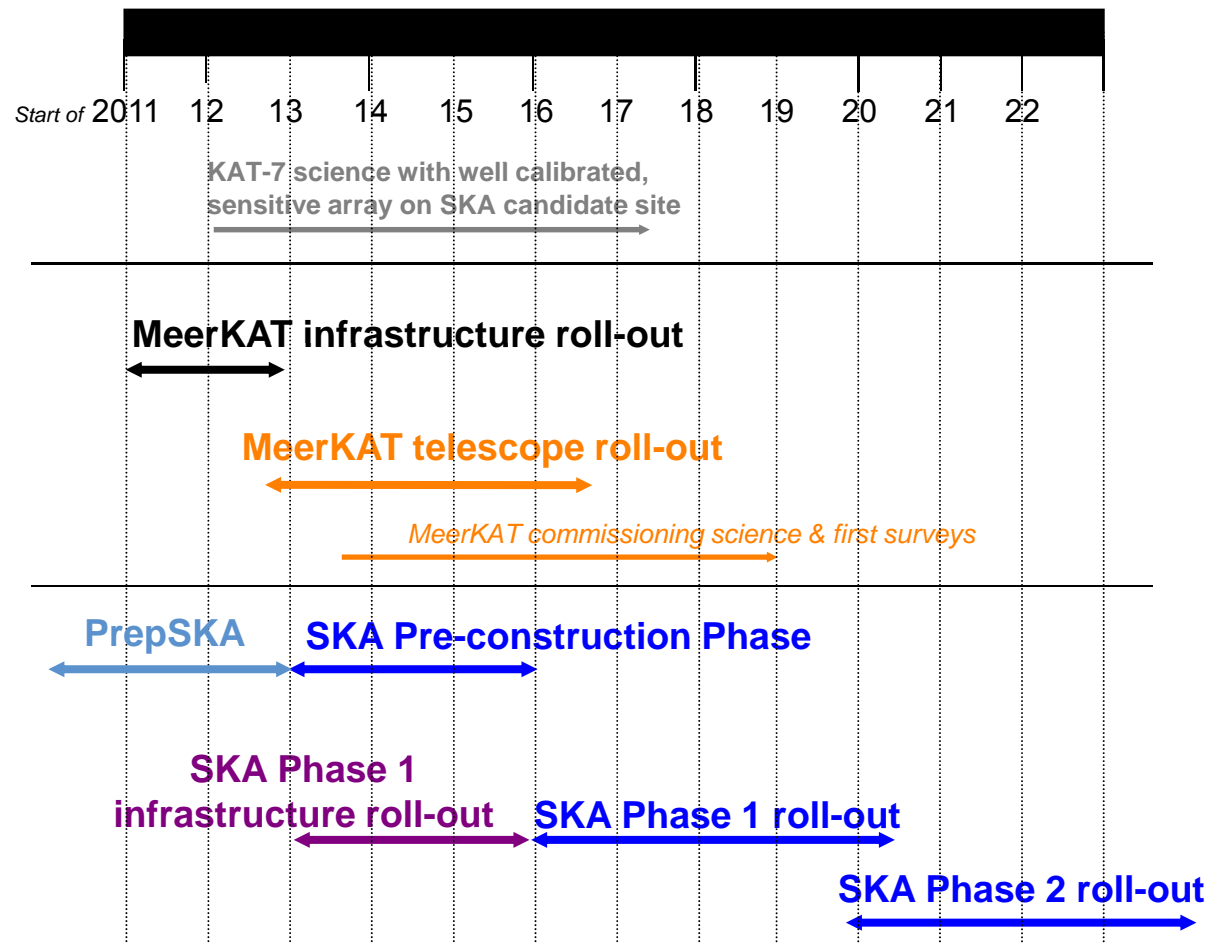
A. Loots *Pr.Eng.*  
NRF / SKA SA  
14 July 2011  
Penticton

# MeerKAT & SKA PEP

Aligning schedules & NRF / SKA SA commitment



- SKA SA / NRF committed to participate in various work packages of the PEP (stated this commitment in Manchester on 9-10 June 2011 during a PEP Resource Allocation Workshop.)
- WP5: Antennas, feeds and receiver options and design
  - NRF / SKA SA to “bid” for this work package with consortium partners.
- MeerKAT Antenna #1 will be a qualification model and will be completed during 2013.
- MeerKAT Antenna #1 will be tested as a single dish and as part of the KAT-7 array.
- All SKA SA facilities in the Karoo available to other teams / consortia for DVPs if needed.



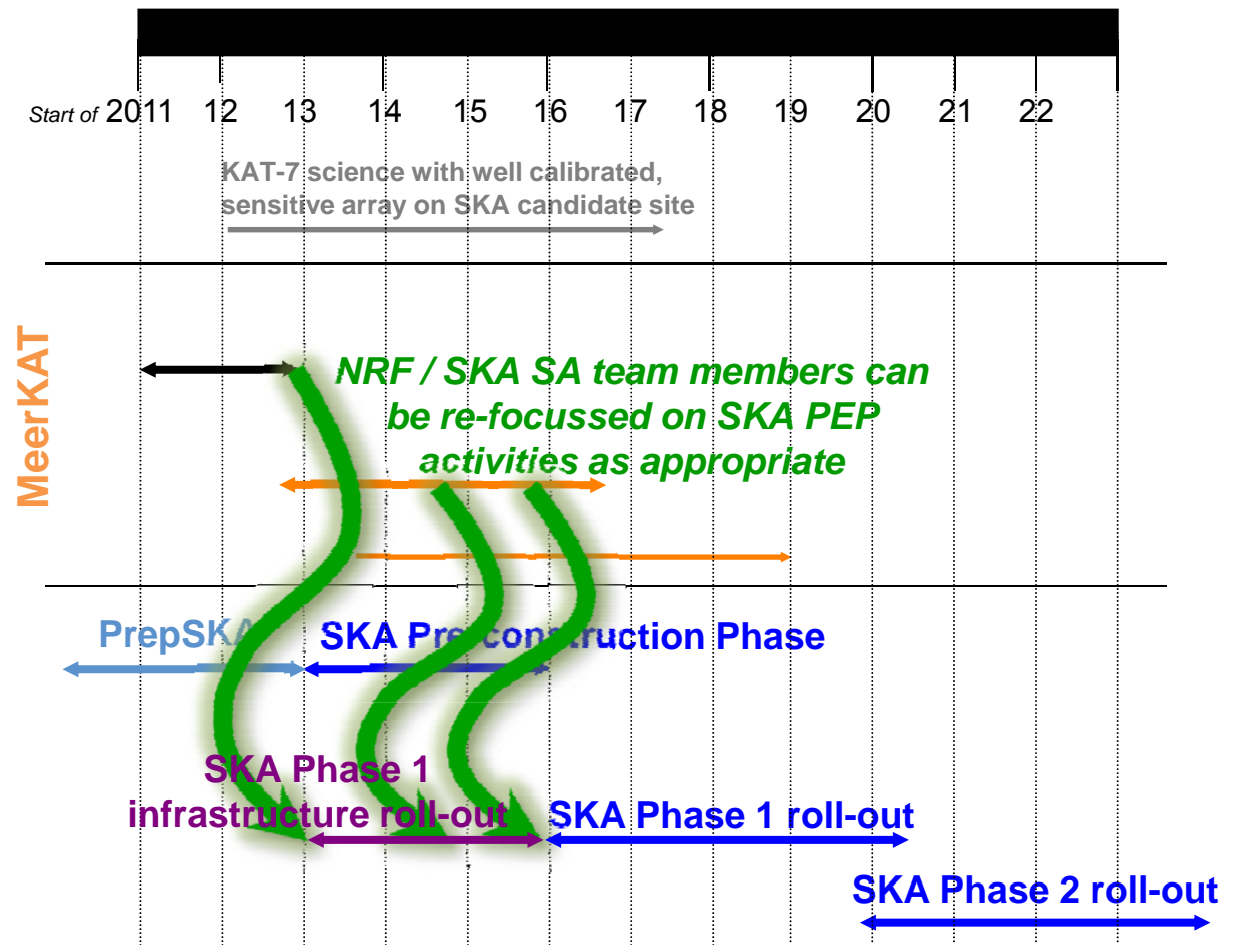
Exploring the Universe with the world's largest radio telescope

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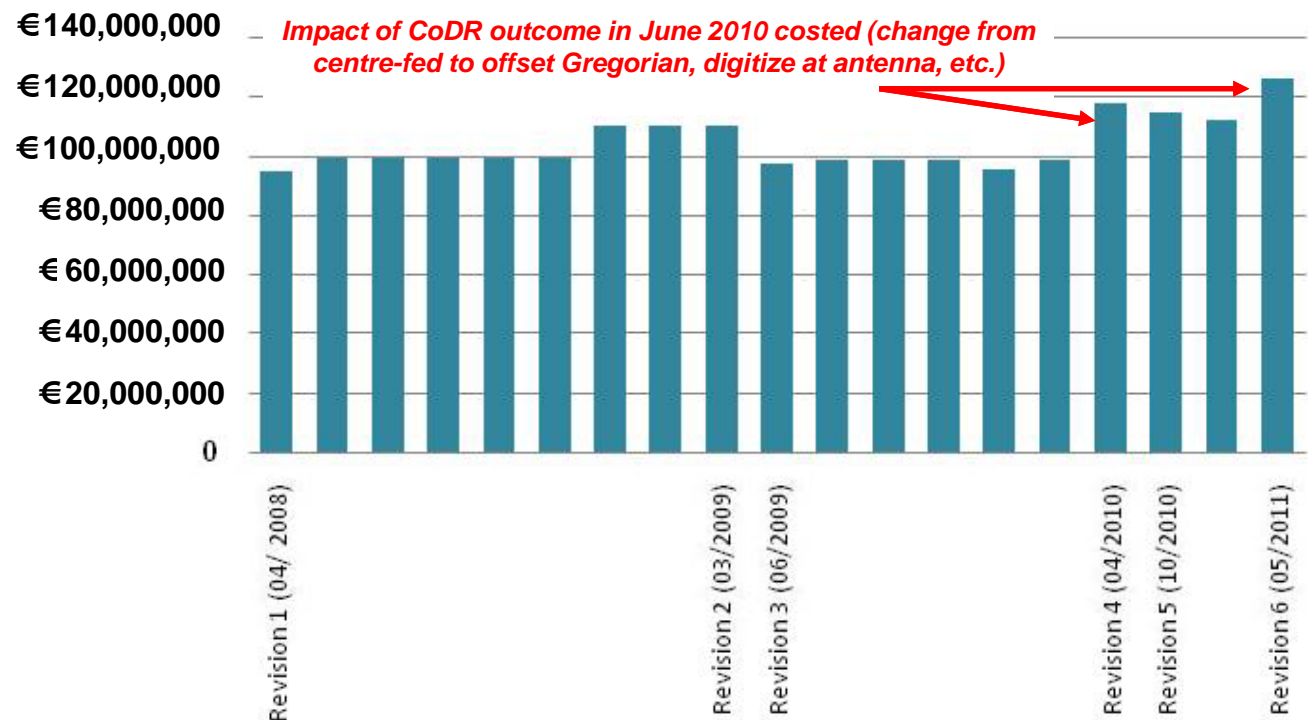
# MeerKAT & SKA PEP

## Budget / Costs



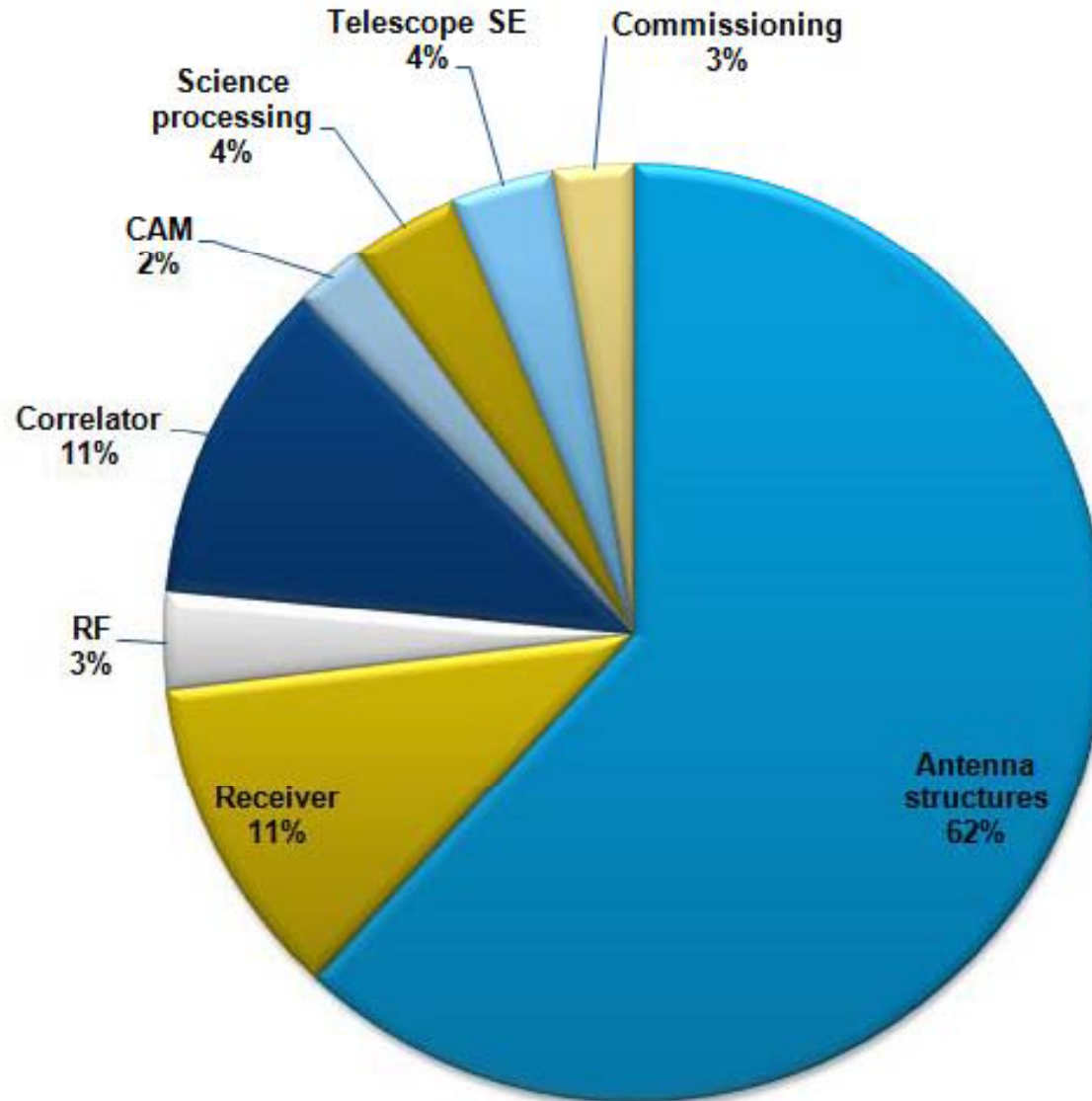
- MeerKAT antenna contract to be issued soon.
- Sensitive stage - detailed costings will be available by March 2012.
- Antenna schedule:
  - Request for Information: **August 2011.**
  - Request for Proposals: **September 2011.**
  - Contract award: **February 2012.**
- Systematic prototyping approach enables us to do accurate budgets for MeerKAT.
- Excellent relationships with industry ensure transparency and foster debate on cost items and risk.

MeerKAT TELESCOPE SYSTEM Budget (July 2011)



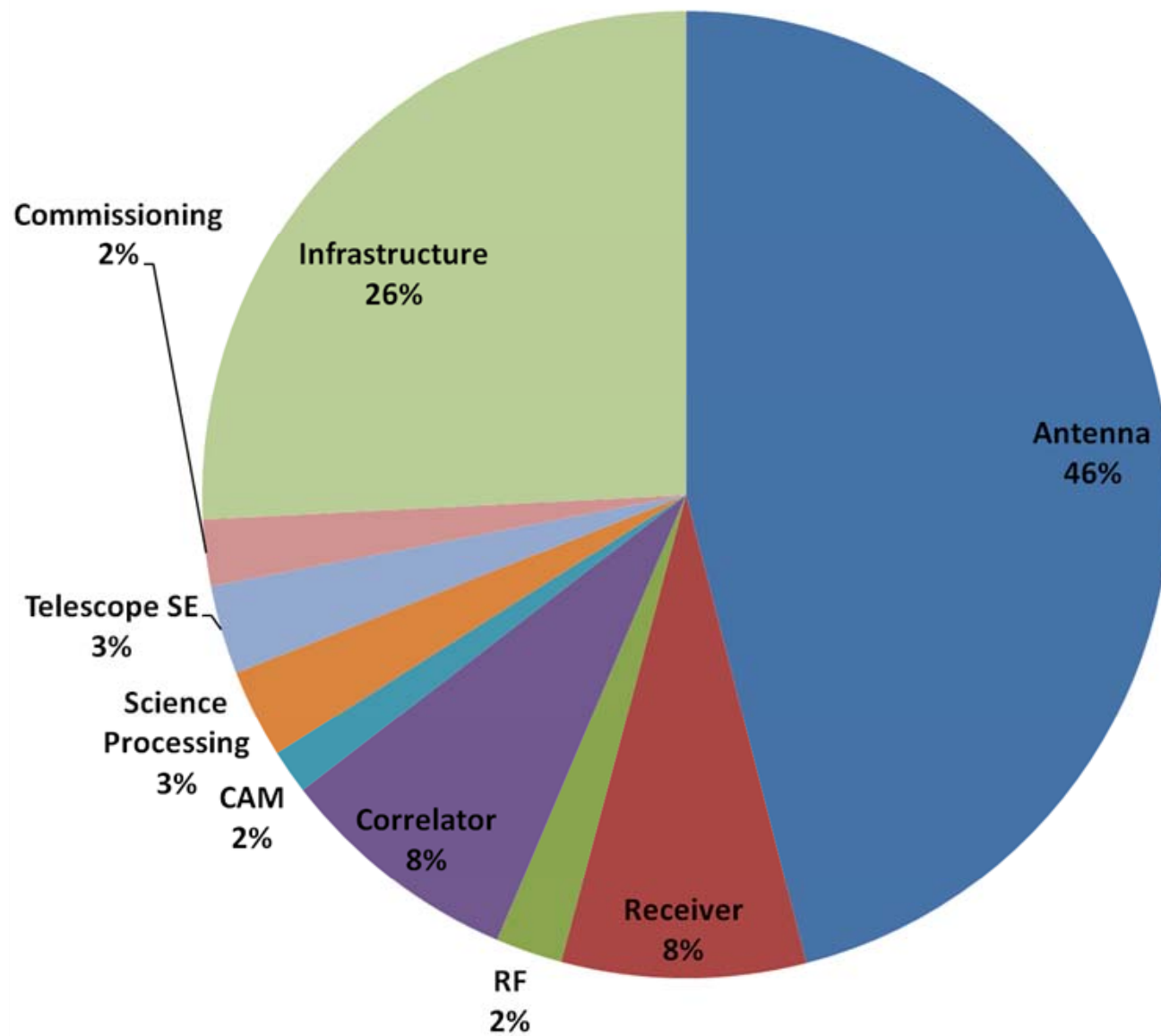
# MeerKAT

Telescope only budget breakdown per sub-system



# MeerKAT

## Infrastructure included budget breakdown



# Karoo telescope site facilities

Current



lescope

# Karoo telescope site facilities

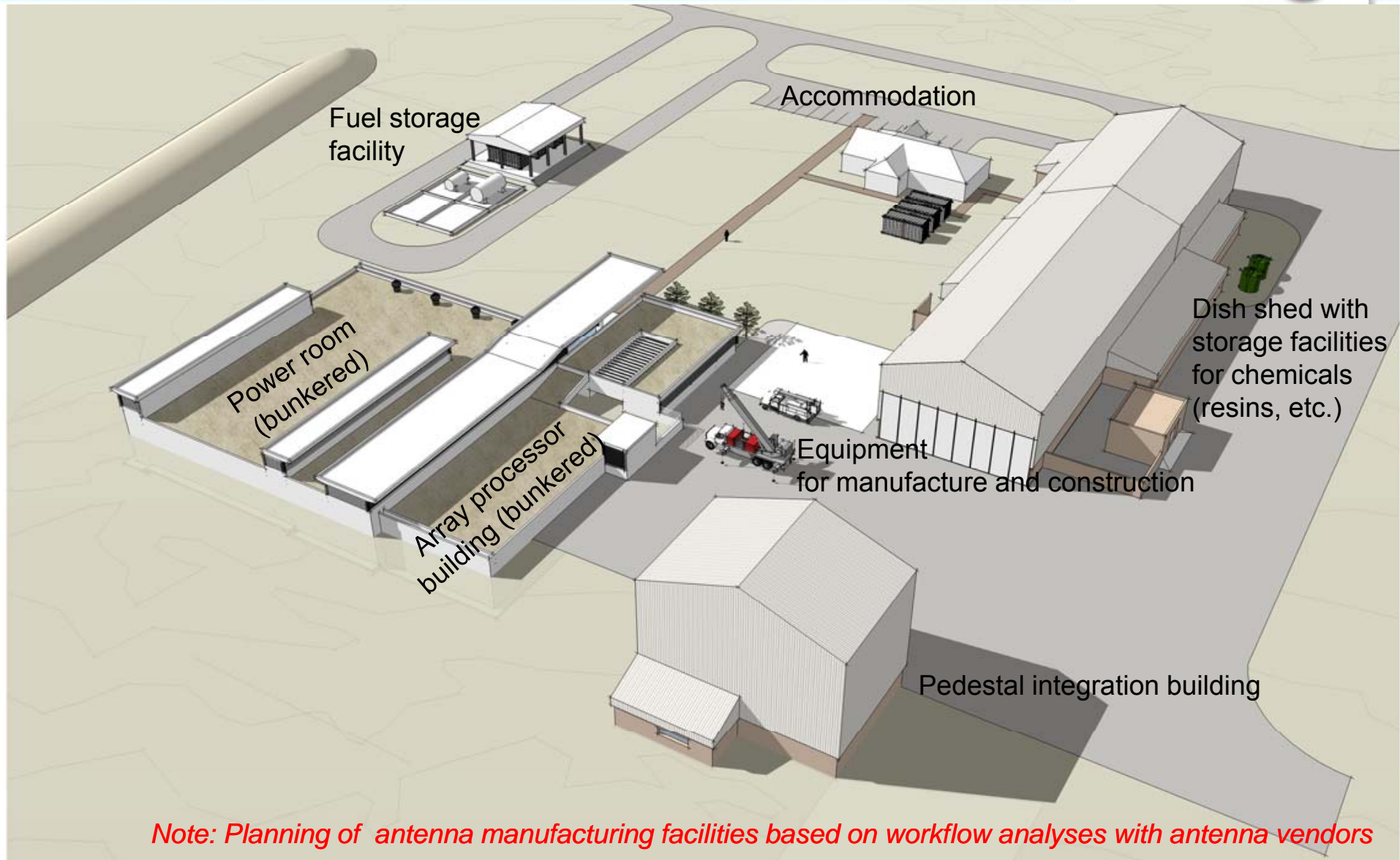
2012





# Karoo facilities 2012

Available for any Dish Verification Programme



*Note: Planning of antenna manufacturing facilities based on workflow analyses with antenna vendors*

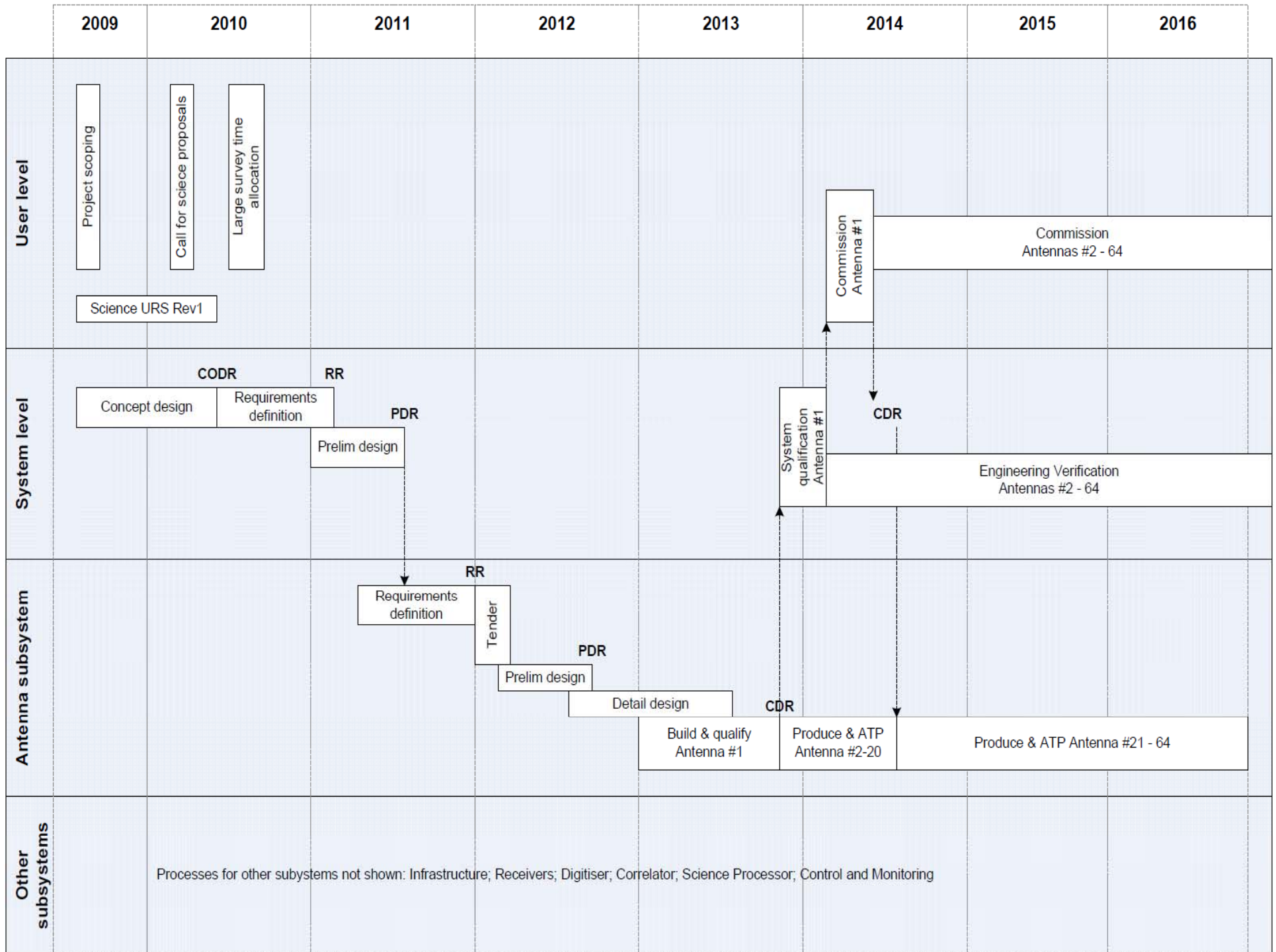


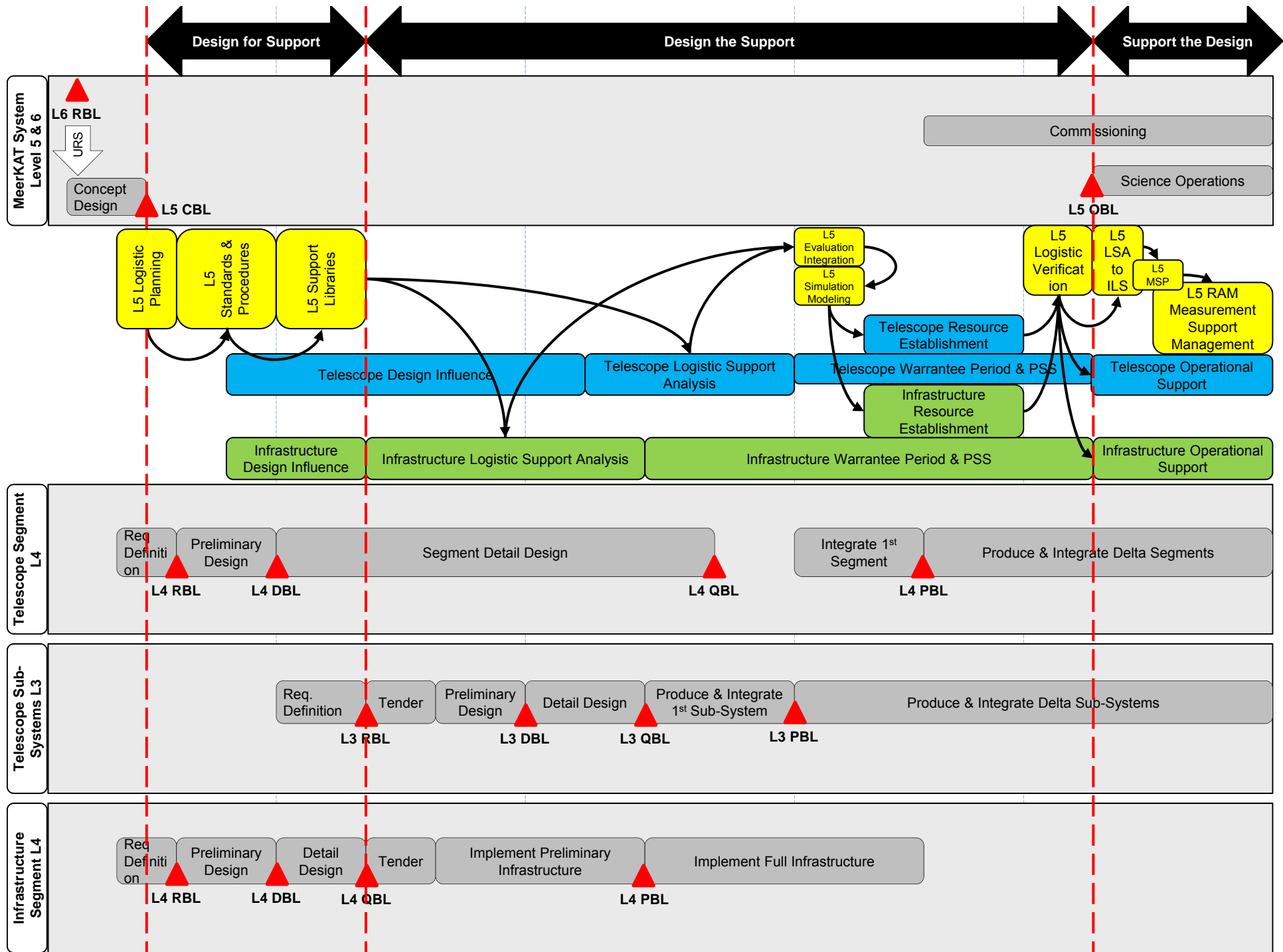
**Thank you!**  
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# NRF / SKA SA Dish Concept: Extra slides

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Penticton





# MeerKAT Support System



*“Design for Support; Design the Support & Support the Design”*

- **Personnel** (people involved with the Operation & support of the MeerKAT system)
- **Maintenance** (where will these people be used and what will they do?)
- **Training** (specific training on the MeerKAT system)
- **Support publications** (Operations and maintenance manuals)
- **Supply support** (spare parts and consumables)
- **Packaging, Handling, Storage & Transportation** (keep spare parts, store these, exchange with faulty parts, transport and protect against damage)
- **Support & Test equipment**
- **Support facilities** (to test and/or repair faulty parts)
- **Support data** (activities logistic data to manage and control support)
- **Product supplier support**