

System hierarchy and Dish Array context

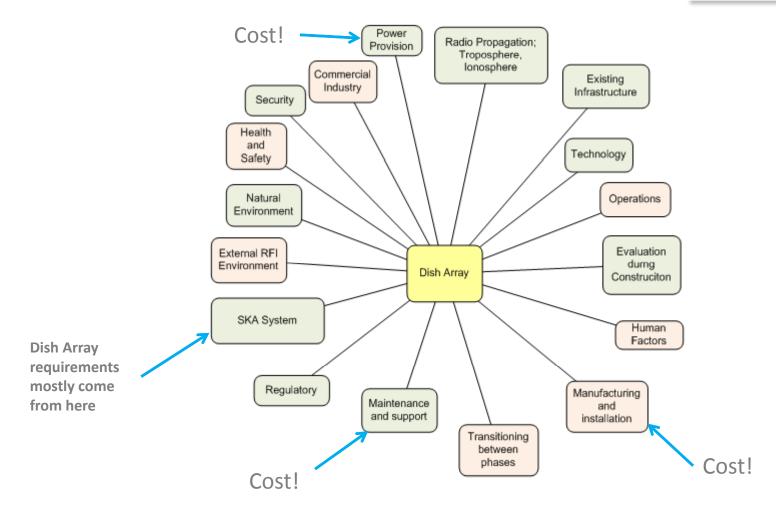


• Slide showing Tim's system hierarchy

Exploring the Universe with the world's largest radio telescope

## Dish Array context (1)





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## Dish Array context (2)



- Requirements for the Dish Array flow down from the SKA system requirements
- Manufacturing and installation: Dish Arrays make up a significant fraction of the cost of the SKA and their manufacture and installation will need to be optimised in order to deliver a cost effective system. Industry involvement is crucial

## Dish Array context (3)



- Maintenance and support: Maintenance and support represent significant – perhaps the most significant – aspects of the total life cycle costs for the SKA.
- The remoteness of the site adds complication and cost to maintenance.
- Attention must be paid to optimising these cost aspects for the Dish Array. *This includes exploring options that might have higher initial capital costs* to deliver lower costs of maintenance and support.

## Dish Array context (4)



- *Power provision:* Supply of power to all components of the SKA will be complicated and expensive.
- Power and its management must be considered a first order design issue for the Dish Array, and this is a crucial interface with the rest of the SKA System.
- Design of the Dish Array should aim to minimise power consumption, but not at the expense of system sensitivity or reliability.