

BUSINESS INNOVATION SYMPOSIUM (E6)  
New Space and New Science (3)

Author: Ms. Carla Sharpe  
SKA South Africa, South Africa, carlassharpe@gmail.com

ECONOMIC BENEFIT AND INNOVATION DRIVERS OF LARGE-SCALE SCIENCE  
PROGRAMMES (IN DEVELOPING NATIONS) SKA AFRICA: AN ILLUSTRATIVE EXAMPLE**Abstract**

A self-reinforcing dynamic exists between economic growth, trade, and technology. Technology development and economic growth go hand in hand and as such we strive to build knowledge economies. Large-scale space and science projects provide the opportunity for varied technology development and innovation. This innovation can be filtered into or commercialised to the wider market place with effective government initiatives. The spin-off benefits from innovation act as a catalyst for further innovation and economic growth.

An illustrative example of such a large-scale science project is the Square Kilometre Array (SKA). One SKA precursor instrument, the MeerKAT is currently under construction in South Africa and this programme is catalysing growth and offering innovation dissemination tools by creating ecosystems, in public private partnership to support new technology development and manufacture.

South Africa is a member of SKA and SKA Africa, a consortium of South Africa and eight African Partner countries. South Africa will be host to approximately two thirds of the SKA instruments, with the balance being hosted in Australia.

The benefits felt in South Africa from participating in this large-scale science project can be summarised by growth in Human Capital Development, local development in the rural areas near the site, an increase in localisation (where localisation simply refers to decisions by a country or industrial enterprise, to develop domestic production capacity and capabilities) as well as increased technology and manufacturing capacity.