

## South African Aerospace Group subsidiary delivers services to SKA project

The Space Commercial Services Aerospace Group is delivering systems engineering services to the pre-construction phase of the Square Kilometer Array (SKA), the world's largest radio telescope under construction in the country.



SKA One

Operating through one of its subsidiaries, Space Advisory Company, the group was awarded a pre-qualification contract in May 2013, to provide systems engineering services for the radio telescope project's Science Data Processor and continued to contribute significantly to the Preliminary Design Review, which sets the stage for the detailed design work to commence.

"Our subsidiary, Space Advisory Company, (SAC) played a key role in several of SKA's milestones and certainly proved that it has world-class capability through its participation in and contribution to the SKA project as members of the global team. We recently won a joint bid for another project focussing on the development of the data storage solution. We are delighted to play a role in the world's largest astronomy enterprise to date," said Dr Sias Mostert, CEO of Space Commercial Services Aerospace Group (SCS AG).

### Power of 100 million desktop computers

On a daily basis, signals received by antennas, need to be accessible to astronomers worldwide for further analysis. The collection of data is not only highly complex, requiring numerous scientific processes, but also arrives in vast quantities. The Science Data Processor of the project will need an estimated computing power of 100 million desktop computers by its completion in 2030.

Mostert also noted that, as in the case of the SKA project, the handling of data in immense proportions i.e. big data, and in the rate whereby it is produced, has a spin-off benefit in big data processing challenges in the commercial sector.

Supporting this claim is its 'Data Vault' platform, developed by its subsidiary companies, Chorosworks and Geo Risk Information Platform (GRiP). Their focus is to add value through geospatial data and Data Vault enables both subsidiaries the ability to handle large volumes of data.

## **The value of geospatial and satellite information**

To date, geospatial and satellite information has proved to be very useful as a community mapping tool for government agencies in the case of disaster management, urban development and population migrations. On the other side of the spectrum, insurance companies and banks utilise the information to identify types of dwellings to assess, for example, flood risk and bond exposure. Similarly, the retail industry can apply satellite information to recognise income groups and the effectiveness of direct marketing and advertising campaigns.

"One of the many advantages of using remote sensing with geospatial business tools is that we can now apply our models to the rest of Africa. The information that we have collected from the satellite images provides critical data to support essential services," said Mostert.

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