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AN ASSESSMENT OF THE POTENTIAL IMPACT OF ACTIVATING AN ENABLER  
INFRASTRUCTURE FOR SATELLITE BASED SERVICES IN SOUTH AFRICA.

**Abstract**

South Africa does not have the legacy of an operational end-to-end enabler infrastructure for satellite based services, so it is dependant on sourcing the majority of these services from global suppliers. The use of satellite based services is already entrenched in the daily lives of the majority of South Africans, and will rapidly expand into the rest of Africa.

The purpose of this assessment is to determine if there is an economic case for South Africa to invest in an enabler infrastructure typically containing:

- Launch vehicle manufacturing and services.
- Satellite manufacturing, integration and operations.

It is widely agreed within South Africa that there is a strategic need for such an infrastructure. In this arena, South Africa currently has the following stakeholders:

- Launch Vehicle Manufacturing: Denel and Marcom Aeronautics and Space Pty (Ltd).
- Launch Services: Overberg Test Range (OTB, a division of Denel).
- Satellite Manufacturing and Integration: SunSpace and Houwteq (a division of Denel) respectively.
- Satellite Operations: The Satellite Application Centre (SAC, a division of CSIR).

The aforementioned stakeholders are at varying levels of operational readiness.  
This assessment examined:

- Studies from global government and private commercial space enterprises for guidance on key economic indicators to be considered in such an assessment.
- As South Africa does not yet have a fully operational end-to-end enabler infrastructure, applicable space related statistics from these studies were applied to local examples.

The results from this assessment are that:

- Sustainable local economic activity may be achieved if an end-to-end enabler infrastructure is activated in South Africa to serve local and regional needs.
- Activating this infrastructure may create and retain large numbers of scientific, engineering, manufacturing, distribution, financial and technical resources.