



## **AFRICAARRAY: Building Geophysics Capacity in Africa**

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AfricaArray is a pan-African initiative to promote geophysical research and capacity building, and was launched as a long-term (10 year) programme in July 2004 by the University of the Witwatersrand, the Council for Geoscience and Penn State University, USA. The primary goal of AfricaArray is to address the problem of limited human capacity in Africa in the field of geophysics. AfricaArray is an intervention designed to strengthen geophysics education and research programmes in the region and help build an Africa-to-Africa training and research support system. Training and research programmes will be linked to the establishment of geophysical observational networks that can be used in support of the monitoring of earthquakes; natural hazard mitigation; and oil, gas and mineral exploration. One of the principle research questions that AfricaArray seeks to address is to better resolve the structure and origin of the low velocity region in the lower mantle below southern and central Africa referred to as the African Superplume.

The geophysics theme for AfricaArray is “4D imaging of the African crust and mantle”. Within the African continent, there are many geological targets of economic, academic and societal interest ranging from extremely old (Archean) to very recent (active faults), from very large (sub-continental scale) to very small (individual faults within a basin or intrusive complex), and from very deep (lower mantle and core) to very shallow (near-surface aquifers). AfricaArray science will investigate a wide range of targets spanning much of geologic time and many spatial scales using data from the AfricaArray scientific observatories, plus geophysical, geochemical, and geological

data available from other sources.