



SA`s telescope hopes rise

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Science and technology minister Mosibudi Mangena yesterday announced that SA has been short-listed alongside Australia in the race to host the R10 billion square kilometre array (SKA) radio telescope.

The decision was made by the international SKA steering committee, following advice from an external committee of seven scientists, from five countries, who evaluated the four site bids.

“SA stands to gain tremendously if chosen. The telescope is budgeted to cost one billion euros to build and about 150 million euros for operations per year. A significant part of both capital and operating costs is likely to be spent in SA and southern Africa,” said Mangena.

The SKA is a set of thousands of antenna, spread over 3 000km, with half concentrated in a central region 5km across. It is believed it will be the biggest radio telescope ever to be built and will be 50 times more sensitive than any other radio telescope, the Department of Science and Technology stated.

In SA, the proposed central location for SKA is in the Karoo, in the Northern Cape, with further dishes located in neighbouring African countries: Botswana, Namibia, Mozambique, Madagascar, Mauritius, Kenya and Ghana.

A key requirement of the core site outlined in the bid guidelines is to maintain a low level of man-made radio signal. “We have a wonderful collaboration with our partnering countries. Our technicians have visited the sites and we have guarantees from them that radio noise will be kept at required levels,” Mangena said.

It was revealed by the SKA project office that SA edged out China, whose site would place unacceptable restrictions on the placement of the central elements of the SKA. SA also got the nod over a joint Argentina and Brazil bid, which was rejected due to ionospheric conditions that would limit the SKA`s performance at low frequencies.

SA and Australia`s proposed sites were well received as they both offer a good view of the southern sky, as well as both having stable ionospheric conditions, the SKA project office noted.

Further analysis of the shortlisted sites will now be carried out. The final decision on which of the sites will host the SKA is expected towards the end of the decade.

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