SA is soon to become the proud home of the Southern African Large Telescope (SALT), the largest single optical telescope in the southern hemisphere and one of the most advanced of its kind in the world. Situated near Sutherland in the Northern Cape, SALT will be able to record distant stars and galaxies a billion times too faint to be seen with the naked eye.

**Biodiversity**
SA is blessed with a very rich biodiversity of both plant and animal species. For example:
- South Africa is ranked as the third most biologically diverse in the world, containing between 250 000 and 1 000 000 plant and animal species, many of which occur no where else.
- The Sterkfontein World Heritage Site where a number of Coelacanths have been found. These fish were first discovered 64 years ago off the coast of East London. Once thought to be extinct, Coelacanths are believed to have lived alongside the dinosaurs some 400 million years ago.

**Biotechnology**
South Africa has been using biotechnology (using living things to make useful products) for centuries, to make cheese, amasi and bread, as well as brewing beer and wine. Tissue culture enables clonal material to be grown for coffee, tea, banana and forestry trees. Antibiotics, such as penicillin, were made using biotechnology and are used around the world along with other medicines, such as human insulin for diabetics. Modern biotechnology techniques enabled the first animal to be cloned in Africa, with the birth of Futhi the calf in Brits in April 2003. To date, three Genetically Modified (GM) crops have been approved in South Africa – GM-maze, cotton and soy bean – GM canola is imported for food processing. South Africa also has one of the best crime fighting units in the world using DNA-fingerprinting techniques to catch criminals from DNA samples (blood, hair etc.) left at crime scenes.

For more information on biotechnology and/or to have your say, contact speakup@pub.co.za or visit www.pub.ac.za.

**Military Systems**
SA is at the forefront of ultra-deep mining research that promises to open up rich gold reefs between three and five kilometres underground. While only about 5% of gold production in SA currently occurs below three kilometres, this is expected to increase to 40% by 2015. SA is also a prime supplier of coal, platinum, diamonds, iron, manganese and chromium, and a lesser producer of copper, lead, zinc, nickel and phosphate ore.

**Indigenous Knowledge Systems (IKS)**
About 80% of South Africans regularly use traditional medicines, most of which are derived from local plants. Steps are now being taken to formalise the role that these medicines play in the public health system. Traditional indigenous medicine is just one part of the wealth of the indigenous knowledge that we have in SA. By learning more about it, we will be able to create knowledge systems that both benefit and sustain the people of Africa and thereby preserve our unique intellectual heritage.