

## Technology and innovation

**A**ngloGold's technology and innovation programme comprises in-house research and development capabilities and collaborative projects.

### During the year:

- Expenditure amounted to R54 million (\$8 million) and is expected to be R33 million (\$4 million) in 2001.
- Some 27 major programmes were undertaken ranging from exploration, mining and metallurgy to developing new industrial applications for gold. Technology transfer is a priority, with workshops held in-house to capitalise on the depth and spread of technical expertise.
- The testing and application of new technologies, particularly in South Africa, has been a focus. Good progress has been made with rocksplitting, underground communication systems, the introduction of drill rigs, the use of backfill, stope lighting and in-stope roof bolts. Areas of attention include the design of a mining system to support rock-splitting, increasing the use of drill rigs, improved stope communications and ore-pass development systems as well as rope testing research.

### 27 major projects

- Research has continued with gravity concentration and resin technologies and progress has been made in developing product-secure treatment methods.
- Work continued on oscillating disc cutter trials in collaboration

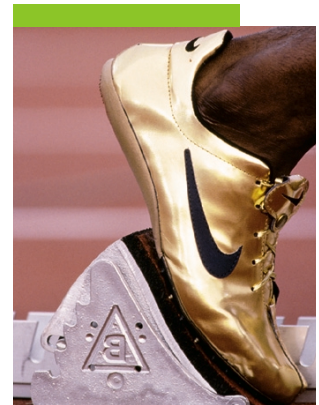
# global excellence

with the Australian Minerals Industries Research Association.

- The DeepMine project – an initiative by South African gold mining companies, tertiary education institutions, government and labour organisations – concludes its formal programme in March 2001. The project was commissioned to acquire knowledge and develop technologies for safe, efficient and profitable deep-level mining. Spin-offs being applied include borehole radar and chilled water insulation systems. The focus will now be on knowledge transfer, primarily in mining engineering, rock engineering and ventilation.
- In June, AngloGold and Mintek (South Africa's premier metallurgical research organisation) launched a research and development initiative into the industrial applications for gold. Project AuTEK will initially focus on applying gold as a catalyst in air purification and in the automotive and chemical industries.

AngloGold, with other sponsors, will host an international conference on gold catalysis in South Africa during April 2001 involving researchers and commercial users of gold.

- Within the context of a strategy to create a 21st century workplace, a number of initiatives are being pursued involving the application of improved and appropriate technology, the replacement of repetitious physical effort, the organisation of work around a process defined job structure and multi-skilled, self-directed work teams. This initiative is centred on Projek Katleho, involving the concerted application of new technologies at a site at Kopanang mine.
- Progress has been made with intelligent operating control systems for metallurgical processes. These have been successfully implemented at Jerritt Canyon and Sadiola and are being installed at the Mponeng gold plant.



Michael Johnson, world record holder, wears 24-carat gold-coated running shoes for strength and ultimate reflectivity to complement his Olympic medal.



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