

Dynamism, Investments and Innovation

The Department of Science and Technology (DST) is **dedicated exclusively to science and technology**

<http://www.dst.gov.za>



science
& technology
Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA

Leading-edge technology platforms:

2005 South Africa constructs the largest single optical telescope in the Southern hemisphere

2008 Establishment of the Technology Innovation Agency (TIA)

2010 Launch of the South African National Space Agency (SANSA)

2012 Decision to build the world's largest and most sensitive radio telescope, the Square Kilometre Array (SKA), a joint venture of Australia and South Africa

Opening up Internationally

South Africa is the:

- **1st** partner of CNRS in Sub-Saharan Africa
- **2nd** most popular destination for African students after France
- **5th** most important additional partner country of the EU's Seventh Framework Programme (FP7) in terms of the number of funded projects and a privileged partner of Horizon 2020

France is the **4th** largest scientific partner of South Africa with over 600 co-authored articles in 2012

In Africa and for Africa

In the context of regional projects, cooperation with South Africa allows a gateway into Africa as a whole and Southern Africa in particular.

The similarities between the African policy of South Africa and that of France, as well as the opportunities offered by the quality of South African institutions and technology platforms stimulate dialogue at the highest level for scientific and academic cooperation benefitting Africa as a whole.



Southern Africa



A Rainbow of Scientific Cooperation



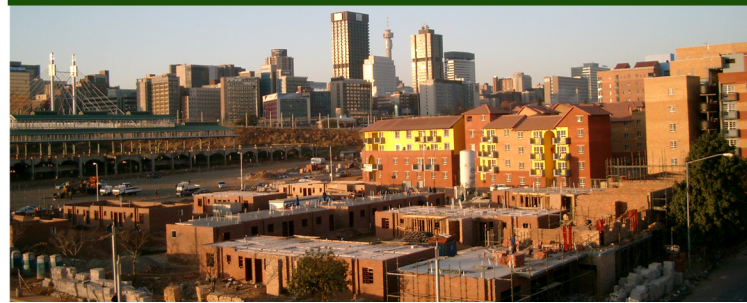
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The Joint CNRS – IRD Office

Within the framework of the agreement on scientific and technological cooperation between France and South Africa, the National Centre for Scientific Research (CNRS) and the Institute for Research for Development (IRD) opened a joint office for Southern Africa in Pretoria in 2011. South Africa, with its leading role in higher education and research and innovation in Africa, is an important partner of France in these sectors, at a bilateral level and within the framework of EU programmes. The proximity of Reunion Island with its university and scientific infrastructure is central to this cooperation.



«Advancing the frontiers»

CNRS is the largest French public research organization (over 32,000 employees including 11 204 researchers). CNRS focuses on and carries out all research capable of advancing knowledge and bringing social, cultural, and economic benefits to society. It remains the primary producer of scientific publications worldwide (SCImago ranking).

<http://www.cnrs.fr/>



«Acting with the South»

IRD is a French research organisation, original and unique on the European development research scene. Placing a great emphasis on uniting various fields of research, the IRD has focused its research for over 70 years on the relationship between man and his environment in Africa, the Mediterranean, Latin America, Asia and the French tropical overseas territories.

<http://en.ird.fr/ird.fr>

In close collaboration with the French Embassy in Pretoria (<http://www.ambafrance-rsa.org/>), these two organisations focus their joint action in Southern Africa on cooperation with local research teams with leading expertise. The objective is to set up regional research training around themes of global scope such as biodiversity, climate change, food security, health issues and city governance or around more fundamental issues such as the origin of mankind and the study of the universe.

In Southern Africa, CNRS and IRD, together and separately, participate in European programmes (FP7, H2020), as well as national (ANR and PROTEA) and institutional ones. (1) CNRS: International Associated Laboratories (LIA), International Research Networks (GDRI) and International Projects for Scientific Cooperation (PICS). (2) IRD: International Joint Laboratories (LMI), Regional Pilot Programmes (PPR), Programme of Excellence for Education and Research in developing countries (PEERS). (3) CIRAD: various joint instruments.

Main Research Projects in Southern Africa

Geoscience & Biology

Atmospheric Research in Southern Africa and the Indian Ocean

Biodiversity during the Plio-Pleistocene era in the Cradle of Humankind, South Africa

Biodiversity and global change in Southern Africa

Evolution of vocal communication, social systems and phylogeny in African birds

International Centre for Education, Marine and Atmospheric Science over Africa

Sustainable use of inhabited savannah

Soil water erosion mechanisms and land use

The origin and stabilisation of the Kaapvaal craton lithosphere

Unravelling the ecology of radiation in the African striped mouse: A model for understanding the responses of animals to climate change

Water erosion and soil degradation

Health/ Geography / Human Sciences

Antiretroviral treatment as a means of prevention against HIV

Tuberculosis & Immunity

Urban National Parks in Emerging Countries & Cities



Interdisciplinary, Inter-institutional and International Research



CAAST-Net Plus is a network of 25 partner organisations from all over Europe and Sub-Saharan Africa, working together to support bi-regional cooperation in research and innovation. It aims at finding responses to targeted societal challenges (food security, climate change or health issues) and promoting sustainable development in the two regions.



ESASTAP Plus is a project funded by the European Commission aiming at strengthening scientific and technological cooperation between South Africa and Europe with a special focus on innovation.



The DST five great strategic challenges

- Enhancing biodiversity through biotechnology (bio-economy)
- Energy security
- Climate change
- Space, including environmental observation via satellite images
- Social dynamics, including international migration issues

Scientific cooperation between France and South Africa is articulated around different national instruments (Protea programme...) and institutional ones such as the International Joint Laboratory on oceanography (ICEMASA), the International Network on atmospheric research (ARSAIO) and the International associated laboratory on human palaeontology (HOMEN)...

Training, a key element for South African research

South Africa is the second most popular destination for African students after France (about 50,000 each year). South African scientific platforms are well-equipped and unite high quality research with training excellence.

For example, ICEMASA has put into place programmes aimed at training researchers from developing countries at the master's degree and Ph.D levels - under co-supervision of the Université de Bretagne Occidentale (UBO), University of Cape Town (UCT) and University Montpellier 2 (UM2).