



## South Africa in FP7 (2007-2013): 222 participations in EU-funded projects\* €37.3 million of EU contribution for research.

\* (total by September 2013, excluding Marie Curie actions)

South Africa is the most successful African country in the 7<sup>th</sup> Framework programme (FP7) both in terms of numbers of participations in projects and in terms of total EU contribution. In addition, 18 individual South African researchers were funded through Marie Curie Actions.

The Framework programme is the European Union (EU) funding instrument to support research and innovation. It does so mainly through large collaborative research projects.

International collaboration is a key feature of the Framework programme, so that it is open to the participation of organisations in countries outside the EU, in most cases with funding.

Participation is open to any (legally established) organisation performing research, including universities, institutes, governments departments, companies, NGOs, etc.

The current (7<sup>th</sup>) framework programme (FP7) was launched in 2007 and ends in 2013. In total there were over 1300 participations from African organisations in some 565 projects.

The new Horizon 2020 programme starts in 2014. <http://ec.europa.eu/research/horizon2020>

### **Examples of FP7 projects involving participants from South Africa:**

#### **CLIMATE CHANGE & FISHERIES**

##### **PREFACE - Enhancing prediction of tropical Atlantic climate and its impacts.**

Aims: to improve climate prediction and the quantification of climate change impacts in the region; to improve understanding of the cumulative effects of the multiple stressors of climate variability, greenhouse induced climate change, and fisheries on marine ecosystems, and ecosystem services (e.g., fisheries, coastal vulnerability); to assess the socio-economic vulnerabilities and evaluate the resilience of Atlantic African fishing communities to climate-driven ecosystem shifts and global markets. The target region includes areas more affected by climate change, European outermost regions, and African countries bordering the Atlantic.

The project runs from November 2013 to October 2017 with an EU contribution of €9 million. It is led by the University of Bergen (Norway) with 17 other European partners and 10 African partners: Instituto Nacional de Investigação Pesqueira (Angola), Université d'Abomey-Calavi (Benin), Instituto Nacional de Desenvolvimento das Pescas (Cape Verde), Centre de Recherche Océanographique (Ivory Coast), Institut National de Recherches Halieutique (Morocco), University of Nigeria, Ministry of Fisheries and Marine Resources (Namibia), Institut Sénégalais de Recherches Agricoles (Senegal), Université Cheikh Anta Diop (Senegal), **University of Cape Town (South Africa)**. [ project web site: <http://preface.b.uib.no> ]

For more information on FP7 projects: <http://cordis.europa.eu/projects/>

## HEALTH

### **MM4TB - More Medicines for Tuberculosis**

Aim: to develop new drugs for TB treatment using an integrated approach by a multidisciplinary team that combines leading academic TB researchers. MM4TB will use a tripartite screening strategy to discover new hits in libraries of natural products and synthetic compounds, while concentrating on both classical and innovative targets that have been pharmacologically validated.

The project runs from February 2011 to January 2016 with an EU contribution of €11.9m. It is led by Ecole Polytechnique Fédérale de Lausanne (Switzerland) with 18 other European partners, 2 Indian partners, 1 Russian partner, 1 US partner and 1 African partner: **University of Cape Town (South Africa)**. [ [www.mm4tb.org](http://www.mm4tb.org) ]

## HEALTH

### **ICARUS - International Cooperation for the Advancement of Research on the Underlying System of Human Thermoregulation**

Aim: to address several mechanisms that may explain the sequence of events leading to heat stroke and death and will improve the existing preventive strategies designed to mitigate heat-induced morbidity and mortality. The objective of the joint exchange programme is to foster the development of a multi-national centre of excellence for environmental physiology through balanced exchanges of research staff between eminent European-based research entities and an internationally-renowned research centre based in South Africa.

The project runs from July 2010 to July 2014 with an EU contribution of €150,000. It is led by Institute Jozef Stefan (Slovenia) with other European partners and 1 African partner: **University of Cape Town (South Africa)**. [ [www.famelab.gr/#!/projects](http://www.famelab.gr/#!/projects) ]

## AERONAUTICS

### **FFAST - Future fast aeroelastic simulation technologies**

Aim: develop, implement and assess a range of numerical simulation technologies to accelerate future aircraft design. Improved methods and modelling techniques will potentially provide a step change in the efficiency and accuracy of the dynamic aeroelastic loads process.

The project ran from January 2010 to March 2013 with an EU contribution of €2.7 million. It is led by the university of Bristol (UK) with 9 other European partners, 2 Russian partners and 2 African partners: the **Council for Scientific and Industrial Research - CSIR (South Africa)** and **University of Cape Town (South Africa)**. [ [www.bris.ac.uk/aerodynamics-research/ffast](http://www.bris.ac.uk/aerodynamics-research/ffast) ]

## ENVIRONMENT & CLIMATE CHANGE

### **CLIMAFRICA - Climate change predictions in Sub-Saharan Africa: impacts and adaptations**

Aim: to develop the most appropriate and up-to-date tools to better understand and predict climate change, assess its impact on African ecosystems and population, and develop the correct adaptation strategies.

The project runs from January 2010 to September 2014 with an EU contribution of €3.5 million. It is led by the Euro-Mediterranean Centre on Climate Change (Italy) with 9 other European partners and 8 African partners: Centre d'Étude de Recherche et de Production en Information pour l'Environnement et le Développement Durable (Burkina Faso), Unité de recherche sur la productivité des plantations industrielles (Congo), Council for Scientific and Industrial Research (Ghana), IGAD Climate Prediction and Application Centre (Kenya), University of Malawi, **University of Cape Town (South Africa)**, Agricultural Research Corporation (Sudan) and University of Lomé (Togo). [ [www.climafrica.net](http://www.climafrica.net) ]

## AGRICULTURE & SPACE

### **AGRICAB - Enhancing EO capacity for Agriculture and Forest Management in Africa**

To strengthen Earth Observation (EO) capacities in Africa by building on open data sharing through GEONETCast, connecting available satellite and other data with predictive models in order to facilitate integration in agriculture and forestry planning and management processes.

The project runs from October 2011 to March 2015, with an EU contribution of €3.5 million. It was led by the Flemish Institute for Technological Research - VITO (Belgium) with 5 other European partners, 1 Brazilian partner and 10 African partners: Geosas Consulting Service PLC (Ethiopia), Department of Resource Surveys and Remote Sensing (Kenya), the International Livestock Research Institute - ILRI (Kenya) and the Regional Centre for Mapping Resources for Development (Kenya), Instituto Nacional de Meteorologia & Universidade Eduardo Mondlane (Mozambique), Centre Regional AGRHYMET (Niger), Centre de Suivi Ecologique (Senegal), the **Council for Scientific and Industrial Research - CSIR (South Africa)** and Observatoire du Sahara et du Sahel (Tunisia). [ [www.agricab.info](http://www.agricab.info) ]

## AGRICULTURE & NUTRITION

### **INSTAPA - Novel staple food-based strategies to improve micronutrient status for better health and development in sub-Saharan Africa.**

This project aims to identify novel staple food-based approaches to improve micronutrient nutrition for better health and development of women and children in sub-Saharan Africa. It focusses on improving millet-, sorghum-, maize-, and cassava based (complementary) foods.

The project runs from June 2008 to Nov. 2013 with an EU contribution of €5.9 million. It is led by Wageningen Universiteit (The Netherlands) with 3 other European partners, a US partner and 6 African partners: **University of KwaZulu Natal (South Africa)**, University of Nairobi (Kenya), Université d'Abomey Calavi (Benin), International Crops Research Institute for the Semi-Arid Tropics (Mali), Centre National de la Recherche Scientifique et Technologique (Burkina-Faso) & International Institute for Tropical Agriculture (Nigeria). [ [www.instapa.org](http://www.instapa.org) ]

## AGRICULTURE

### **ANIMALCHANGE - AN Integration of Mitigation and Adaptation options for sustainable Livestock production under climate CHANGE**

The aim is to provide scientific guidance to design sustainable development pathways for livestock production in Europe, Northern and Sub-Saharan Africa and Latin America.

The project runs from March 2011 to February 2015 with an EU contribution of €9 million. It is led by INRA (France) with 17 other European partners, 2 Brazilians, 1 New Zealand & 4 African partners: **University of Pretoria (South Africa)**, Institut Nationale de la Recherche Agronomique (Tunisia), Institut Sénégalais de Recherches Agricoles (Senegal) and the African Livestock Research Institute (Kenya). [ [www.animalchange.eu](http://www.animalchange.eu) ]

## ENVIRONMENT & AGRICULTURE

### **EAU4Food - European Union and African Union cooperative research to increase Food production in irrigated farming systems in Africa**

Aim: to address the need for new approaches to increase food production in irrigated areas in Africa, while ensuring healthy and resilient environments.

It runs from July 2011 to June 2015 with an EU contribution of €4 million and is led by DLO/Wageningen University (The Netherlands) with 4 other European partners, a partner from Sri Lanka and 7 African partners: **Stellenbosch University (South Africa)**, **Council for Scientific and Industrial Research (South Africa)**, Mekelle University (Ethiopia), Institut d'Economie Durable (Mali) & Universidade Eduardo Mondlane (Mozambique). [ [www.eau4food.info](http://www.eau4food.info) ]

## AGRICULTURE & HUMAN HEALTH

### **ICONZ - Integrated Control of Neglected Zoonoses: improving human health and animal production through scientific innovation and public engagement**

Aim: to improve human health and animal production in developing countries through integrated control of neglected zoonoses in animals, based on scientific innovation and public engagement. The project aims to tackle eight neglected zoonoses.

The project runs from April 2009 to March 2014 with an EU contribution of €6 million. It is led by the University of Edinburgh (UK) with 12 other European partners and 9 African partners: **University of Stellenbosch (South Africa)**, International Livestock Research Institute (Kenya), Laboratoire Central Vétérinaire (Mali), Institut Agronomique et Vétérinaire (Morocco), Universidade Eduardo Mondlane (Mozambique), National Veterinary Research Institute (Nigeria), Sokoine University of Agriculture (Tanzania), Makerere University (Uganda) and University of Zambia. [ [www.iconzafrica.org](http://www.iconzafrica.org) ]

## NANOTECHNOLOGY

### **NATIOMEM - Nano-structured TiON Photo-Catalytic Membranes for Water Treatment**

Aim: to develop novel technology for treating contaminated surface and waste water. This technology will not require electrical power, chemicals or other logistical support, and hence will be suitable for areas lacking infrastructure. The technology uses membranes functionalized with a photocatalytic material which kills micro-organisms, decompose and mineralize organic pollutants, and oxidize dissolved metals, thus providing a one-step treatment against a broad spectrum of contaminants.

The project ran from July 2010 to June 2013 with an EU contribution of €3 million. It was led by DHI (Denmark) with 4 other European partners and partners from Israel, Jordan and Africa: **Umgeni Water (South Africa)**. [ [www.natiomem.eu](http://www.natiomem.eu) ]

## ENVIRONMENT & DISASTER RISK REDUCTION

### **CLUVA - Climate change and Urban Vulnerability in Africa**

Aim: to develop methods and knowledge to be applied to African cities to manage climate risks, reduce vulnerabilities and improve coping capacity and resilience towards climate changes, focussing on selected African cities.

The project runs from Dec. 2010 to Nov. 2013 with an EU contribution of €3.5 million. It is led by AMRA (Italy) with 6 other European partners and 6 African partners: **Council for Scientific and Industrial Research (South Africa)**, Université de Ouagadougou (Burkina Faso), Université de Yaoundé (Cameroon), Addis Ababa University (Ethiopia), Université Gaston Berger de Saint-Louis (Senegal) and Ardhi University (Tanzania). [ [www.cluva.eu](http://www.cluva.eu) ]

## EARTH OBSERVATION & ENVIRONMENT

### **AEGOS - African-European georesources observation system**

Aim: to support the preparatory phase needed to design the African-European Georesource Observation System (AEGOS) capable of hosting and providing access to Africa's geological resources, including groundwater, energy, raw materials and mineral resources.

The project ran from December 2008 to Nov. 2011 with an EU contribution of €1.9 million. It was led by Bureau de Recherche Géologiques et Minières (France) with 12 other European partners and 10 African partners: **Council for Geoscience (South Africa)**, Union Economique et Monétaire Ouest-Africaine (Burkina Faso), Geological Survey of Ethiopia, Geological Survey Department (Ghana), Ministère de Mines et de l'Ecologie (Guinea), Ministère de Mines et de l'Industrie (Senegal), University of Dar es Salam (Tanzania), The Southern and Eastern African Mineral Centre (Tanzania), Department of Geological Survey and Mines (Uganda) and University of Zambia. [ [www.aegos-project.org](http://www.aegos-project.org) ]

## ENVIRONMENT & WATER

### **WHATER - Water Harvesting Technologies Revisited: Potentials for Innovations, Improvements and Up-scaling in Sub-Saharan Africa**

Aim: to contribute to developing appropriate water harvesting techniques that should be sustainable under dynamic global and regional pressure and strengthen rain-fed agriculture, improve rural livelihood and increase food production and security in Sub-Saharan Africa.

The project runs from January 2011 to December 2014 with an EU contribution of €2 million. Led by Free University of Amsterdam (The Netherlands) with 3 other European partners and 5 African partners: **University of Kwazulu Natal (South Africa)**, National Institute for Environment & Agricultural Research (Burkina Faso), Arba Minch University (Ethiopia), Southern & Eastern Africa Rainwater Network (Kenya) & Sokoine University (Tanzania). [<http://whater.eu>]

## HEALTH

### **EMERALD - Emerging mental health systems in low- and middle-income countries**

Aim: to improve mental health outcomes by enhancing health system performance, by addressing (i) adequate, fair and sustainable resourcing; (ii) integrated service provision; and (iii) improved coverage & goal attainment; in Ethiopia, India, Nepal, Nigeria, SA & Uganda.

The project runs from November 2012 to October 2017 with an EU contribution of €5.8 million. It is led by King's College London (UK) with partners from 3 other European countries, India, Nepal, WHO and 5 African partners: **University of Cape Town (South Africa)**, **University of Kwazulu Natal (South Africa)**, Addis Ababa University (Ethiopia), University of Ibadan (Nigeria) & Butabika National Mental Hospital (Uganda).

[ [www.emerald-project.eu](http://www.emerald-project.eu) ]

## ENVIRONMENT & HEALTH

### **QWECI - Quantifying Weather and Climate Impacts on Health in Developing Countries.**

This research project aims to understand the climate drivers of vector-borne diseases (malaria, Rift Valley Fever and certain tick-borne diseases), which all have major human and livestock health and economic implications in Africa, in order to assist with their short-term management and make projections of their future likely impacts.

The project ran from February 2010 to July 2013 with an EU contribution of €3.5 million. It was led by the University of Liverpool (UK) with 5 other European partners and 7 African partners: **University of Pretoria (South Africa)**, Université Cheikh Anta Diop (Senegal), Centre de Suivi Ecologique (Senegal) and Institut Pasteur de Dakar (Senegal), Kwame Nkrumah University of S&T (Ghana) and University of Malawi.

[ [www.liv.ac.uk/qweci/](http://www.liv.ac.uk/qweci/) ]

## SPACE & HEALTH

### **MALAREO - Earth Observation in Malaria Vector Control and Management**

This FP7 project promotes the use of Geographic Information Systems (GIS), Earth Observation (EO), Global Positioning Systems (GPS) and spatial statistics by building EO and GIS capacity and providing relevant EO-based products for the Malaria research and control community. MALAREO's map atlas is now available on-line.

The project ran from February 2011 to March 2013 and received an EU contribution of €0.5m. It was led by Eurosense Belfotop NV (BE) with two other European partners and two African partners: the **Council for Scientific and Industrial Research (South Africa)** and the Ministry of Health of Swaziland. [ [www.malareo.eu](http://www.malareo.eu) ]

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**VOICES - VOIce-based Community-cEntric mobile Services for social development**

The objectives of VOICES are to deliver open and wider access: VOICES will improve voice-based access to content and mobile ICT services by building a toolbox for the development of voice services and testing adaptation to the African context, namely through the focus on health services in Senegal and agriculture in the Sahel countries.

The project ran from January 2011 to June 2013 with an EU contribution of €2 million, led by ERCIM (France) with 7 other European partners and 4 African partners: **Council for Scientific and Industrial Research & North-West University (South Africa)**, Ecole Supérieure Multinationale des Télécommunications (Senegal) and Sahel Eco (Mali). [ [www.mvoices.eu](http://www.mvoices.eu) ]

Contact: S. Hogan, Counsellor for Research & Innovation, EU Delegation to the African Union, Addis Ababa, Ethiopia. Email: [stephane.hogan@eeas.europa.eu](mailto:stephane.hogan@eeas.europa.eu)