

# South Africa - United Kingdom

Science and  
Technology  
Co-operation



**ESASTAP**

european - south african science and technology  
advancement programme



"...Given the high rate of knowledge development, it is imperative to connect our [South African] institutions more effectively with global knowledge systems, expertise, and infrastructure in order to provide adequate training for our young scientists. One of the ways of encouraging our scientists to remain here is by building the infrastructure to connect them easily with their peers, and link them directly to the most advanced global research by tapping into international human and financial resources that address the needs of our researchers. As a country we can only benefit if our research output is internationally competitive.

Address by the Honourable Minister of Science and Technology, Mr Mosibudi Mangena, on the Occasion of The Royal Society - NRF Scientific Meeting, Pretoria, August 2004

The vision of the South African Department of Science and Technology (DST) is to enable the creation of prosperity and well-being in South Africa (SA), and to achieve enduring and equitable benefits from Science and Technology (S&T) for all South Africans.

The building of strong international S&T relations is seen as crucial to achieving this vision. The DST is committed to developing international S&T co-operation, and innovatively benefiting from, and contributing to, the science, engineering and technology sectors of other countries. The development of bilateral and multilateral co-operation in S&T is seen as essential to addressing these objectives and strengthening the SA National System of Innovation.

S&T co-operation between SA and the United Kingdom (UK) was formalised on signature of the SA - UK S&T Agreement in February 1995. Co-operation between the UK and SA was further strengthened when the Agreement on Networking of Scientists and the Letter of Intent on Foot and Mouth Diseases and other Animal Diseases were ratified in December 2002.



Courtesy SA Tourism

SA and the UK have a solid history of successful collaborations on many science and technology initiatives. There is, however, significant potential for the improvement of S&T networks, and the development of formidable partnerships.



Courtesy SA Tourism

There are numerous funding opportunities to facilitate the development of networks and partnerships between SA and UK researchers. Examples of funding sources that support the development of these international partnerships are highlighted below.

- UK / SA Networking Scheme: A bilateral agreement between the UK and SA to develop enduring partnerships between excellent scientists from both countries, in all fields of science, engineering, and technology. The scheme is administered by the [Royal Society](#) in the UK, and the [National Research Foundation](#) in SA.
- UK Fellowships and Scholarship Schemes: The [Dorothy Hodgkin Fellowships](#) offers a recognised first step into an independent research career for excellent scientists and engineers for whom career flexibility is essential.
- UK Government Departments: The [Office of Science and Technology](#) promotes funding for international collaborations and research, networking, and knowledge transfer. The Department of Trade and Industry offers funding for partnerships and secondments. The Department for International Development operates a number of different funding schemes to promote sustainable development and eliminate poverty.
- UK Research Councils provide grants for international collaboration, networking, hosting workshops, travel grants and short and long-term fellowships.
- Independent UK Institutions: The [Royal Society](#) offers research fellowships to postdoctoral scientists and engineers and visitor grants which fund short-term research visits. The [Royal Academy of Engineering](#) promotes collaboration through their Global Research Awards, which provide funds for overseas engineer secondments. The [Leverhulme Trust](#) provides fellowships for professors and grants for students to research abroad. The [British Council](#) provides funding for mobility of researchers and networking, as well as funding for international collaboration in Science and Technology. The [International Networking for Young Scientists](#) scheme allows young researchers from the UK and SA to network and establish collaborations. [SISTER](#) (Support for International Science, Technology, and Engineering Research) provides a funding route map for UK researchers, postgraduates, and international students for collaboration.
- There are also various opportunities in the [European and International](#) funding domains.

South Africa views the European Union (EU) Framework Programmes for Research and Technology Development as ideal mechanisms to contribute to global knowledge generation.



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The European South African Science and Technology Advancement Programme (ESASTAP), a recently launched Sixth Framework (FP6) Specific Support Action project, seeks to promote science and technology co-operation between South Africa and the EU ([www.esastap.org.za](http://www.esastap.org.za)).

ESASTAP aims to significantly enhance the support and assistance available to both South African and European researchers to optimally leverage mutual benefits from the partnership.

ESASTAP's goals comprise:

- Promoting improved co-operation between South African and European research groups, drawing on the instruments of the Framework Programmes.
- Promoting synergy between South Africa's Framework Programmes participation and bilateral co-operation with EU Member States.
- Highlighting South African S&T excellence internationally in order to encourage S&T partnerships with South Africa.

- Advancing the achievement of strategic South African national S&T priorities, including the strengthening of regional partnerships within the Southern African Development Community (SADC) and contributions to the S&T programme of the New Partnership for Africa's Development (NEPAD).
- Enhancing the internationalisation of the European Research Area.
- Deriving benefit for the people of the participating countries through the leveraging of economic growth and social development benefits through S&T co-operation.

ESASTAP welcomes the opportunity to offer its services and support to facilitate networking and partnership development between SA and UK researchers / organisations, especially in the advancement of EU Framework Programme



Courtesy SA Tourism

SA and UK researchers have jointly collaborated in Framework Programme projects, with numerous examples existing of successfully executed projects, where SA and UK participants added considerable value to the work of the European consortia.

SA and UK researchers are currently engaged in several Sixth Framework Projects. A few examples of FP6 projects, that have been contractually finalised and are currently being executed, are provided below.

- Standardisation of HIV Neutralisation Assays to be used in Vaccine Research and Clinical Trials (NeutNet) - a group of thirteen participants from all over the world is participating in this Specific Support Action in the Life Sciences, Genomics and Biotechnology for Health theme. NeutNet proposes to co-ordinate activities aimed at standardising methods for the measurements of neutralising antibodies to HIV-1 for use in human clinical trials of candidate AIDS vaccines. The Duke University Medical Centre, the National Biologicals Standard Board, and the University of Oxford comprise the UK project participants, while the National Institute for Communicable Diseases is the SA project participant.
- European Research Network on Excellence in Processing Open Cultural Heritage (EPOCH) - this Network of Excellence (NoE), in the Information Society Technologies thematic priority, promotes the integration of research efforts relating to the effective and sustainable application of digital technology to archaeological research and cultural heritage presentation at museums, monuments, and historic sites.
- Virtual Research Lab for a Knowledge Community in Production (VRL KCIP) - through the VRL-Kip Network of Excellence, Europe will be able to federate many research teams in the field of design, production and innovation, and thus preserve the common inheritance of manufacturing processes while carrying out a collaborative system of design integrating a module of virtual production. This NoE forms part of the Nanotechnology and Nanosciences, Knowledge-based Multifunctional Materials and New Production Processes and Devices thematic priority. The University of Bath and the University of Durham comprise the UK representatives on the project. SA is represented by the University of Stellenbosch
- Promoting Food Safety through a New Integrated Risk Analysis Approach for Foods (SAFEFOODS) is an Integrated Project in the Food Quality and Safety thematic priority that seeks to address how consumer confidence in consumer protection and risk analysis can be restored and strengthened. UK representatives on the project include Biomathematics and

The NoE is coordinated by the University of Bristol. Several other UK organisations are also participating, with the Department of Computer Science at the University of Cape Town as the SA representative.

Statistics Scotland, the Institute of Food Research, King's College London, the Scottish Crop Research Institute, and the University of Sussex. The SA consortium member is the Council for Scientific and Industrial Research (CSIR).

- Floodwater Recharge of Alluvial Aquifers in Dryland Environments (WADE) - the WADE Specific Targeted Research Project, relating to the Sustainable Development, Global Change and Ecosystems theme, aims to assess long-term (decades to centuries) water resources in selected semi-arid to hyperarid ephemeral river basins by determining long-term transmission losses from floods and quantifying floodwater recharge into alluvial aquifers. The research will be undertaken in 4 research basins, twinning catchments in Spain and Israel with study catchments in Namibia and South Africa. SA is consequently well-represented on the consortium; the Kamiesburg Municipality, Nama Khoi Municipality, Surplus People Project and the Leslie Hill Institute for Plant Conservation, Botany Department at the University of Cape Town are participating in the project. The UK is represented by the University of Edinburgh.
- New Approaches to Adaptive Water Management under Uncertainty (NeWATER) - the NeWATER is an Integrated Project in the Sustainable Development, Global Change and Ecosystems thematic priority. The central tenet of NeWater is a transition from currently prevailing regimes of river basin water

management into more adaptive regimes in the future. This transition calls for a highly integrated water resources management concept. Cranfield University, HR Wallingford Ltd, Manchester Metropolitan University, Natural Environment RES Council, the University of Exeter, and York University are all UK-based consortium members, while the Institute of Natural Resources is the South African consortium member.

- Transboundary Networks of Marine Protected Areas for Integrated Conservation and Sustainable Development: Biophysical, Socio-economic and Governance Assessment in East Africa (TRANSMAP) - the goal of this Specific Targeted Research Project in the Sustainable Development, Global Change and Ecosystems theme is to develop scientific knowledge for the creation of transboundary networks of marine protected areas in the East African region. The Overseas Development Group at the University of East Anglia, and the Natural History Museum, London are the UK participants, while the South African Association for Marine Biological Research and Statistical Sciences at the University of Cape Town are the South African project participants,

The projects showcased above are but a few of the FP6 projects that are currently in execution, or under negotiation. There is significant scope for researchers from the UK and SA participating in these projects to positively impact on issues of global priority.

South African and United Kingdom researchers eager to derive maximum benefit from the ESASTAP services are encouraged to register as a member of the “ESASTAP Community.” Registration as a member of the ESASTAP Community will also enable the ESASTAP team to provide you with pro-active and targeted advice and support to facilitate your participation in SA-UK and SA-EU S&T cooperation activities. Register at [www.esastap.org.za](http://www.esastap.org.za).

ESASTAP can be contacted as follows:

e-mail: [Contact@esastap.org.za](mailto:Contact@esastap.org.za)  
ESASTAP Nerve Centre: +27 12 841 4331  
Web address: [www.esastap.org.za](http://www.esastap.org.za)

