

UK & BRAZIL:

Science opportunities during Rio 2016



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Next year, Rio de Janeiro will play host to the Olympics and Paralympics – the first time the Games will be hosted in South America. Despite some political turbulence in Brazil, the Games offer a raft of commercial and science opportunities in a country which boasts two thirds of Latin America’s scientific output.

In the laboratories of the Rio botanical gardens, scientists are cataloging the unique collection of Brazilian flora of Kew Gardens, digitized by Brazilian scientists at Kew including specimens collected by Charles Darwin. This part of Brazil’s “Reflora” project, is funded by the UK government’s Newton Fund.

... unique collection of Brazilian flora of Kew Gardens ...

The futuristic “Museum of Tomorrow”, under construction on Rio’s Mauá Pier, is set to take water from Guanabara Bay to cool the building whilst filtering it to preserve marine life. Steel wings on its roof will act as solar panels to create electricity. An

... research call on climate modeling ...

agreement signed this year, facilitated by the British Council, should see London’s Science Museum exhibit some of its touring exhibitions here.

The Oswaldo Cruz Foundation – Brazil’s world class biomedical lab to support Brazil’s public health system – sits in a vast palace in Rio and boasts a US\$ 1 Billion research budget. Lord O’Neill has just persuaded one of its Vice Presidents to participate in his independent global review on antimicrobial resistance.

The Brazilian Doping Control Laboratory of the Federal University of Rio is packed with the latest kit to test illegal drugs for Rio 2016’s athletes, to World Anti-Doping Agency (WADA) standards. This lab has benefited from training links with the official WADA London 2012 Drug Control Centre – a partnership between GSK and Kings College London.

These are just a few of the exciting UK Brazil science collaborations with Rio de Janeiro that the UK’s Science & Innovation Network (SIN) in Brazil and the British Consulate in Rio have been involved in.

SCIENCE & COMMERCIAL OPPORTUNITIES DURING RIO 2016

Construction of the Museum of Tomorrow is part of Porto Maravilha – a raft of mega

collection involving employing local communities in the favelas, bike lanes and more efficient street lighting.

Rio’s environmental challenges could be opportunities for UK businesses. In Rio’s Olympics bid, there was a promise to regenerate its waterways through a US \$4 billion investment in sanitation. However, in the last few decades, as Rio’s population has risen dramatically, its sewage problem has spiraled with waste flowing into more than fifty streams that empty into Guanabara Bay – the venue for the Olympic sailing events. To date, just one out of the eight new treatment facilities promised under the Olympic bid has been built. The UK Trade & Investment team of the British Consulate in Rio has been showcasing opportunities on water and waste to UK businesses.

During the Games, SIN Brazil will also hold a series of lectures on climate change, biodiversity of Brazil’s biomes & bioeconomy funded under BIS’s

... Brazil’s world class biomedical lab ...

urban renewal projects supported by the Federal and Rio State government. They will see the redevelopment of over five million square meters, including a new system of selective rubbish

Global Partnership Fund. Explorer John Hemming and renowned taxonomist and former Director of Kew, Professor Sir Ghilleen Prance are amongst those invited to speak.

UK GOVERNMENT'S £45 MILLION NEWTON FUND IN BRAZIL

The £45 Million Newton Fund in Brazil over 5 years, of which SIN Brazil has strategic oversight with a Newton team of three, offers an excellent platform for UK based scientists to get involved now, during and beyond the Games.

Timely for Rio's water challenge has been a new £3.5 Million Newton innovation industrial R&D call for research on technology solutions for energy, water and waste launched this September by Innovate UK joint with SENAI (Brazil's non-for-profit National Service for Industrial Training network).

Parts of Brazil suffered severe water shortages this year – especially São Paulo. Next year the UK's Met Office together with Brazil's Ministry of Science and three of its institutes with expertise in climate (INPA, INPE & Cemaden) will launch a new £4 Million Newton Fund research call on climate modeling, carbon modeling and natural disaster forecasting.

... its sewage problem has spiralled ...

Improved long-term forecasting could help Brazil predict droughts in advance enabling cities to be better prepared.

ESRC and Brazil's Council of Funding Agencies (CONFAP) have also recently closed a £6 Million Newton research call on

healthy cities and the social science of food, water, energy nexus.

The UK Academies and CONFAP are also offering joint fellowships and mobility grants under the Newton Fund for both UK and Brazilian researchers to spend between two weeks and four years in Brazil to conduct research across all science disciplines.

he offered to share the UK's expertise. We also have funding for a further project on encouraging Brazil to reduce animal testing following an MOU signed by FCO's Chief Scientific Adviser, Prof Robin Grimes and the Minister of Science, Technology & Innovation this August. In November SIN followed this up with a mission for the Home Office's Animals in Science Regulations Unit & the UK's National Centre for the 3R's (Replacement, Reduction & Refinement) to meet with government, industry & researchers.

To contact SIN Brazil or receive their SIN Latam newsletter on R&D & Newton Fund Calls covering Brazil, Chile, Mexico, Peru, Colombia, Costa Rica, Uruguay and Panama, please get in contact at Julia.knights@fco.gov.uk. Also visit newtonfund.ac.uk for info on UK Brazil current research calls.

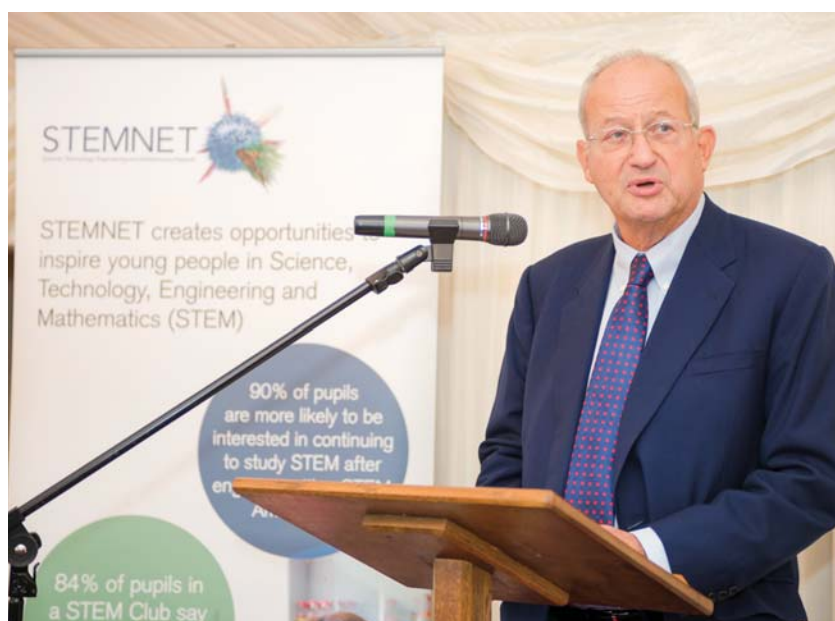
PROJECTS IN ENERGY STORAGE & REDUCED ANIMAL TESTING

SIN Brazil gained funding this autumn for a new project on energy storage. This follows PM David Cameron's recent bilateral with President Rouseff in which

STEMNET AWARDS

Honour those inspiring young people in science, technology, engineering and maths

Winners to visit CERN facility in exclusive trip



The host of the STEMNET Awards, Lord Sainsbury of Turville, welcomes guests, commends volunteers and talks about how increasingly crucial STEM skills are for the United Kingdom.

The winners of the 10th annual STEMNET awards were announced at a ceremony at the House of Lords on October 6th, honouring the UK's most dedicated and inspirational people motivating young people in Science, Technology, Engineering and Maths.

Hosted by Lord Sainsbury of Turville, the Awards were presented in six categories by BBC Journalist Steph McGovern and STEMNET's CEO Kirsten Bodley.

The winners from across the UK are invited by the Awards Sponsors, the Science and Technology Facilities Council (STFC), on an exclusive visit to CERN. Winners will fly to Geneva in December, where they will see cutting edge science in action, as well as meeting top physicists and engineers from across the facility.

Science, Technology, Engineering and Math (STEM) subjects are major contributors to the UK