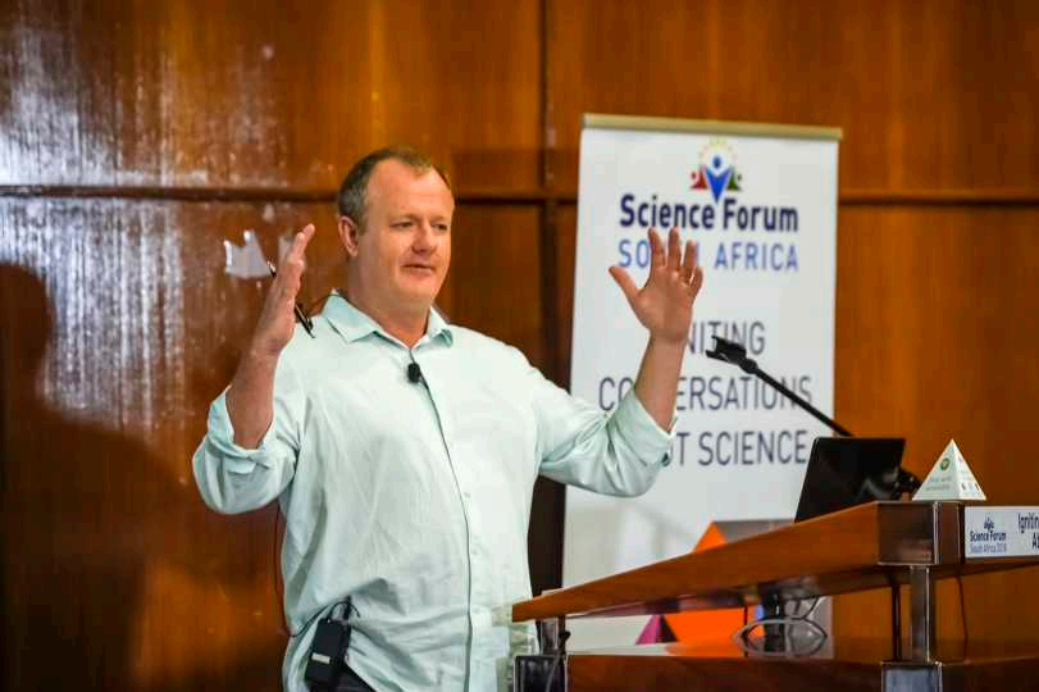

Science Forum
SOUTH AFRICA
IGNITING
CONVERSATIONS
BOUT SCIENCE


Science Forum
AFRICA


Mr Simon Ratcliffe
Mr Khutso Ngoasheng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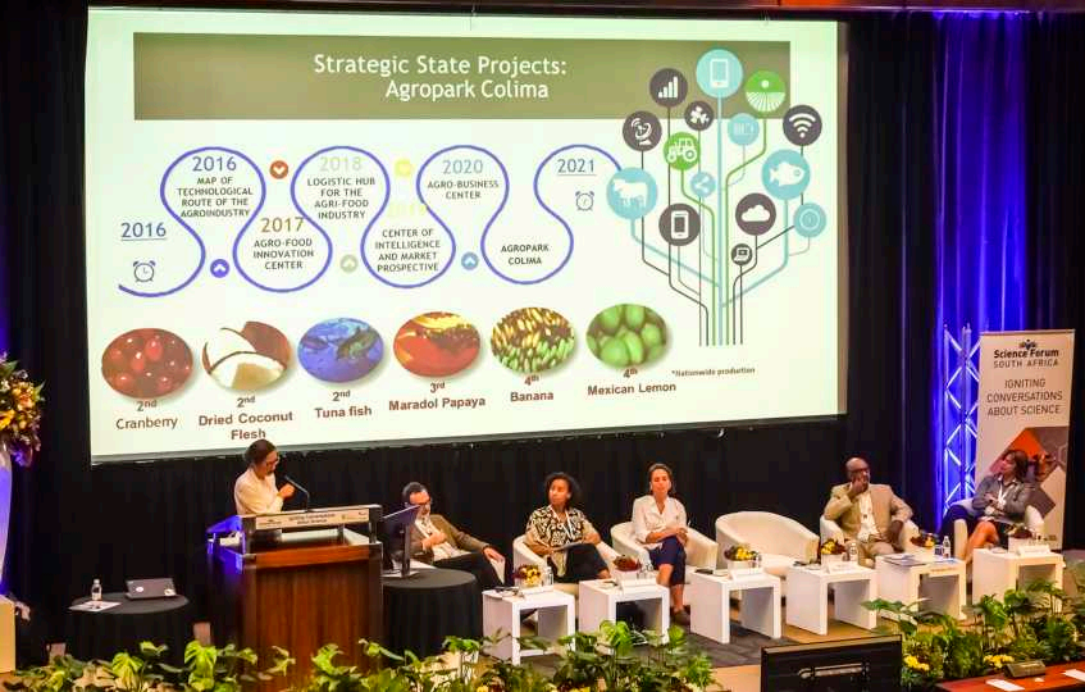
Strategic State Projects:
Agropark Colima
2016
2016
MAP OF TECHNOLOGICAL ROUTE OF THE AGROINDUSTRY
2017
AGRO-FOOD INNOVATION CENTER
2018
LOGISTIC HUB FOR THE AGRI-FOOD INDUSTRY
2019
CENTER OF INTELLIGENCE AND MARKET PROSPECTIVE
2020
AGRO-BUSINESS CENTER
2021
AGROPARK COLIMA
2nd Cranberry
2nd Dried Coconut Flesh
2nd Tuna fish
3rd Maradol Papaya
4th Banana
4th Mexican Lemon
*Nationwide production
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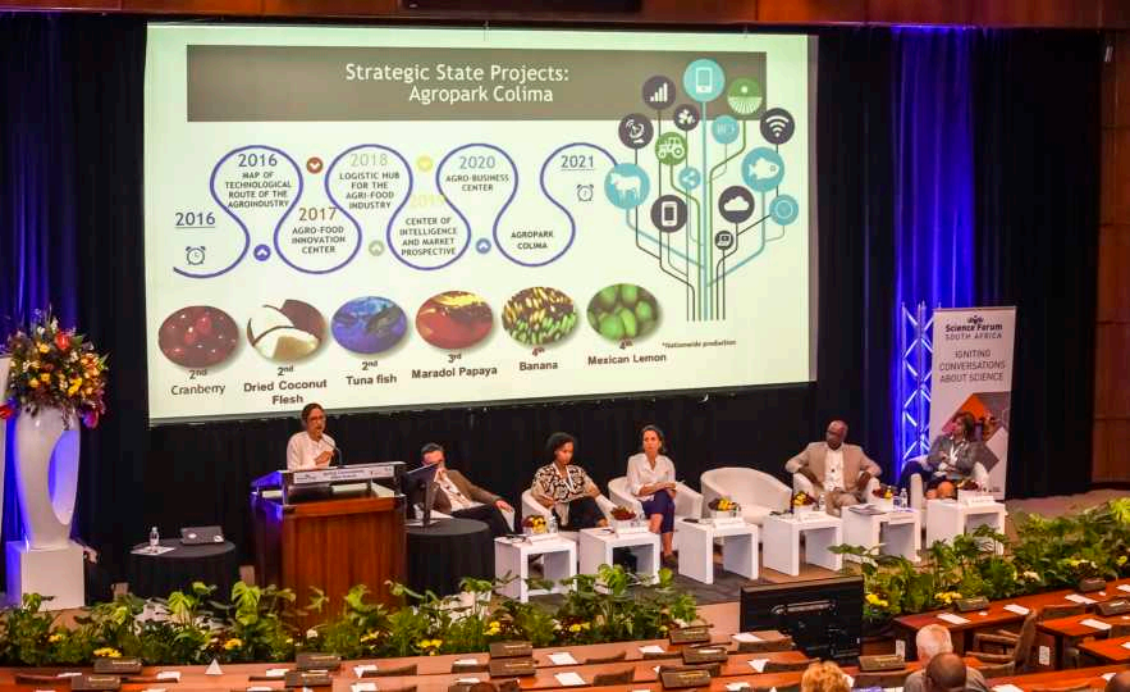
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Science Forum
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Igniting Conversations
About Science


science
science


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2018
Science Forum
South Africa 2018


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Fresh
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The 'active, but confused' state of higher education as a field of study in South Africa
• The volume of educational research produced in South Africa is both prolific and growing, which is an indicator that it is emerging as a field of study (Bitzer & Wilkinson, 2009).
• However, most of the research done has been small-scale; and has been reported to lack rigour (breadth and depth) particularly in terms of the absence of systematic or large-scale surveys and quantitative analyses (Deacon et al., 2009).
• There seems to be a lack of comprehensive data on the roles and profiles of higher education research centres, programmes or individual researchers - who have been described as 'insider-outsiders' typically with no previous qualifications in Higher Education Studies (Harrison, McKenna & Searle, 2010: 177).
• This implies that there is shortage of academics in higher education who are capable of professing from a position of research expertise and practical experience (Bitzer & Wilkinson, 2009).
• The higher education research field has therefore been described as 'active, but confused' because it lacks many of the attributes of scholarly work found in well-recognised disciplines (Strydom 2002).
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CONVERSATIONS
ABOUT SCIENCE


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South Africa 2018
Igniting Conversations
About Science
ASSAf


Science Forum
South Africa 2018
Igniting Conversations
About Science
ASSAf


Prof Patrick Langa
Dr Francis Ansah
Dr Patrick Swanzy


Vincent P.K.


MUSEO EGIZIO
Moving the Statue of the goddess Isis
Description:
The statue is made of granodorite, a magmatic effusive rock of black color with a crypto-crystalline structure crossed by white traces of plagioclase crystal.
It depicts a goddess wearing on her head the sun disk between cow's horns and holding the 'was' scepter of divine power in her left hand
Moving the Statue of the goddess Isis
The ultrasonic analyses of the Statue of the goddess Isis have been carried out by the Environmental-Engineering Geophysics Laboratory (ENGEL) of the Politecnico di Torino to identify the fragility level of the statue in case of movement.
The Ultrasonic Thickness Measurement (UTM) is a method of performing non-destructive measurement of the local thickness of a solid element basing on the time taken by the ultrasound wave to return to the surface.
The workflow adopted to develop these


ue of the
ess Isis
Statue of the
goddess Isis
Object:
Material:
Granodiorite
Period:
Provenance
Collection:
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Space Science


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DigiMine


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AMBER
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PRODUCT LIFECYCLE MANAGEMENT
AND DIGITAL TWIN
FOR SMMEs
Digital twin technology improves traceability
service life support
CSIR


SANBio
SANBio
BioFISA II
FUNDING OPPORTUNITIES
Flagship Grants
Seed Grants
Mobility Grants


H3ABioNet
African Data. African Knowledge
Clarivate
Analytics


PHEPISA®
Phepisa is an award-winning innovation company dedicated to providing our customers with safe, quality skin care products, wellness solutions and natural ingredients located in rural Mpumalanga


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Developing Enviropreneurs
GreenMatter
A network of partners driving:
www.greenmatter.co.za


UDY IN SWEDEN
Embassy of Sweden
Pretoria


64
National Research Foundation
e NRF is helping South Africa
ild a knowledge economy
Developing human capital for the knowledge economy.
Supporting postgraduates from Honours to post-doctorate level.
Fostering the next generation of scientists.
Making science accessible to society
NRF
National Research Foundation


64
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Mr Tony Lankester


Nanotechnology in science and technology
Nanotechnology is a key enabling technology which is science and technology at the nanoscale of atoms and molecules.
It has great potential to help address some of the most challenges such as climate change, reducing carbon emissions, developing renewable energies, addressing medical needs and providing more efficient use of resources.
There is, however, also growing attention being devoted to researching and ensuring the safety of nanotechnology and the use of nanoparticles.
Taken from nature: plants mastered nanotechnology long before humans became aware of its existence.
Take for example the nanostructures on the surface of a lotus leaf. They ensure that the plant, commonly found in muddy ponds, repels water which in turn washes away any dirt on its leaves as it rolls off the surface – a similar effect can be seen with sanitary ware.
This "lotus effect" is precisely what scientists pursued with self-cleaning basins and water repelling glass.


Nanotechnology in science and technology


Nanotechnology in Industry
The industrial sectors most readily embracing nanotechnology are the information and communications sector, including electronic and optoelectronic fields, food technology, energy technology and the medical products sector (many different facets of pharmaceuticals and drug delivery systems). diagnostics and medical technology, where the terms nanomedicine and bio-nanotechnology are already commonplace.
Taken from nature: copying nature's nanote
business. Scientists have in the past few ye
managed to develop adhesives and sticky s
adhere both to wet and dry surfaces. Take fo
gecko that has nanofibres in its foot hairs wh
possible for these small reptiles to adhere up
surfaces. And the common mussel uses a na
protein to bind its secreted byssus threads to
wet and even dirty surfaces.


The DNA of Smart Specialisation
SMART SPECIALISATION
Setting transformative agendas relying on four main features
Localisation: focused on territorial specificities
Customisation: no "one size fits all" – adapted to local context and institutions
Prioritisation: targeting most promising potential for development/transformation
Mobilisation: involving public and private stakeholders
Combining evidence-based and community-based knowledge


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European Commission
Mr Manasse Mbonye


Logistics
Beach tourism
Mining
Emergent
Energy and Renewable Energy
III: Tecoman Valley Agroindustry
Total population:
735,724
Population: 165,173 (23%) Emergent
Agro & Agroindustry
Renewable Energy
Beach tourism


Strengthening Technology, Research and Innovation Cooperation between Europe & South Africa
Enriching policy dialogue in science, technology and innovation
Promoting strategic cooperation under Horizon 2020 and South African programmes
Creating and supporting innovation partnerships
Exploiting synergies between and improving coordination of different initiatives
ESASTAP 2020
www.esastap.org.za


ORGANICS
ENRICH
RETURN
SARAO


South African Council for Natural Scientific Professio


South African Council for Natural Scientific Professions


CENTERS OF COMPETENCE
HYSA INFRASTRUCTURE
HYDROGEN
Initiated by the Department of Science and Technology (DST) and approved by the Cabinet in May 2007, Hydrogen South Africa or HySA is a long-term (15-year) programme within their Research, Development, and Innovation (RDI) strategy, officially launched in September 2008.
HYSA
HYDROGEN SOUTH AFRICA
DST
STACK


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HYSA
HYDROGEN SOUTH AFRICA
DST
HYSA INFRASTRUCTURE
HYDROGEN
ELECTROLYSIS
STACK
Academy of Science of South A


The free unhampered exchange of ideas and scientific conclusions is necessary for the sound development of science, as it is in all spheres of life
– ALBERT EINSTEIN
RESEARCH AT
STELLENBOSCH
Matieland
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RESEARCH AT
STELLENBOSCH
Matieland
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HEART OF EUROPE
STUDY IN HUNGARY


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STIPENDIUM
HUNGARICUM


THIS IS HOW WE CREATE A
Circular
economy
FINLAND


"Research is the best medicine.
I study in Germany."
Welcome to Ge
"Research is the best med
I study in Germany."


"Research is the best medicine!
I study in Germany."
Welcome to Germany
NASA


CHPC
CENTRE FOR HIGH PERFORMANCE COMPUTING
The CHPC is the partner of choice
CHPC
STUDENT CLUSTER CHALLENGE
The CHPC Student Cluster Competition gives undergraduate students at South African universities exposure to the High Performance Computing (HPC) industry
Every July, students attend the CHPC School where they are exposed are challenged as universi teams go through to
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E7-4850
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Concluding
Remark:
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SOCIETY


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首都科技创新成果展


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DST-NRF Centre of
EXCELLENCE
in Tree Health Biotechnology
Plant Health Biotechnology Platform @ FA


DST-NRF Centre of
EXCELLENCE
in Tree Health Biotechnology
Plant Health Biotechnology Platform @ FA


Africa
Africa Biotechnologies
BioNet


H3Africa
H3Africa Biorepositories


MONITORING SURFACE
DEFORMATION USING
DIGITAL BECOMES PHYSICAL
WITH 3D
CSIR


MONITORING SURFACE
DEFORMATION USING SA
IMAGING TECHNOLOG
Minimising human health and safety
damage through proactive
The CSIR has developed a system
surface deformation caused by
Monthly images from
deformation events over large
potentially unstable areas.
Electronic
notifications.
the ability to
The automated sy
for proactive ris
or operational
development
DIGITAL BECOMES PHYSICAL
WITH 3D
materials
CSIR
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4Climate
Causes of climate change
change adaptation


@EUClimateAct
Climate change adaptation


Papyri
patchwork
The Discovery
of the
Kha Tomb
WHO
is the


Papyri
patchwork
The Discovery
of the
Kha Tomb
WHO is the
MUSEO
EGIZIO


science & technology
NDP


science & technology
NDP


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Scifest Africa
SOUTH AFRICA'S NATIONAL SCIENCE FESTIVAL
What is Scifest Africa?
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SUSTAINABLE DEVELOPMENT GOALS
How Can Genomic Data Help in Addressing Some of UN Sustainable Development Goals
Science Forum SOUTH AFRICA


S T E M
Spring Bots
TEAM SOUTH AFRICA
FIRST
FIRST GLOBAL
FIRST ROBOTICS COMPETITION
ROMMAC
new ACE
Engineering Solutions


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TALKING SCIENCE
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FIRST ROBOTICS COMPETITION


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Welcome
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CSIR International Convention Centre


CSIR International Convention Centre


of seperate collection
of secondary raw materials is that certain
recycling streams and special efforts would have


AMBER


Climate change adaptation


Climate change adaptation


Climate change adaptation
• Adaptation to the observed and projected impacts in coming decades is needed, complementary to global climate mitigation actions. The EU strategy on adaptation to climate change supports national adaptation strategies and other actions in countries aimed at mainstreaming EU policies, providing funding and enhancing research and information sharing.