



The Royal Society

**Science & Technology
for Africa**

Martyn Poliakoff & Claire McNulty



THE ROYAL SOCIETY

The Royal Society

- Founded in 1660, the oldest Academy of Science
- 5 Officers (President, etc)
- 1350 Fellows
+ 150 Foreign Members
- 130 staff
- Independent of the UK government



About Me

- **Foreign Secretary and Vice-President of the Royal Society**
- **Born London (UK) 1947 (Russian father)**
- **Studied in Cambridge,**
- **Have been at Nottingham since 1979**
- **Research Professor in Chemistry,
working in Green Chemistry**

University of Nottingham

**44,000 students in
UK, Malaysia & China**

UK Rankings

No 2: Chemistry Research

No 3: Physics Research

No 3: Chemical Engineering

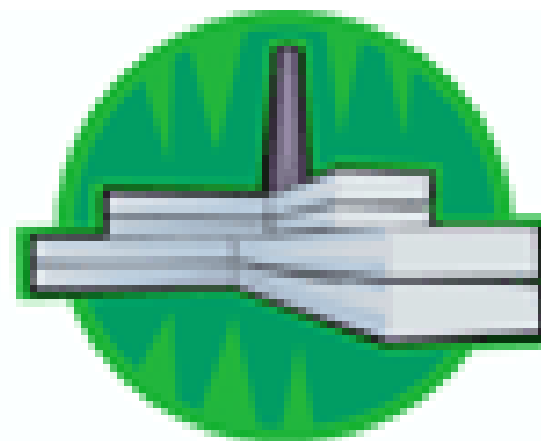


Professor Sebsebe, Honorary Graduate Nottingham, 2010



Green Chemistry (early 1990s)

Cleaner approaches to
making chemicals &
materials



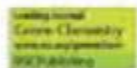
1st Pan Africa Green Chemistry Congress, Addis Ababa Nov 2010



Pan Africa Chemistry Network

1st PACN Green Chemistry Congress

15-17 November 2010, UNCC, UNECA, Addis Ababa, Ethiopia



Ethiopian Ministry
of Science and
Technology



www.rsc.org/pacngreenchem

Registered Charity Number 267496

RSC | Advancing the
Chemical Sciences

syngenta

- G** - Generate Wealth not Waste
- R** - Regard for All Life & Human Health
- E** - Energy from the Sun
- E** - Ensure Degradability & No Hazards
- N** - New Ideas & Different Thinking
- E** - Engineer for Simplicity & Practicality
- R** - Recycle Whenever Possible
- A** - Appropriate Materials for Function
- F** - Fewer Auxiliary Substances & Solvents
- R** - Reactions using Catalysts
- I** - Indigenous Renewable Feedstocks
- C** - Cleaner Air & Water
- A** - Avoid the Mistakes of Others

Then

ልምድ ማገኛት ይፈልጋሉ?

ማርትን ፖሊያኮፍ (Martyn Poliakoff) የስምያን አባትና የኬምስትሪ ፕሮፌሰር ከእንግሊዝ አገር ስምያንን ለመጠየቅ ስለሚመጡ በት/ቤታችን ንግግር ለማድረግ ስለሚፈልጉ ሰኔ 23/95 ዓ/ም ከጥዋቱ 5:00 ሰዓት ተገኝታችሁ ንግግራችውን እንድትከታተሉ እጋብዛለሁ።

ስምዕን ፖሊያኮፍ
(Simon Poliakoff)

and Now

Green Chemistry

Cutting-edge research for a greener sustainable future

www.rsc.org/greenchem

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COVER ARTICLE
Poliakoff and Licence et al.
The 13 Principles of Green Chemistry
and Engineering for GREENER AFRICA

International Year of
CHEMISTRY
2011



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Impact Factor 5.5
www.rsc.org/GreenChem



THE ROYAL SOCIETY

Science & Technology: An Engine of Economic Growth



THE ROYAL SOCIETY





Google SMS Health Tips

Find tips on sexual & reproductive health
(family planning, maternal & child health, HIV/AIDS, STI/STDs)



Google SMS: ClinicFinder

Use ClinicFinder to find a clinic near you, the clinic's
telephone number and services offered.



Google SMS: Farmer's Friend

Get access to weather forecasts and critical agriculture information,
such as tips on planting, pest management and disease control.
(Targeted at farmers to help improve their livelihood)



NERICA: New Rices for Africa

- Science contributing to development

New rice

- grows well in poor conditions,
- outgrows weeds, resistant to pests and diseases,
- **gives higher yields**



“We in Africa must either begin to build our scientific and technological training capabilities or remain an impoverished appendage to the global economy”

Paul Kagame, President of Rwanda



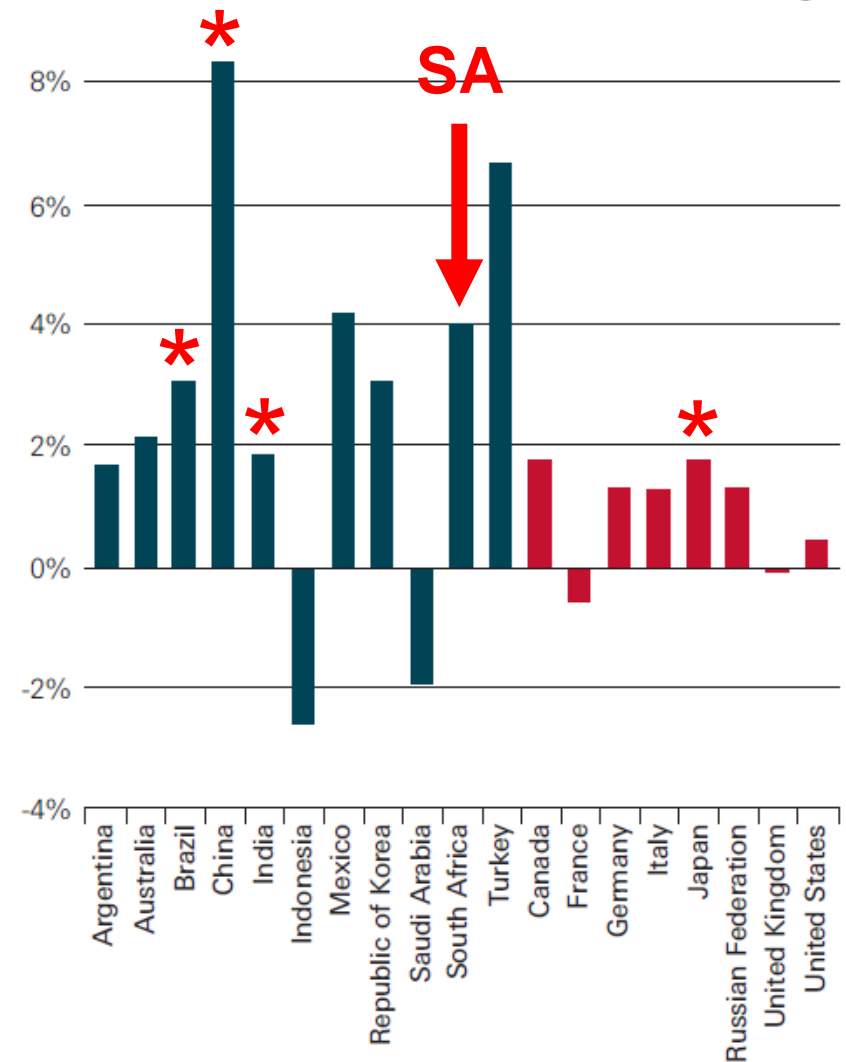
Knowledge, networks and nations
Global scientific collaboration in the 21st century



THE ROYAL SOCIETY

Emerging Economies: Impact of S&T

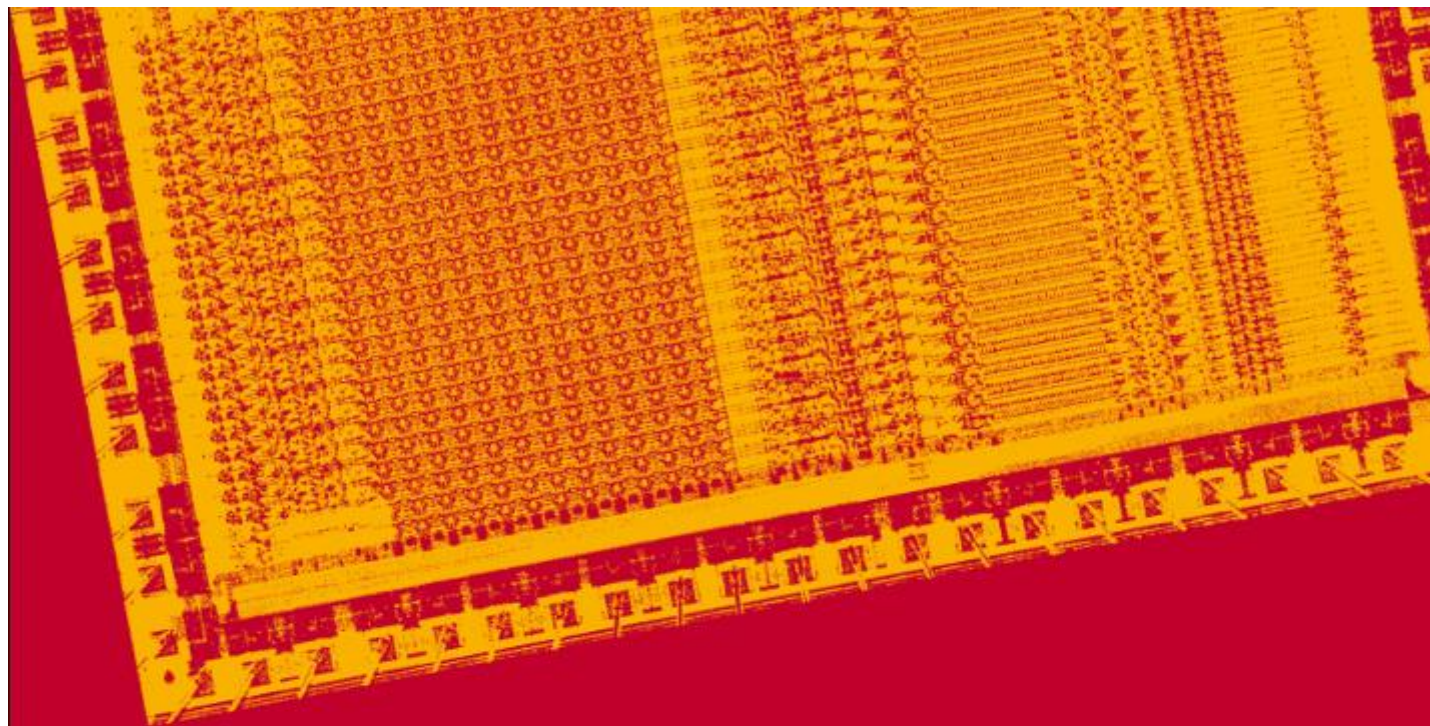
- BRIC countries (Brazil, Russia, India & China) have prioritised science and innovation and increased their investment in R&D



China's long term plan for S&T

“We need to depend even more heavily on S&T progress and innovation in order to achieve substantial gains productivity and advance the overall economic and social development in a coordinated and sustainable manner”

Promoting S&T in the UK



The Scientific Century

securing our future prosperity

CELEBRATE
350 YEARS



THE ROYAL SOCIETY

The Scientific Century (March 2010)

- **Context:** Threatened cuts on education/R&D
- **Aim:** To highlight the value of science and innovation and the UK's future prosperity
- **Outcome:** 6 key recommendations to secure the UK as a “*vanguard of international science*” and to promote economic growth

Scientific Century: 6 recommendations

- 1.Science & Innovation (S& I) at the heart of a strategy for long-term economic growth
- 2.Prioritise investment in excellent people
- 3.Strengthen government's use of science
- 4.Reinforce the UK as a hub for global S & I
- 5.Better align S & I with global challenges
- 6.Revitalise science & mathematics education

The African Academies at the Royal Society Oct 2011



SCIENCE IN AFRICA

- Support new ideas & creative thinking
- Champion evidence-based policymaking
- Instill independence in everything we do
- Engage policymakers, industry & public
- Nurture promising young researchers
- Collaborate across Africa & internationally
- Emphasise socioeconomic value of science
- Inspire future leaders in research & policy
- Network with influential stakeholders
- Align research & policy advice with need
- Follow good governance practices
- Recognise & reward excellence
- Identify areas for African leadership
- Communicate with clarity & passion
- Address issues of topical relevance

Influencing Policy Makers



**Minister for
Education
Ato Demeke in
Nottingham
Jan 13th 2011**

**The 13
Principles
for
Greener
Africa**



Young African Researchers

A good career structure

You have been taken out from a place where you have been relatively useless and you have been empowered to become useful. We are scared because nobody wants to return home to become redundant after you have learnt to become useful. – Chukwudi Chinwe

The Royal Society & EAS

- Very positive relationship
- Sharing knowledge & expertise
- **Working together towards a shared vision**

Science in Africa

Sweta
Saxena

Tracey
Elliot

Chris
Ennew

Support new ideas
and creative thinking
Champion evidence-based policymaking
Instill independence in everything we do
Engage policy-makers, industry and the public
Nurture promising young researchers
Collaborate across Africa and internationally
Emphasise socioeconomic value of science
Inspire future leaders in research and policy
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Science
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Africa