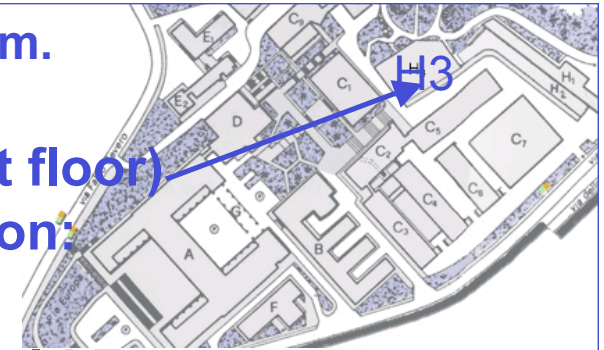




Monday 28 May 2007, 4.00- 6.00 p.m.  
University of Trieste  
Building H3, Lecture Room 1A (first floor)  
Special International Presentation:



**HIGHLIGHTS of the G8-UNESCO World Forum**  
**on 'Education, Research and Innovation: New Partnership for**  
**Sustainable Development', held in Trieste, May 2007**  
**(In English) All students, researchers, lecturers are cordially invited**

Program

- 16,00 Introduction: Education-Research-Innovation - **Gianrossano GIANNINI (TS/Italy)** (10')
- 16,10 Why UNESCO? Why Africa? Why Trieste?- **Paolo ALESSI (TS/Italy+UNESCO)** (10')
- 16,20 Education in the Knowledge-Based Society - **Gabriele GARBIN (TS/Italy+UNESCO)**(10')
- 16,30 Environment: Global Challenges - **Gianrossano GIANNINI (TS/Italy)** (10')
- 16,40 Innovation and Society - **Rachel OBED (Nigeria+ICTP)** (10')
- 16,50 Sustainable Development and Health - **Omer A. Ali (Sudan+ICTP)** (10')
- 17,00 Sustainable Development and Energy - **Gabriele GARBIN (TS/Italy+UNESCO)** (10')  
**& Anna Maria Novello (TS/Italy)** (5')
- 17,15 Research and Innovation: Role of Governments-**Patrizia TIBERI VIPRAIO (UD/Italy)** )(5')  
**& Rachel OBED (Nigeria+ICTP)** )(5')
- 17,25 Knowledge and Sustainable Development **Gianrossano GIANNINI (TS/Italy)** (10')
- 17,35 Science/Technology/Innovation: Perspectives for Africa-**Elie SIMO (Cameroon+ICTP)** (15')
- 17,50 Knowledge for Sustainable Development:The future **Patrizia TIBERI VIPRAIO(UD/Italy)**(10')
- 18,00 End





***G8-UNESCO World Forum***  
***on 'Education, Research and Innovation:***  
***New Partnership for Sustainable Development'***

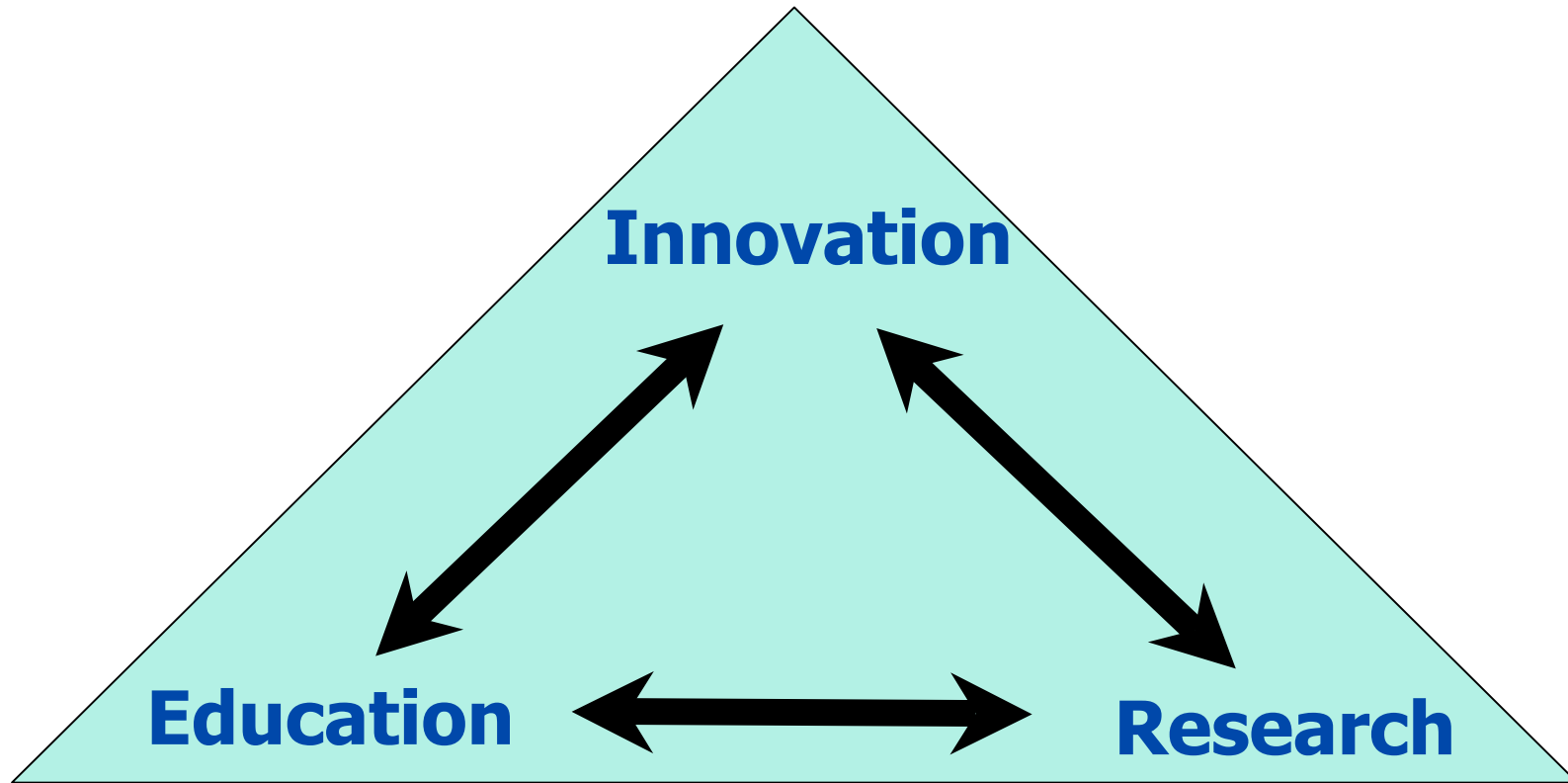
Trieste, Italy, 10-12 May 2007

***Under the High Patronage of the  
President of the Republic of Italy***



BRIEF BIOGRAPHIES

# The 'Knowledge Triangle'



'Education' → all levels

'Research' → all scientific knowledge, incl. from social sciences and humanities

'Innovation' → all technological and social innovations





Organization



in collaboration with



with the financial support of



and partner



## G8-UNESCO World Forum on 'Education, Research and Innovation: New Partnership for Sustainable Development'

**Trieste, Italy, 10-12 May 2007**

The Forum builds on the discussion launched at the St. Petersburg summit on the interconnections between the three components of the triangle of knowledge—education, scientific research and technological innovation—from the perspective of sustainable development, and seeks to identify risks and opportunities for industrialized countries as well as developing and low-income countries.

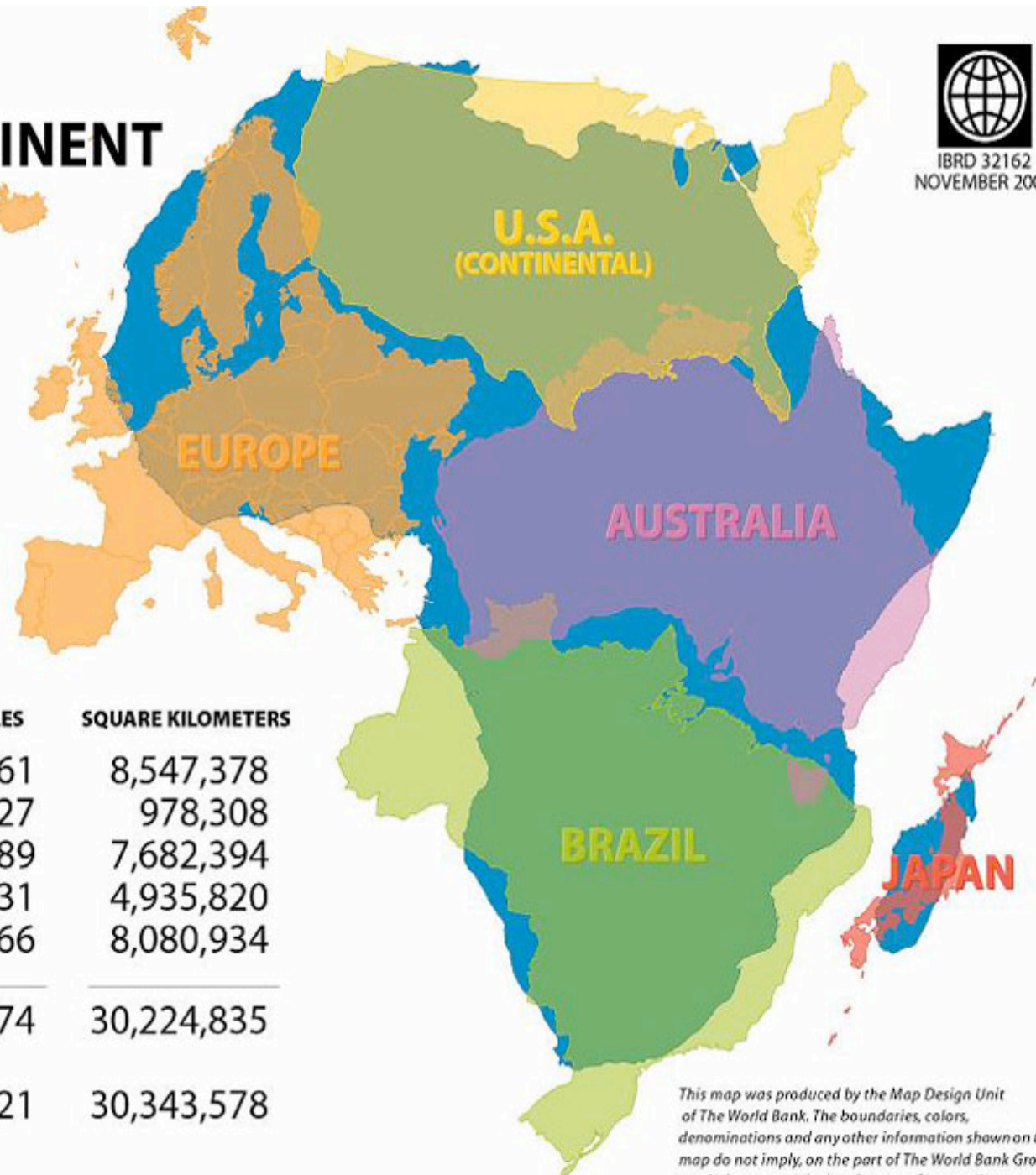
The discussion will be presented by speakers of the highest level from the educational, scientific and entrepreneurial worlds, drawn from G8 countries as well as developing countries. Attention to developing countries will augment the Italian initiative with respect to discussions within the G8 framework. The Forum is intended as an opportunity for discussion and no final document is foreseen.



# SIZE OF THE AFRICAN CONTINENT COMPARED TO OTHER LAND MASSES



IBRD 32162  
NOVEMBER 2002



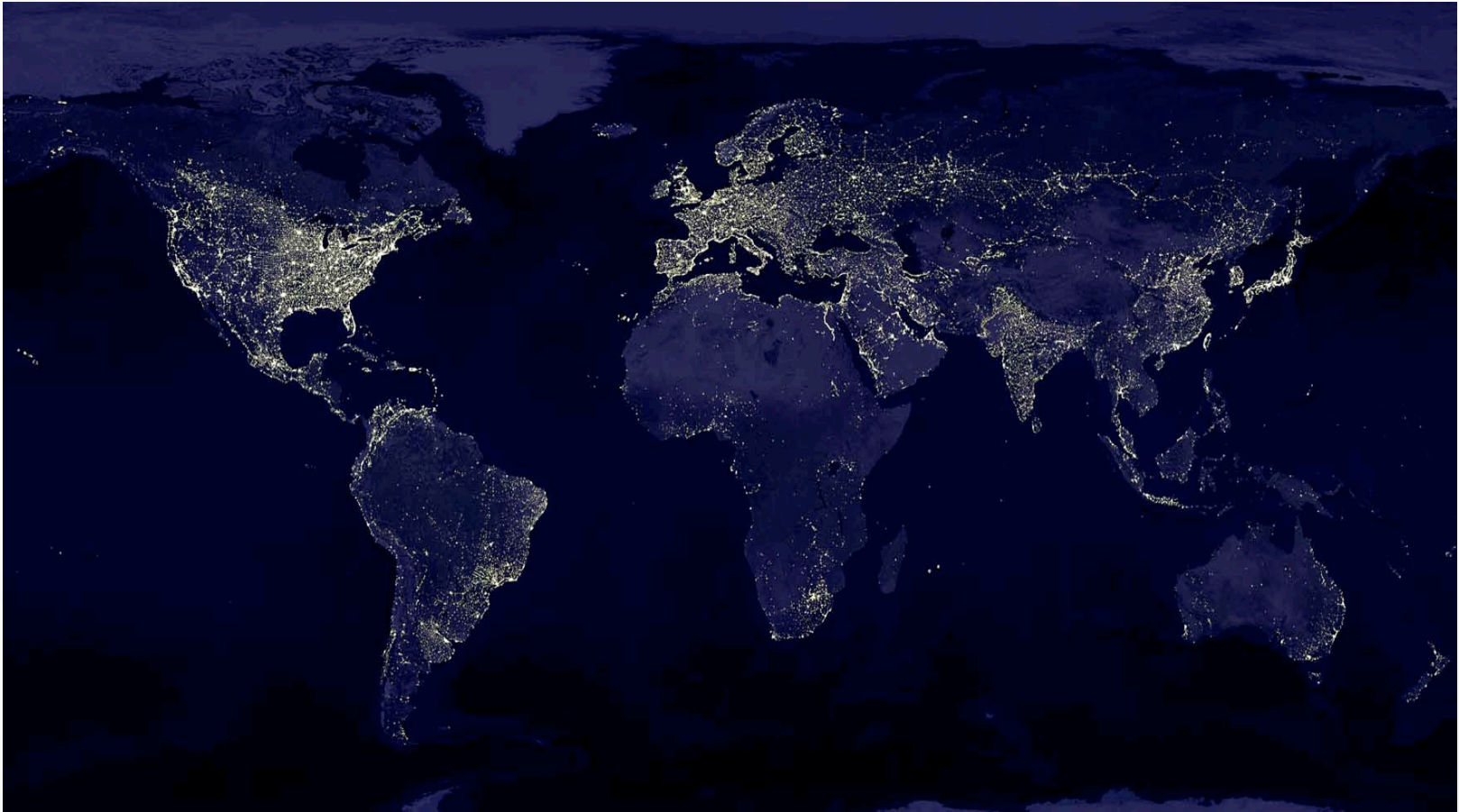
	SQUARE MILES	SQUARE KILOMETERS
BRAZIL	3,300,161	8,547,378
JAPAN	377,727	978,308
AUSTRALIA	2,966,189	7,682,394
EUROPE	1,905,731	4,935,820
U.S.A. (Continental)	3,120,066	8,080,934
<b>TOTAL</b>	<b>11,669,874</b>	<b>30,224,835</b>
<b>AFRICA</b> (including MADAGASCAR)	<b>11,715,721</b>	<b>30,343,578</b>

*This map was produced by the Map Design Unit of The World Bank. The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of The World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.*

# 73% of Africans have no access to electricity

“In countries for which data are available around 27 percent of the population has access to electricity.”

Source: *African Development Indicators 2006*. World Bank



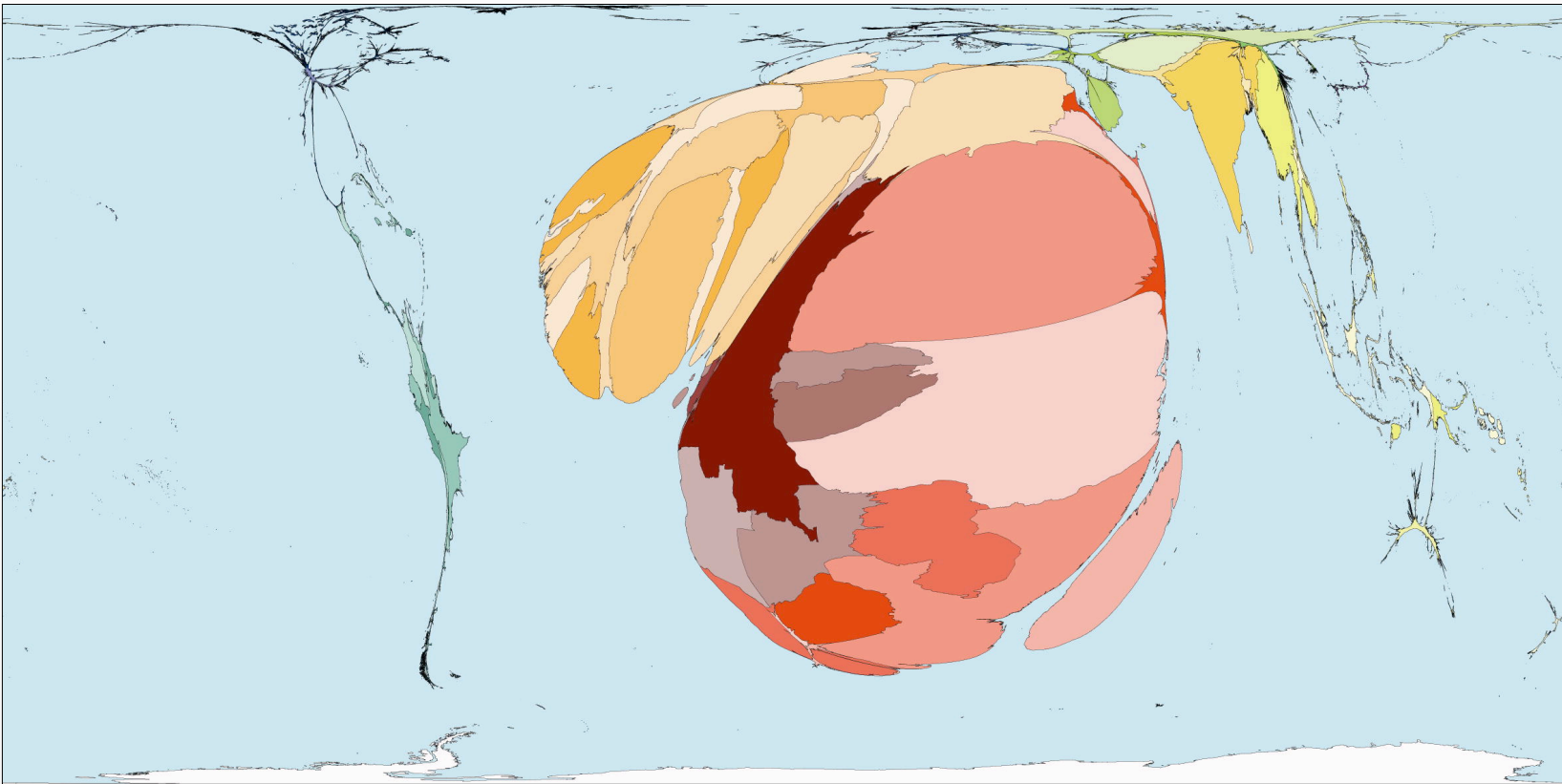


# Malaria kills 900,000 Africans each year



“Each year, it kills more than 1 million people around the world — 90 percent of them in Africa.”

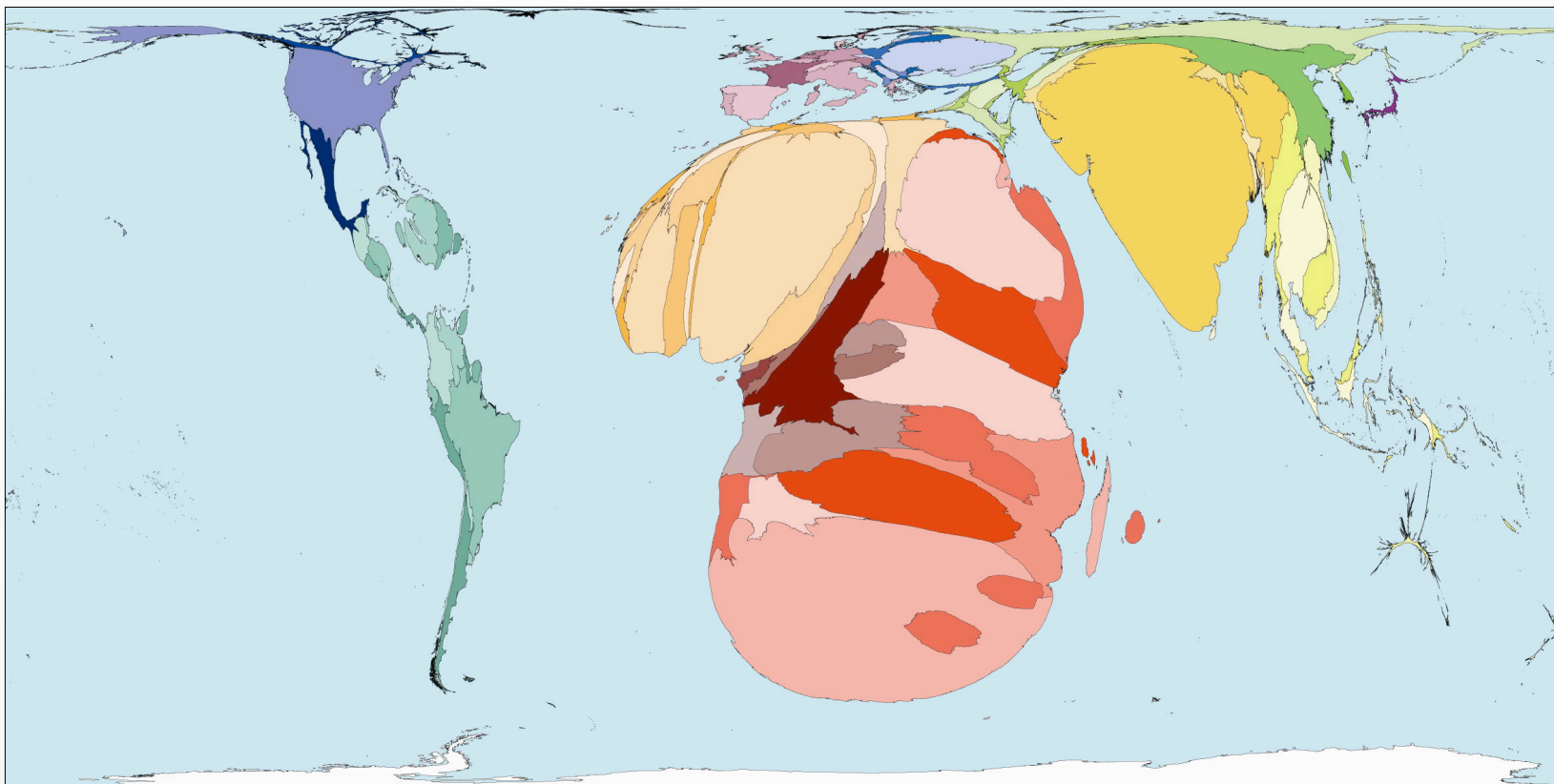
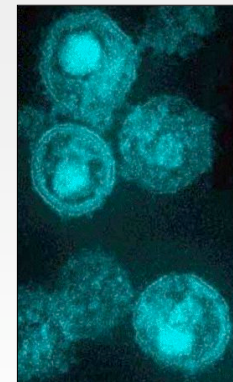
Source: *African Development Indicators 2006*. World Bank



Source: Worldmapper. PLoS Medicine | [www.plosmedicine.org](http://www.plosmedicine.org)

# 25 million Africans carry HIV

Source: *African Development Indicators 2006*. World Bank



Source: Worldmapper. PLoS Medicine | [www.plosmedicine.org](http://www.plosmedicine.org)



# North-South Disparities

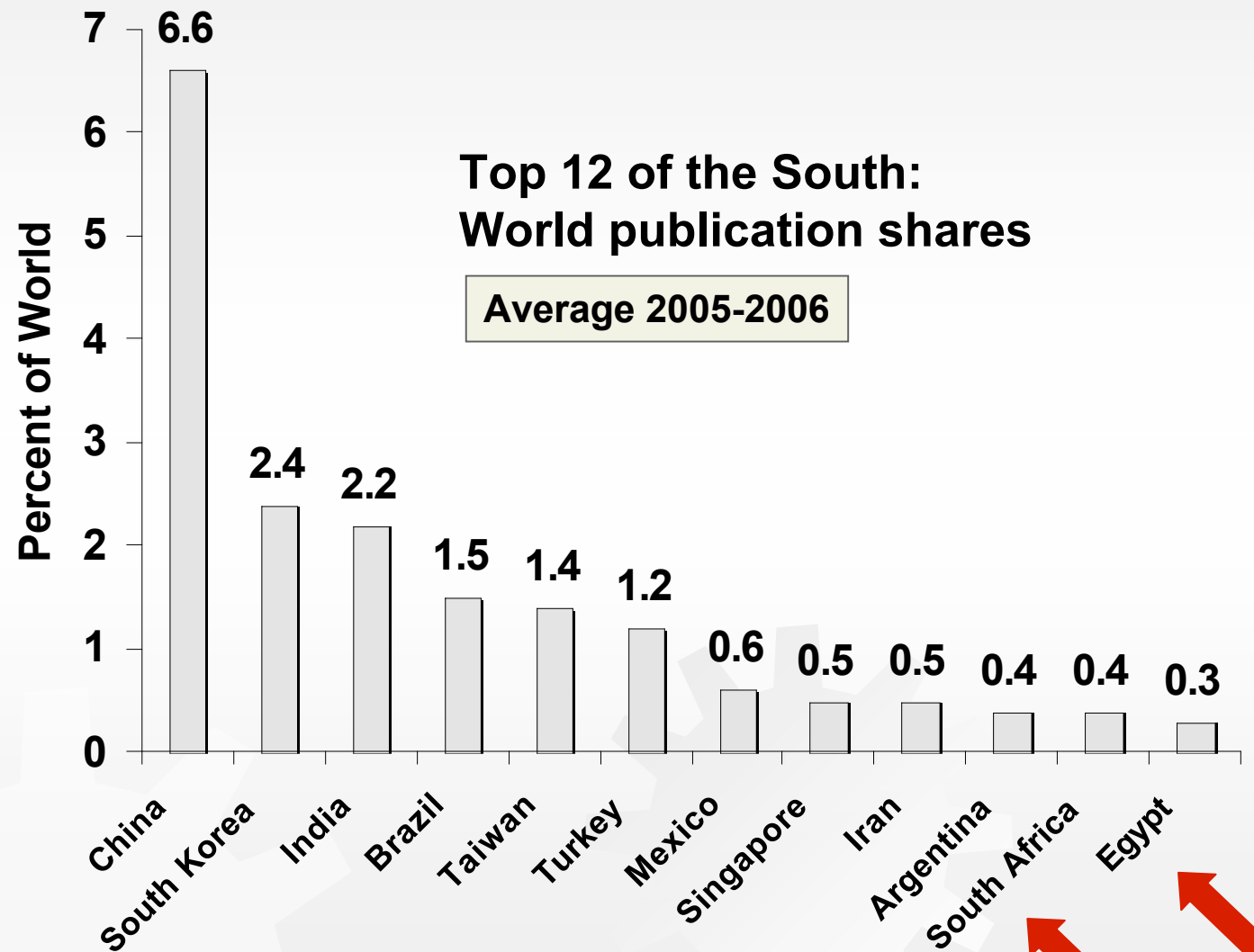
**World's top 25 countries, ranked by their share of world's papers in science, medicine and engineering**

**Average 2005-2006**

Source: SCI, January 2007

Country/Territory	Share of papers %
USA	28.32%
China	6.60%
Japan	6.23%
Germany	6.15%
United Kingdom	5.80%
France	4.45%
Italy	3.38%
Canada	3.38%
Spain	2.59%
South Korea	2.36%
India	2.23%
Australia	2.11%
Russia	1.98%
Netherlands	1.86%
Brazil	1.50%
Taiwan, China	1.44%
Sweden	1.39%
Switzerland	1.39%
Turkey	1.24%
Poland	1.22%
Belgium	1.05%
Israel	0.84%
Denmark	0.74%
Austria	0.72%
Finland	0.70%

# South-South Disparities



Source: SCI, January 2007



# Disparities in STI

AFRICA		Share of World
1	South Africa	0.37%
2	Egypt	0.26%
3	Tunisia	0.11%
4	Morocco	0.09%
5	Nigeria	0.08%
6	Algeria	0.08%
7	Kenya	0.05%
8	Cameroon	0.03%
9	Tanzania	0.03%
10	Ethiopia	0.03%
11	Uganda	0.02%
12	Ghana	0.02%
13	Senegal	0.02%
14	Zimbabwe	0.02%
Rest of Africa (39 c.)		0.16%
Total Africa		1.37%

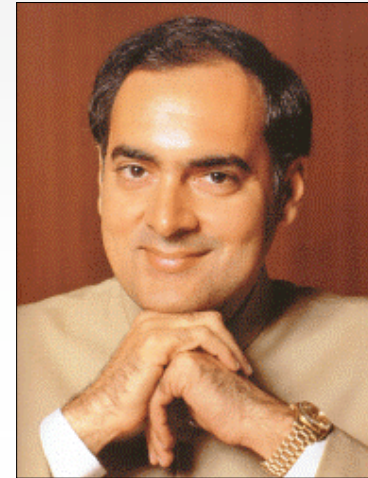
**African countries  
contributing  
≥ 0.02% of world  
share of ISI-  
listed S&E  
papers**

**Average 2005-2006**

Source: SCl, January 2007

Rajiv Gandhi:

“Better brain drain  
than brain in the drain”



## Challenge 3

- ◆ How to convert brain drain into brain gain and brain circulation?

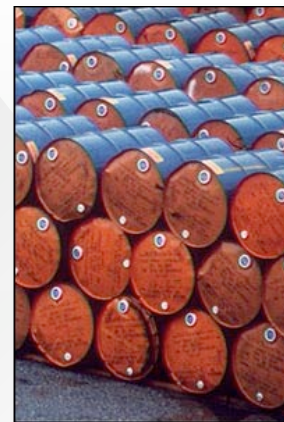


Source: The Economist, 2005



## Opportunity 2: Clean energy from African deserts

- ◆ Solar power plants in the Sahara desert can supply Europe with vast quantities of energy
- ◆ Each square kilometre of African desert every year receives solar energy equivalent to 1.5 million barrels of oil
- ◆ Solar energy received by deserts worldwide is nearly 1,000 times the world's entire annual energy consumption





# “4P’s” Concept



Ministry of Scientific Research

