



PEER Conference 2014



Enabling SSA
develop
Human Capital &
STI Capacity
to Harness the
Resources of
Nature for
Sustainable Dev.



The Genesis of NM-AIST

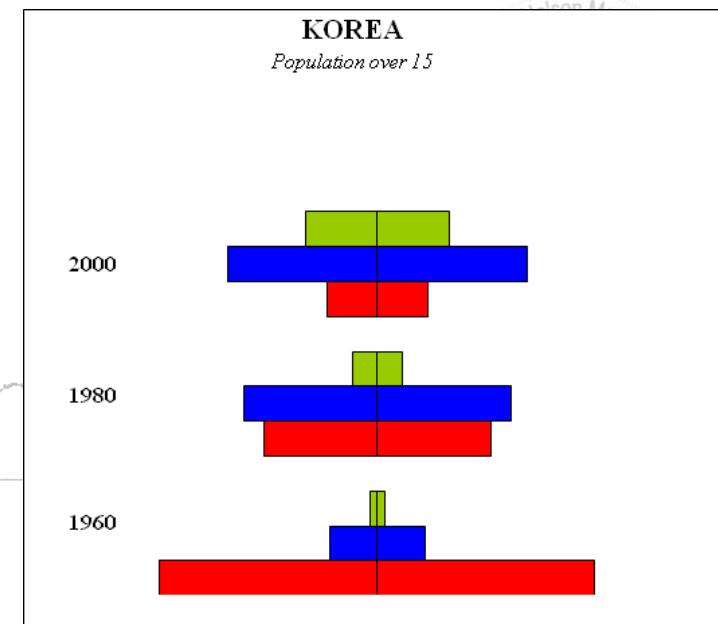
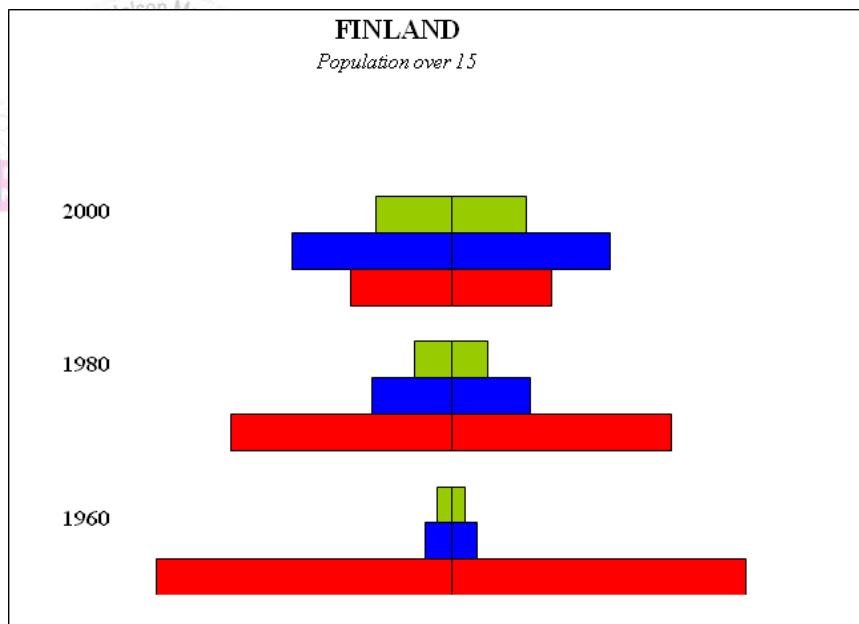
African leaders (incl. Nelson Mandela) discussion with Jim Wolfensohn (then WB President), February 2001.

Nelson Mandela greatly concerned by the knowledge gap (knowledge deficit) in SSA suggested to Jim that Institutions of S&T are perhaps Africa's single greatest need (*the likes of IITs & IISs in India*).

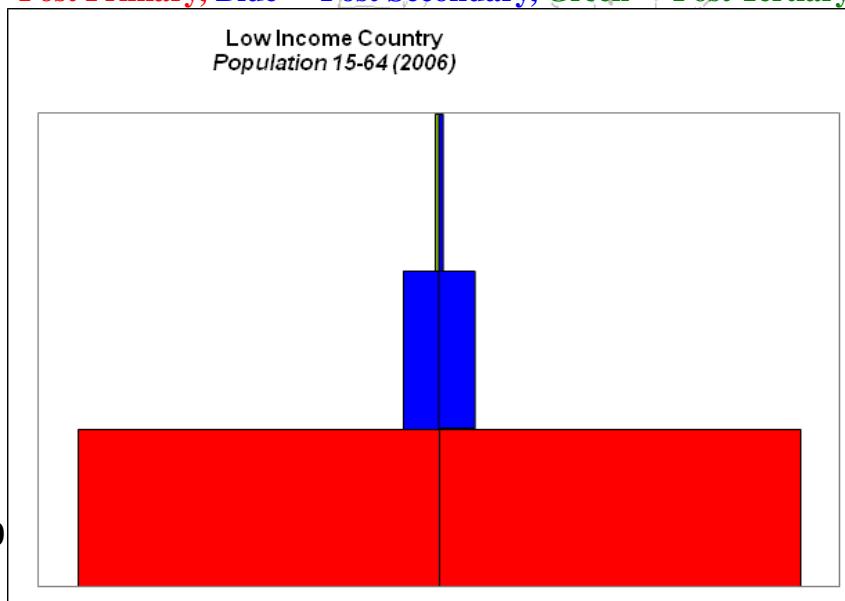
Frannie Leautier, then Vice President of WBI, was given the task of making this happen.

Hippolyte Fofack, an African WBI official, was charged with developing the concept in collaboration with some Africans in the Diaspora.

Value addition to Human Capital – Finland & Korea, & LDC

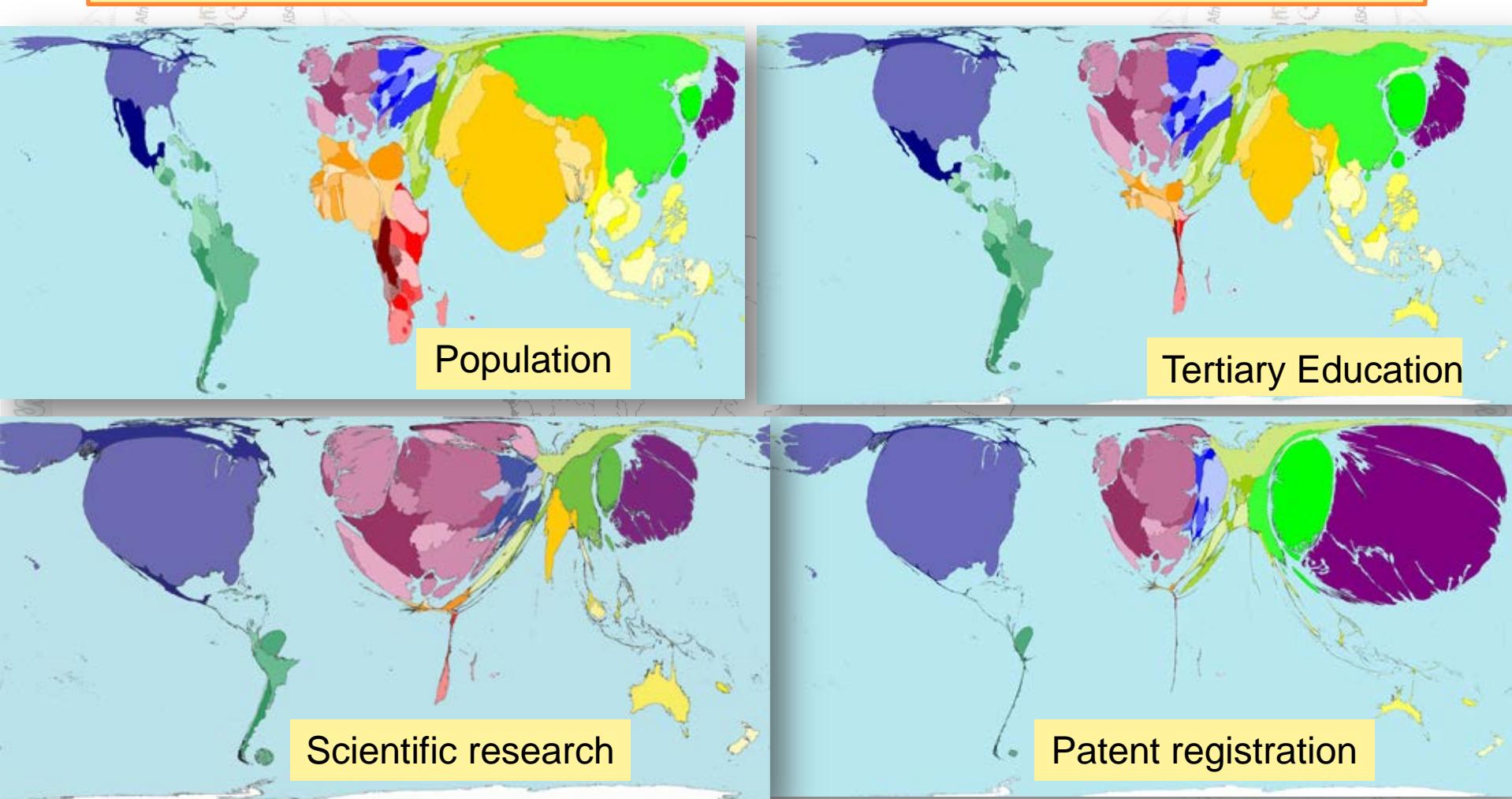


Red = Post Primary, Blue = Post Secondary, Green = Post Tertiary



Source: World Bank, 2010

Science & Technology Performance – a function of Value-addition to Human Capital



Source: www.worldmapper.org

“... in the final analysis it is basically the mystery and utilization of modern science and technology which distinguishes the South from the North”. Abdus Salam African Nobel Laurete, 1979

Partnerships for Enhanced Engagement in Research (PEER) initiative is a most commendable because it will contribute to the development of SSA's STI capacity to:

- Improve its visibility on the global scientific research & patent registration scale;
- Effectively participate and harness the benefits of globalization & the knowledge economy;
- Harness the resources of nature it is endowed with for its sustainable socio-economic development.

=> There is need for more PEER initiatives!!

To provide the best facilities for graduate and post-doc studies and research

Objectives of the AISTs

To catalyze the development of world class science and technology in Africa

Strong link with industry for technology transfer

To bridge between research and industrial development

Technology parks with incubators and innovation centres for spin-offs

NM-AIST's Thrust and Focus

To stimulate, catalyze and promote intensification of agricultural production, value addition to natural products, and human & animal health.

To promote & harness **linkage to society and the local industry**, and **scientific and technological response to local needs** (*thereby avoiding the traditional social divide between academia and industry*).

To strive for a combination of strong local and global connections.

The Motto:

ACADEMIA FOR SOCIETY AND INDUSTRY

NM-AIST's Key Deliverables

Production of:

- Top-notch SET **academics** for other higher learning institutions;
- Competent **researchers** for R&D institutions;
- **Techno-preneurs**, industry captains, **innovation managers** for stimulating, catalyzing and promoting business start-ups and the growth of the local industry.

Establishment of a **world-class environment** for the translation of **research results** into tangible **products**, **industrial and business solutions**, and **policy briefs** to enable wealth creation and sustainable development.

Current Total Student Enrolment (as of April 2014)

Intake Year	Category by Gender							Overall Total		
	PhD			Master's						
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
2011/12	22	5	26	5	2	7*	26	7	33	
2012/13	29	7	36	69	23	92	98	30	128	
2013/14	38	13	51	48	25	73	86	38	124	
Total	89	25	114	122	50	172	210	75	286	
			(22%)		(29%)				(26%)	

*44 graduated on Dec 19, 2014

Affiliations of current NM-AIST Students

Student Affiliation	As % of the Total Enrolment		
	Master's	PhD	Average
Academia @ Higher Learning Institutions	28.8	72.5	44.2
R&D Institutions	5.0	9.2	6.4
Industry	40.1	17.5	32.2
Direct Entrants	26.1	0.8	17.2
Total	100	100	100

Current NM-AIST 2013 Graduates Affiliation

Current Affiliation of the 44 Master's Graduates	%
Proceeding with PhD studies	40.9
Employed by Higher Learning Institutions	36.4
Employed by R&D Institutions	13.6
Employed by the Industry	6.8
International NGOs	2.3
Total	100

Key Outcomes of NM-AIST's Mission

Value Addition
to Human
Capital thro'
Teaching &
Learning

Solutions to Societal
Needs and Problems
thro' Research &
Innovation , & Public
Service & Outreach

Business
spin-offs from
Research &
Innovation

The Motto:

ACADEMIA FOR SOCIETY AND INDUSTRY

Nelson Mandela AIST is in effect being developed into a Transformative University with four key features:

- Teaching & Learning
- Research & Innovation
- Technology Transfer
- Co-creation for sustainability
(Societal transformation & Co-creation)

Research & Innovation (R&I) @ NM-AIST

The Research and Innovation (R&I) Agenda of NM-AIST is driven by the desire to respond to the needs & problems of the society and the industry. Emphasis is given to multi-disciplinarity.

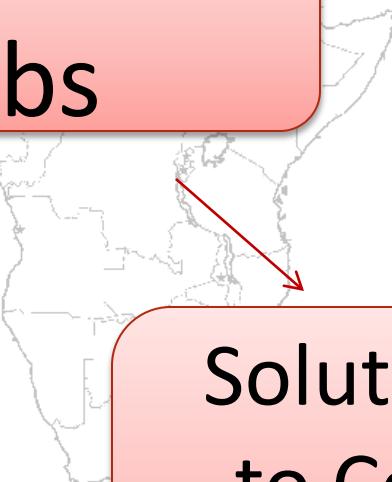


Derive Needs &
Problems from
Communities &
the Industry



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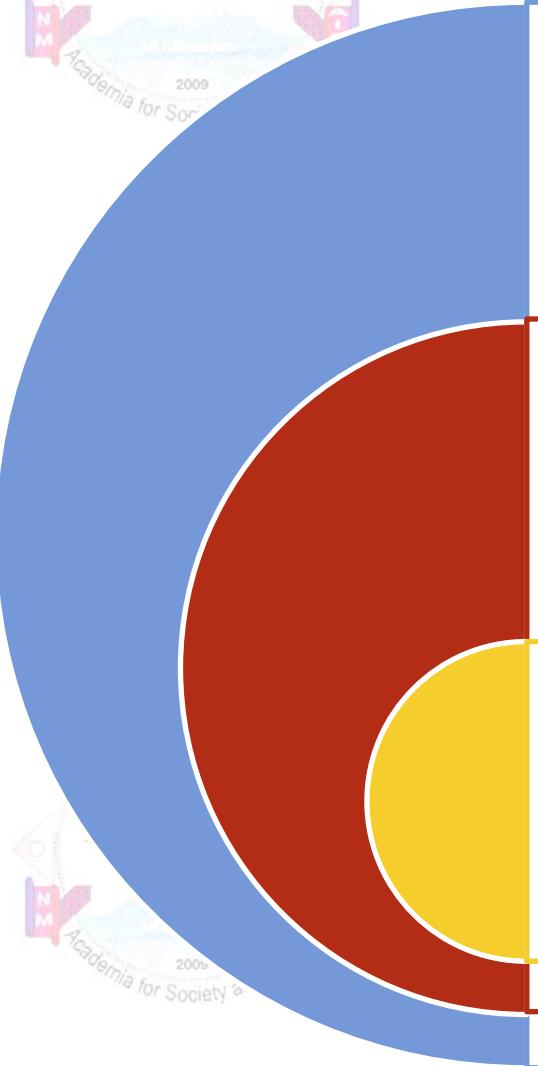
NM-AIST
Labs



Solutions Feed Back
to Communities &
the Industry

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Staffing and Students



Core permanent and contract faculty recruited competitively from within and outside EA Region

Pool of visiting faculty from collaborating institutions and the Diaspora

Students to be admitted competitively from the EA Region, and SSA generally.

Arusha – Opportunity & Strength for NM-AIST

Tanzania is one of the world's bio-diversity hot-spots

Arusha is HQ of EAC and well placed midway between Cairo and Cape Town

Fast growing city, stable and peaceful with excellent climate

Vibrant Tourist Industry within range, including the best 3 of the 7 Natural Wonders of Africa, namely; Serengeti, Kilimanjaro & Ngorongoro Crater

Easy International Access through KIA

Experience with hosting international programmes:
ESAMI, ICTR, PAPU

- *Nicknamed the Geneva of Africa by Bill Clinton*
- *NM-AIST & AKU promoting Arusha into an EA Higher Education Hub*

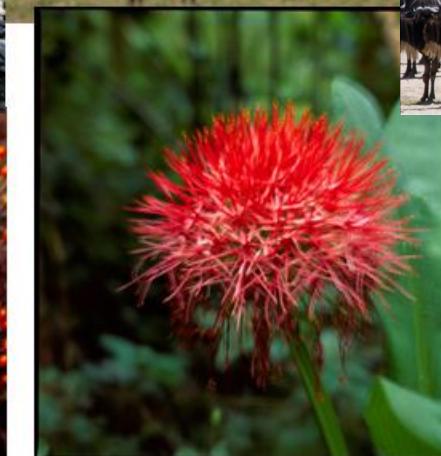
The Biodiversity and Tourist Attraction around Arusha



The Biodiversity and Vibrant Tourist Industry around Arusha



The Biodiversity and Vibrant Tourist Industry around Arusha



Mountain Kilimanjaro, the Highest Mountain in Africa, 5,895 m



Mountain Kilimanjaro, the Highest Mountain in Africa





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**You are most welcome
&
Thank you very much!**

