

# IMPLEMENTATION OF THE NIGERIAN SCIENCE, TECHNOLOGY AND INNOVATION POLICY FOR NATIONAL DEVELOPMENT

by

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The Honourable Minister of Science and Technology,  
Federal Republic of Nigeria,

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of the  
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(CSTD)  
GENEVA, SWITZERLAND**

**June 3, 2013**

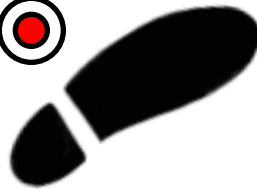


# STI POLICY - NIGERIA

Progress so far...

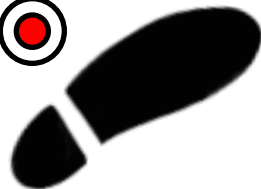
## 4 – Redesigned NSI

Jan. 2013



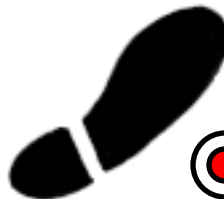
## 2 -New STI Policy

Approved Feb 2012

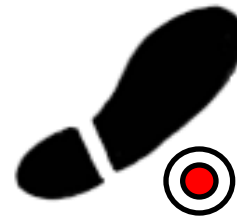


## 3 -STI Policy KPI

•Development & Validation  
by Stakeholders



## 1 -Review of STI Policy



## 5- Processes in motion on Governance, Funding & Implementation

- Inauguration of the National Research & Innovation Council (NRIC)
  - - Mr President as Chair
- National Research & Innovation Fund (NRIF)



# STI POLICY - NIGERIA

Reviewed National Science, Technology & Innovation Policy Launched in 2012  
(Supported by UNESCO)

- **General Policy Objective**
- **Specific Policy Objectives**
- **Policy Strategies**
- **Funding STI Activities**
- **STI Partnership and Collaboration**
- **Governance**
- **Institutional and Legal Framework**

# IMPLEMENTATION FOR NATIONAL DEVELOPMENT

**A**

Infrastructure, Capacity Building, Utilization for Dev

**B**

**Sectoral strategies**

Agriculture, Water resources, Biotechnology, Health (medicine, natural, pharmaceuticals), Energy, Raw material development, ICT, Transport, Women & Youths, Technology Transfer

**C**

**International Community**

- ❖ Technology transfer/diffusion
- ❖ Partnership and collaborations
- ❖ International property rights

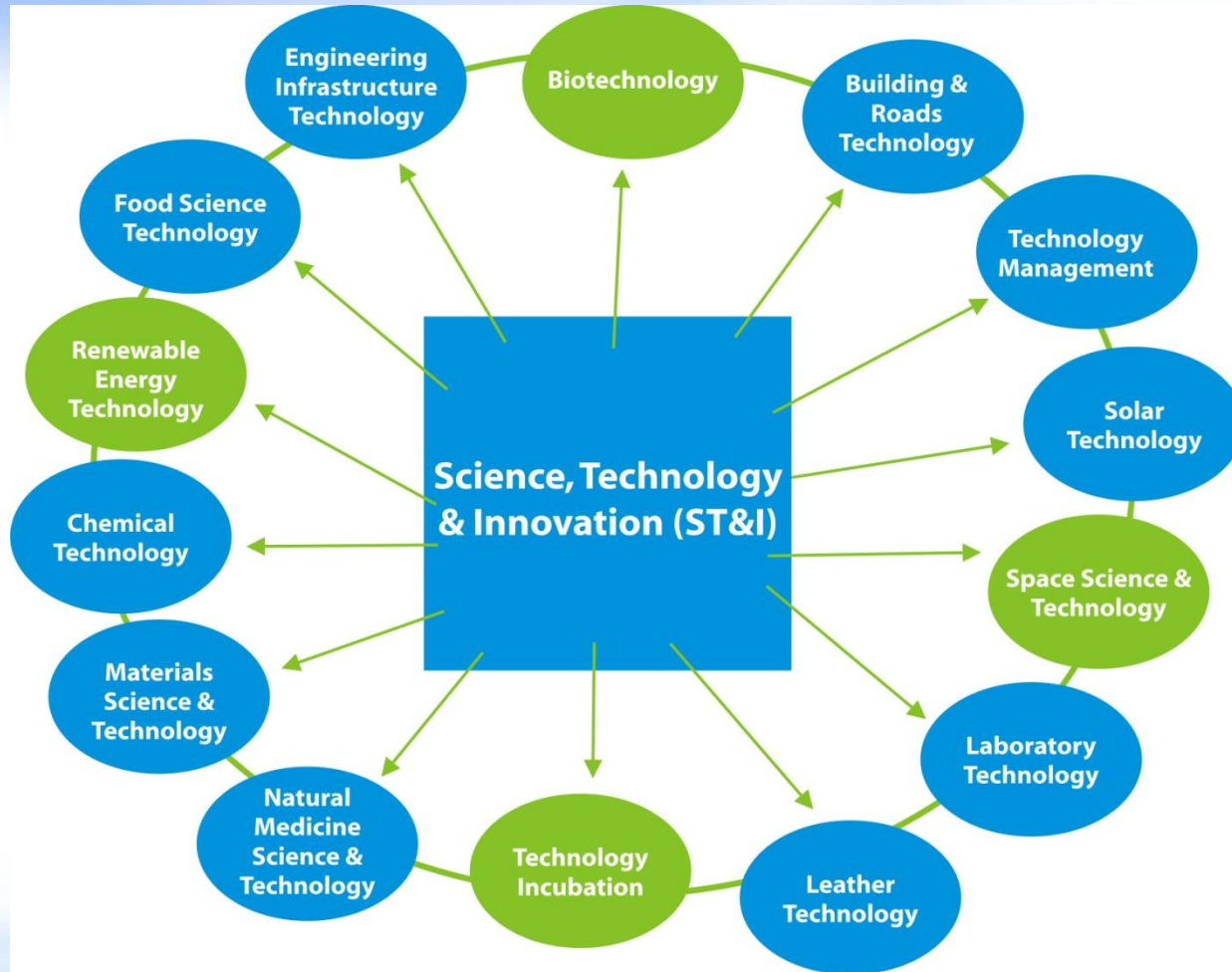
**D**

**Implementation strategies**

- ✓ Short term
- ✓ Long term



# TECHNOLOGIES DRIVEN TO IMPLEMENT THE STI POLICY



# SUSTAINING NATIONAL DEVELOPMENT (5 FOCAL TECHNOLOGIES)

## ✚ SPACE TECHNOLOGY

3 Satellites ( NigeriaSat-2, NigeriaSat-X, NigcomSat-1R)

✚ Floods, telemedicine, communication, Broadband applications, fibre optics geospatial mappings, forestry monitoring, etc

## ✚ BIOTECHNOLOGY

✚ Food security, seed multiplication, genetic engineering, etc

## ✚ BUILDING/ROAD TECHNOLOGY

✚ Local road networks, low cost housing, (burnt bricks), etc

## ✚ LEATHER TECHNOLOGY

✚ Shoes, football, indigenous technology, etc

## ✚ SOLAR TECHNOLOGY

✚ Boreholes, backup for national grid, etc



# TRIPLE HELIX MODEL

(Etzkowitz and Leydesdorff, 2000)

## SPHERES OF RESPONSIBILITIES



### GOVERNMENT

#### GOVERNMENT OF NIGERIA & INTERNATIONAL COMMUNITY

- Laws, tax holidays
- Funding, loans, venture capitals
- Infrastructure (counterpart funds)
- Capacity building



### INDUSTRY

#### NIGERIA & INTERNATIONAL FIRMS, ENTREPRENEURS, SMEs

- Products
- Marketing
- Innovation
- R & D
- Capacity building
- Tech Incubation



### UNIVERSITY/ RESEARCH INSTITUTION

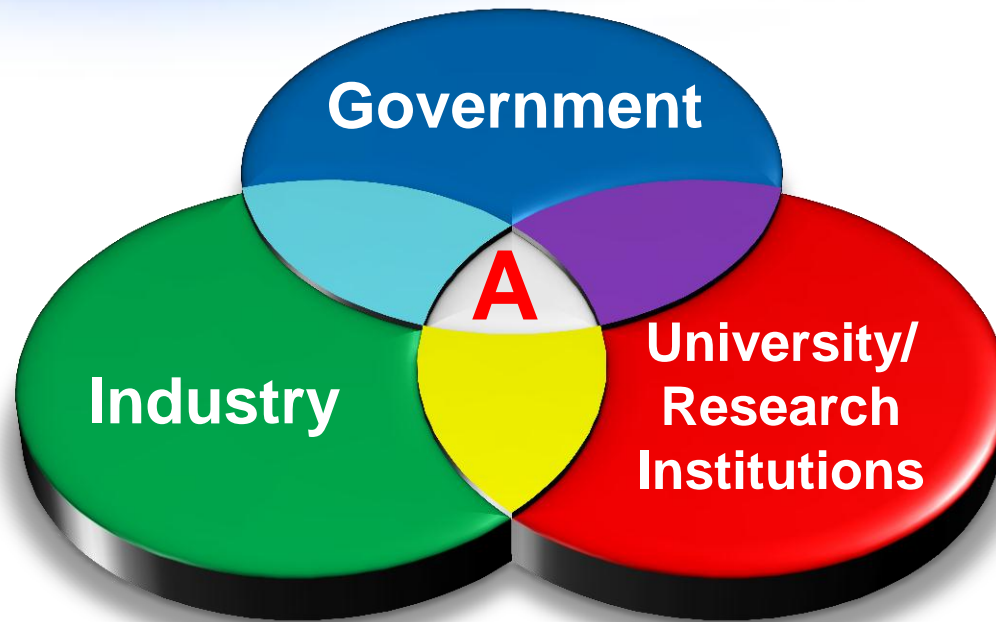
#### INTERNATIONAL & NIGERIAN UNIVERSITIES, POLYTECHNICS, RESEARCH CENTRES, SCHOOLS

- Teaching
- Research
- Capacity building
- Student exchange



# INTERACTIVE COOPERATION FOR NATIONAL DEVELOPMENT

## THE INTERACTION MODEL (TRIPLE HELIX MODEL)



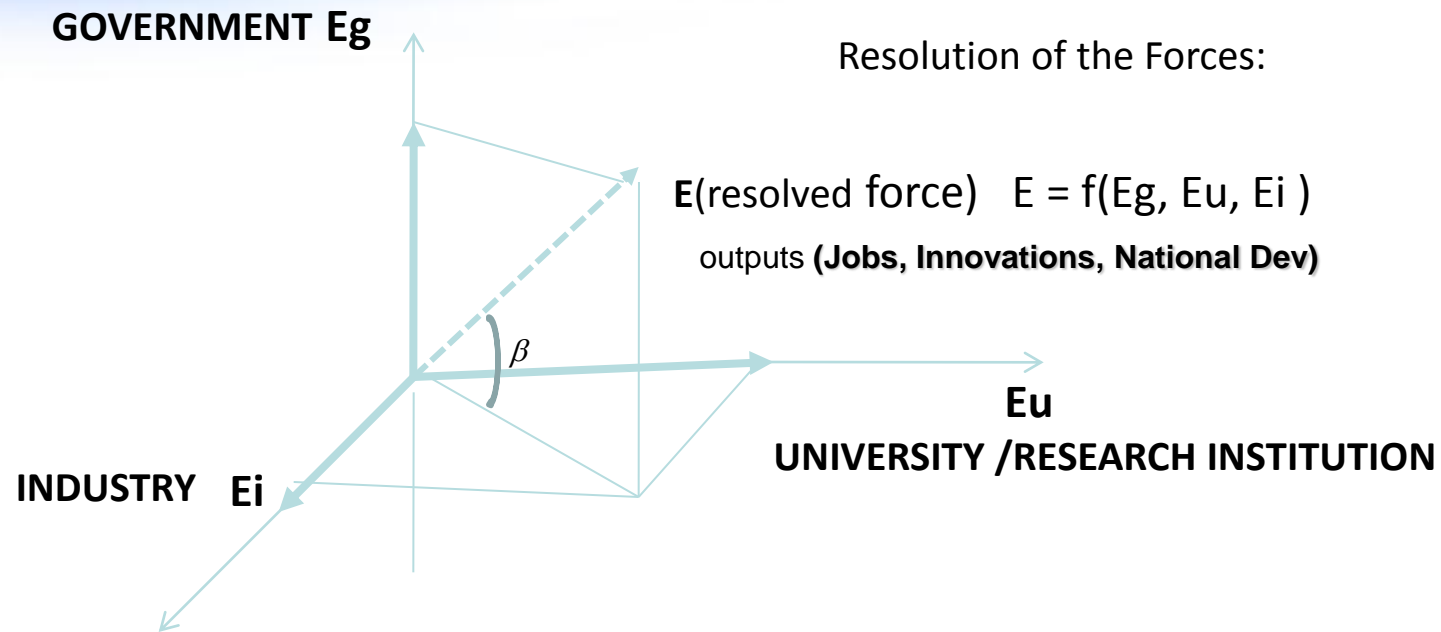
*THIS MODEL ENSURES THAT NATIONAL GOVERNMENTS AND THE INTERNATIONAL COMMUNITY, INDUSTRIES & UNIVERSITIES/RESEARCH INSTITUTIONS ASSUME SOME OF THE CAPABILITIES OF THE OTHER (REGION A), EVEN AS EACH MAINTAINS ITS PRIMARY ROLE AND DISTINCT IDENTITY*





# INTERACTIVE COOPERATION FOR NATIONAL DEVELOPMENT – Resolving the Forces

## THE INTERACTION MODEL- FIELD FORCES (TRIPLE HELIX MODEL)



This model ensures that National Governments and the international community, Industries & Universities/Research Institutions assume some of the capabilities of the other,  $E = f(Eg, Eu, Ei)$  in driving technological innovations through commercialization of R & D outputs (Nigeria's Model)



# DOMESTICATION OF SOLAR TECHNOLOGY (Silicon Valley Project in Nigeria)



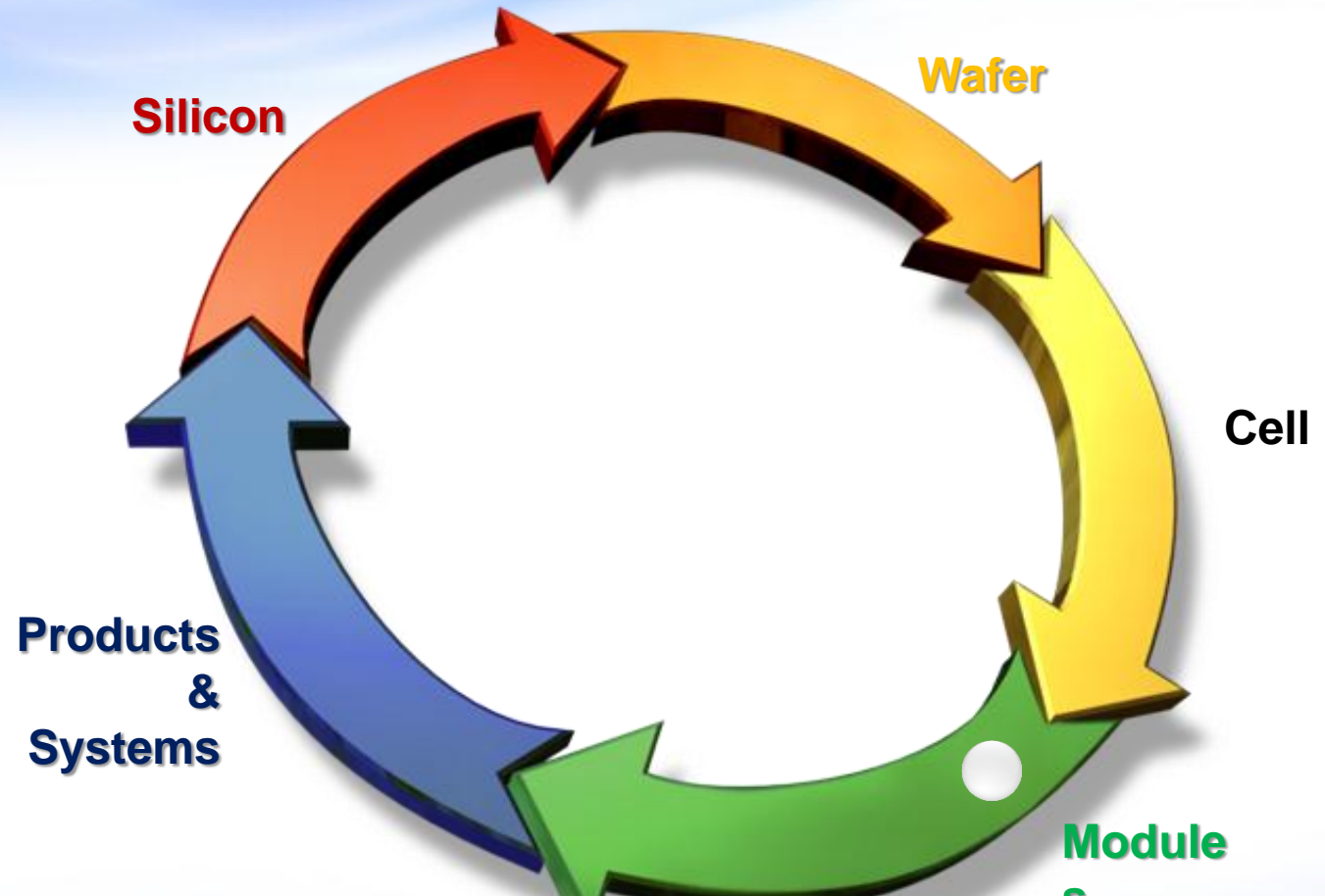
Proposed SHESTCO Silicon Valley (Aerial View)

# SHESTCO Silicon Valley Project



SHESTCO SILICON VALLEY FENCE

# SHESTCO Silicon Valley - Solar Tech Value Chain



# SHESTCO SILICON VALLEY (Focal Areas)

**Solar Cell  
Production**

**ICT Industry  
Development  
&  
Applications**

**Nanotechnology  
/Materials  
Science /  
Chemical  
Technology**

**Biotechnology**

**Agricultural  
Technologies**



# ACKNOWLEDGEMENT





**THANK YOU FOR YOUR ATTENTION**

