

41st UNCTAD Course on Key Issues on the International Economic Agenda

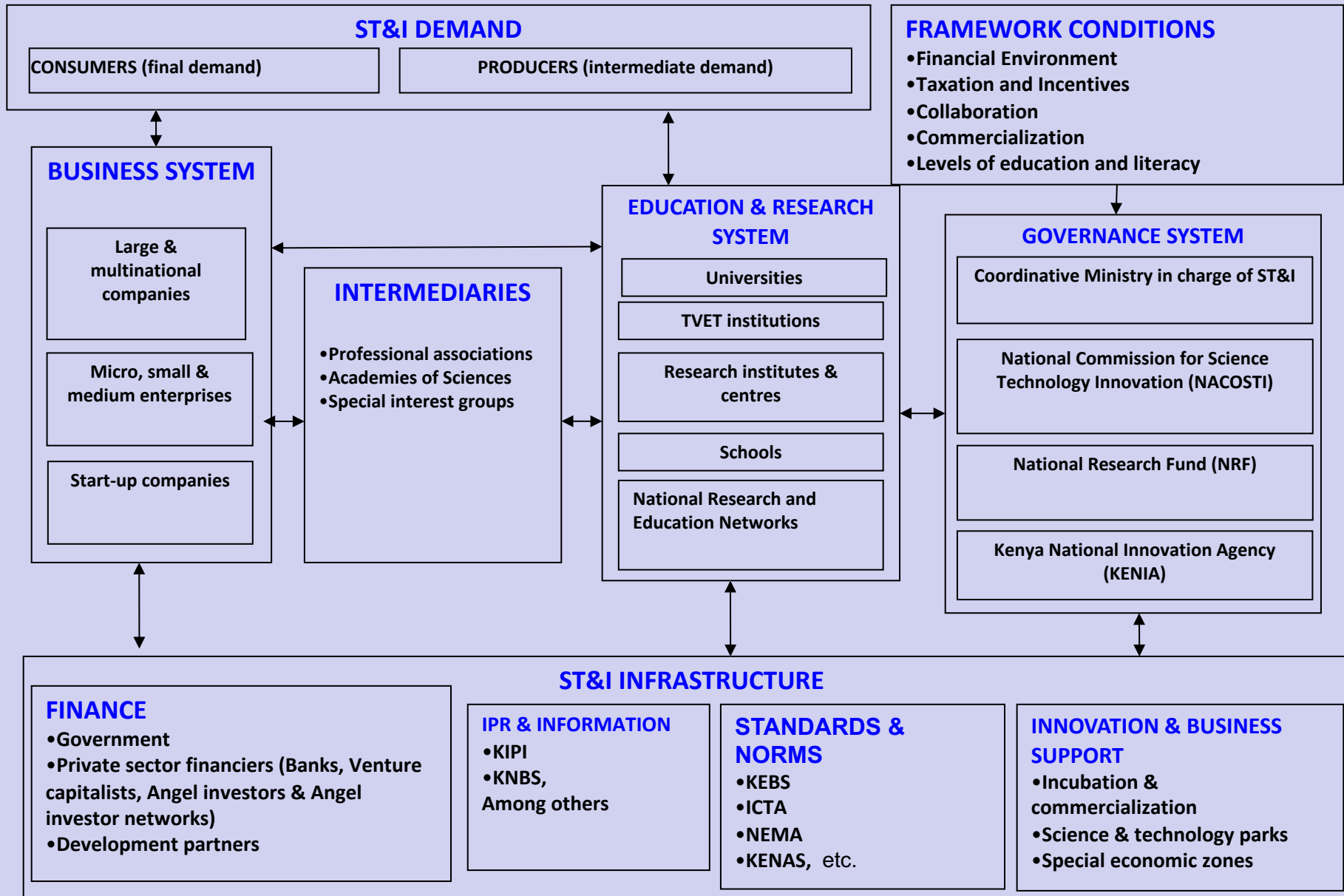


The Case of STI Policies in Kenya
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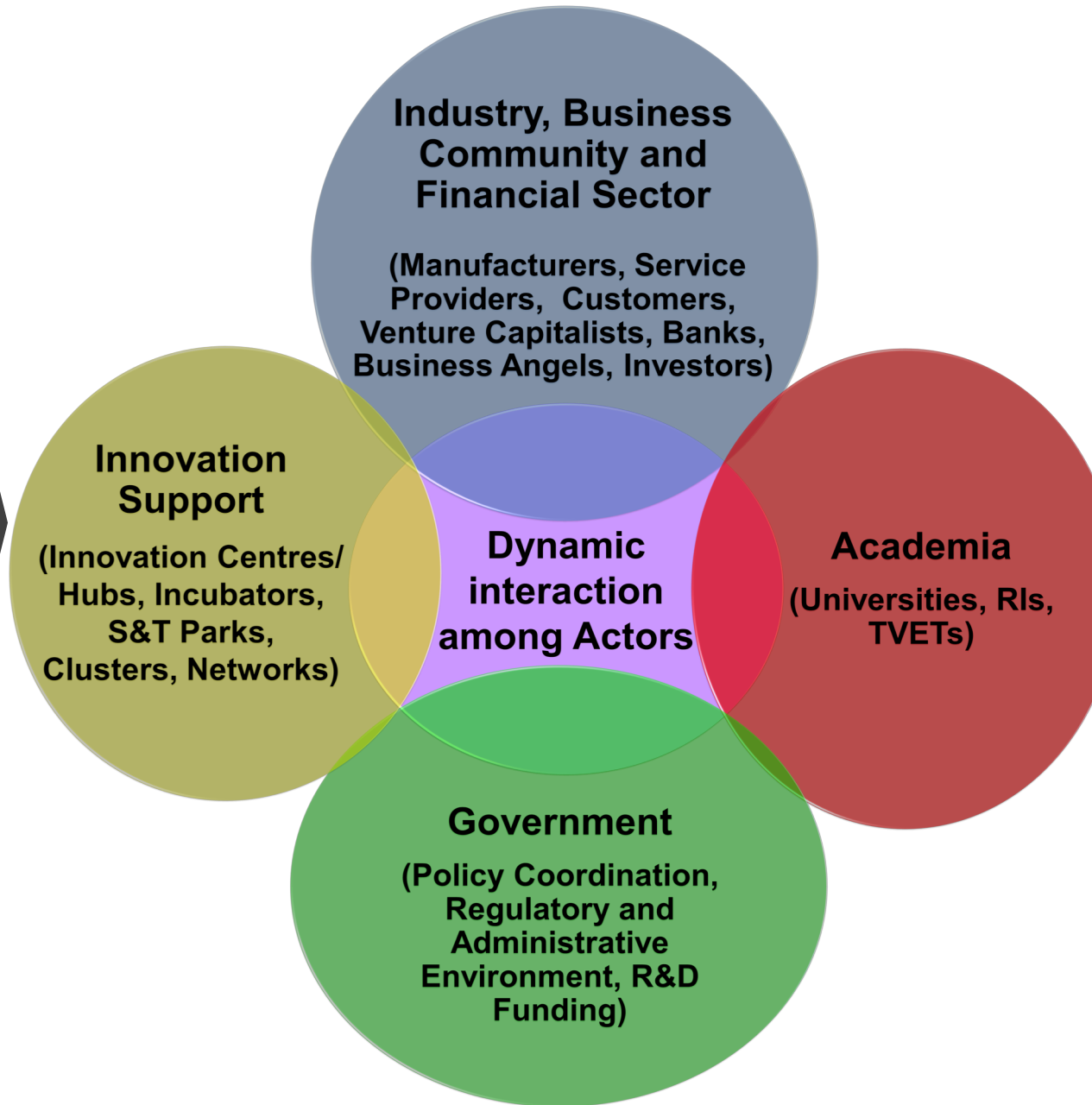
Agenda

- 1. National innovation system & ecosystem**
- 2. Vision 2030 & STI vision and mission**
- 3. National priorities**
- 4. Policy objectives**
- 5. Assessment of implementation status**
- 6. Concluding remarks**
- 7. Implications for other nations**

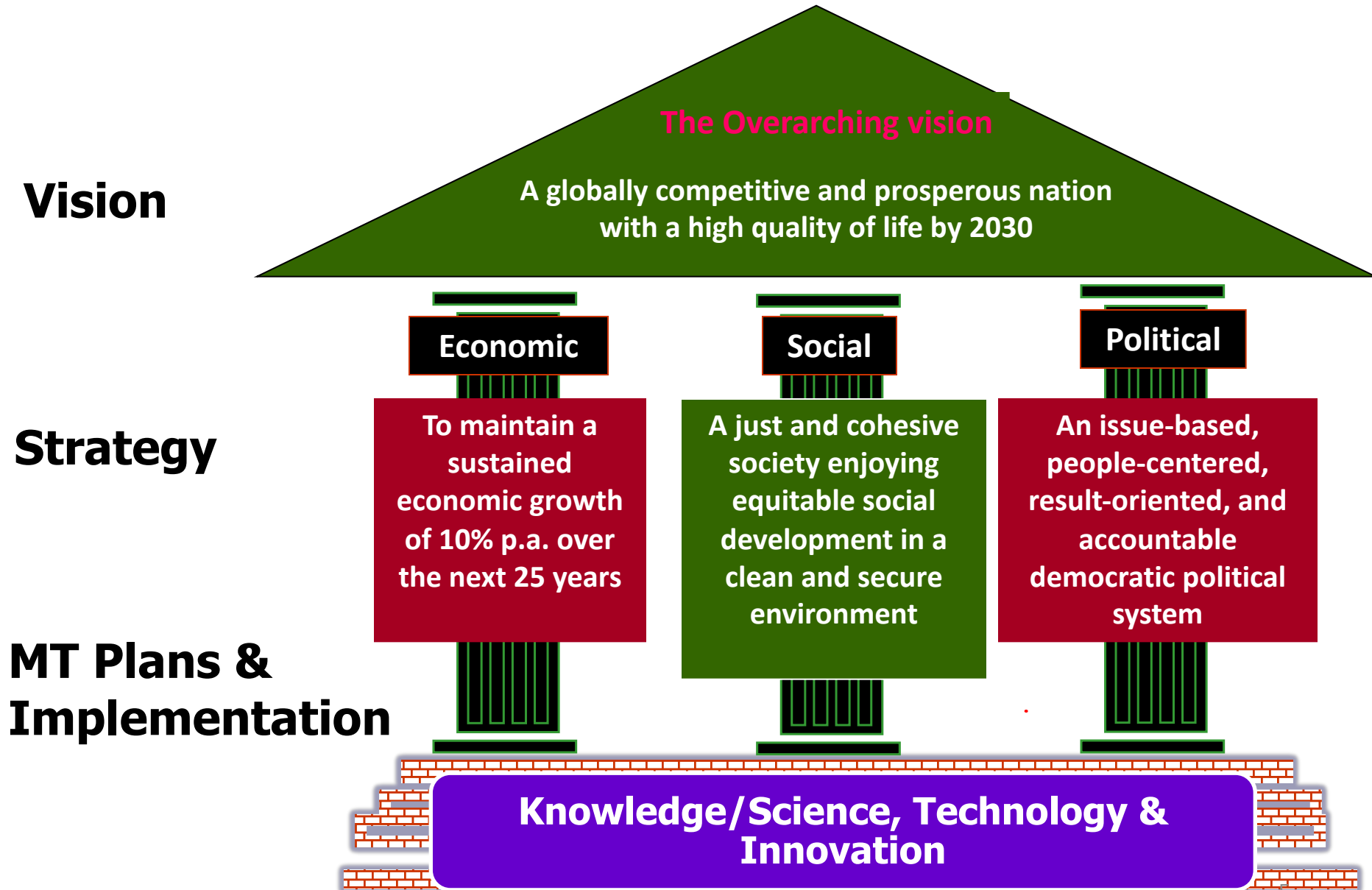
1. National innovation system



Innovation ecosystem



2. a) Vision 2030



2. b) STI Vision, Mission & Guiding Principles

Guiding Principles

Multi-disciplinarity & synergy

Reward & recognition

Cost effectiveness

Realism

Ethical leadership

Good governance

Empowerment & inclusiveness

Partnerships

Relevance

Vision: To be a nation that harnesses science, technology and innovation to foster global competitiveness for wealth creation, national prosperity and a high quality of life for its people

Mission: To mainstream the application of science, technology and innovation in all sectors and processes of the economy to ensure that Kenyans benefit from acquisition and utilisation of available capacities and capabilities to achieve the objectives of Vision 2030



Time →

3. Priorities

- 1. Telecoms, electronics & computer manufacturing**
- 2. Software development**
- 3. Automobile manufacturing**
- 4. Satellite & space infrastructure manufacturing**
- 5. Renewable & green infrastructure manufacturing**
- 6. Nuclear energy technologies**
- 7. Food & nutritional energy technologies**
- 8. National resource management technologies**
- 9. Health technologies**
- 10. New & emerging technologies**

4. Policy objectives

1. Institutional and regulatory framework

The government will establish an institutional and regulatory framework to promote, coordinate, mobilise resources and manage STI

2. National priority areas

The government through relevant institutions will leverage ST&I to transform the economy through identified national priority areas

3. R&D funding

The government will allocate 2% of GDP annually for the R&D sub-sector and motivate other stakeholders to participate in funding ST&I.

4. IP rights

The government in collaboration with relevant stakeholders will identify, nurture, recognize and protect intellectual property rights of scientists, researchers and innovators

5. STI knowledge sharing & awareness

The government will establish and promote ST&I knowledge sharing and awareness creation systems

5. Assessment of status of implementation

5a) Institutional and regulatory framework

Achieved

- Draft STI Policy
- NACOSTI, KENIA and NRF created
- Some capacity for quality stds and accreditation of testing and calibration labs
- Mushrooming of innovation hubs, with hardly any Govt support

Not Achieved

- STI Policy not approved
- KENIA and NRF not fully operationalized
- STI not mainstreamed in all sectors of the economy @ national & county gvts
- No governance framework to coordinate STI across sectors
- Limited promotion of local STI innovations & inventions
- Comprehensive performance management framework not developed, implemented nor reviewed

5b) National priority areas

Achieved

- A very small funding was available from KENIA and NRF
- Mushrooming of innovation hubs (independent of policy intervention) tackling different aspects of priority areas – most focused on ICT

Not Achieved

- No innovation Centres of Excellence (CoEs) in the national priority areas were established
- No appropriate technologies supportive of the realization of the identified national priority areas were acquired
- On-going ST&I interventions were not reviewed to align them to the national priority areas
- No framework for conducting fore sighting linked to the national priority areas
- No promotion of STI parks to develop tech-based firms – Konza continues to struggle

5c) R&D funding

Achieved

- STI Act was enacted in 2013, providing for 2% of GDP designated as National Research Fund
- Research fund created
- Board of Trustees created to manage the National Research Fund
- Tiny fund disbursed to NRF

Not Achieved

- Govt did not allocate the 2% of GDP to NRF – research funding still $< 1\%$
- No increase in public investment in universities, labs and RIs to enable access to facilities and equipment
- Infrastructure & equipment needs for STI to support dev. Objectives not established, benchmarked or funded
- No incentives or framework for other stakeholders (industry, investors, etc.) to participate in innovation ecosystem

5d) IP rights

Achieved

- **Emphasis on STEM in schools**
- **Introduction of competence-based education in schools**
- **Kenya Industrial Property Institute (KIPI) continues to administer Industrial Property Rights (IPRs)**

Not Achieved

- **No strategy for STI HR development**
- **No strategy on how to integrate indigenous resources and traditional knowledge into national development**
- **No extra ordinary effort put to identify, tap, nurture, recognize & protect IPRs or indigenous (including genetic) resources and traditional knowledge**
- **No effort to promote innovative in-house R&D in both public & private enterprises through incentive schemes and PPPs**

5e) STI knowledge sharing & awareness

Achieved

- STEM encouraged in schools
- Public awareness and support for national STI activities, e.g. NIW
- Some public dialogue involving innovation ecosystem actors through print, electronic and other media

Not Achieved

- Lack of STI communication policy
- No sustainable national integrated STI advocacy programmes
- Lack of a framework to close the competency & knowledge gaps between the Triple Helix actors
- No national & county STI museums
- Lack of mechanisms or systems to communicate or share STI info & results
- No effort to develop & measure STI indicators & related M&E

6. Concluding remarks

Innovation ecosystem

- Innovation ecosystem is fragmented across different institutions and sectors
- No overarching mechanism to integrate, synergise and coordinate the actors' efforts

Lessons from other nations

- Countries that have leveraged on ST&I for accelerated development (e.g. Switzerland, Singapore, Korea, Malaysia, Israel and BRIC countries) locate their national innovation agencies in very powerful ministries in charge of the Economy, Knowledge Economy or S&T to ensure effective coordination

Institutional framework

- STI agencies (NACOSTI, KENIA & NRF) should be to be recognized as strategic agencies & managed by a Delivery Unit under the Presidency to ensure effective coordination and delivery

Funding

- Committed resources should be allocated in order to allow STI to play its role in national development

7. Implications for other nations

Policy & law inadequate

- Kenya has demonstrated that it is not enough to have policy and legal frameworks
- Execution requires other enablers

Execution enablers

- National leadership that believes in the role of STI in national development
- Competence & leadership at institutional levels
- Appropriate and powerful structures to execute
- Resource allocation

Benchmark lessons

- Place national STI agencies in very powerful ministries in charge of the Economy, Knowledge Economy or S&T to ensure effective coordination

Strategic funding 4 STI

- STI funding MUST be local and strategic – donations will not develop our STI sectors

Love for our countries

- We don't love our counties enough – we often put our individual, group and community interests before our national interests