



Trinidad and Tobago

vision

Promoting
**e-Commerce, Innovation and
Entrepreneurship** in Trinidad & Tobago

The Berkeley/UNIDO Bridging the Divide
Conference 2006

Presented by Atiba Phillips, National ICT Division
Executive Manager, e-Commerce,



Agenda

- Trinidad and Tobago (T&T)
 - History and Economy
- Vision 2020 and ICT
- Innovation
- Entrepreneurship
- E-Commerce
- National Innovation Frameworks
- The Role of Government



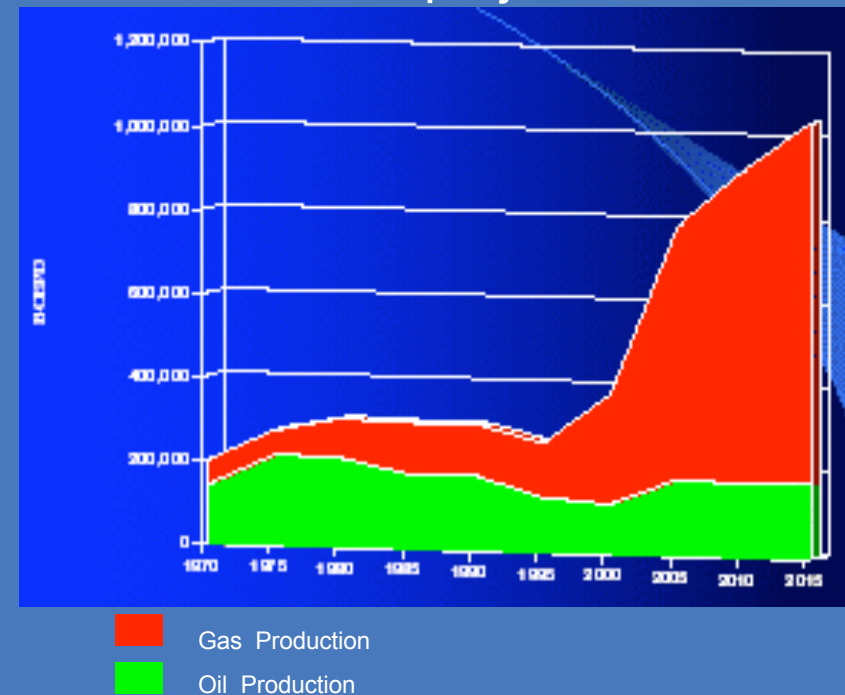


T&T History and Projections

History

- T&T is one of the oldest oil and gas producing provinces in the world.
- First drilling was done in the 1860s, first production in 1902 and the first marine field was developed in 1955.
- T&T was the first country to convert all its power generation to natural gas in the 1950s.
- All the majors and leading service companies have had a presence here.

Oil and Gas Production: Historical and projected



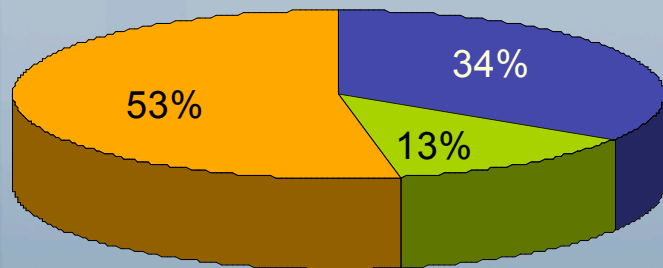


Economic Performance

Major Contributors to GDP for (2003 → 2005)

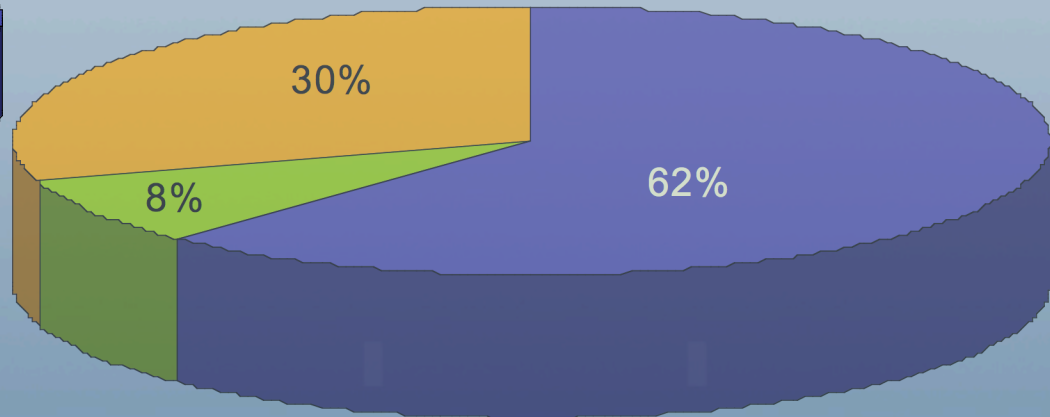
Source: Central Statistical Office Trinidad and Tobago

2003



- Energy
- Government
- Other

2005



- Energy
- Government
- Other



T&T's Energy Economy

While the energy sector has always contributed greatly to wealth of the nation, the last 50 years of experience with Trinidad and Tobago's energy sector has demonstrated the following:

- **The sector is prone to the instability of international commodity prices** which in turn has significant social and economic impacts on the nation as a whole
- **A significant amount of the value created in the local sector does not remain in-country**
- **The energy economy has underperformed its potential** in terms of its development of the local stock of human, businesses and financial market capability



Vision 2020 and ICT

■ The Prioritization of ICT

- Government has recognized the importance of transforming the economy away from its dependence on oil and gas revenue. GoRTT has chosen ICT's to as the new engine of growth and economic prosperity, setting the foundation for the transformation of Trinidad and Tobago into a knowledge based society.

■ National ICT Vision

- "Trinidad and Tobago is in a prominent position in the global information society through real and lasting improvements in social, economic and cultural development caused by the deployment and usage of information and communication technology."



Vision2020

vision

fastforward
Trinidad and Tobago. Accelerating into the digital future.



Fastforward

- *fastforward* is the strategy for achieving this National ICT

Agenda

- it is a roadmap for a connected, informed, innovative and competitive nation
- a key objective: **maximize the potential within all citizens and accelerate innovation to develop a knowledge-based society**



Vision2020

vision

fastforward
Trinidad and Tobago. Accelerating into the digital future.



Promoting Potential; Accelerating Innovation

- For this case study, we define the following terms as follows:
- **Creativity** –
 - occurs as a result of the understanding and tools given through education, the harnessing of cultural or individual experience and / or the focused study of a particular area of research. It refers to the bringing to bear of such knowledge and experience on the active attempt to bring about new, products, ideas, technologies processes or methods of organization.





Promoting Potential; Accelerating Innovation

■ Innovation –

- the application of education/research/experience and the leveraging of new or existing technologies toward the creation of new products, technologies, processes or forms of organization that may be offered to a new or existing market.

■ Entrepreneurship –

- the harnessing of new or existing technologies, processes, or forms of organization into market-relevant offerings and organizing their production and delivery on a scale and in a manner which is relevant to an identified market opportunity, in order to capture all or most of the value intrinsic in the opportunity.

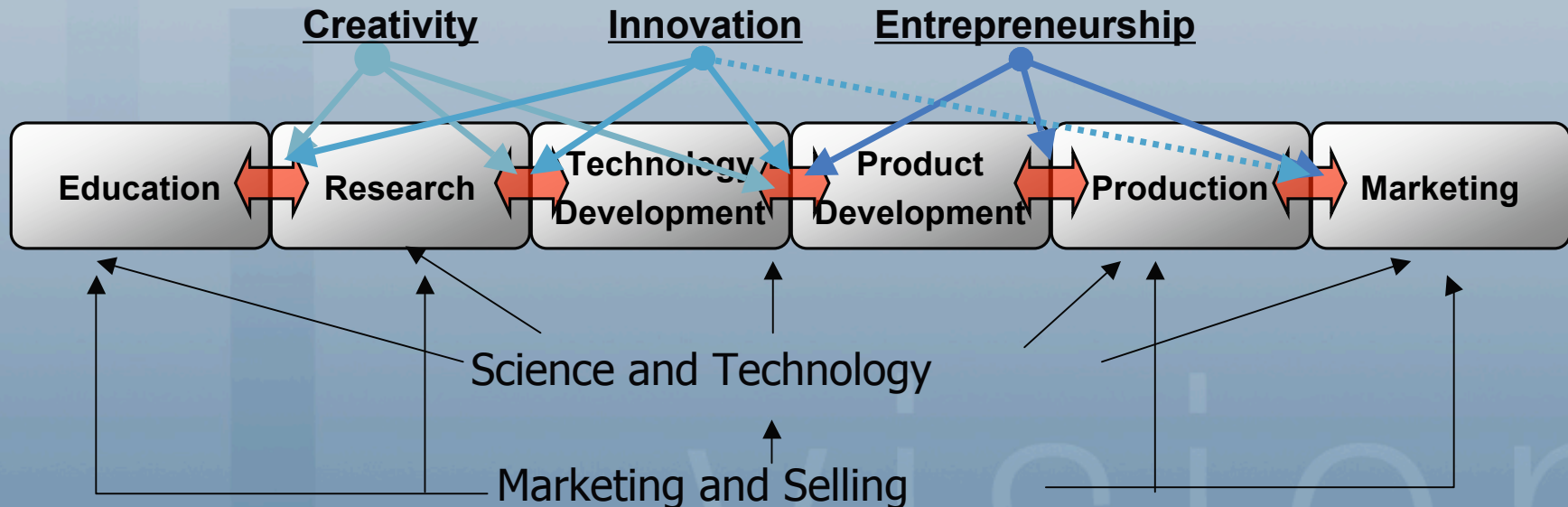




A National Innovation System

The National Systems of Innovation (NSI) approach is a helpful framework for understanding the process of knowledge creation, transfer, adaptation, and monetization occurring within a country. In this framework the components of economic activity are identified and disaggregated:

Product Innovation Chain



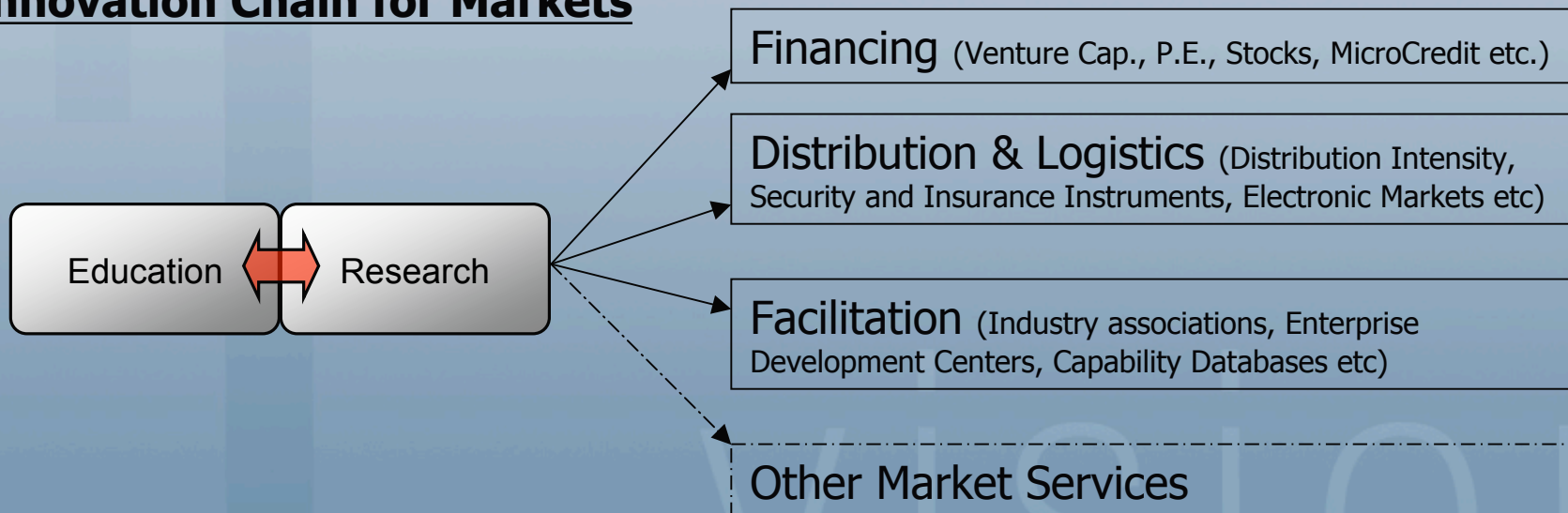


Frameworks for Innovation

(continued)

- Market Innovations –
 - Innovations that affect the “set of mechanisms, institutions and technologies that facilitate trade”. - i.e. the *environment* in which goods and services are traded.

Innovation Chain for Markets





E-Commerce – The Concept

- **General Definition:**
 - **Electronic commerce, e-commerce** or **ecommerce** consists primarily of the distributing, buying, selling, [marketing](#), and servicing of [products](#) or [services](#) over electronic systems such as the Internet and other [computer networks](#).
- **GoRTT Definition:**
 - *'All electronically mediated information exchanges between an organization and its external stakeholders'*



The Relevance of e-Commerce

- **Market intelligence**

- The ability to quickly gather information from the marketplace and embed insights into products and services

- **Competitive Intelligence**

- The ability to use and analyze publicly available information and competitive trending as a basis for decision making, enabling real time response to the competitive environment

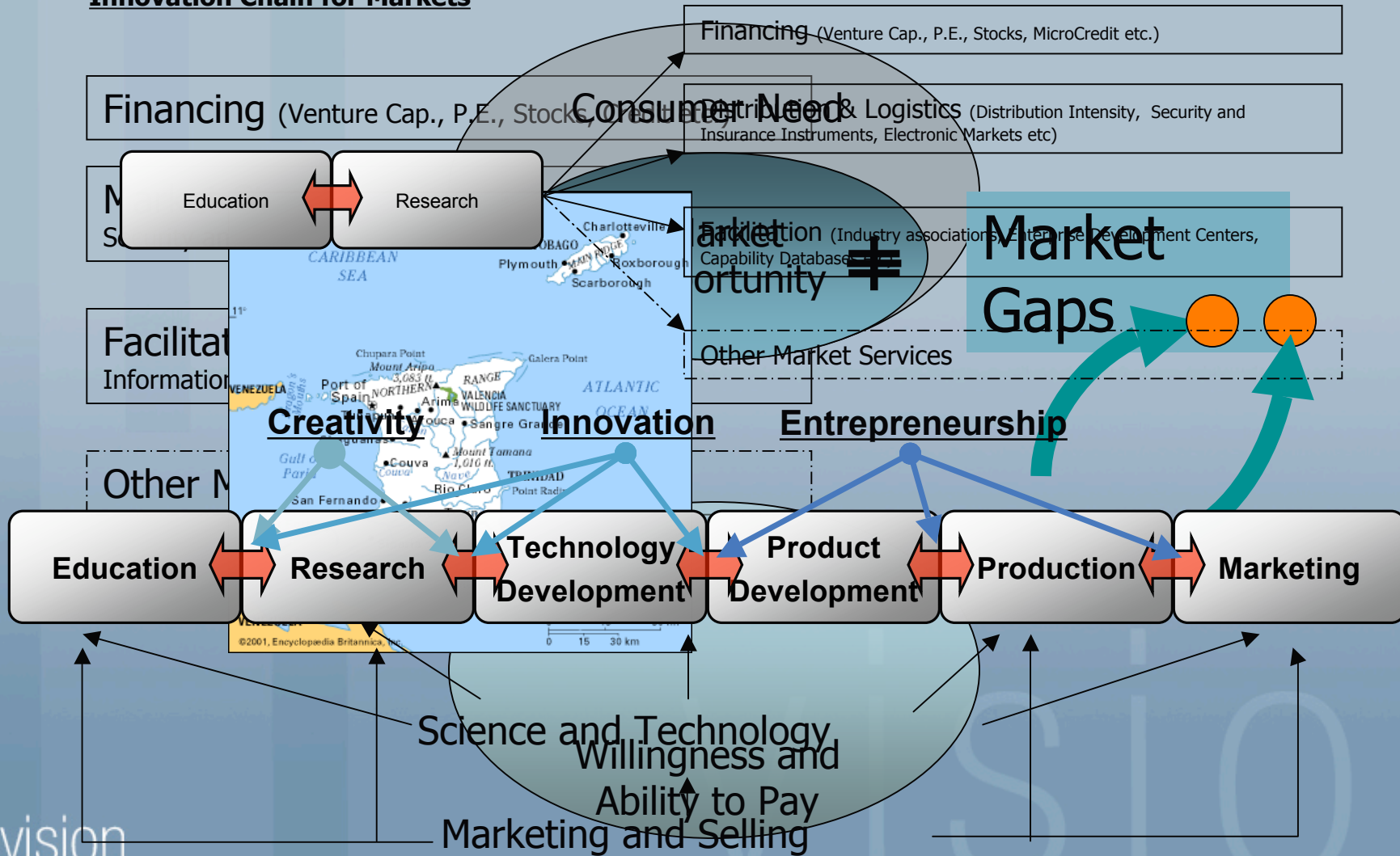
- **Price Discovery**

- The ability to follow products up-market and understand the price-level escalation dynamic closer to the end consumer.



Market Pull Innovation Effect

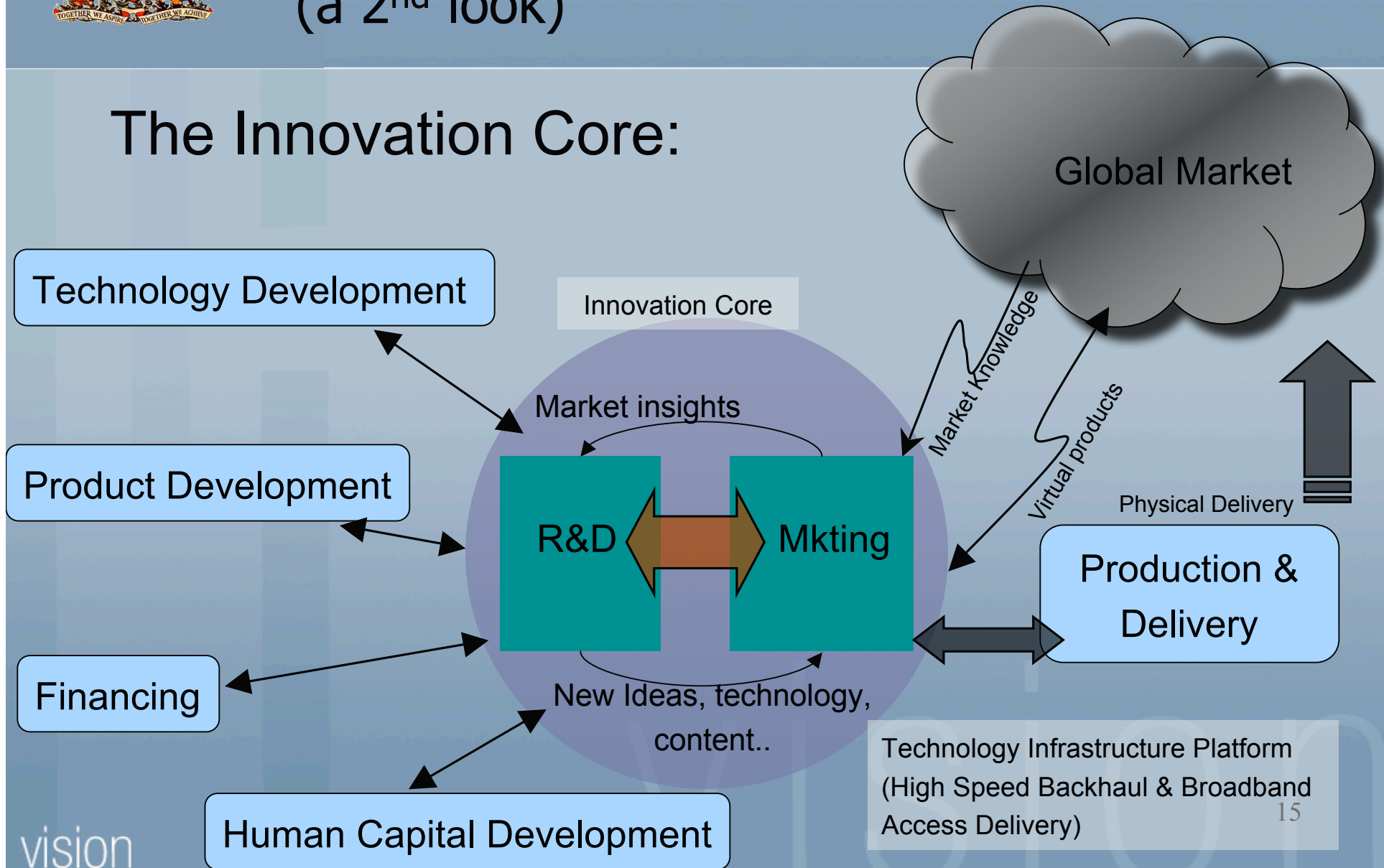
Innovation Chain for Markets





Innovation Frameworks: (a 2nd look)

The Innovation Core:

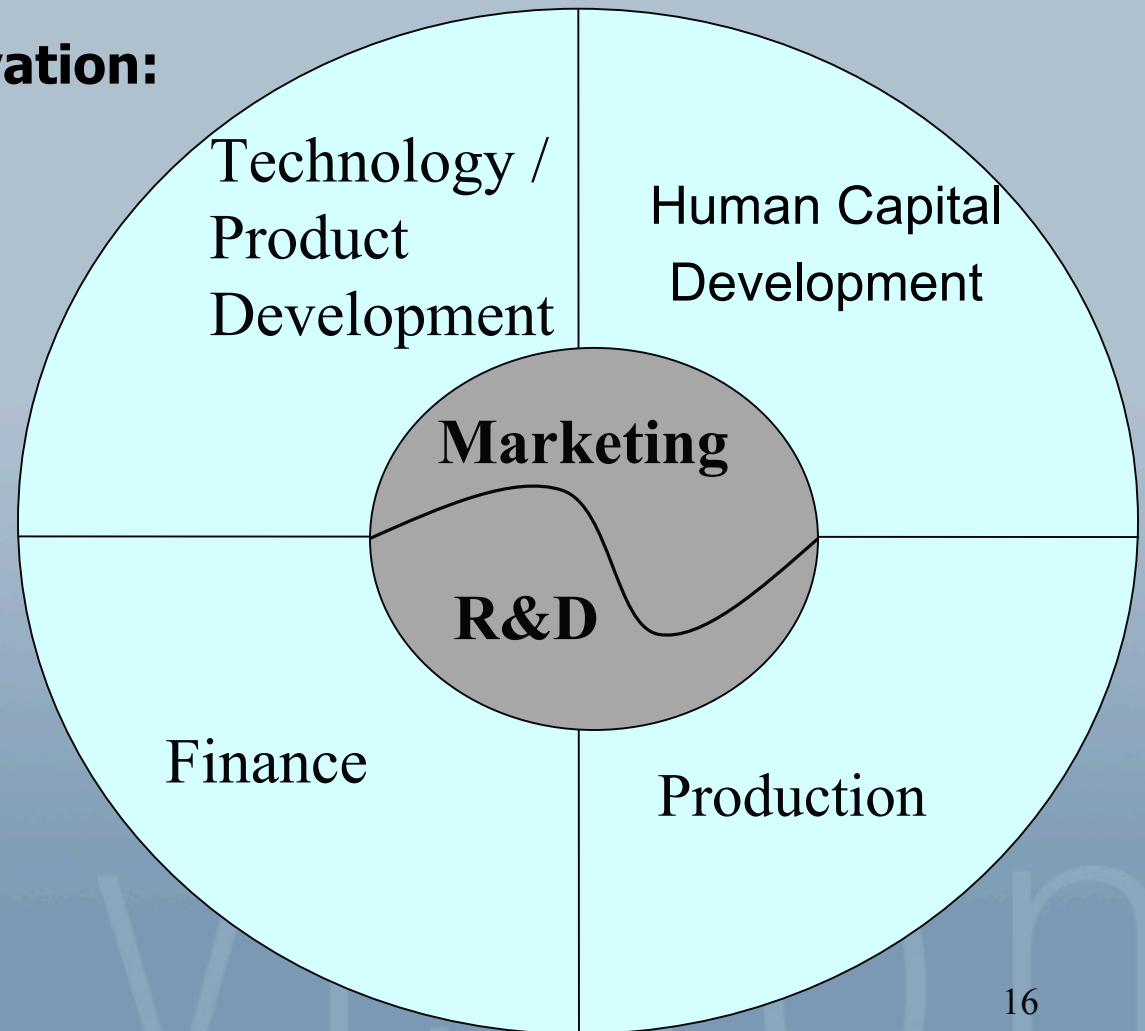




The Innovation Core

The Characteristics of Innovation:

- The process of innovation is iterative and circular in nature;
- [simply put] however, its core is in the understanding of end users and in the search for better ways to satisfy them.





Competitiveness in the Knowledge Economy

- Competitive Advantage in knowledge based economies is based on the ability to:
 - **access** and gather relevant **information** – i.e. on customers, competition, other market actors (via e-commerce)
 - interpret it more accurately or faster than competitors – i.e. **create knowledge** (Information Systems/R&D/Human Capital)
 - execute a relevant strategic response (innovation / entrepreneurship)
 - capture the value inherent in the economic opportunity (**monetize knowledge**)

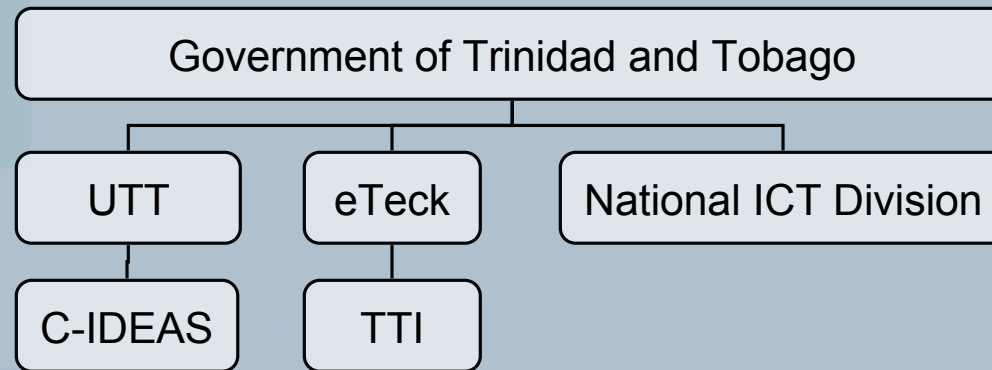


The Role of Government

- Selected Programs and initiatives...



Education , Innovation and Entrepreneurship



- **Facilitation:** National ICT Division
- **Learning:** University of Trinidad and Tobago (UTT)
- **Discovery:** Center for Innovation Development Entrepreneurship and Strategy (C-IDEAS)
- **Engagement:** Trinidad and Tobago Innovations (TTI)
- **Business:** Evolving Technologies Ltd (eTeck)



Education , Innovation and Entrepreneurship

- University of Trinidad and Tobago (UTT)

Designed to:

- **discover and develop entrepreneurs,**
- **commercialize research and development**
- **spawn new companies**
- move towards the **equitable enhancement of the quality of life** of all individuals, families and communities of the Republic of Trinidad and Tobago and the Caribbean.



Education, Innovation and Entrepreneurship

- Trinidad and Tobago Innovations (TTI)
 - Acts as an incubator for the development of diverse **local, market-driven, technology-based, globally competitive businesses**
- Core Activities
 - Providing **lease accommodation, advising, mentoring, and professional support services** for early-stage technology and/or knowledge-based entrepreneurs
 - Developing local and international **partnerships and networks**
 - **Reviewing and disseminating knowledge** on technology exploitation to clientele / affiliates



Facilitating the e-Marketplace

The National ICT Division

The on-line SME B2B marketplace

A National B2B electronic exchange will jumpstart the e-Economy by...

- Promoting trading activities via an opportunity matching facility
- Including the Gov't Fairshare Programme to facilitate 1st Steps towards G2B e-procurement
- Acting as a Trinidad and Tobago capabilities and supplier database
- Eventually providing links to external business exchanges and online resources
- (concomitant e-Legislation Review)



Conclusion

- Some **Key Success Points** for (esp. small island) developing states....
 - Shift from attraction of direct foreign investment (FDI) towards creating a culture that spawns innovation
 - Convert small businesses into fast-growth companies
 - Build a capital base
 - Access domestic and Diaspora resources
 - Seek to create/facilitate market pull dynamics for innovation and HR Development
 - Invest deeply in R&D and strategic business capability



Thank You!

- Questions
- Comments
- Reactions