



**Caribbean Telecommunications  
Union**

## **A Caribbean Broadband Perspective**

by  
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## **Agenda**

- Overview of CTU
- Why is Broadband Access Important?
- International Broadband Trends
- Broadband Status in the Caribbean
- CTU Response



## Overview of CTU

Established in 1989 Heads of Government

Established Caribbean Centre of Excellence in 2009

New mandate to include ICT in 2003

Launched Caribbean ICT Roadshow in July 2009

Membership open to private sector, academia & civil society organisations in 2004

Published Caribbean Spectrum Management Policy Framework in 2009



## CTU Members



- Bureau Telecommunicatie en Post (Curacao)
- International Amateur Radio Union (Region2)
- Telecommunications Authority of Trinidad and Tobago
- Digicel (Trinidad & Tobago)
- Eastern Caribbean Telecommunications Authority

## Mission

- To create an environment in partnership with members to optimize returns from ICT resources for the benefit of stakeholders

## Governance Structure

- **General Conference of Ministers**  
ICT and Telecommunications Ministers  
Highest decision-making body
- **Executive Council**  
Permanent Secretaries and Technical Officers  
Formulates plans and makes recommendations
- **Secretariat:**  
Secretary General and staff  
Executes the decisions of the General Conference



## CTU Core Activities

-  Policy Formulation
- Capacity Development
-  Caribbean ICT Harmonisation
- Representation 
-  Industry Watch

## Why is Broadband Access Important?

*The dawn of the new millennium has brought with it the need to improve access speeds in order to access the now content rich and bandwidth intensive Internet, to benefit from triple play services and, inevitably, to develop the infrastructure required for the promotion of Information and Communication Technologies (ICTs).*



## Capacity Requirements



### Top Bandwidth Required for Digital Content Applications

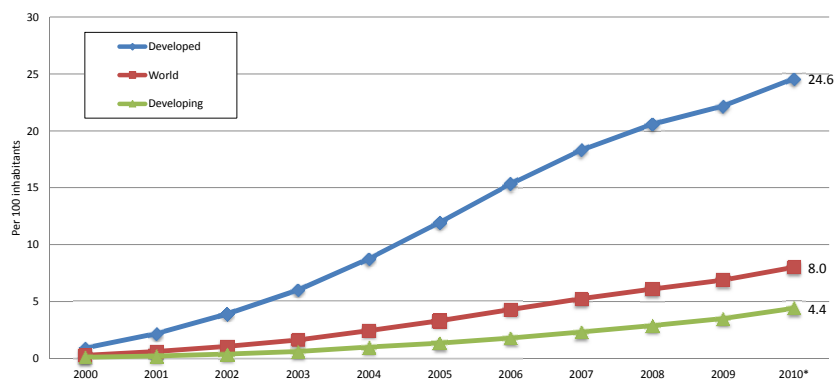
▪ High Definition Television	18 Mbit/s
▪ Online Games	14
▪ Video on Demand	13.5
▪ Internet Protocol TV	13.5
▪ Video Conferencing	13.4
▪ Virtual Worlds	9
▪ Web Browsing	4
▪ Audio Streaming	1.5
▪ Voice Calls	0.5

*D M West, An International Look at High-Speed Broadband, Brookings Institute, Feb 2010 p. 6*



## International Broadband Trends

Fixed broadband subscriptions per 100 inhabitants, 2000-2010\*

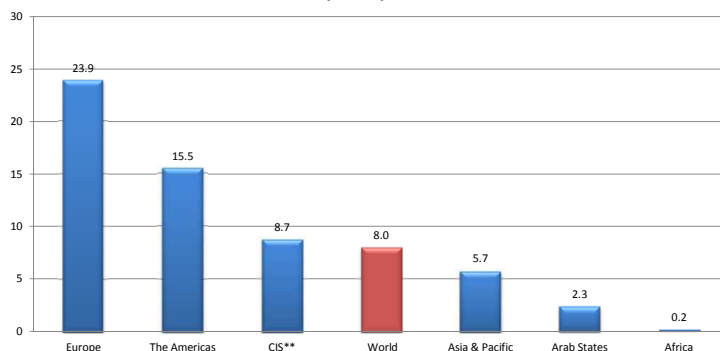


\*Estimates  
 The developed/developing country classifications are based on the UN M49, see:  
<http://www.itu.int/ITU-D/ict/definitions/regions/index.html>  
 Source: ITU World Telecommunication /ICT Indicators database



## International Broadband Trends

Fixed broadband subscriptions per 100 inhabitants 2010\*



\* Estimate  
 \*\* Commonwealth of Independent States  
 Regions are based on the ITU BDT Regions, see: <http://www.itu.int/ITU-D/ict/definitions/regions/index.html>  
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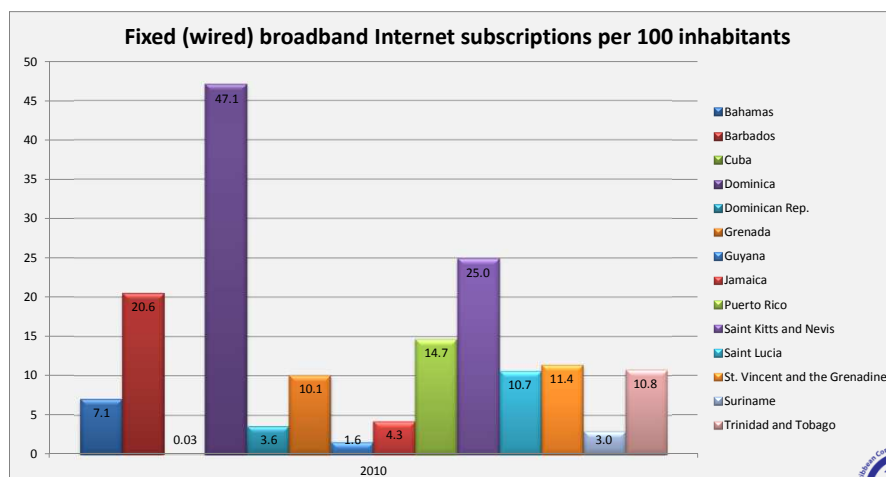
## Broadband Status in the Caribbean Growth in Broadband Subscriptions

Fixed (wired) broadband Internet subscriptions	2007	2008	2009	2010	4 Year Percentage Growth
Bahamas	20,500	25,500	31,589	24,453	19%
Barbados	47,133	49,216	57,305	56,190	19%
Cuba	1,946	2,246	2,883	3,706	90%
Dominica	6,500	10,305	16,000	31,944	391%
Dominican Rep.	193,053	225,997	295,530	361,112	87%
Grenada	7,600	8,601	10,212	10,573	39%
Guyana	2,362	5,084	6,823	11,972	407%
Jamaica	92,768	97,323	112,201	116,685	26%
Puerto Rico	182,198	426,310	479,464	551,988	203%
Saint Kitts and Nevis	9,600	11,104	13,000	13,100	36%
Saint Lucia	14,000	15,480	18,600	18,600	33%
St. Vincent and the Grenadines	7,972	9,364	11,507	12,502	57%
Suriname	4,205	5,754	8,565	15,672	273%
Trinidad and Tobago	35,491	85,447	125,565	145,028	309%

Source: ITU World Telecommunication /ICT Indicators database



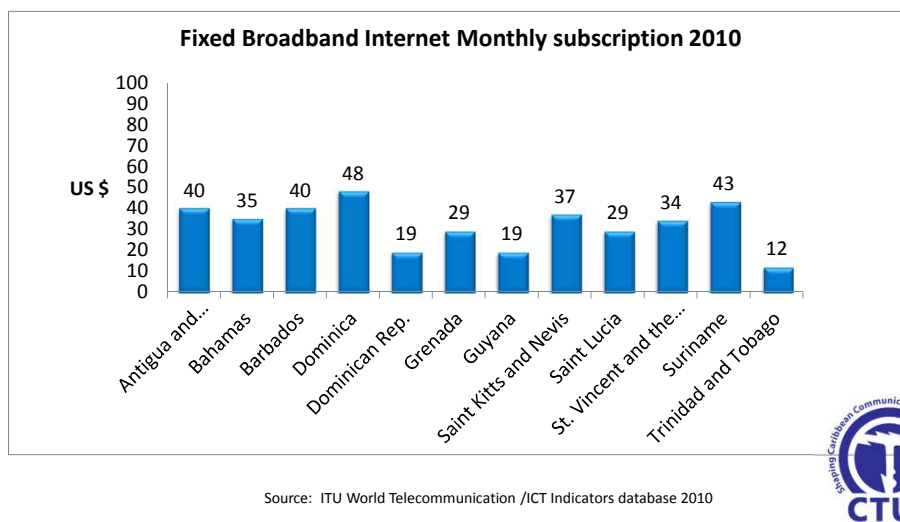
## Broadband in the Caribbean Growth in Broadband Penetration



Source: ITU World Telecommunication /ICT Indicators database



## Broadband in the Caribbean Fixed Broadband Prices




## Caribbean compared to the World

### • Global Rank in Broadband Penetration:

Fixed Broadband Internet Subscriptions	Rank out of 142 countries
Barbados	31
Trinidad and Tobago	48
Jamaica	76
Dominican Rep.	78
Guyana	95

### • Global Rank in Broadband Affordability:

Fixed broadband Internet Tariffs	Rank out of 142 countries
Guyana	19
Trinidad and Tobago	24
Dominican Rep.	67
Jamaica	80
Barbados	99



Source: The Global Information Technology Report 2012



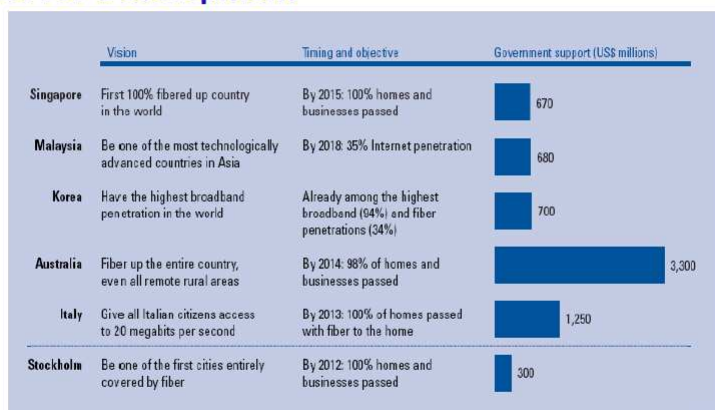
## GCI 2011–2012 rankings and 2010–2011 Comparisons

Edited results from World Economic Forum Global Competitiveness Report 2011-12

Country	GCI '11- '12	GCI '11- '12	2011/12 rank against 2010 countries	2010/11 rank
	Rank	Score		
Barbados	42	4.44	42	43
Trinidad and Tobago	81	4.00	81	84
Jamaica	107	3.76	107	95
Guyana	109	3.73	109	110
Dominican Republic	110	3.73	110	101
Suriname	112	3.67	n/a	n/a
Belize	123	3.52	n/a	n/a
Haiti	141	2.90	n/a	n/a



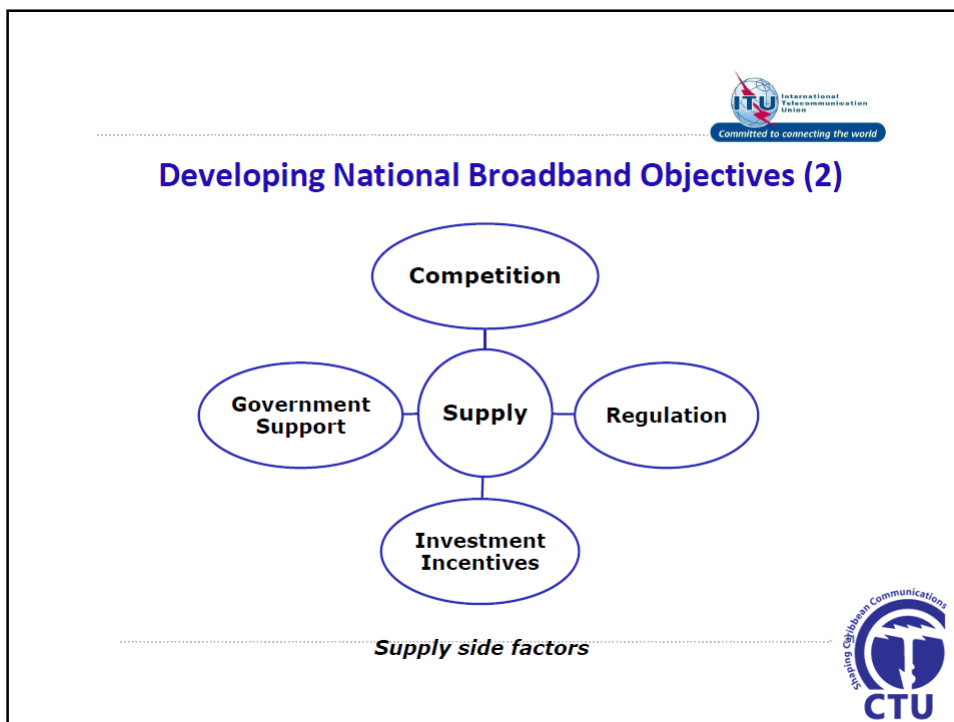
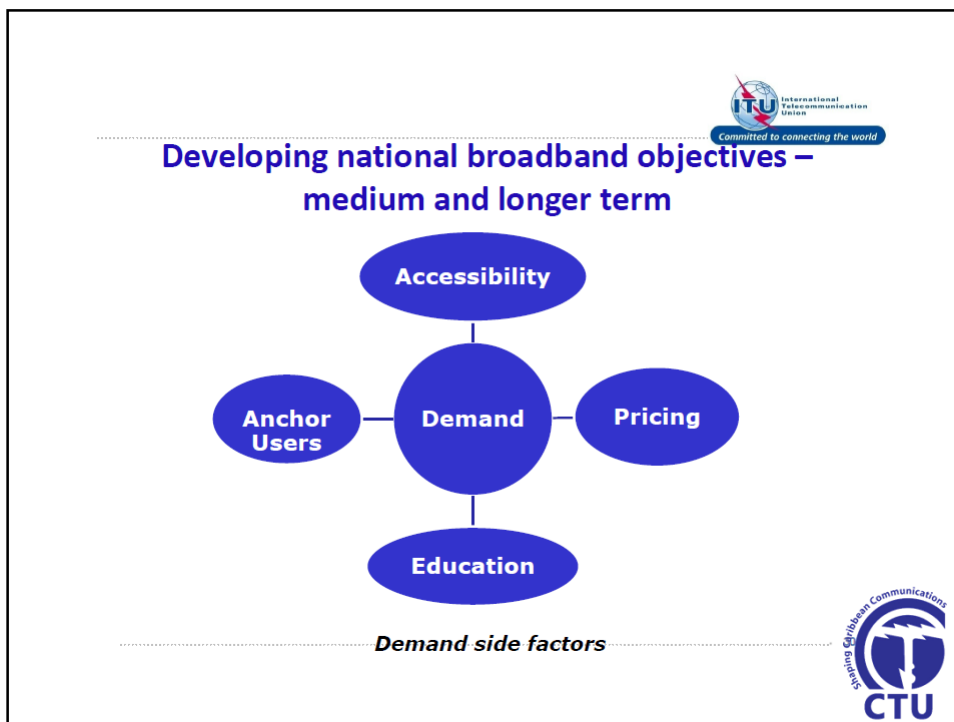
## Announced Government Support for ICT Development

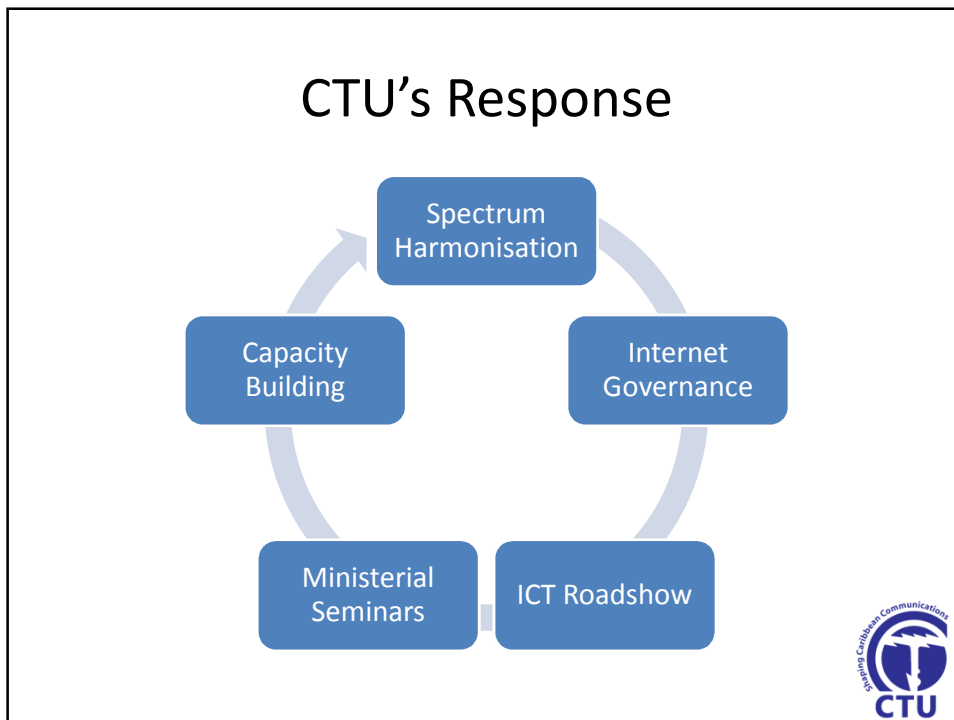
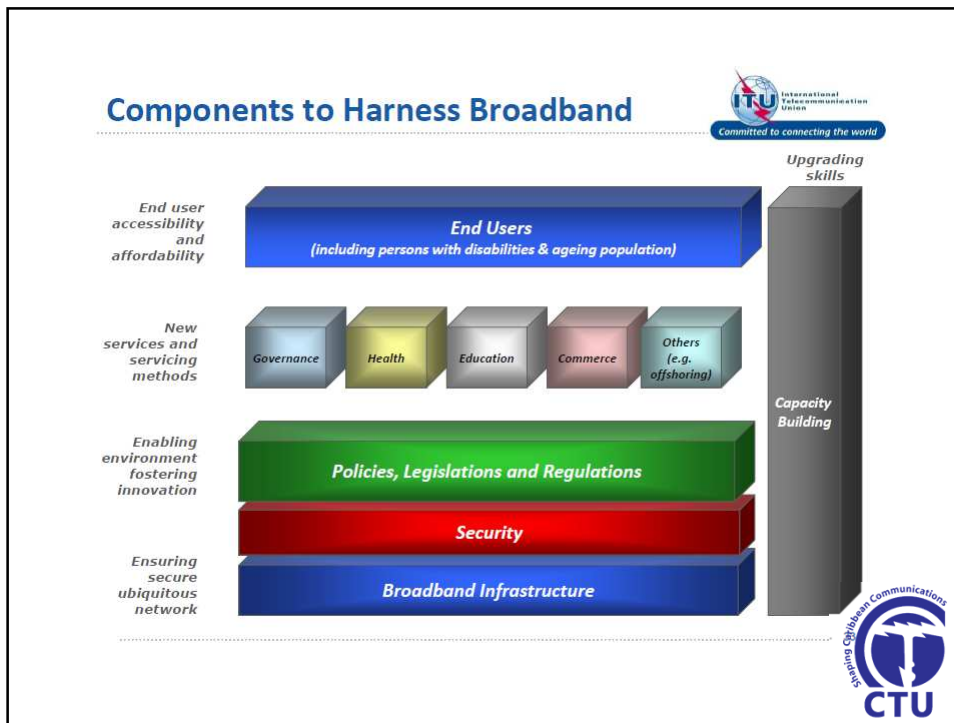


*Strong Belief that ICT Can Turn Around*

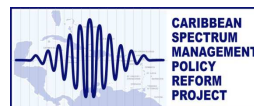
Source: World Economic Forum







## CTU Response



- **Spectrum Management Policy Reform**
  - 7 Multi-stakeholder Policy Development meetings
  - Spectrum Audits in 7 Caribbean Countries
  - Training Programmes
  - Harmonised Spectrum Management Policy Framework



## CTU Response



- **Internet Governance**
  - 7 Annual Caribbean Internet Governance Fora
  - Transition from IPv4 to IPv6
  - Indigenous Content Creation
  - Harmonised Caribbean Internet Governance Policy Framework



## CTU Response



- **Caribbean Centre of Excellence**
  - **ICT Capacity Building**
    - **ICT Public awareness**
    - **Workshops**
    - **Ministerial Briefing Sessions**
  - **Information Resources**
  - **Member Services**



## CTU Response

- **Evidence for Caribbean ICT Policy Development**

Research information to support Policy Formulation:

1. Implications of Technology and Service Convergence on the Operational and Organisational Aspects of Regulation
2. Globally Comparable Caribbean ICT Survey Instruments and Baseline Status of National ICT Data Acquisition
3. Analysis of the Policies Designed to Encourage Development of Business in the ICT Services Sector
4. Collaboration Policy for Functional Cooperation through ICT in the Areas of Crime
5. The Examination of Prevailing Models for the Evaluation of the Impact of ICT on Development within the Caribbean

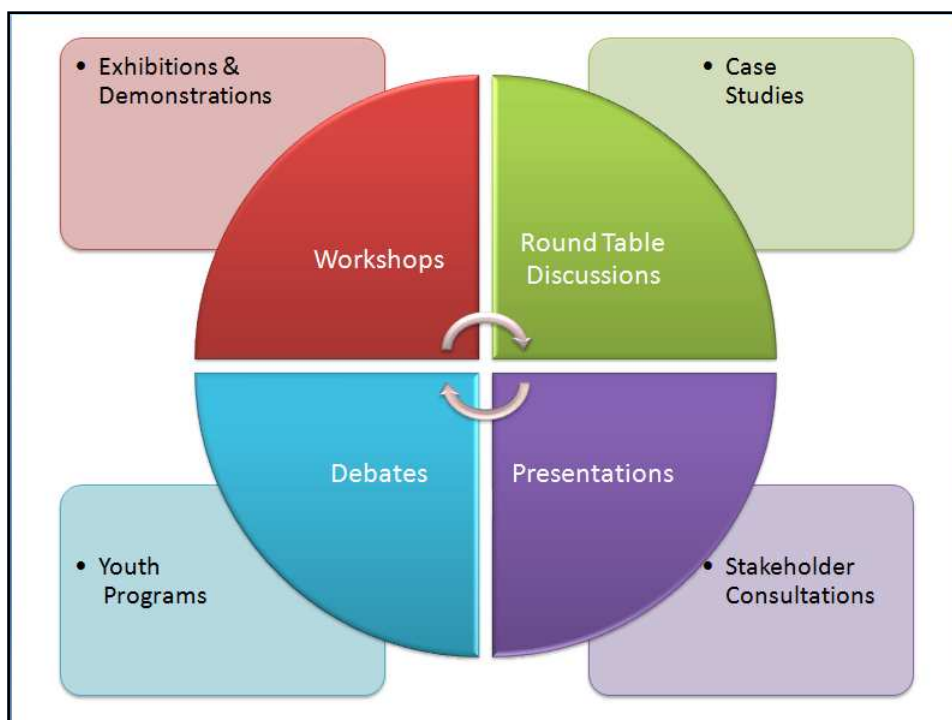


## CTU Response

### The Caribbean ICT Roadshow

The **ICT Roadshow**, takes the form of a series of country visits across the region, designed to foster a spirit of innovation in the development of ICT-based practical solutions, to raise awareness and to encourage harmonization of efforts in the adoption of ICT solutions for inclusive economic and social development. (18 Countries visited since July 2009)

The theme, ***Harnessing the Power of Innovation - the engine for ICT-enabled development***, is reflective of the objectives we are achieving.



Thank You



**Caribbean Telecommunications  
Union**