

Roundtable on Telecommunications
and the Knowledge Society
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**REPORT OF THE ROUNDTABLE ON
TELECOMMUNICATIONS AND THE KNOWLEDGE SOCIETY**

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Introduction

The Roundtable on Telecommunications and the Knowledge Society was held on 26 May 2006 at the ECLAC Subregional Headquarters for the Caribbean in Port-of-Spain.

The Government of Trinidad and Tobago has articulated a 15-year national development plan which, among other things, has set as a target the attainment of “Developed-Nation Status”. The plan, “Vision 2020”, not only acknowledges the fundamental role that the application and development of Information and Communications Technologies (ICT) will play, but more importantly, recognizes the critical need to transform Trinidad and Tobago into a Knowledge Society. Additionally, as a signatory to several international agreements, including the General Agreement of Trade-in-Services (GATS), the government also acknowledges its commitments, including, the full liberalization of the telecommunications sector.

The Roundtable was convened against this backdrop. Targeted to telecommunications decision- and policy-makers from government, industry and academia, the forum provided an opportunity to engage technical and expert dialogue on the issue of telecommunications regulation; to facilitate the exchange of views on the regulatory issues which challenge the full liberalization of the sector; and, using the experiences of other jurisdictions, stimulate appropriate analysis and rethink. To facilitate the debate, the Roundtable was divided into four substantive sessions.

Session 1: Transforming Trinidad and Tobago into a Knowledge Society

In differentiating a Knowledge Society from an Information Society, Dr. Kim Mallalieu posited that a knowledge society was one which placed value on knowledge as the means of realizing economic and social well-being. There was the recognition that in such a society, citizens had greater choice and opportunity, deeper social integration and longer life expectancy. Inquiry, research, creativity, the use of modern technology and entrepreneurial leadership were shown to be of great importance. As a result, the critical skills which must be harnessed include literacy, collaboration, innovation, communication, diversity and flexibility. In contrast, information-based innovations were featured as tools for productivity and entertainment in an Information Society, with little or no concern for assimilation, integration nor the application of understanding to innovations.

In the context of Trinidad and Tobago’s Vision 2020 plan, Dr. Mallalieu contended that many of the prerequisites of a knowledge society were included. She argued that the Draft National Strategic Plan provided for adequate infrastructure, a vibrant and productive business sector, an absence of traditional obstacles to access, meaningful and appropriate services, and purpose-driven innovations.

Acknowledging that abundant and affordable Internet access, computers in schools and community access to eGovernment services did not make a Knowledge Society, the panelist countered the need for the provision of innovative opportunities for engagement of individuals at all levels of society. Connectivity to people was seen to be as equally important as connectivity to the Internet and knowledge sources. That was identified as being crucial to government's quest to transform Trinidad and Tobago into a Knowledge Society.

In response to the presentation, several issues were discussed. Among them, was the challenge of how to value and market knowledge. It was recognized that while information could be codified, knowledge could not, since it was expressed in the presence of information, thought and cognizance. To establish value for knowledge, one, therefore, had to recognize diversities, capabilities of interest and inclinations. Ultimately, giving citizens purpose and opportunities for personal engagement was suggested as the way to attach value.

It was acknowledged that the creation of a knowledge society did not equate to human development. The typical diffusion of ICT in developing countries was not seen to be getting to the heart of the issue. In particular, models which incorporated initiatives such as the provision of computers within primary schools, and tax concessions on computer purchases, brought citizens into a space that was not always relevant to them.

Further, tacit knowledge was viewed as being of particular importance in human development. Knowledge was viewed as a protected resource that was capable of providing a competitive advantage. It was, therefore recognized that a challenge existed where a culture shift needed to occur within the society, from one of hoarding to one of knowledge sharing.

Session 2: Spectrum Management in Small Island Developing States (SIDS)

Within the past two decades, there has been a significant increase in the demand for frequency spectrum. Among the primary drivers of the increased demand were the growth in mobile communications and other telecommunications innovations, including terrestrial and satellite-based digital broadcasting, new defense capabilities, and new safety of life applications.¹ As a result, spectrum was viewed as a finite national resource which had to be effectively managed.

It had also been widely accepted that the resource had tremendous value to the national economy. Evidence of that was the experience of the United Kingdom in their 2000 auction of spectrum for the provision of 3G services.² The auctioned spectrum was awarded to five licensees, and raised approximately GBP 23 billion, in the first instance.

Within that context, Mr. Selby Wilson shared with participants the evolution which had occurred in wireless technologies since their introduction at the turn of the twentieth century, particularly the minimized interference and increased levels of usage efficiency which now existed. As a result, radio frequency spectrum is used to provide a myriad of services in defense,

¹ Cave, Martin. 2005. Spectrum Management – Case Study on the United Kingdom. ITU

² Also known as Universal Mobile Telecommunications System or “UMTS”.

industrial, commercial and consumer sectors. Unfortunately, he noted that the legislative and regulatory structures within the Caribbean were largely based on obsolete technologies and did not facilitate the new spectrum needs. As a result, impractical and inefficient methods of spectrum management were typically deployed.

In that context, he identified several challenges which the SIDS of the Caribbean were particularly vulnerable to. Among them were the inadequate institutional arrangements for dealing with evolving spectrum issues, which were as a direct result of the proliferation of wireless technologies; insufficient information on appropriate best practices; and a lack of coordination of spectrum management within the Caribbean. Altogether, a case was made from the harmonization of policies and techniques for spectrum management in the Caribbean.

The Caribbean Telecommunications Union (CTU) had in fact recommended such a framework as part of its response to a mandate from the Caribbean Ministers of Telecommunications, which called for the establishment of a Spectrum Management Task Force. The Framework will provide regional regulatory and policy consistency, and was expected to facilitate an enabling environment, which would eliminate barriers to the smooth functioning of the CSME. Costs and other obstacles which limit the introduction of new entrants into the telecommunications market would be eliminated, thereby encouraging increased private sector investment, as regional markets become more liberalized.

In conclusion, he noted several advantages which were anticipated from the harmonized approach:

1. Minimized inter-service interference among jurisdictions;
2. Ensured compatibility of services among countries;
3. Reduced cost of terminal equipment due to economies of scale;
4. Greater consumer satisfaction and flexibility in the use of terminal equipment;
5. Simplified type approval and equipment certification processes;
6. Unified Caribbean voice at international forums, such as the World Radio Conference.

There was support for the establishment of the Framework from participants, who noted that although the region fell within Region 2 of the International Telecommunication Union (ITU) Table of Frequency Allocation, most jurisdictions were in fact in violation of that allocation. Further, it was noted that while most of the Caribbean was defined in Region 2, the French island territories operated in Region 1, further adding to the challenges of interference, including spillover signals effects from neighbouring jurisdictions. These factors impacted on equipment purchases.

Session 3: The regulatory role of the Telecommunications Authority of Trinidad and Tobago: Issues and challenges

The Telecommunications Authority of Trinidad and Tobago (TATT) was established as an independent regulator in July 2004, with one of its key objectives being the liberalization of the telecommunications sector. Dr. John Prince noted that the established legal and regulatory framework provided that TATT was responsible for granting licenses, while the **Minister** was responsible for making policy and granting concessions.

One of the challenges the Authority faced at the assumption of duties was the need to draft appropriate regulatory instruments. That need was probably best highlighted by the negative effects of not having a spectrum management policy. He noted that spectrum, as a national resource, had an economic function and value. There had been inconsistencies in the pricing policy, with many investors not required to pay for its use.

The Authority was, therefore, in the process of developing several regulatory instruments, including:

1. Consumer rights and obligations policy and regulations;
2. Quality of service policy and regulations;
3. Competition policy and regulations;
4. Pricing policy and regulations;
5. Enforcement, compliance and dispute resolution framework;
6. Universality framework;
7. Number portability.

In the liberalized environment in which Trinidad and Tobago had been operating, he noted that the Authority faced several other challenges. One of them was an insufficient human resources pool and the need to devise ways of making optimum use of the telecommunications talents in the country. He also recognized the need for the Authority to maintain its independence, particularly noting that the institution had to be blind in terms of race, colour, class and creed.

On the issue of liberalization and competition, there was discussion on the implications of allowing the market to determine the economic value of spectrum. It was felt that as a result of the high cost of spectrum, local companies were especially disadvantaged. In response, Dr. Prince noted that one of the implications of globalization was that if one was to maintain competitive relevance, increased levels of efficiency by service providers would be required.

There was also discussion on the number of competitors which Trinidad and Tobago could support. In the area of mobile communications, for example, given its smallness, the question was asked as to whether liberalization had been truly successful. It was suggested that the competitive forces at play were largely instigated out of a fear of the aggressiveness of only one new entrant into the market. Unanswered, was the question of whether real competition could occur within a market of primarily two players.

Taking into consideration ICT for Development, it was recognized that the measure of success for the Authority, in response to the infrastructure which it provided, was the societal changes as measured against the Human Development Index. In that regard, while universal access was attainable, the Authority's emphasis was rather on the delivery of universal service, where the combination of knowledge and infrastructure facilitated a better way of living.

Session 4: The implications of OFCOM's strategic review of telecommunications

Professor Martin Fransman reviewed the British experience with the liberalization of its telecommunications industry. Prior to 1984, when competition was introduced, there was a widely-held view that telecommunications would best be provided on a monopolistic basis.

The new regulator, the Office of Communications (OFCOM), was of the view that competition had not been adequately working in the United Kingdom. The incumbent operator continued to exercise significant market power which resulted in conflicts with its competitors. By introducing the concept of equivalence to the regulatory equation, OFCOM had been able to resolve those conflicts to the satisfaction of all parties. In particular, the incumbent's wholesale products were offered to competitors and the retail division of the incumbent at the same terms and conditions. That new regulatory framework leveled the playing field, and facilitated access to the incumbent's bottleneck access network.

In that context, Professor Fransman highlighted several of the relevant regulatory principles which informed OFCOM's approach. They included:

1. Promoting competition at the deepest levels of infrastructure, that is, as close to the final user as possible;
2. Delivering equality of access, particularly at points of bottleneck;
3. Withdrawing regulation where there was sufficient competition;
4. Promoting a favourable climate for efficiency, timely investment, and technological innovation, through consistent and transparent regulation;
5. Varying the regulatory solution as required, for example, adopting a "light touch economic regulation" based on competition law and the promotion of interoperability.

There was a query regarding the measures which could be taken by SIDS to ensure that a truly competitive environment develops. In response, Professor Fransman noted that the issues of high fixed costs and economies of scale typically arose in small markets. However, Japan and Korea were doing well because of the tough competition which existed with their respective incumbents. With reference to the minimum number of market players, he further suggested that three local service providers may not be enough to foster true competition.

In conclusion, Professor Fransman noted that OFCOM's strategic review highlighted the importance for regulators to be completely clear on what they were trying to accomplish, and the manner in which players were to be judged. He questioned whether competition was an end in

itself or a means to an end. In the context of desiring competition to realize lower prices, he posited that it was both, where competition provided the incentive to innovate.

Conclusion

This Roundtable provided an opportunity to examine the role of telecommunications regulation, and in particular spectrum management, in the liberalization thrust. It contextualized the discussion in terms of the attainment of a Knowledge Society for Trinidad and Tobago. The experiences of OFCOM with regard to the issue of equivalence were instructive. The quality of the debate underscored the timeliness of this Roundtable, and suggested the need to embark on similar national experiences in other member States.

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Annex II**Programme**

09.00 - 09.05	Welcome and Introduction of Panelists – Mr. Dale Alexander, Moderator
09.05 - 09.10	Opening Remarks - Mr. Neil Pierre, Director
09.10 - 09.40	Session 1 - Transforming Trinidad and Tobago into a Knowledge Society - Dr. Kim Mallalieu
09.40 - 09.50	Questions and Answers
09.50 - 10.20	Session 2 - Spectrum Management in Small Island Developing States - Mr. Selby Wilson
10.20 - 10.30	Questions and Answers
10.30 - 10.45	Break
10.45 - 11.15	Session 3 - The regulatory role of the Telecommunications Authority of Trinidad and Tobago: Issues and Challenges - Dr. John Prince
11.15 - 11.25	Questions and Answers
11.25 - 11.55	Session 4 - The Implications of OFCOM's Strategic Review of Telecommunications - Professor Martin Fransman
11.55 - 12.05	Questions and Answers
12.05 - 12.15	Wrap up and Closing Session – Ms. Sandra John

Annex III

Presentations