## Emsley Tromp: ICT as a driver of growth in the Caribbean – policies to improve the Caribbean's competitiveness in a knowledge-based economy

Speech by Dr Emsley Tromp, President of the Bank of the Netherlands Antilles, on the occasion of the opening of the 26th Annual Caribbean Association of National Telecommunications Organizations (CANTO) conference and trade exhibition, Curaçao, 11 July 2010.

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Excellencies, ladies and gentlemen, good evening,

Allow me to welcome all the representatives of the Caribbean Association of National Telecommunications Organizations – CANTO – to the island of Curaçao. Developments in the telecommunications sector are not only important for the individual organizations operating in the industry, but they also are crucial for our national and regional economies. Therefore, I would like to congratulate CANTO and the United Telecommunication Services – UTS – in particular, for organizing this annual conference.

Ladies and gentlemen, the theme of this conference, "Embracing technology for economic success" is very timely. Today more than ever, technology, and specifically, information and communications technology, or ICT, is considered one of the main factors contributing to economic recovery and sustained growth. ICT has become an essential element of the infrastructure underpinning competitive economies.

In today's world, the ability to create, distribute, and exploit knowledge is a major source of competitive advantage, wealth creation, and improvements in the quality of life. Information and communications technology is the foundation of this knowledge-based world because it allows economies to acquire and share ideas, expertise, services, and technologies locally, regionally, and across the world. Furthermore, ICT stimulates innovation as it encourages the creation and development of new ideas, products, and services. Finally, increased use of ICT stimulates productivity growth.

In fact, investment in ICT can spur gains in productivity in three ways. (1) Investment in ICT contributes to overall capital deepening, helping to increase labor productivity. (2) Technological progress may contribute to faster multifactor productivity growth in the ICT-producing industry. (3) Finally, but perhaps most important, greater use of ICT outside the ICT industry helps firms, public and private institutions to increase efficiency, develop new products and services and, hence, it increases multifactor productivity growth.

Ladies and gentlemen, as the world economy is recovering from one of the worst economic crises in decades, ICT is bound to play an increasingly prominent role in enabling economic growth. As you may know, following the escalation of the international financial crisis in 2008, global output contracted significantly in 2009. Output dropped sharply in the major industrialized economies and slowed down in the emerging economies. The Caribbean was not exempted from the global economic downturn. Most economies in the region contracted in 2009. The economic downturn in the region is primarily attributable to a decline in foreign demand that affected the main export industries, including tourism, financial & business services, and manufacturing. Fortunately, the world economy is showing signs of recovery and the IMF projects a global GDP growth for 2010. Output in our region is also expected to rise. For 2010, the IMF projects an average real GDP growth of 1.5% for the Caribbean.

Countries are taking several measures to foster a sustained economic recovery. In general, the policy agenda includes fiscal measures to cut budget deficits and reduce public debt. In addition, the reform of the financial sector is considered high priority in most countries, especially the advanced economies. Furthermore, countries are taking measures to improve

the efficiency of labor and product markets. Given ICT's important contribution to efficiency and productivity, several countries have included measures and stimulus packages to foster the creation and diffusion of ICT in their policy agenda. For example, the European Union has presented the Digital Agenda for Europe that includes measures to improve the speed of internet connections and to stimulate ICT research and innovation. In the United States, the government has increased its investment spending on ICT, including investments in broadband technology, electronic medical records, and new computers for schools and libraries in order to make the country more competitive while creating more jobs.

In the case of the Caribbean, the development and diffusion of ICT has become crucial to competing effectively in the global world. In the Caribbean, the services industry is the main pillar of economic growth, and ICT plays a crucial role in a services-oriented economy. For example, destinations, accommodations, and attractions can be marketed efficiently in the tourism industry by using ICT. Furthermore, in higher value-added industries such as financial & business services, ICT makes it easier to access market and management data, share information, and build trading partnerships. In the area of logistics, ICT can improve efficiency by reducing delivery times and coordinating stock levels through improved monitoring of supply and demand, which in turn enhances customer service.

Ladies and gentlemen, over the past several years we have seen significant economic progress in the Caribbean region. Nevertheless, our average growth rate lags behind that of advanced and emerging economies. According to a recently published study by the Inter-American Development Bank, the main reason why Latin American and Caribbean economies have underperformed vis-à-vis advanced and emerging economies in terms of economic growth is low productivity growth. In fact, since 1970, productivity in our region has consistently lagged behind the rest of the world. What is more worrisome is that the services industry, in particular, has performed poorly in terms of productivity growth, dragging down aggregate productivity in the region.

One of the main reasons way productivity growth has been low in our region is that investments have been concentrated in traditional, low productivity sectors such as agriculture. In addition, high investments were made in maturing sectors, particularly the tourism sector, where productivity improvements are more difficult to realize. Instead of focusing on the traditional industries, investments must be made in those sectors that can increase productivity and, hence, boost economic growth in the region. Needless to say, the policy agenda should include measures to stimulate innovation and diffusion of ICT in the business sector, particularly the high value-added services industries.

Several factors affect a firm's decision to invest in and use ICT. First is the availability of a state-of-the-art ICT infrastructure. For example, these days, the availability of adequate bandwidth with access to the international information superhighway is crucial. A second factor affecting firms' investment decisions related to ICT is the direct costs of ICT, including the costs of ICT equipment, telecommunication, or installing an e-commerce system. Lower costs will lead to more technology investment and diffusion of ICT. The availability of qualified personnel also affects a firm's decision to invest in new technologies and use ICT. A third important factor is the amount of risk and uncertainty related to the implementation of ICT. For example, firms will be more inclined to do business online if the infrastructure for online payments, delivery, and guarantees is secure. Finally, firms are more likely to invest in a sheltered environment.

Ladies and gentlemen, a quick assessment of the ICT environment in the Caribbean reveals that one of our main weaknesses is the availability and affordability of state-of-the-art ICT services. Although significant ICT investments have taken place over the past decade, the availability of business-oriented technologies differs considerably among countries in the region since not all countries have equal access to the international backbone infrastructure.

For example, limited access to the fiber optic submarine systems results in higher prices for bandwidth capacity.

In the cases in which state-of-the-art services are provided, customers are charged relatively high prices. For example, according to a recent study by CARICOM, Caribbean countries charge far more than developed countries for broadband internet access. The high cost of ICT services is related to the lack of economies of scale in the Caribbean due to our countries' small size. As a consequence, competition in the telecommunication industry in the Caribbean is limited. More often than not, only one single operator has the licenses to use the international backbone infrastructure and/or is the owner of the domestic infrastructure. Hence, other operators have no access or limited access to international and domestic infrastructure, which results in limited and even unfair competition.

From an economist's point of view, the availability and affordability of ICT services in the Caribbean can be improved with increased competition in the telecommunication industry. Therefore, governments should ensure through adequate regulation, fair and nondiscriminatory access to the domestic ICT infrastructure. All players within the sector should be able to develop and offer services through the domestic and international backbone infrastructure. In cases where competition is limited or not possible, the regulator must ensure that conditions exist for users to obtain the bandwidth capacity they need under nondiscriminatory, transparent conditions and at cost-based prices.

Another weakness in the ICT environment in the Caribbean is our legal and regulatory framework. The legal enforcement of electronic documents, electronic transactions, and digital signature is essential because it reduces the risks of doing online business. Measures to fight internet crime should be included in the legal and regulatory framework as these increase a country's reputation as a safe environment for e-business. Regulation of intellectual property and privacy related to the use of the internet also affects a firm's decision to develop and provide new e-business activities and, hence, should be included in the legal and regulatory framework.

Currently, the legal and regulatory framework in the region can be characterized as fragmented and antiquated, lacking focus and flexibility. Several reports by international institutions, including the World Bank and CARICOM, have emphasized the importance of a regional approach for the development of a legal and regulatory framework for Caribbean countries. This regional approach should encompass the harmonization of e-legislation and e-regulation among the countries in the region. The Caribbean framework should be in line with international best practices. Moreover, the framework should be flexible to adapt to new ICT developments. Because changes happen very rapidly in this dynamic environment, regulators need to monitor ICT developments continuously and adjust the framework if necessary.

A main advantage of regional cooperation in the area of ICT is that it will help maximize the use of scarce expertise with regard to drafting legislation and implementing regulation of e-business. Furthermore, the ICT reform process could evolve more rapidly if countries only had to focus on facilitating and implementing the legislative and regulatory framework instead of drafting country-specific legislation.

Ladies and gentlemen, another area that has to be addressed to increase productivity is the availability of a skilled workforce. A competent and skilled workforce is essential for countries to succeed in a knowledge-based economy. Today, the labor market demands more and more well-trained and qualified workers.

Caribbean countries have recognized the importance of ICT in the vocational curriculum. Governments, the private sector, and nongovernmental organizations are engaged in expanding ICT coverage in the education system. Therefore, schools are increasingly being equipped with computers and internet access. Nevertheless, despite much effort, the access to ICT equipment is still insufficient. Furthermore, in most cases, the vocational curriculum is focused on providing basic technology skills instead of integrating ICT into the learning processes to develop critical thinking and higher value skills.

Therefore, I believe that public-private partnership efforts to expand ICT coverage in the vocational curriculum should be further expanded. Besides providing the ICT infrastructure, teachers should be trained to better incorporate ICT tools in the learning experience. At the university level, through special programs and incentives, public-private partnerships could stimulate internships in the ICT sector and academic research on ICT-related topics.

Because the knowledge-based economy and the ICT environment are very dynamic, lifelong learning has become a necessity for countries to maintain and increase their competitiveness. After formal education, workers need continuous training to maintain the skills needed in their work. Lifelong learning should be a joint responsibility of workers and their employers. The government could provide special incentive schemes, for example, tax schemes, to make lifelong learning and training more attractive for the worker and the employer.

Regional cooperation is also recommended to improve the quality of the labor market, in particular in the area of ICT. For example, Caribbean countries could cooperate in the development and provision of ICT training for teachers. In addition, universities in the region could join efforts in academic research on ICT-related topics. And finally, Caribbean countries could share experiences and best practices with respect to lifelong learning and training schemes for workers.

Ladies and gentlemen, I have just dealt with several aspects of firms' decision to invest in ICT that need to be improved in the region. Besides these sector-specific factors, I would also like to emphasize the importance of an enabling investment climate. An enabling investment climate includes a flexible labor market, low administrative barriers, and easy access to capital. Furthermore, barriers to market entry and exit are relatively low, and the costs of doing business are competitive. Such an investment climate will not only encourage firms to invest in ICT hardware and applications but will also encourage ICT innovation. In other words, in an attractive investment climate, firms will be more inclined to develop new ICT products and services.

Ladies and gentlemen, I wish to conclude my address by underscoring the importance of ICT as a driver of growth in the knowledge-based economy. Today more than ever, ICT plays a crucial role in countries' ability to recover from the recent economic downturn. In the Caribbean, ICT could boost economic growth. However, we have to address certain institutional and economic weaknesses in order to improve our competitiveness and to make our economies more attractive for ICT investments. In this regard, regional cooperation is essential. Therefore, I applaud CANTO's initiative in organizing an annual conference to discuss important topics and developments in the ICT industry and to develop regional programs to improve our ICT competitiveness. I wish you all fruitful meetings and a pleasant stay in Curacao.

Thank you for your attention.