



# Building an Education Cluster in T&T

By Atiba Phillips

Education, skill development and the generation of new ideas are keys to human development, civil society, economic growth and national competitiveness. Innovative societies and economies are shaped through the development of high quality and diverse education, training and research foundations, through a culture of knowledge-sharing, and through a significant investment in people as the most valuable national asset.

That's why Vision 2020 specifically calls for a Trinidad and Tobago that produces people who are "highly skilled, well educated ... aspiring to a local culture of excellence that is driven by equal access to learning opportunities. Our people acknowledge and actively pursue the development of self and country by being socially responsible and contributing to economic development". Attaining these goals in this modern age is predicated on a robust information and communications technology (ICT) infrastructure.

**ICT Enabled Clusters:** A cluster is a group of interconnected economic and research institutions that face common opportunities and threats, usually co-located in a particular geographic region. The development of clusters based on a platform and foundation of ICT has been a key factor in the acceleration and success of economic initiatives globally. Nations around the world have long known the benefits of clusters, indeed, they are a prominent feature of every advanced national economy. This is because clusters:

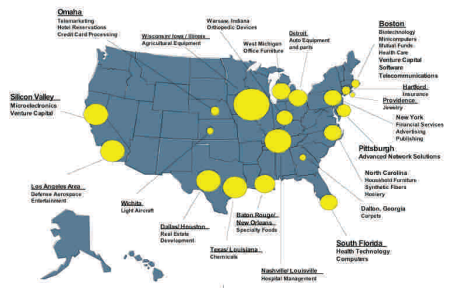
- Give rise to external economies (e.g. specialised technical and financial services, sector specific management skills, training and workforce synergies etc.).
- Create a conducive ground for the

development of inter-firm cooperation and public-private partnerships, to promote local production, innovation and collective learning.

- Can act as the drivers and beneficiaries of R&D initiatives.
- Exceed the scale of individual firms, allowing the cluster to collaboratively service larger contracts both at the local and international levels.

The United States, for example, is not a competitive nation — it is a nation of competitive clusters (see Figure 1):

**Figure 1: Competitive U.S. Clusters**



Source: OTF Clusters and Competitiveness Report 2008

**Education Cluster Strategies:** Specific strategies for catalysing a local education cluster (or any industry-specific cluster for that matter) include:

- **Attracting Globally-Renowned Anchor Institutions to Operate Domestically:** Imagine if Harvard, Stanford or UC Berkeley set-up campuses in T&T. That would surely kick-start our education cluster! Such world-renowned institutions would bring with them world-class, technology-enabled, learning infrastructure, teaching pedagogy, and operational best-practices, not to mention their globally-

recognised brands, immediately making this country stand out in the realm of education in the Caribbean and Latin America.

- **Upgrading Sector-wide Infrastructure:** Single domestic (or even international) research or education institutions can seldom compete successfully in the global marketplace and win on their own. An education cluster will rely on diverse inputs and infrastructure elements (including ICT, security, utilities, physical infrastructure, intellectual property and financing) for success. Upgrading, therefore, must be looked upon not in the context of individual institutions but in the holistic upgrading of the cluster.
- **Identifying Specific Focus Areas:** Examples might include education sub-clusters in energy, financial services, or ICT. Knowledge-based industries that develop deep and specialised capabilities to serve the most demanding of customers are much more likely to be fuelled by higher-skilled, higher-paid workers and tend to be significantly more profitable than clusters that compete on cost rather than true differentiation. Channelling finite resources into the development of niche expertise in specific strategic areas (possibly those in which the country already has a competitive advantage) will allow T&T to stamp its mark in the global education arena.

**Elements of a Local Education Cluster:** Some of the building blocks of a local education cluster are already here:

- **Local Education Institutions:** Public and private education institutions such as the National Library Information System, the University of Trinidad and Tobago (UTT), the University of the West Indies, the University of the Southern Caribbean, the School of Business & Computer Science,



and the School of Accounting and Management, among many others, and local Professors, lecturers, and content experts.

- **Improved ICT Infrastructure:** Government's Information Technology Campaign, fastforward, which incorporates projects like GovNeTT (the GoRTT Wide Area Network) and TTConnect, coupled with the opening up of the telecommunications sector to competition, has resulted in rapid improvements in broadband availability and cost. Our internet access costs are now the cheapest in the region through upgraded services from providers.
- **Best-practice Local & International Firms:** Operating domestically, these firms need cutting-edge research and innovation to survive in their industries. They can become drivers and benefactors of cluster research, inventions, workforce upgrading and skills training, which will in turn fuel their international competitiveness.
- **ICT Savvy within the local population:** It is from this that the Cluster's human capital will be drawn. It includes the general population's increasing familiarity with global social networks (Linked In, Facebook, Twitter, etc.), which has built competence and awareness of the methods and benefits of interacting and exchanging information on-line. We are also witnessing the emergence of web-development, graphics, web-hosting, and animation ICT firms in T&T, which can now put their skills to work to create on-line applications and savvy e-learning solutions that will fuel the cluster's development.

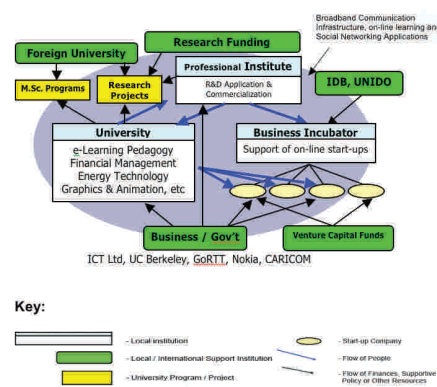
**Envisioning the Education Cluster:** Human capital and knowledge are key inputs for any country serious about improving its international competitiveness. Caribbean education systems are increasingly out of sync with "new economy" realities, and must pay more attention to upgrading knowledge and human capital. While free tertiary education and the creation of industry-focused universities (like UTT) are steps in the right direction, the education offered in any successful cluster must be relevant to current and expected business and societal needs.

As such we might be able to envision local education clusters by geography in T&T:

- Petroleum and Extractive Industry Engineering (South Trinidad and Offshore)
- Culture and Entertainment Arts (Queen's Park Savannah)
- Finance and Banking (Port of Spain)
- Knowledge Management (Proposed Data Farm Tamana InTecK Park)
- Retreat-based Executive Education (Tobago)
- Health, Hospitality and Tourism Management (Tobago)

**Figure 2: Network/Cluster diagram For a Local Education Cluster**

Cluster Diagram for a Local Education Cluster Key:



Source: *INFOCOMM Technologies Ltd.* ([www.ict.co.tt](http://www.ict.co.tt))

**Fundamental Requirements:** While Trinidad and Tobago is starting from an enviable position from which to establish an education cluster predicated on an ICT platform, fundamental requirements must be met to propel us from our current position.

**Leveraging Existing Initiatives:** Caribbean-wide initiatives, such as CARICOM's Caribbean Knowledge and Learning Network, the Caribbean Association of National Telecommunications Operators' and the Caribbean Telecommunications Union's "Connect the Caribbean" initiatives, and even the Education and Cultural Outreach projects executed through the Trinidad and Tobago National Commission for UNESCO, tap international knowledge bases, and are positive foundations on which to build. One of the

major points of attraction for international universities and institutions that we may invite to domicile here will be the ability to gain rich access to Caribbean-wide research, not just research on T&T. This type of pan-regional knowledge, connectivity and ICT infrastructure will be a major boon to the viability of a local education cluster.

**Information Sharing:** Collaboration and the sharing of information for success is at the core of knowledge clusters. If we as a people share information so as to can learn from ourselves and our experiences, we can meaningfully share knowledge with others.

**Value for Self:** More local or regional case studies must be employed in tertiary institutions. This type of research contributes to a regional consciousness and provides insights into local trends so we can compare international markets to our own, to make informed decisions towards regional progress.

**Embracing Change:** A future-driven, ICT-enabled education cluster that embraces on-line learning, puts learning in the hands of the learner, who must bear greater responsibility for taking charge of his or her own pace of advancement. Experts, teachers and consultants may be much younger than traditionally expected, and we will have to understand how to duplicate/simulate the social experience of a physical classroom through on-line social networks.

**The Benefits:** The development of a world-class education cluster here in Trinidad and Tobago, will have many positive effects: Beginning the reversal of the brain drain phenomena; offering increased access to the differently-abled community; connecting geographically remote communities; and allowing all citizens to make meaningful contributions. This can be done through an inclusive education policy, ICT-based learning, and multi-media enhanced instruction delivery.

The Chamber should be applauded for championing the development of an Education ICT-Driven cluster in T&T—It is an initiative that should be afforded the highest priority by the Government, given our Vision 2020 aspirations.