

Conference Theme: Livelihoods

**Title: Towards a Proposed Caribbean Knowledge City – An Investment Destination for Quality Higher Education**

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**ABSTRACT**

In this paper we explore a solution for Jamaica and the Caribbean to meet the four critical requisites, as defined by the *World Development Report 2002\**, to be able to fully participate in the global knowledge economy by introducing a business/education model known as a Knowledge City or more currently, a Knowledge Innovative Zone. Our paper will layout the background of Knowledge cities, the role they play in catering to the educational, socio-cultural, business and governmental needs of many nations. The paper will demonstrate the potential benefits for the Caribbean to develop its own Knowledge City/Zone thereby addressing our critical need for affordable, accessible, quality tertiary education, job creation, increased exports, and an overall enhanced economic status for the nation.

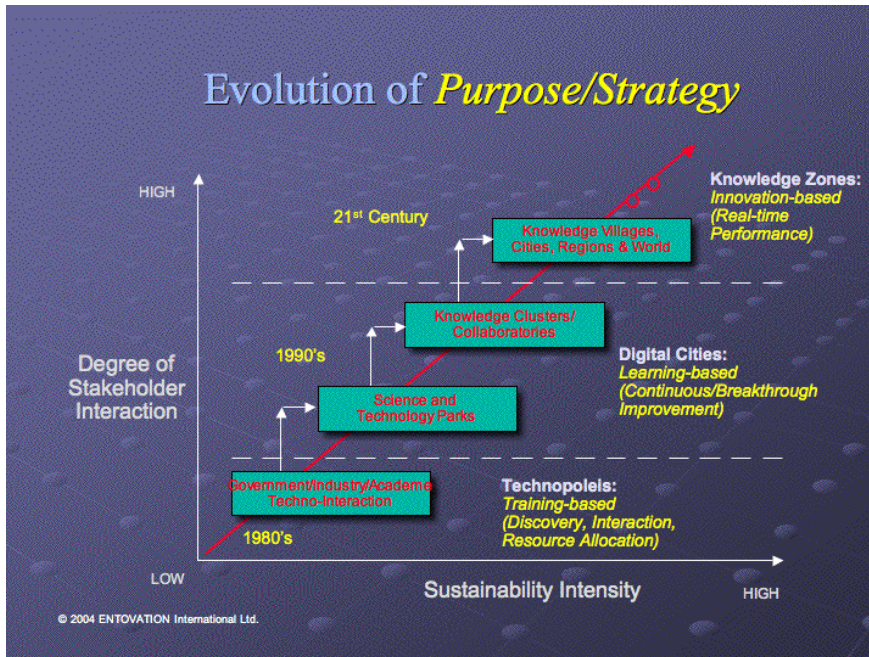
There are four critical requisites for a country to be able to fully participate in the global knowledge economy:

- (a) A regulatory and economic environment that enables the free flow of knowledge, investment in Information and Communications Technology (ICT), and encourage entrepreneurship;
- (b) An educated and skilled population to create, share and use knowledge;
- (c) A dynamic information infrastructure ranging from radio to the internet, in order to facilitate the effective communication, dissemination and processing of information;
- (d) A network of research centers, universities, think tanks, private enterprises and community groups to tap into the growing stock of global knowledge, assimilate and adapt it to local needs, and create new knowledge.

Subsequent to this report a revolutionary change took place in the educational sector. It was readily recognized that that global knowledge commonwealth was replacing the world of nations. The new economy would be based upon an unlimited supply of intangible value.

Through networking and symbiotic partnering, the wealth of successive generations would be impacted. Thus, a new economic world order would emerge – one that was based increasingly on knowledge, innovation and international collaboration. New business models would need to be created to replace the industrial-age past models. These models would need to connect humans across time and space utilizing human, financial and technological advances and providing a foundation for unprecedented global innovation characterized as zones of activity. Thus, models for Knowledge Cities, now referred to as Knowledge Innovation Zones, (KIZ) were created.

The internet has facilitated the growth of KIZs. What began as an attempt to catalyse co-operation among economic sectors, including government, industry and academia (now termed cross-sector integration), has matured into initiatives that sustain interdependencies within and across industries, municipalities, national and regional borders.



## Description

A Knowledge City is a city that has strategically embarked on a mission to purposefully encourage the nurturing of knowledge, innovation, science and creativity within the context of an expanding knowledge-based economy and society. The Knowledge City is the synthesis of the "creative city," the "science city" and the "digital city" where arts and sciences become unified in a uniquely human twenty-first century urban ecology powered by advances in technological communication.

Knowledge-based urban development is the perfect new medium in which to grow more livable, stimulating, cleaner, intelligent, enlightened, tolerant and meaningful communities worldwide. The Knowledge City is the first new urban formation tailored for the needs of a knowledge economy where ideas rule and there are infinite recipes for innovation and new wealth creation.

A Knowledge City is also an umbrella metaphor for *knowledge zones* which may be geographically configured in diverse settings such as knowledge villages, knowledge towns, knowledge regions, corridors and nations. Knowledge zones are emerging rapidly as the next step in the quest for sustainable growth and economic development for cities, regions, countries and private enterprise

Knowledge Zones can cross geography and industry boundaries, linking communities of practice in which ideas can flow in a wider circle - from the point of origin to the point of need or use. These zones possess an economy driven by high value-added exports created through research, technology, and brainpower. In other words, both, the private and the public sectors value knowledge, nurture knowledge, spend

money on supporting knowledge dissemination and discovery (i.e. learning and innovation) and harness knowledge to create products and services that add value and create wealth. Currently there are 65 urban development programs worldwide formally designated as Knowledge Cities.

As the knowledge-based economy expands, KIZs will become pathways to a prosperous and sustainable future. KIZs will create cross-boundary magnets of interaction that lead to a deeper understanding of value across disciplines, technologies, and nations. This global networked competence creates a greater respect for diversity of individuals, committees, institutions and cultures. Each KIZ is defined by patterns of relationships among its elements – principles, policies, practice, performance and the innovation process.

### **Structure of a Knowledge Zone (KIZ)**

- A KIZ is designed with a clear purpose of optimizing human and intellectual capital (e.g., intellectual property, social capital, relationship capital, and intangible value) within a prescribed geographic area or context.
- A KIZ is based on an economic model of abundance, as opposed to one of scarcity (i.e., classic material models based upon supply and demand). Wealth-creation depends upon creative ideas and infinite recipes for innovation.
- A KIZ is similar to an economic trade zone. It creates markets for intellectual capital and orchestrates the design, development and deployment of intangible assets. Working in this context facilitates the flow of robust and expanded knowledge-based commerce, trade and exchange.
- A KIZ is designed to optimize creative talent and harness the untapped human capital of all participants and stakeholders. While respecting intellectual property rights, the zone simultaneously enables and enlarges the open source creative commons, where knowledge and ideas are pooled for mutual advantage.
- A KIZ facilitates new forms of citizenship in which openness, transparency, and accountability are encouraged. Connected leadership relies upon an aware, educated and involved citizenry. Shared values, well informed decision-making, and networks across community sectors, countries and enterprises create sustainable collaborative advantage.
- A KIZ is structured to benefit from an economy where value is assigned to the supply, ownership, and mastery of brainpower, ideas, know-how, intellectual capital, and intangible assets.
- In a KIZ, there are consistent dynamics of interaction. They apply to network formations in any type of knowledge-based development: individual (synaptic network), an enterprise, a group of cooperating enterprises, a knowledge cluster, city or a nation.

## **PROPOSED SITE - JAMAICA**

### **Introduction**

It is recognized that long term Jamaican and Caribbean economic growth is only possible through the development of "a knowledge society"; a large pool of skilled knowledge workers that would drive entrepreneurship, innovation, productivity and knowledge-based exports. The key to the development of a knowledge society is human capital, which can only be developed through a quality higher education system [Fergany et al. 2003].

However, it should be highlighted that across the region the education sector was in a state of neglect.

Many academic institutions are under-funded; poorly equipped with IT, science and library facilities; overcrowded and administered by underpaid faculty staff. "Higher education institutions generally underscore that they lack resources, a complaint borne out by statistics related to per capita expenditure, with some variations between Caribbean countries" [Fergany et al. 2003]. As a result, the region suffered from brain drain as students traveled overseas for higher education and remained in that market upon graduation.

In addition, many academic institutions are failing to produce graduates with skills that served the needs of the emerging Caribbean Single Market Economy.

These problems could only be rectified with heavy government investment in higher education, a stronger linkage between academic courses and the labour market, and a new culture of learning that recognises that the true value of knowledge acquisition has to do with the development of the economy and society [Fergany et al. 2003].

The proposed Caribbean Knowledge City (KC) will be established to address these issues by providing the environment and infrastructure to attract prominent international institutions.

These institutions would help in accelerating the development of human capital and prevent brain drain by offering quality global education to the region's students, who cover the Caribbean and certain North American regions particularly the south.

With its proposed strategically selected programmes of study, relevant and connected to the surrounding economy, the CKC will seek to create a cluster of institutions that will train the knowledge workers of the future. In addition, to compliment its academic objective, the CKC will enable sustained development of the knowledge workforce by providing opportunities for lifelong learning through its numerous professional training centres, human resource development institutes and management development organisations. Moreover by being a hub for a cluster of R&D, eLearning and incubator facilities, the proposed CKC will promote regional innovation and enterprise.

The proposed Caribbean Knowledge City will be located in Portmore, the Caribbean's largest and fastest growing community. By operating closely with its affiliate entities, the Caribbean Knowledge City will offer its Partners a huge opportunity to collaborate with the business community, and to create a modern, vibrant learning environment.

Essentially, our ambition is to create a Knowledge City within a major city of Jamaica. The creation of such a site would form a free zone structure within which the developing knowledge community may expand into a Knowledge Innovative Zone within a five year period.

The KIZ would embrace public/private partnership at its full capacity and stress the interaction as a priority.

Our objectives include:

- Develop Jamaica as a destination for investments in higher education
- Position Jamaica as a centre of excellence and regional hub for learning and innovation serving the Caribbean Region especially in the context of the recently established Caribbean Single Market & Economy, CSME.
- Lead, promote, and facilitate the use of elearning in higher education and training throughout the Caribbean
- Develop key initiatives to bridge the talent gap in the region
- Link & develop the skills and know-how of the industry
- Enhance national economic development efforts by developing a skilled and educated workforce and creating new jobs.

Additional benefits will include:

- One-stop-shop for all higher educational and business needs.
- Business-and-education-enabling physical infrastructure.
- High performing and adaptable technology infrastructure.
- eHosting facilities
- A community of like minded individuals and businesses.
- International business environment.
- An environment rich with networking opportunities.
- Access to a large pool of knowledge workers.
- Straightforward laws and regulations.
- Prestigious education and business address.
- Student visas made easy.
- Local and Foreign Ownership.
- 100 % tax free.

We envision our community to be comprised of three distinct groups: Primary, Supporting, and Basic.

<b>Primary</b>	<b>Supporting</b>	<b>Basic</b>
Local Academic Institutions	Academic Service Providers	Retail
International Academic Institutions	IT Providers	Residential
Professional Training Centres	Management Development	Health& Wellness
Research & Dev. Centre	Financial Institutions	Food & Beverage
Distance Education Providers	Training & Education	Arts & Entertainment
	Business Resource Facilitators	

### **Population and Unemployment**

The Caribbean region has a large young population - over 60% are under 40. This can be either a demographic gift or a curse depending on whether countries can use the human potential represented by their populations well enough to satisfy people's aspirations of a fulfilling life. A large young population is one of the region's greatest economical assets, if the proper infrastructure, particularly in fields of education, exists to grant the new generation the opportunities to advance themselves and with it create new businesses, jobs and wealth. Conversely, an absence of educational opportunities leaves the population powerless to improve their situation and the result is poverty. The lack of empowerment for these people to improve their situation is accredited to the local/regional education sector. Poverty of capability is more pronounced as a result of the high rates of illiteracy and inadequate access to quality higher education and training. Without educational opportunities the growing population compounds this poverty as more and more people, without skills to develop the economy, enter an already overstretched job market [Fergany et al. 2002].

### **Science and technology**

Although there are quality academic institutions in the region and enrolments in some countries are reasonably high, higher education systems generally tend to respond weakly to labour market needs related to science and technology [Fergany et al. 2003].

Skilled workers in scientific fields are essential to the development of a knowledge nation as the adoption of technology and its application is a primary driving force behind the creation of wealth. "Science and technology allows people to multiply their productivity much faster than those who do not have the same knowledge or instruments." Because of the technology gap, what one person in a rich country can produce is, on average, 390 times more than a person in a poor country [Enriquez, 2001].

In addition, research and development in scientific fields; the root of innovation, is also a prime generator of revenue. For example, 45% of the West's increase per capita in recent years can be accredited to technological advancement.

However, in 2003, due to a lack of faculties and societal push, fewer than one in 20 Caribbean students were pursuing scientific disciplines, in comparison, the Republic of Korea had one in five [Fergany et al. 2003].

Furthermore, what limited science faculties the region possessed, felt the underinvestment in education deeper than other disciplines. "The under-funding of higher education impacts negatively on science and technology in particular, because these fields require provision and renovation of costly special facilities, equipment and materials." This further undermined the attraction of the discipline to students [Fergany et al. 2003].

The lack of science graduates to feed into research centres directly undermined the region's ability to undertake competitive R&D. This problem was compounded by an under investment in research which was yearly, on average just 0.2% of a Caribbean's nation GNP compared 2.5% to 5% investment made by developed countries. These two factors severely stunted innovation and knowledge exports.

### **Brain drain**

The lack of private higher education institutions of an international quality, together with the shortage of post-graduate opportunities, meant the region was losing many of its most gifted students, who would travel overseas in search of better educational opportunities and often never return. In addition, the shortage of research facilities and skilled work opportunities led to the migration of many of the region's already skilled professionals. Between the years 1995-96, the region lost roughly 60% of its graduates from the UWI and other Caribbean universities. The link behind this kind of emigration and GDP drain has long been established. As skilled workers leave for other markets, innovation and business development is hampered by a lack of technical expertise.

### **Limited access to overseas education**

Overseas education, particularly in places such as the USA, Canada, UK and Australia has long been popular among students of this region, for the quality and diversification of the programmes offered and the favourable job market.

However, since the events of September 11<sup>th</sup>, the region has witnessed a drop in students applying to the US due to a decrease in its desirability, as a destination for education and the tightening of US immigration security procedures.

Statistics published by the American Institute of International Education found that in 2003, the number of students applying to study in the US from the Caribbean fell by 40%. While overall, the number of international students enrolling in US universities increased by less than 1 % in 2003, compared to 5% jumps in the previous five years. The US has tightened security procedures against 25 countries it believes to have terrorist links. "Male students aged between 16 - 45 now have to go through security vetting including fingerprinting.

Many have complained that they are being criminalised on arrival" [Curtis, 2003].

Another barrier to overseas education is cost. In the UK a typical international student could pay up to \$85,000 for a three year degree [Macleod, 2004]. There are also indications that the cost of studying in some popular educational destinations is rising.

For example, the ~40% drop in overseas student applications the Caribbean witnessed in the first half of

this year is attributed to an increase in tuition, an unfavourable exchange rate and an increase in the student cost of living. "Research ... shows that the cost of studying in the USA has more than doubled since 2001," [Batchelor, 2004].

Moreover, due to Government initiatives, some Caribbean islands are experiencing fairly rapid growth. With development and job opportunities on their doorstep, many students of these nations do not want to be isolated from their native labour market by opting to study overseas. In addition, regardless of security and expense, many regional students, particularly females, prefer to study locally due to strong family ties and cultural traditions.

### **Vision 2010**

It is proposed that the Jamaican Government, in collaboration with private sector entities such as the University College of the Caribbean UCC will join force to outline a Vision 2010 master plan; a three year economic strategy.

The proposed Vision should plan for 70% of Jamaica's annual GDP to be generated through the service sector with the further development of industries such as tourism and healthcare. The final 30% of GDP could be generated directly from knowledge-based industries.

In an initial drive to develop the knowledge sector, we propose that the GOJ and COL partners with the UCC to create several new clusters, including a Caribbean Internet City, an International Finance Centre, and a Caribbean Healthcare City.

The University College of the Caribbean UCC strongly encourages favorable consideration of this concept document.

Our development team is ready and prepared, upon request, to provide an in-person presentation to further discuss the various next steps: funding potential, development options, timeframes, etc.

### **Conclusion**

The growth of the knowledge economy is central to the continuing development of the region and its foundation is the education sector, to train, innovate and inspire a new generation of skilled knowledge workers.

The proposed Knowledge City, with its proposed advanced cluster of prominent international universities will be at the forefront to create a new regional destination for higher education. By providing global higher education institutions, locally, the knowledge cluster will help to both prevent brain drain and attract new talent from overseas.

With programmes chosen to match the needs of the regional knowledge economy, the CKC will aim to create a culture of learning and R&D to close the development gap between the region and the North.

It will strive to create an innovative economy based on the region's everlasting natural resource; a knowledge workforce.

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