Bermuda - A Rock of Stability and a Launch Pad Into the Future

At the heart of Bermuda’s success as a centre for business and technology has always been a partnership between the public and private sectors. In this regard, Bermuda’s relatively small size works in its favour: it is possible for both sectors to enunciate their needs and discuss paths of progress in a way that leads to solutions rather than roadblocks.

Generally, the people of Bermuda and the Government of Bermuda have agreed for more than 40 years on the basic approach: ensuring that the economy is at once a rock of stability and a launch pad into the future. There has also been widespread agreement for some time that the ICT sector is and must remain a central pillar of the economy.

Isolation may have been a key driver of such thinking in the days when a five-hour flight separated the island from the Eastern Seaboard. Today, with the whole world no further than a single click away, incorporating and encouraging ICT is more of a matter of common sense. Bermuda’s natural advantages favour the development of certain industries, with ICT taking a leading place.

In this context, of course, Bermuda does not mean giant server farms or warehouses stocked to the eaves with every imaginable product. Instead, Bermuda facilitates thought processes and organisational infrastructure: brains over brawn, as it were.

Bermuda’s early embrace of ICT — the initial Bermudian legislation on the subject, a decade ago, was among the world’s first — followed an intense period of public discussion, to outline a strategy that would place the island at the centre of the debate over how to keep information technology innovative, diverse, and accessible.

The fallout from that original thinking has been two-fold. Domestically, Bermuda has become the ultimate "wired," e-ready economy, founded on principles of fairness, transparency, and predictability. Its infrastructure is equal to that of the top global financial centres. More than 90 percent of Bermuda households own a computer, and 81 percent of those use high-speed internet.

Bermuda’s connectivity is supplied by providers of CDMA, GSM, 3G and WiMax services, all carried over three mobile networks, three fixed-line networks, and overlaid by six ISPs. This diversity flourishes because the regulatory framework is light but consistent. Highly-evolved e-commerce legislation and the most up-to-date electronic transactions laws in the world are the legacy of the decision to make the support of the ICT industry a national initiative. Bermuda upholds internet safety guidelines; has in place meaningful child-protection laws; will not sanction pornography or gambling sites to be hosted from the island; and leads the world in setting data security standards.

Typical of the way Bermuda encourages technological development is its emerging power in the space industry, succeeding in attracting a critical mass of satellite companies and space service providers operating from Bermuda. Again, Bermuda is not home to the manufacturing or launch sectors of the satellite business, but has developed an intellectual pool drawn from operators and their advisors.

In the area of security and digital certificates, for example, one home-grown business is providing managed services to UBS, the London 2012 Olympics, Credit Suisse, HBOS/Lloyds, and Capita.

A great deal of thought has gone into the future of ICT in Bermuda. The island is developing a privacy model to enable multinational companies to move data easily and quickly to other jurisdictions in conformity with various national rules. Mindful of physical constraints, Bermuda companies have installed multiple disaster-recovery and business-continuity facilities, a must for an economy that stores vast amounts of electronic data. This approach has allowed Bermuda’s to be the first government to partner with Research in Motion, the creators of Blackberry, to develop and host a local mobile application development competition with local mobile carriers, one which led to a set of innovative applications that can be used both locally, or globally.

Bermuda’s efforts have been recognised globally. The Economist Intelligence Unit has ranked Bermuda among the top 25 countries in the world, in terms of e-readiness, for the last four years running. Were the island larger, and therefore more easily able to satisfy some of the measurements on which the EIU bases its rankings, Bermuda would sit among the top few jurisdictions in the world for e-readiness.

It was further recognition of the island’s strong place in the ICT world that led to the World Information Technology And Services Alliance (WITSA) decision to partner with the Bermuda Government and the Bermuda Chamber of Commerce’s Business Technology Division, to co-host its biennial Global Public Policy Summit (GPPS) in Bermuda in November 2009. The event was an enormous success. Information and communications technologies (ICT) professionals from more than 25 countries gathered on the island for three intense days of meetings and discussions that concluded with The Bermuda Declaration, proposed jointly by the Government of Bermuda’s Department of E-Commerce and WITSA, (see sidebar) on the way forward for the development and growth of global ICT.

Representatives attended from many of the key global participants, including the Internet Corporation for Assigned Names and Numbers (ICANN), the Internet Governance Forum (IGF), the International Telecommunications Union (ITU), the Organisation for Economic Cooperation and Development (OECD), the World Bank, and the World Trade Organisation (WTO), among others.

"I was extremely pleased to see delegates from around the world tackle the most pertinent
The Bermuda Declaration

The World Information Technology and Services Alliance (WITSA) is the global body that represents the information and communications technology industry. The Global Public Policy Summit (GPPS) is a WITSA event that focuses on global policies affecting the information and communications technology industry.

The Declaration issued at the conclusion of the 2009 GPPS in Bermuda is intended to:

- raise public and institutional awareness and attention to the benefits of a coordinated global ICT policy;
- stimulate increased ICT investment, projects, and opportunities;
- re-commit WITSA to the continued global promotion and development of ICT solutions.

The current global economic crisis requires a coordinated policy response that recognises the critical role played by ICT in economic recovery and the overall benefits that it brings to all nations and communities. Future economic growth should be environmentally as well as economically sustainable.

Therefore, participants at WITSA’s GPPS 2009 declare that:

1. ICT is a proven driver for global economic activity and growth.
2. The economic growth generated by the development of the ICT sector will benefit all economies.
3. Access to ICT and the knowledge and information provided by the internet is an important part of an inclusive information society and is essential for broader sustainable economic growth.
4. Public-private partnerships are a critical part in building ICT infrastructure and an information society.
5. There should be an open trading system between nations free from barriers for ICT products and services. We urge WTO members to reach the compromises needed to achieve a successful conclusion to the Doha Development Agenda with an ambitious and balanced outcome, including comprehensive results in services.
6. Harnessing the power and benefits of ICT for society will not come automatically. Only if business and governments work together with other partners, including their education systems, can people everywhere be assured of access to ICT tools and the knowledge and empowerment they deliver.
7. International strategies to tackle climate change need to make full use of ICT as one of the most powerful tools available, and one of the only ones that can produce dramatic changes without negative effects on prosperity or individual lifestyles.
8. With the pressure on global public finances, governments should recognise the use of ICT and technology-enabled change as tools to address their operational costs and efficiencies.
9. The continued success and growth of ICT depends on trust and confidence; privacy and security should be appropriately integrated into ICT programmes, systems, and products from the beginning.

Bermuda’s Minister of Energy, Telecommunications & E-Commerce, the Hon Michael Scott JP MP, said: “My Ministry was most pleased to be a partner in this incredible event, which again shows that Government fully understands the importance of technology in a fast-paced and rapidly changing world. We will continue to support initiatives that demonstrate the ways in which Bermuda is at the forefront of ICT.”

“The overall message from the Summit,” said David A Olive, WITSA’s Public Policy Chairman, “is that we should embrace ICT and place ICT in our plans and programmes as a strategic economic driver for recovery and future sustainable economic growth. In addition, carefully crafted and flexible public policy attracts and facilitates innovation, trade and investment, information flows, and infrastructure.”

Areas of focus

The conference was divided into seven main areas: the state of the global ICT industry; information security and privacy; ICT and economic stimulus plans; the internet and its governance; ICT and the environment; international institutions and the role they play in the arena of policy and ICT; and future technology trends.

The global ICT industry

Robert Flanagan, Global Insight’s Principal, Technology Markets said that the first green shoots have been appearing in several countries, indicating signals of economic recovery and growth for the world economy and for the ICT industry. He noted five driving forces: convergence; mobile leapfrogging; expanded broadband; empowered citizens; and ICT for healthcare.

Information security and privacy

Collaborative solutions were recommended among the industry and policymakers in order to minimise threats from cyber-attacks and to ensure that systems and data remain protected.

It was also noted an appropriate balance must be maintained between privacy protection and information security; the one should complement the other. An imbalance would run the risk of privacy protection inhibiting information security and cyber-security approaches.

ICT and economic stimulus plans

A panel of distinguished government and business experts held a lively discussion on the role of governments in providing economic stimulus and public sector investment, the critical role of innovation as an economic driver, and the role of ICT skills.

On the role of government stimulus in ICT projects during a recession, a general wariness was expressed about such government programmes, even as the panelists recognised that they might be beneficial at the macroeconomic level.

A lively debate on innovation recognised that while the spur of innovation had come from individuals and businesses, governments do have a role in maintaining a suitable climate and working on global solutions that relate particularly to copyright and intellectual property rights. An energetic discussion followed on whether foreign direct investment helped in the process of innovation, with contrary arguments being made on the need for innovation to be considered as more of a lifecycle issue.

The internet and its governance

The internet governance panel concurred that WITSA is on target in its adoption of the following principles: keeping the internet open and accessible to all; ensuring reliability and security; recognising the multi-stakeholder nature of the IGF and its continuation for further policy development discussions; strengthening and broadening the involvement in leadership in the ICT industry in these relevant fora;
and ensuring that the global public policy in governing national systems enables the use of ICT products.

**ICT and the environment**
A presentation of data and trends on global warming and climate change drew the conference's attention to the seriousness of this issue. Panellists discussed projects and approaches that ICT organisations and companies are adopting to address the issue, including recycling and the reduction of power consumption in the data centre and by ICT products.

It was pointed out that most policymakers are focused on the carbon footprint of the ICT industry, which is about two percent of the global total, but few pay sufficient attention to the fact that ICT could be the solution to much of the other 98 percent of the problem.

**International institutions and their role**
Representatives of four institutions traditionally focused on global policy — the ITU, OECD, WTO and World Bank — presented a lively defence of their institutions.

An audience-led discussion focussed on coordination and cooperation among the international institutions and their efforts to reach out to national governments to enable them to understand the opportunities the programmes presented and, more importantly, the obligations that the agreements imposed upon them.

**Future technology trends**
A panel on innovation was asked to identify the next-generation technologies, or the next new technology wave. Sensors, cloud computing with ubiquitous networks, and consumer-driven personalisation to remove complexities for the user were suggested. The panel discussed the progression from hardware to software, technology users, and aspects of policy.