

ITU - GSR 2011 DISCUSSION PAPER:

SETTING NATIONAL BROADBAND POLICIES, STRATEGIES AND PLANS

Author: Dr Bob Horton, Senior Telecom Expert

Mini-Case Studies

The reference materials used to prepare this chapter are complemented by a number of mini-Case Studies dealing with Fiji, Papua New Guinea, Argentina, Brazil, and Hong Kong China. Each of these Case Studies is fascinating in its own right. The experiences of these countries with broadband implementation and regulation offers valuable insight into the task of broadband rollout and should be of interest to many other countries in similar circumstances.

2.5.5 Case Study 5: Hong Kong China – *Some valuable pointers*

Hong Kong China offers the chance to fast-forward to a high density, high penetration laboratory with has sufficient autonomy in order to gain some valuable insight relating to broadband as it rolls out throughout the world.

Hong Kong China is one of two special administrative regions of the People's Republic of China. With an area of 1104 square kilometres and a population of 7 million, it is one of the most densely populated areas in the world. Under the principle of "one country, two systems", Hong Kong China has a different political system from mainland China, with an independent judiciary operating under a common law framework. The Basic Law of Hong Kong China stipulates that Hong Kong shall have a "high degree of autonomy" in all matters except foreign relations and military defence, and it governs its political system.

As one of the world's leading international financial centres, Hong Kong China has a major service economy characterized by low taxation and free trade. The lack of physical space triggered demand for denser construction, giving rise to a city that is now noted for its modern architecture and for being the world's "most vertical" city.

Hong Kong China also has a leading telecommunication economy with world-class infrastructure. Digitalized since 1995, the Special Administrative Region has been wired extensively with optical fibre cables, with the vast majority of households covered by this extensive broadband network. The rollout has been characterized by the utilization of practically every type of technology. Hong Kong China is naturally a key regional telecommunication hub and, as such, is the landing point for a significant number of strategically important submarine cables. Television is a substantial market in the economy, with an estimated customer base in 2011 of over 2.2 million households (99 per cent).ⁱ

2.5.5.1 Policy settings

General guiding principles for the government are simple: “big market, small government” and “market leads, government facilitates”. The role of government is to provide a facilitating environment and to intervene only where there are obvious imperfections in market mechanisms.

The same macro-economic policy applies to the telecommunication sector, which has been liberalized since the 1990s, resulting in one of the most competitive markets in the world. The Hong Kong China government has not provided any direct investment or any forms of subsidy in network construction or telecommunication services provision in the region. There has been no need to make up for a reduced level of consumption and investment by the private sector.

Even in the 2009 global financial crisis, this approach has prevailed, despite the soul searching questions at the time about whether Hong Kong China should depart from its proven pro-market policy. Questions were raised about whether regulatory holidays or financial incentives should be offered to the industry, and whether public funding should be injected to stimulate investment in telecommunication infrastructure.

2.5.5.2 The Role of Regulation

The telecommunication regulator, the Office of the Telecommunications Authority (OFTA), is central to implementation of government policy. It has responsibility for the regulation of competition in telecommunications, licensing, technical regulation, spectrum, and consumer matters. It is thus a completely converged and integrated regulator.

In October 2010, at an International Regulators Forum in Barcelonaⁱⁱ, the Director General of OFTA laid out some examples of how her organization had dealt with the trying times of the global financial crisis. She noted the following:

- (a) At the height of the financial collapse, in January 2009 OFTA proceeded with a spectrum auction to ensure the timely introduction of LTE, WiMAX and other broadband technology in Hong Kong China. The reserve price was left unaltered and the auction left to market forces.

The auction was a success. A total of 90 MHz in the 2.5 GHz band was acquired by three successful bidders at a price of USD197 million. Private investment continued, and a new LTE technology centre and a state of the art laboratory were set up, creating more jobs.

One of the successful bidders announced deployment of the world's first dual-band network in Hong Kong China in early 2011, with another aiming for service launch by mid-2011.

The regulatory action thus paved the way for new business opportunities for applications developers, content providers and on-line advertisers, which will in turn expand the industry and further spur growth of the telecommunication market.

- (b) Because of a sufficiently high degree of facilities-based competition, the government does not need to provide funds to finance the development of broadband infrastructure.

During the financial crisis, OFTA raised this matter with industry in a review to determine whether this was indeed the case. The majority of industry representations supported the continuation of a pro-market policy. The consensus was that investment and construction of telecommunication networks should continue to be based on the business plans and commercial decisions of the private sector as this would confer the greatest degree of flexibility required for business operations.

That being said, OFTA has contributed a number of facilitating measures to assist the continuous rollout of broadband networks by industry, including:

- The introduction of a registration scheme for buildings connected by FTTH or Fiber-to-the-Building (FTTB) in order to support public awareness of fibre-based facilities;
- A consultancy study into streamlining the landing of submarine cable systems in Hong Kong China; and
- Facilitating the deployment of mobile broadband services through the timely release of spectrum, and allowing mobile operators to use hill-top sites for base stations and backhaul.

There has been sustained private investment and impressive customer take-up of broadband services, as illustrated by the following examplesⁱⁱⁱ (as of October 2010):

- There were seven operators providing fixed broadband services using various technologies at speeds up to 1 Gbps;
 - 2.1 million subscribers were using broadband services in Hong Kong China, representing a household penetration rate of 83 per cent as of January 2011;
 - About 86 per cent of households were served by at least two self-built networks, and close to 70 per cent were served by three; and
 - According to a survey published by the FTTC Council in February 2010, Hong Kong China ranked third at around 33 per cent household penetration among all the economies that have deployed FTTH or FTTB.
- (c) De-regulation of fixed-mobile interconnection charges in April 2009 by OFTA was intended to facilitate cross-platform competition in the era of fixed-mobile convergence. This represents another key advantage of an attuned converged and integrated regulator that is agnostic to technology choices.

In the past, fixed operators used to receive an interconnection charge from mobile operators. The validity of this charge was seen by OFTA to be very dubious. Whilst initially the fixed network operators cried foul when the interconnection charges were deregulated and wanted a long transition period to minimize the impact, OFTA nevertheless proceeded to deregulate in an efficient manner. In the end, except for a single case of dispute between the incumbent fixed operator and a mobile operator, most fixed and mobile operators have been able to settle on some form of agreement or understanding on an interconnection charge based on the "bill and keep" model.

2.5.5.3 Summary

In summary, with a high density population in an urbanized environment and high penetration rates, Hong Kong China has opted to remain faithful to pro-market mechanisms, facilities-based competition, technology neutrality, light handed regulation, and a dependence on totally private investment in telecommunications. As a result, Hong Kong China has been able to maintain consistency, continuity and certainty in its policies for the telecommunication sector and in encouraging innovation. Whilst these circumstances are not reflected in most countries, Hong Kong China nevertheless gives us some understanding of the future dynamics we are moving towards as penetration of broadband increases, and urban population density grows.

To download whole *Discussion Paper: Setting national broadband policies, strategies and plans* please visit:

<http://www.itu.int/ITU-D/treg/Events/Seminars/GSR/GSR11/documents/03-Broadband%20Policies-E.pdf>

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- i *Broadband for All in Hong Kong – For a Prosperous and Sustainable Society*. Y.K.Ha, Deputy Director General, OFTA. Stockholm, Sweden, 28 June 2010.
 - ii *Connectivity for All, with All – the Consequences for Communications Regulators*. Director General, OFTA. International Regulators Forum, Barcelona, October 2010.
 - iii Ibid Footnote 34