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|  | **EUROPEAN UNION**OFFICE TO HONG KONG AND MACAOTrade Section |

The Information and Communication Technology (ICT) Sector and Policies in Hong Kong

April 2015

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# I. The government actions to promote the development of ICT[[1]](#footnote-1):

Two main governmental bodies:

- **The Office of Communications Authority (OFCA)[[2]](#footnote-2):** is the regulatory body overseeing the broadcasting and telecommunications sectors in HK. Its pro-consumer and pro-competition policies have proven successful in delivering cutting-edge communications services in terms of capacity, speed, and prices.

- **The Office of the Government Chief Information Officer (OGCIO)[[3]](#footnote-3)**: has responsibility for developing ICT policies and strategies in HK. It takes a leadership role in providing IT services and support within the HK Government's bureaus and departments under the HK Government's Digital 21 Strategy.

## 1. Government Strategy:

Since 1998, **the Digital 21 Strategy** has set out the Government's vision of developing Hong Kong into a leading digital city. Reviewed and updated regularly, the Digital 21 Strategy will continue to guide Hong Kong's development on the ICT front, catering for the evolving needs of the Government, businesses and the general public and sustaining the strengths of Hong Kong as one of the world's most competitive economies. <http://www.digital21.gov.hk/eng/>

The Digital 21 strategy as updated in 2008 aims to:

(1) Facilitating a digital economy; (2) promoting advanced technology and innovation; (3) developing Hong Kong as a hub for technological cooperation and trade; (4) enabling the next generation of public services; and (5) Building an inclusive, knowledge-based society.

## 2. Initiatives towards an E-Government:

Government’s IT spending was close to US$740 million in 2013-14 and is reaching US$800 million (estimated) in 2014-15.

The OGCIO provides leadership for the development ICT within and outside the Government.

Several examples of initiatives towards an E-gov't:

- **Smart ID cards** (since 2003): To store and process data. It supports a number of government applications for immigration functions and non-immigration functions as well as multi-applications on a voluntary basis (usable as library card...).

- A **Personal profile** easy to create on a number of online government services: specifying your personal preferences, requesting periodic email updates and much more.

- **Education campaigns and trainings** and **free computers** with Internet connection for public use at convenient locations are provided by the gov't.

- A **Mobile Version** of GovHK optimising size and format for viewing on a mobile device.

- A **one-stop portal** GovHK (2006): offering quicker and convenient access to a range of government information and services for residents, businesses and non-residents: <http://www.gov.hk/en/residents/>

## 3. Government funding and support programs for IT[[4]](#footnote-4):

**The Innovation and Technology Fund**: administered by the Innovation and Technology Commission, aims to assist local companies to upgrade their technological level and introduce innovative ideas to their businesses. [More on the ITF](http://www.itf.gov.hk/l-eng/WhatsNew.asp)

**The Research and Development Cash Rebate Scheme:** aims to reinforce the research culture and encourage businesses to establish stronger partnership with public research institutions. Under the scheme, a company will receive a cash rebate equivalent to 30% of its expenditure in R&D projects. [More on the Research and Development Cash Rebate Scheme](http://www.itc.gov.hk/en/funding/crs.htm)

**Research and Development (R&D):** Hong Kong has set up world-class technological infrastructure and facilities to help nurture the development of technology-intensive clusters. The Hong Kong Applied Science and Technology Research Institute, the Cyberport and the Hong Kong Science & Technology Parks are some of them. <http://www.ogcio.gov.hk/en/facts/doc/Fact_Sheet-HK_as_ICT_Hub-EN.pdf>

- The Cyberport (completed in 2004) occupies 24-hectare on the southwest side of Hong Kong Island and has the vision of becoming a leading information technology hub in this digital city of the Asia-Pacific region.

**Incubation Programmes:** To assist local technology start-ups. The Hong Kong Science and Technology Parks Corporation (HKSTPC) is one of them with three incubation programmes (providing subsidised office space, financial aid package as well as support services for the incubates): [More on HKSTPC](http://www.hkstp.org/en-US/Homepage.aspx)

Incu-Tech for new technology start-ups (three years);

Incu-Bio for those involved in biotechnology (four years);

Incu-App for those focused in web- and smartphone-based apps (18 months).

**The Hong Kong ICT Awards:** to recognise, promote and commend the excellent achievements of the ICT professionals and organisations in Hong Kong. [More on the Hong Kong ICT Awards](http://www.hkictawards.hk)

**Two Expos** organised by Hong Kong Trade Development Council (HKTDC):

- The HKTDC International ICT Expo and HKTDC Inno Design Tech Expo:

[More on HKTDC International ICT Expo](http://www.hktdc.com/fair/ictexpo-en/HKTDC-International-ICT-Expo.html) and [More on HKTDC Inno Design Tech Expo](http://www.hktdc.com/fair/innodesigntechexpo-en/HKTDC-Inno-Design-Tech-Expo.html)

**Toward a digital economy:**To make Hong Kong a digital economy, the Government and the ICT industry have joined hands to facilitate the wider adoption of ICT among SMEs. Through the OGCIO's [Sector-specific Programme (SSP)](http://www.ogcio.gov.hk/en/business/promotion/sector_specific_prog) and [IT Training Programme for SMEs (ITTP)](http://www.ogcio.gov.hk/en/business/promotion/it_training). In total, 25 projects have been supported for 17 business sectors since 2004.

**Data centre development:** The Government attaches great importance to facilitating data centre development, and has been actively promoting Hong Kong as a prime location for data centres in the Asia-Pacific region. A Data Centre Facilitation Unit was set up on 25 July 2011 to facilitate and promote the development of more high-tier data centres in Hong Kong. [www.datacentre.gov.hk](http://www.datacentre.gov.hk)

## 4. International Cooperation in ICT:

**Bilateral cooperation**:

The aim is to enhance ICT development and HK competitiveness and international status in the global knowledge-based economy:

- MOU with Finland (2011), Germany (2002), Italia (2002),

- Joint Statement with Ireland (2002),

- Agreement with Israel (2001),

 Full texts of these agreements: <http://www.ogcio.gov.hk/en/business/other_economies/>

**HK- Guangdong Cooperation**:

The Hong Kong/Guangdong **Expert Group** on Co-operation in Informatisation was established in 2006 (eight plenary meetings between 2006 and 2013).

Two HK-Guangdong **Agreements** signed:

- Arrangement on Strengthening Hong Kong/Guangdong Co-operation in Informatisation (2007)

- The Agreement on Information Framework Co-operation (2013)

<http://www.ogcio.gov.hk/en/business/mainland/hongkong_guangdong/index.htm>

**HK-Mainland China:**

Cooperation with mainland China on ICT **under CEPA**:

- Regarding computer and related services: National treatment will be applied to trade service under the mode of commercial presence to the following sectors: Consultancy services related to the installation of computer hardware, Software implementation services, Data processing services, Data base services, others (CPC845+849).

- Regarding telecommunication services related to IT: Hong Kong service suppliers can set up joint ventures or wholly-owned enterprises in the Guangdong Province to provide the following services with no restriction on the proportion of Hong Kong service providers’ shareholding: Store and forwards services, content services (application store).

- The majority of investment projects in services by a Hong Kong service supplier in Guangdong will be subject to the same authority and procedures as Mainland investment projects. The establishment of a company will be subject to filing of record arrangement instead of prior approval.

More info about ICT measures in CEPA: <http://www.ogcio.gov.hk/en/business/mainland/cepa/index.htm>

The previous liberalization measures under CEPA and its Supplements signed between 2003 and 2013 will remain in force (more details about these measures include on last page).

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# II. ITC in HK, sectorial and market studies:

## 1. Market study, HK a place to invest in ICT?

**Market Strength:**

- The fastest peak internet connection in the world and the second largest average connection speed in the world.

- Household broadband penetration rate is 83.2%

- Mobile penetration rate of 239.1% (one of the higher in the world).

- Telecommunications charges among the lowest in the world.

- Hong Kong consumers are eager to adopt innovative technologies and solutions (very high smartphone usage and Apps stores spending).

- Hong Kong a good test-bed for ICT companies, small but mature enough market and close to China (CEPA).

- Hong Kong ranks fourth in Asia (14th in the world) in the Network Readiness Index, In the Global Information Technology Report 2013 by the World Economic Forum.

- A mature and highly liberalized ICT market: no import duties, no entry barriers.

- A highly transparent and predictable regulatory framework.

- A service-oriented economy

**Technology infrastructure:**

Hong Kong is **ranked number one** globally in terms of technological infrastructure (Institute for Management Development, Lausanne, 2014):

|  |  |
| --- | --- |
| - Fixed telephone lines/1,000 inhabitants:  | 4th (after Taiwan, France and Korea) |
| - Fixed telephone tariffs/local calls: | 2nd (after Canada) |
| - Mobile phone subscribers/1,000 inhabitants:  | 1st |
| - Mobile phone costs/local calls: | 2nd (after India) |
| - Internet bandwidth speed: | 1st |

**Market Weaknesses / Sector Challenges**

- The market is highly competitive. Many ICT MNEs are well-established in HK and competition is fierce.

- Equipment manufacturers from neighbouring mainland China are offering increasingly advanced and price-competitive products. Many also have strong relationships with service providers in HK.

- HK ICT buyers tend to prefer working with companies with a local presence for pre and after- sales support.

- Foreign companies may have the misconception that HK has the same regulatory system as China.

- HK's with a population of 7.15 million can be seen as a small market when compared to other major cities in mainland China.

## 2. Brief presentation of the ICT sectors[[5]](#footnote-5):

**ICT sector has an important role in fuelling economic developments:**

- With 2% of the labour force of Hong Kong but contributing around **6% of its GDP**.

- R&D oriented: The R&D expenditure in ICT sector represents **half of total R&D** expenditure and of total R&D personnel in the business sector (2012).

- The share of ICT goods represents **half HK's trade in goods** and is increasing: ICT goods represent 49.4% of the total value of imports of goods and 53.6% of exports of goods (2013), from 42.7 % and 45.5% respectively in 2008. Around half of the ICT goods trade is about Electronic Component.

|  |  |  |  |
| --- | --- | --- | --- |
| ICT Imports (goods) in 2013 | HK$ million | % of ICT imports (goods) | 3 Main partners |
| Electronic components | 978,942 | 48.8 | China, Taiwan, Singapore |
| Telecommunications equipment | 451,931 | 22.5 | China, USA, UAE |
| Computer and related equipment | 407,497 | 20.3 | China, Japan, Thailand |
| Audio and video equipment | 130,529 | 6.5 | China, Taiwan, Japan |
| Other ICT goods | 36,302 | 1.8 | China, USA, **Germany** |
| ICT Exports (goods) in 2013 | HK$ million | % of ICT exports (goods) | 3 Main partners |
| Electronic components | 884,126 | 44.1 | China, USA, Taiwan |
| Telecommunications equipment | 466,757 | 23.3 | China, USA, India |
| Computer and related equipment | 399,167 | 19.9 | China, USA, Japan |
| Audio and video equipment | 105,712 | 5.3 | China, USA, Japan |
| Other ICT goods | 53,265 | 2.7 | China, USA, Japan |
|   |
| Total Exports  | 1,909,027 |   |   |
| Total Imports | 2,005,200 |   |   |
| Balance in trade of ICT goods | -96,173 |   |   |

- ICT sector is dominated by "Distribution of product" activities (56% of the sector value added and 48.4% of the workforce) and "provision of services" (43.3% of value added and 49.1%), while the manufacturing of products represent only 0.6% of the value added and 2.5% of the workforce.

**Sectorial studies:**

Fixed Broadband:

High speed and penetration rate and price ranges are the least expensive in Asia. HK is also a world leader in the deployment of fiber. Operators have been aggressively rolling out Wi-Fi networks. As of August 2013, there were more than 11,000 public Wi-Fi hot spots in the city and that number continues to grow. According to the OFTA, as of June 2014, Hong Kong had **203 licensed Internet service providers** (ISPs). However, not all licensees operate an active business and the ISP market is **dominated by a few** major players. Hong Kong Internet Service Providers Association (HKISPA) is responsible for promoting the development of Internet infrastructure, and enhancing fair market competition.

Mobile Network:

Mobile network operators in HK are in intense competition, with **five mobile network operators** (all rolling4G LTE) serving 7.15 million persons: China Mobile HK, CSL, HKT/PCCW, Hutchison 3, and SmarTone Mobile. About two thirds of the population is 3G/4G service users. HK is one of the world's most competitive markets in terms of price thanks to the HK Gov't's pro-consumer and pro-competition policies.

Data Centres:

HK is a major financial and supply chain & logistics hub and is home to the regional offices of many multinational companies. The increasing adoption of cloud computing and cloud services in the private and public sectors has generated great demand for secure high-tier data centre facilities to support business growth in Mainland China and the region. To take advantage of this demand, the government has introduced measures **to develop HK into a regional data centre hub** by facilitating land supply to potential data centre owners. Tseung Kwan O (TKO) Industrial Estate alone now houses a dozen high-tier data centres owned by leading technology companies around the world. More large scale, high-tier data centres are expected to be completed in the coming years.

Software and Information Technology Services:

Software and information technology services companies are an integral part of HK's ICT sector and employ over 70,000. The majority are value-added resellers, software development houses, system integrators, digital marketing companies, in addition to inhouse IT and software design units in a variety of other business sectors. HK IT companies, mostly SMEs, are known for expertise in system integration and service delivery particularly in the areas of banking and finance, supply chain management and logistics, retail, and transportation industries. Several locally deployed IT projects have won international recognition including the HK Smart ID Card, the Octopus payment card, and the HK International Airport RFID baggage handling system.

Broadcasting:

HK has access to over 700 local and overseas television channels through free-to-air and pay-TV service providers as well as 28 radio channels through commercial broadcasters and the publicly funded Radio Television Hong Kong (RTHK). Currently there are **two domestic free-to-air TV service providers** and **three pay-TV service providers**. There are **five radio broadcasters:** two providing local analogue radio channels and three providing digital audio broadcasting services. Digital Terrestrial Television (DTT) was successfully launched in 2007 and coverage now reaches 96% of HK households. The uptake rate as of 2012 reached 73.5% of households.

Local Fixed Line:

The fixed line market in HK has been fully liberalized. There is no limit on the number of licenses granted or specific requirements of network investment. Telephone numbers are fully portable from one operator to another. As of mid-2013, there were **21 companies** licensed to provide fixed line services. Each household is able to choose from two to three fixed line service providers depending on locations. Fixed-line users in HK can make an unlimited number of local calls for a fixed monthly telephone rate. As broadband and mobile networks are becoming increasingly popular, there has been a slow drop in fixed line subscriptions.

External Communications:

HK has adopted an open policy in regulating the provisioning of external communications services and facilities through satellite and submarine cables. There is no limit on the number of external communications licenses to be issued by the HK Government. As a major telecom and internet hub in Asia, HK currently has seven submarine cable landing stations, and is connected to nine regional and transpacific submarine cable systems and three overland cable systems of all three mainland China telecom operators. As of November 2013, the equipped capacity of external communications facilities was over 11,000 Gigabits per second. While HK remains a key communications hub, in light of the surge in demand for bandwidth, other countries in the region are catching up and aggressively developing new facilities allowing more direct external communications.

**Useful links**:

The previous liberalization measures under CEPA and its Supplements signed between 2003 and 2013:

      **Trade in Services Liberalization Measures:**

1. [To allow Hong Kong service suppliers to apply for qualification certification of computer information system integration](http://www.ogcio.gov.hk/en/business/mainland/cepa/it_industry.htm#section1)
2. [To allow Hong Kong service suppliers to set up wholly-owned enterprises in the Mainland to provide software implementation services and data processing services](http://www.ogcio.gov.hk/en/business/mainland/cepa/it_industry.htm#section2)
3. [To allow Hong Kong permanent residents with Chinese citizenship to set up individually owned stores in the Mainland to provide computer repair services, computer services and software services](http://www.ogcio.gov.hk/en/business/mainland/cepa/it_industry.htm#section3)
4. [To allow Hong Kong residents to take qualification examinations for professionals and technicians, in particular for proficiency in computer technology and software](http://www.ogcio.gov.hk/en/business/mainland/cepa/it_industry.htm#section4)
5. [To allow Hong Kong service suppliers to provide cross-boundary database services in Qianhai and Hengqin on a pilot basis](http://www.ogcio.gov.hk/en/business/mainland/cepa/it_industry.htm#section6)
6. [To allow Hong Kong service suppliers to set up joint venture enterprises in the Mainland to provide database services](http://www.ogcio.gov.hk/en/business/mainland/cepa/it_industry.htm#section6)
7. [To allow Hong Kong service suppliers to set up joint venture enterprises in Guangdong Province to provide online data processing and transaction processing services](http://www.ogcio.gov.hk/en/business/mainland/cepa/it_industry.htm#section7)

**Trade and Investment Facilitation Measures:**

1. [To take forward the mutual recognition of electronic signature certificates issued by Guangdong and Hong Kong](http://www.ogcio.gov.hk/en/business/mainland/cepa/it_industry.htm#section5)
2. [To promote commodity trade and information sharing between Guangdong and Hong Kong by opening up the commodity information platform](http://www.ogcio.gov.hk/en/business/mainland/cepa/it_industry.htm#section8)

A constantly updated calendar of the events in ICT in Hong Kong:

<http://www.ogcio.gov.hk/en/business/industry_support/event_calendar/event_list.php>

A press release room of the ICT industry:

<http://service-industries-research.hktdc.com/business-news/subindex/en/Information-Communications-Technology/1X3L128M/1/0.htm>

Associations-federations-societies of ICT sector:

<http://my.hktdc.com/webdir/directory_detail.asp?catid=1&subcatid=171&type=2&cty=Hong%20Kong>

A good synthesis written by the Canadian Trade Commissioner Service (investor oriented):

<http://www.enterprisecanadanetwork.ca/_uploads/resources/Information-and-Communications-Technology-Sector-Hong-Kong.pdf>

Two detailed surveys on usage and penetration of ITC in household and business sectors:

<http://www.digital21.gov.hk/eng/statistics/download/householdreport2013_52.pdf>

<http://www.digital21.gov.hk/eng/statistics/download/itsurveyreport2013.pdf>

Intellectual Property Protection in digital technologies:

<http://www.gov.hk/en/residents/communication/infosec/intproperty.htm>

The newly established Advisory Committee on Innovation and Technology held its first meeting on 15 April 2015.

1. <http://www.gov.hk/en/residents/communication/government/governmentpolicy.htm> [↑](#footnote-ref-1)
2. <http://www.ofca.gov.hk/en/home/index.html> [↑](#footnote-ref-2)
3. <http://www.ogcio.gov.hk/en/business/> [↑](#footnote-ref-3)
4. <http://www.gov.hk/en/residents/communication/government/innovation.htm> [↑](#footnote-ref-4)
5. <http://www.digital21.gov.hk/eng/statistics/download/informationsociety2014.pdf> [↑](#footnote-ref-5)