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CHAPTER

Overview of Major Developments in the Communications Market





BROADCASTING

5.1 An Overview of the Developments in the Broadcasting Market

5.1.1 Number of Licensees and Channels

Television Programme Services

As at March 2024, there were a total of 13 TV licensees, including three free TV licensees, one pay TV licensee and nine non-domestic TV licensees. They provided 360 television channels², of which about 50 non-domestic TV channels were receivable in Hong Kong. An overview of the television channels provided by the commercial licensees and RTHK, the public service broadcaster, is shown in **Figure 1**.

Hong Kong implemented full digital TV broadcast on 1 December 2020. As at March 2024, the three **free TV licensees**, viz. HK Television Entertainment Company Limited (HKTVE), i-CABLE HOY Limited (i-CABLE HOY)³ and Television Broadcasts Limited (TVB), provided a total of ten digital channels in high definition television (HDTV) format, viz. “ViuTV” and “ViuTVsix” (by HKTVE), “HOY TV”, “HOY International Business Channel”⁴ and “HOY Infotainment Channel” (by i-CABLE HOY), and “Jade”, “Pearl”, “J2”⁵, “TVB News Channel” and “TVB Finance, Sports & Information Channel”⁵ (by TVB). RTHK, the public service broadcaster in Hong Kong, provided five digital channels⁶.

² Some channels were provided by more than one licensee at the same time.

³ Fantastic Television Limited was renamed as i-CABLE HOY Limited with effect from 18 January 2024.

⁴ The television channel “Hong Kong International Business Channel” was renamed as “HOY International Business Channel” with effect from 1 November 2023.

⁵ With effect from 22 April 2024, the television channels “J2” and “TVB Finance, Sports & Information Channel” were replaced by “TVB Plus” and a new television channel “Phoenix Hong Kong Channel” was launched.

⁶ The television channel “The China Global Television Network English Channel” was launched on 1 July 2023.

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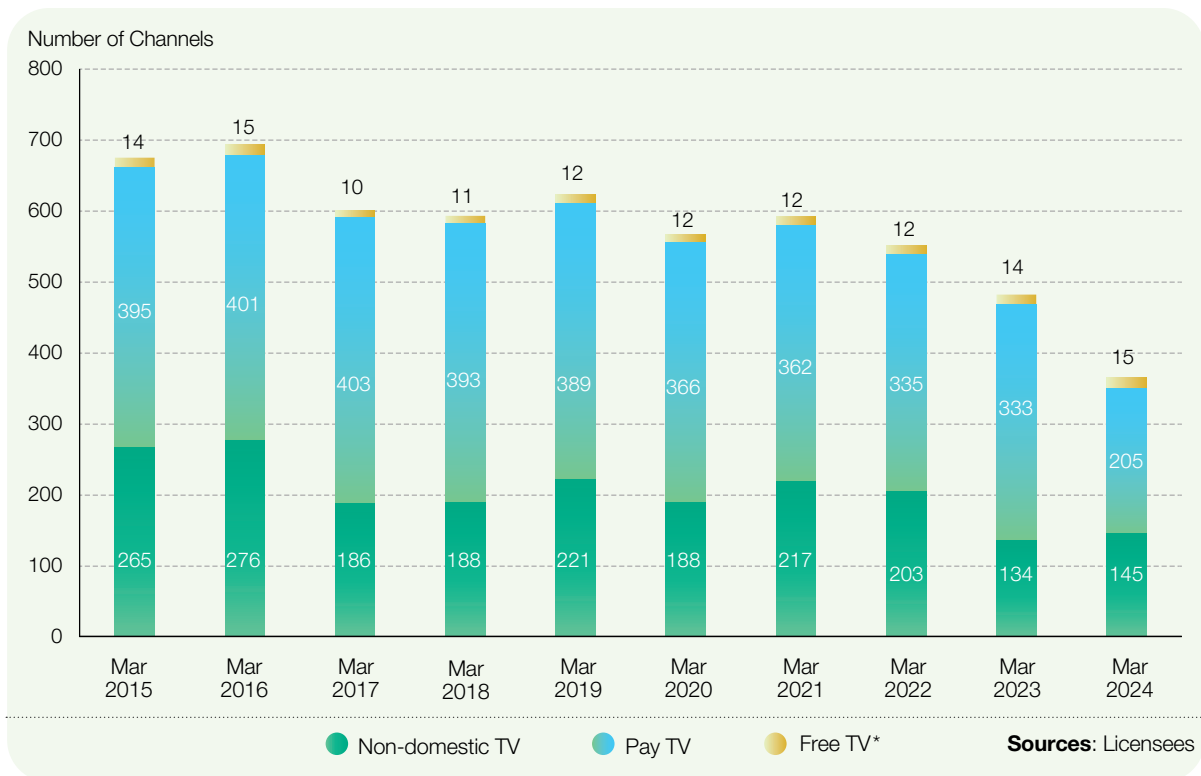
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As at March 2024, the **pay TV licensee**, viz. PCCW Media Limited (PCCW Media)⁷ provided a total of 205 pay TV channels⁸ and was offering a diverse range of local and non-local productions.

As at March 2024, there were nine **non-domestic TV licensees** providing around 150 television channels. Hong Kong viewers could receive about 50 of those channels.

During the period under review, there were 21 **other licensable TV licensees** providing television programme services in more than 50 hotels in Hong Kong.

Figure 1: Television Channels Provided by Commercial Licensees and RTHK in Hong Kong (as at 31 March 2024)



* While some free TV channels were simulcast in both analogue and digital formats during the period of 2015 to 2020, the total number of free TV channels is calculated by reference to the channels broadcast in digital format only.

In addition to satellite television channels provided by non-domestic TV licensees, Hong Kong viewers can also receive free unencrypted satellite television channels uplinked from outside Hong Kong. As at March 2024, there were around 500 free-to-air satellite television channels available for reception via the Satellite Master Antenna Television Systems in Hong Kong. A list of these channels is available at http://www.ofca.gov.hk/filemanager/ofca/en/content_295/st_smatv.pdf.

⁷ With effect from 5 September 2024, PCCW Media Limited was renamed as Now TV Limited.

⁸ Including linear channels and video-on-demand services.



Sound Broadcasting Services

During the period under review, there were two **sound broadcasting licensees**, viz. Hong Kong Commercial Broadcasting Company Limited (CRHK) and Metro Broadcast Corporation Limited (Metro). RTHK, the public service broadcaster in Hong Kong, also provided sound broadcasting service.

As at March 2024, there were a total of 14 radio channels (three by CRHK, three by Metro and eight by RTHK) providing round-the-clock sound broadcasting services to the public.



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5.1.2 Broadcasting Revenues and Investment

Licensed broadcasting services contributed an estimated \$6.9 billion⁹ to the Hong Kong economy, which represented about 0.2% of the gross domestic product in 2023. There are two main sources of revenues for the provision of broadcasting services, viz. advertising and subscription. The incomes of free TV licensees and sound broadcasting licensees mainly come from advertising sales¹⁰. Pay TV licensee, on the other hand, derives its incomes mainly from subscription fees with advertising sales as a secondary income source.

Advertising Revenue

According to research¹¹, television and radio accounted for 11% (about \$2.7 billion) and 4% (about \$1 billion) respectively of the accumulated \$25.1 billion advertising revenues in the entertainment and media industry of Hong Kong in 2023.

In 2023, the actual advertising revenue of TVB was \$1,280 million. The actual advertising revenues of other licensees were not publicly available.

Subscription Revenue

According to the annual report of HKT Trust and HKT Limited (HKT), the holding company of PCCW Media, the turnover of its pay TV services and related services provided in Hong Kong under the “Now TV” brand was \$2.4 billion in 2023.



⁹ Source: Company reports of major broadcasting licensees providing television programme services in Hong Kong.

¹⁰ These include sales of advertising spots within programme breaks, programme/event sponsorship, product placement as well as related production fees of advertisements and tailor-made content.

¹¹ Source: PwC Global Entertainment and Media Outlook 2024-2028, www.pwc.com/outlook. All television advertising revenues are net spending excluding agency commissions, production costs and discounts.

Investment in Broadcasting Industry

Key investment projects in the television industry in recent years include the digital terrestrial broadcasting network, HDTV content and production technology, interactive television services, and regular network maintenance and upgrades that are required to maintain or expand the ever-advancing scope of services.

HKTVE, i-CABLE HOY and TVB have respectively committed to investing a total of \$2.2 billion for the six-year period from 2021 to 2027, \$1.3 billion for the six-year period from 2022 to 2028 and \$6.6 billion for the six-year period from 2022 to 2027 for the provision of free TV services. Investment commitments of HKTVE, i-CABLE HOY and TVB comprise capital expenditures and programming expenditures. As at March 2024, HKTVE, i-CABLE HOY and TVB provided 289, 504 and 831 hours of HDTV programmes per week respectively. i-CABLE HOY and TVB also provided 84 and 1 153 hours of independent local productions in their programming respectively in 2023.



As regards the pay TV market, HKT, the holding company of PCCW Media, reported in the 2023 Annual Report that the capital expenditure of the group was around \$2,273 million in 2023. Its major items of investment included property, plant and equipment, and interests in leasehold land.

On the sound broadcasting side, CRHK and Metro have committed to investing \$549 million and \$561 million respectively for the six-year period from 2022 to 2028 covering production of radio programmes and upgrading of transmission facilities and equipment in order to provide better sound quality and to enhance station coverage and efficiency of the radio production.

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5.1.3 Programme Variety and Positive Programme Requirements

(a) Programme Variety and Diversity

Number of Broadcast Hours and Hours of Station Productions

As at March 2024, the licensees broadcast about 39 825 hours of television programmes a week. The ten digital channels of HKTVE, i-CABLE HOY and TVB provided a total of 1 631 broadcast hours per week, while the 205 channels of PCCW Media provided around 29 000 broadcast hours per week. As a public service broadcaster, RTHK provided 840 hours per week on its five digital channels. About 50 channels of non-domestic TV licensees receivable in Hong Kong provided about 9 000 broadcast hours per week.

The total broadcast hours per week provided by CRHK, Metro and RTHK as at March 2024 were 2 352.

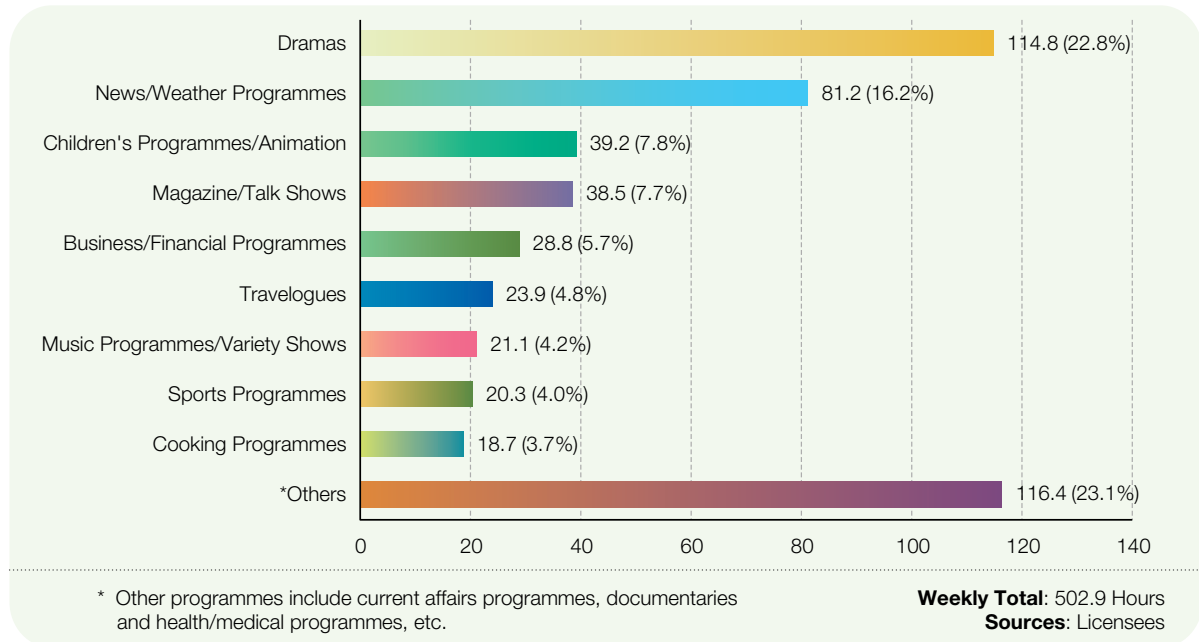


During the period under review, there were a total of 47 953 hours of station productions broadcast on HKTVE, i-CABLE HOY and TVB. Of the 205 channels provided by PCCW Media, around 20% were produced by PCCW Media itself.

*Free TV Services***Integrated Chinese and English Channels**

During the period under review, drama series (22.8%) and news/weather programmes (16.2%) continued to be the dominant programme genres on the integrated Chinese channels (viz. “HOY TV”, “Jade” and “ViuTV”). Drama series on “Jade” were mostly in-house productions; while “HOY TV”, “Jade” and “ViuTV” broadcast Mainland, Korean and Japanese drama series. In addition, children’s programmes/animation (7.8%), magazine/talk shows (7.7%), business/financial programmes (5.7%), travelogues (4.8%), music programmes/variety shows (4.2%), sports programmes (4.0%) and cooking programmes (3.7%), etc. were also broadcast on the integrated Chinese channels. The five channels provided by RTHK presented a variety of programmes to not only serve a broad spectrum of audiences, but also cater for the needs of minority interest groups.

Figure 2: Weekly Hours of Different Types of Programmes Broadcast on HOY TV, Jade and ViuTV (as at March 2024)



The integrated English channels (viz. “HOY International Business Channel”, “Pearl” and “ViuTVsix”) broadcast a wide range of programmes, including business/financial programmes (29.8%), news/weather programmes (11.9%), children’s programmes/animation (11.3%), music programmes/variety shows (8.4%), sports programmes (7.5%), documentaries (6.8%), feature films (5.4%), drama series (2.2%) and religious programmes (2.0%).

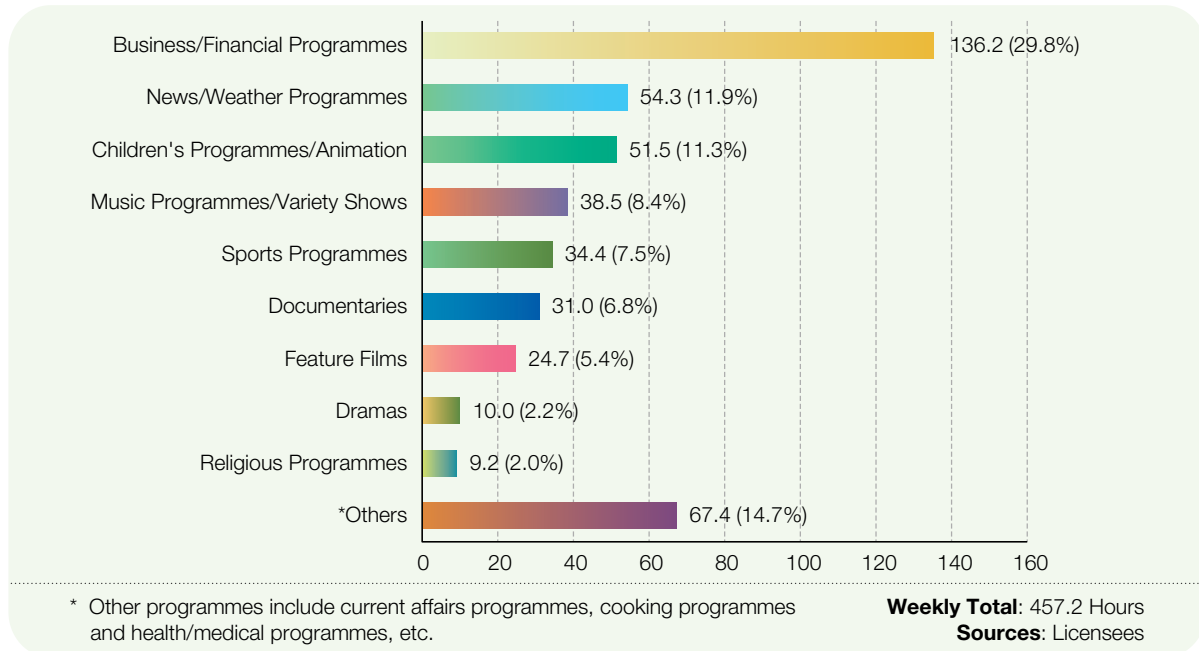


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Figure 3: Weekly Hours of Different Types of Programmes Broadcast on HOY International Business Channel, Pearl and ViuTVsix (as at March 2024)



Thematic Channels

During the period under review, TVB provided acquired dramas, documentaries, variety shows, news, financial information programmes, etc. on “J2”¹², “TVB News Channel” and “TVB Finance, Sports & Information Channel”¹². i-CABLE HOY provided news, financial information, sports and infotainment programmes on “HOY Infotainment Channel”.



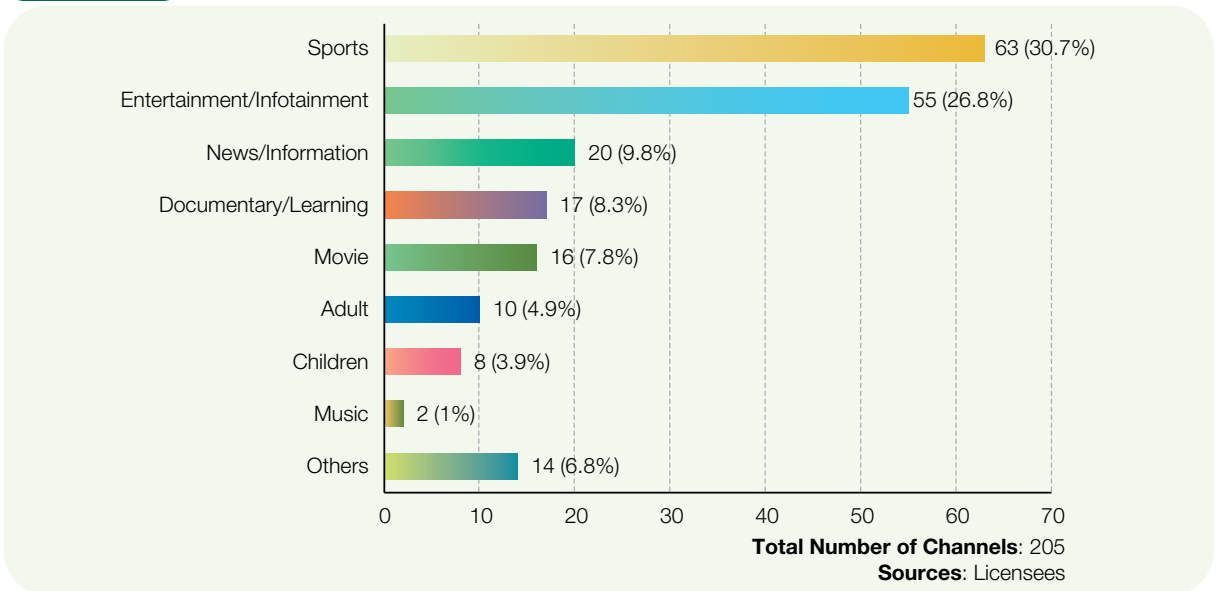
¹² Please see footnote 5.

Pay TV Services

During the period under review, a great variety of channels were offered on pay TV services, including sports channels (30.7%), entertainment/infotainment channels (26.8%), news/information channels (9.8%), documentary/learning channels (8.3%), and movie channels (7.8%).



Figure 4: Nature of Pay TV Channels (as at March 2024)



As at March 2024, PCCW Media’s “Now TV” service offered 140 linear channels and 65 video-on-demand services.

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Sound Broadcasting

As at March 2024, CRHK operated two frequency modulation (FM) Cantonese channels, viz. “CR1” and “CR2”, and one amplitude modulation (AM) English channel, viz. “AM 864”. “CR1” mainly provided news, current affairs, financial and personal view programmes. “CR2”, targeting younger listeners, featured pop culture and music programmes. “AM864” was primarily a music channel.



Metro operated two FM Cantonese channels, viz. “Metro Finance” and “Metro Info”, and one AM English channel, viz. “Metro Plus”. “Metro Finance” provided real-time, market-moving news and information on financial markets around the world. “Metro Info” provided music and programmes on lifestyle, health, market news and other information of interest to the public. “Metro Plus” was primarily a music channel which also provided some programmes for ethnic groups including the Filipino, Indian and Thai communities in Hong Kong.

RTHK operated eight radio channels, providing Cantonese, English and Putonghua services. It offered a variety of thematic channels ranging from information to general entertainment and culture.



(b) Positive Programme Requirements



Free TV Services

Following the mid-term review of the free TV licences of HKTVE, i-CABLE HOY and TVB in 2023 (Mid-term Review), the original seven categories of positive programmes were consolidated into five categories, i.e. news, current affairs (including programmes to positively promote national education, national identity and NSL), children, young persons and “others”¹³. HKTVE, i-CABLE HOY and TVB were respectively required to broadcast at least 41.5, 41.5 and 45.5 hours of positive programmes per week¹⁴. They all met the stipulated requirements.

The reports submitted by the licensees to the Authority on positive programmes are available at https://www.coms-auth.hk/en/licensing/broadcasting/compliance_reports/index.html.

¹³ The “others” category includes documentary programmes, programmes for senior citizens, arts and culture programmes, ethnic minority programmes, medical and healthcare programmes, environment programmes, science programmes, sports programmes and civic education programmes.

¹⁴ Licensees were given the flexibility to broadcast positive programmes (other than news programmes) through any of their channels.

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Figure 5: Broadcast of Positive Programmes on Free TV Services (as at March 2024)

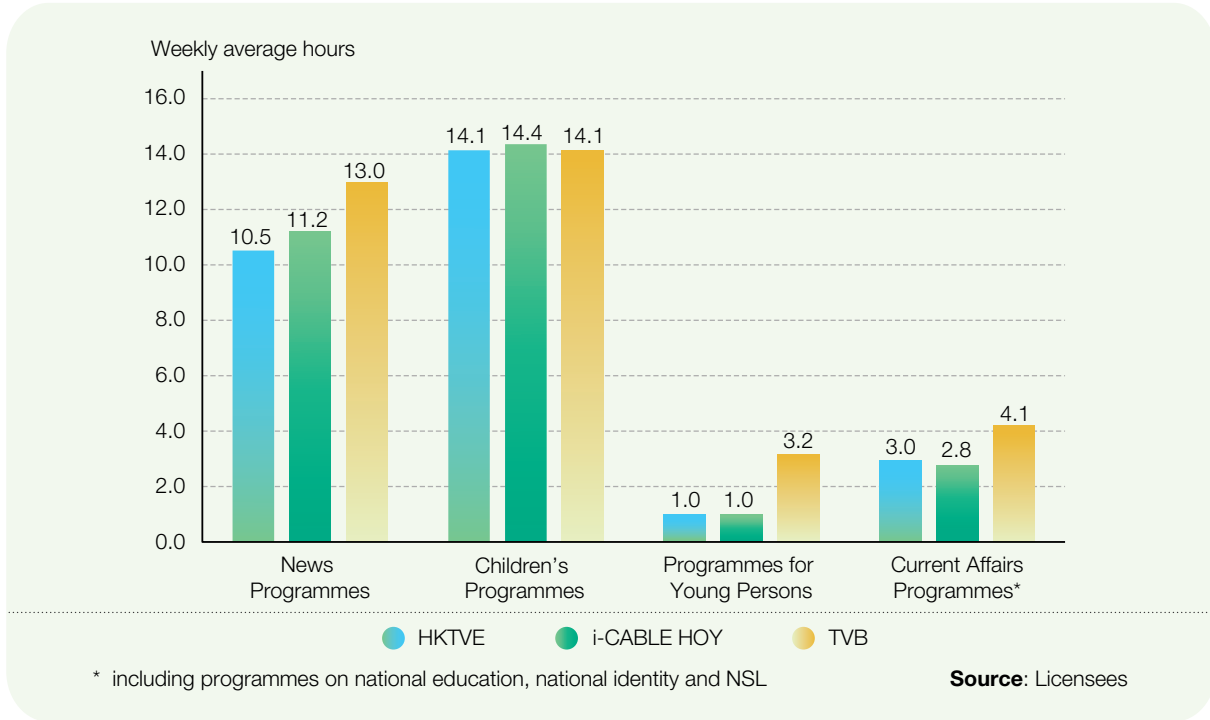
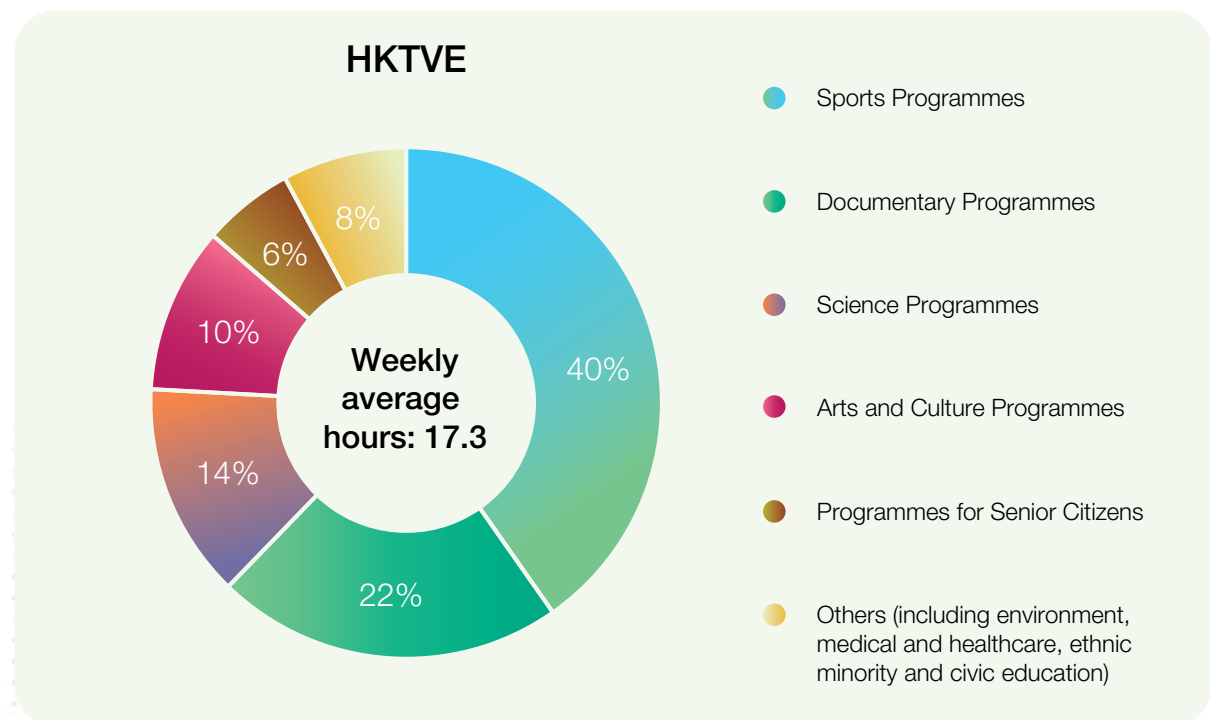
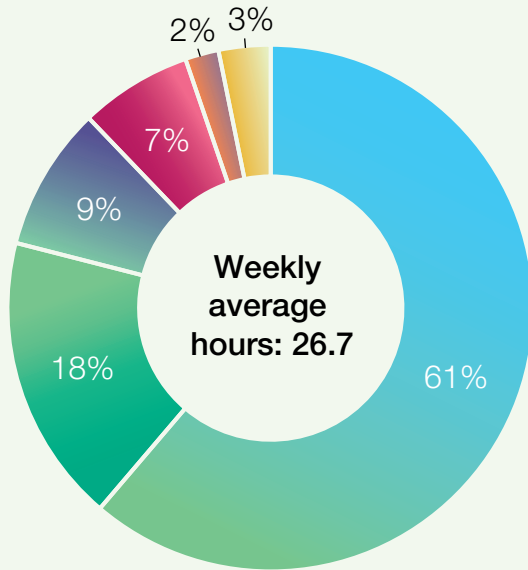


Figure 6: Broadcast of Positive Programmes under the "Others" Category on Free TV Services (as at March 2024)

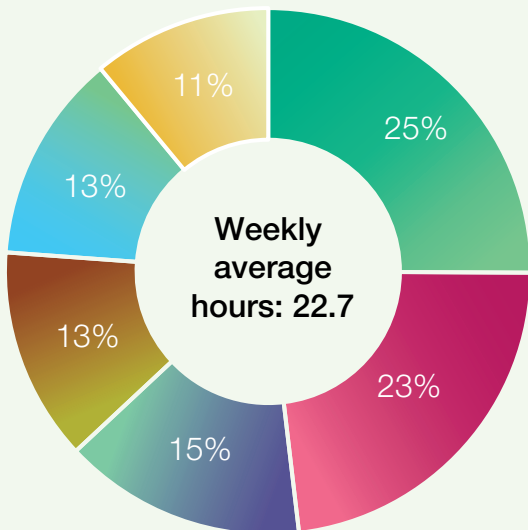


i-CABLE HOY



- Sports Programmes
- Documentary Programmes
- Medical and Healthcare Programmes
- Arts and Culture Programmes
- Science Programmes
- Others (including environment, senior citizens, civic education and ethnic minority)

TVB



- Documentary Programmes
- Arts and Culture Programmes
- Medical and Healthcare Programmes
- Programmes for Senior Citizens
- Sports Programmes
- Others (including civic education, ethnic minority, science and environment)

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Free TV licensees were required to provide subtitles for all news, current affairs programmes, weather programmes and emergency announcements, as well as programmes broadcast during prime time (7:00 p.m. to 11:00 p.m.) on the integrated Chinese and English channels¹⁵. On the whole, HKTVE, i-CABLE HOY, and TVB complied with the requirements on the provision of subtitles.



To meet public demand for easier access to information by persons with hearing impairment, following the Mid-term Review, the Authority issued directions requiring each of the free TV licensees to provide sign language of not less than 25 minutes duration in its Cantonese news programme each day with effect from July 2023¹⁶. Since then, HKTVE, i-CABLE HOY and TVB had provided their signed news programmes on “ViuTV”, “HOY Infotainment” and “Pearl” respectively. They all fulfilled this requirement.

Pursuant to licence requirements, HKTVE, i-CABLE HOY and TVB were required to broadcast two minutes of Announcements in the Public Interest (APIs) in every two clock hours on each channel. Also, they were required to broadcast, on a weekly basis, not more than five minutes in aggregate of publicity material for the Authority on each of the integrated Chinese and English channels¹⁷. During the period under review, HKTVE, i-CABLE HOY and TVB broadcast a total of 1 456 hours of the two types of materials.

Sound Broadcasting

Following the Mid-term Review, CRHK and Metro were each required to broadcast at least 29 hours of positive programmes¹⁸ per week under their respective licences. CRHK and Metro broadcast the required amount of positive programmes.



CRHK and Metro also fulfilled the requirements on the broadcast of one minute of APIs in each hour and not more than five minutes of publicity material for the Authority each week on each service channel. The reports submitted by the licensees to the Authority on positive programmes are available at https://www.coms-auth.hk/en/licensing/broadcasting/compliance_reports/index.html.

¹⁵ Prior to the Mid-term Review, while the licence had already required a free TV licensee to provide subtitling in prime-time slots, the time period specified for the integrated Chinese channel (7:00 p.m. to 11:00 p.m.) was different from that for the integrated English channel (8:00 p.m. to 11:30 p.m.). In the Mid-term Review, the Authority decided to align the time periods by requiring the provision of subtitles for all programmes on the integrated Chinese and English channels to 7:00 p.m. to 11:00 p.m., with effect from July 2023.

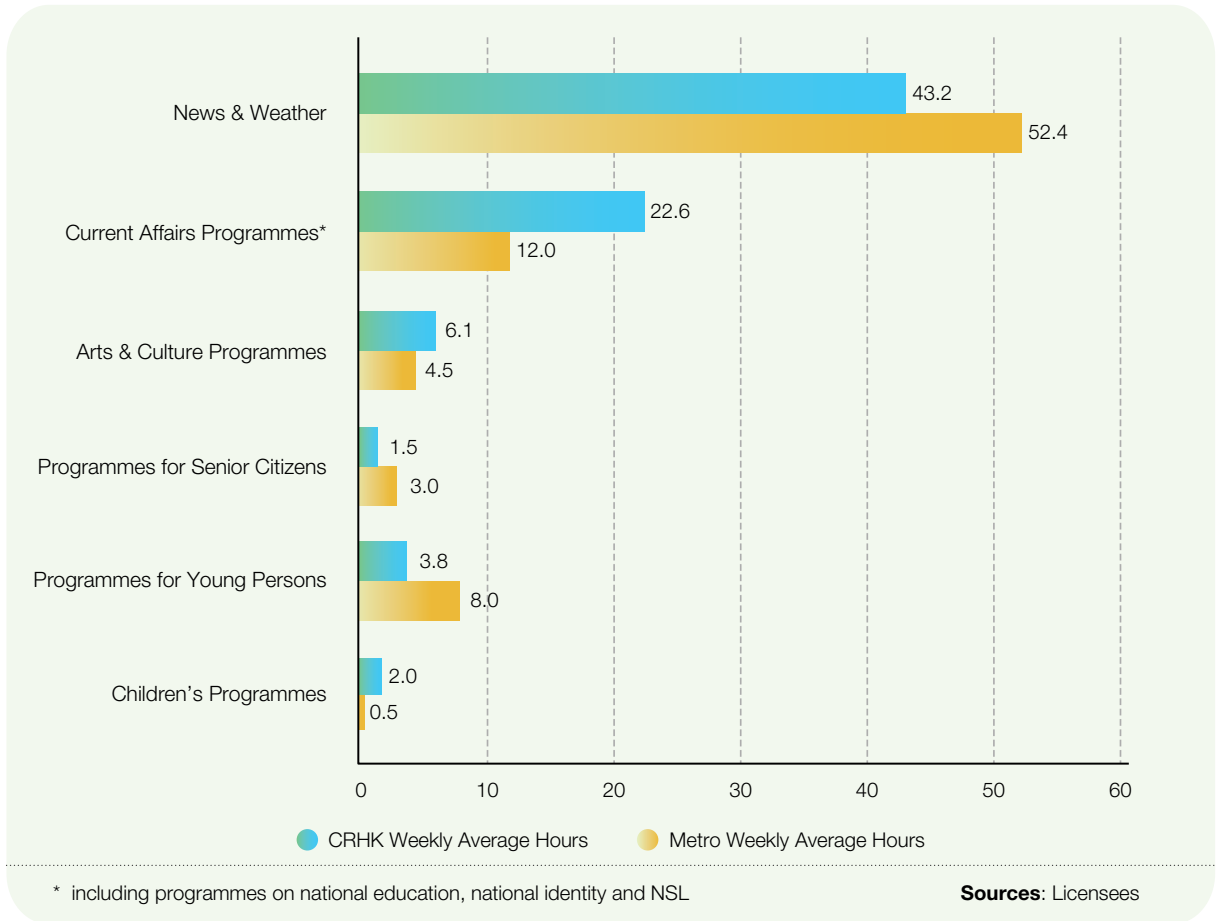
TVB was also required to provide, on its thematic channels, Chinese subtitles for all news, current affairs programmes, weather programmes and emergency announcements as well as programmes broadcast during prime time.

¹⁶ Prior to the Mid-term Review, only TVB was required under its licence to provide sign language of certain duration in its news programmes as directed by the Authority. In the Mid-term Review, the Authority decided to apply the sign language requirement to all licensees.

¹⁷ For the three thematic channels of TVB, they were required to broadcast two minutes of publicity material for the Authority per week. For the thematic channel of i-CABLE HOY, the licensee was required to comply with its commitment of broadcasting five minutes of publicity material for the Authority per week.

¹⁸ CRHK and Metro were required to broadcast news and weather programmes, current affairs programmes (including programmes on national education, national identity and NSL), arts and culture programmes, programmes for young persons, senior citizens and children, in their respective sound broadcasting services.

Figure 7: Broadcast of Positive Programmes on Sound Broadcasting Services (as at March 2024)



5.1.4 Hong Kong as a Regional Broadcasting Hub

Hong Kong is a broadcasting hub in the Asia-Pacific region. As at March 2024, there were nine non-domestic TV licensees operating in and broadcasting from Hong Kong. Altogether, they offered around 150 satellite television channels serving viewers in the Asia-Pacific region, Europe and Africa, with about 50 channels receivable in Hong Kong. A summary of the non-domestic TV services as at March 2024 is at **Annex 1**.

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Hong Kong has one of the most sophisticated and advanced telecommunications markets in the world. This has been an important factor in Hong Kong's development as a leading global business and financial centre. The telecommunications sector employed around 18 000 persons in 2023, whilst its gross output amounted to \$115 billion in 2022.

All sectors of Hong Kong's telecommunications market have been liberalised with no foreign ownership restrictions on telecommunications operators. The Authority's objectives are to maintain a level playing field in the open and competitive telecommunications market and to ensure that consumers get the best services available in terms of efficiency, quality and price.

**5.2.1 The Telecommunications Regulatory Framework***Carrier Licences*

The Authority issues carrier licences to facility-based operators, authorising them to establish and maintain telecommunications networks and facilities which may cross unleased government land and public streets, for the provision of public telecommunications services.

The unified carrier licensing framework has been implemented since 1 August 2008 as the single licensing vehicle for the provision of facility-based fixed, mobile and/or converged telecommunications services in Hong Kong.

A Unified Carrier Licence (UCL) for the provision of local fixed service authorises the licensee to establish and maintain fixed network, wireline-based or wireless-based, or a combination of both where applicable, to provide local telecommunications services between fixed points within Hong Kong. A UCL for the provision of external fixed service authorises the licensee to provide external transmissions and services operated over external facilities such as submarine cable and satellite communications systems. A UCL for the provision of mobile service enables the licensee to provide two-way communications between moving locations or between a moving location and a fixed location in Hong Kong. The issue of new UCL for the provision of mobile service is subject to the availability of radio spectrum for assignment. An operator may apply for a single UCL to provide all the above services.

As at March 2024, there were a total of 59 holders of UCL, providing local fixed services, cable-based external fixed services, non-cable-based external fixed services and/or mobile services.

Public Radiocommunications Service Licences

Services which may be authorised under the Public Radiocommunications Service (PRS) Licence include radio paging, community repeater (trunked radio) services, vehicle location information services, one way data message services, public mobile radio data services and railway signaling services.

As the provision of radiocommunications services requires the assignment of suitable operating frequencies, PRS Licences are granted only when the required radio spectrum is available.

As at March 2024, there were a total of six PRS licensees.

Services-based Operator Licences

Services-based Operators (SBOs) make use of the networks and facilities of other licensed facility-based operators for the provision of public telecommunications services, but they are not authorised to establish or maintain any telecommunications means which cross public streets or unleased government lands.

SBO licence covers three types of services, namely, Class 1 and Class 2 local voice telephony services, and Class 3 services which may include external telecommunications service, Internet access service, international value-added network service, MVNO service, private payphone service, public radio communications relay service, security and fire alarm signals transmission service, teleconferencing service and mobile communications service on board an aircraft.

As at March 2024, there were a total of 499 SBO licensees.

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Class Licences

The class licensing framework does not require any licence applications. Parties meeting the specified eligibility criteria and conditions (including any registration requirement) automatically become the class licensees, and are required to comply with the conditions set out in the relevant Class Licence as well as the TO. Currently, there are ten types of Class Licences:

- Class Licence for 6 GHz Device
- Class Licence for 60 GHz Device
- Class Licence for 79 GHz Automotive Radar
- Class Licence for Citizens Band Radio Station
- Class Licence for In-building Telecommunications Systems
- Class Licence for Medical Implant Communication System Device
- Class Licence for Short Range Device
- Class Licence for Taxi Mobile Station
- Class Licence for Offer of Telecommunications Services
- Class Licence for Provision of Public Wireless Local Area Network Services

Other Licences

Apart from the licences mentioned above, there are a number of miscellaneous licences under the purview of the Authority.

A breakdown of the types and numbers of all telecommunications licences is at **Annex 2**.

5.2.2 Developments in the Telecommunications Market and Technology Trends



Mobile Communications Services

Competition in public mobile services has always been keen. As at March 2024, four major MNOs, namely, China Mobile Hong Kong Company Limited, Hong Kong Telecommunications (HKT) Limited, Hutchison Telephone Company Limited and SmarTone Mobile Communications Limited, were providing a wide range of public mobile services.

MNOs provide second generation, 3G, 4G and 5G mobile services in Hong Kong at very affordable prices. As at March 2024, there were about 25.3 million subscriptions to mobile communications services. The mobile subscriber penetration rate reached 327.6%, one of the highest in the world, with over 99% of them being subscriptions of 3G, 4G and 5G mobile services. Further to the commercial launch of 5G services since April 2020, 5G mobile service subscriptions reached almost 6.9 million in March 2024, representing a mobile subscriber penetration rate of 91.5%. With the continued development of 5G services, increasingly higher speed of mobile communications will be supported.

With an ever growing demand for mobile data services, the monthly mobile data usage surged to 217 615.5 Terabytes in March 2024, representing 1.3 times of the monthly usage over the same period in 2023. The monthly mobile data usage per capita reached 28 748.9 Megabytes in March 2024, compared with 22 279.5 Megabytes in March 2023, representing an increase of 29.0%. The development of 5G services and innovative applications enabled by 5G will further boost mobile data usage in the future.

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Figure 8: Number of Mobile Service Subscriptions (2014 to 2023)

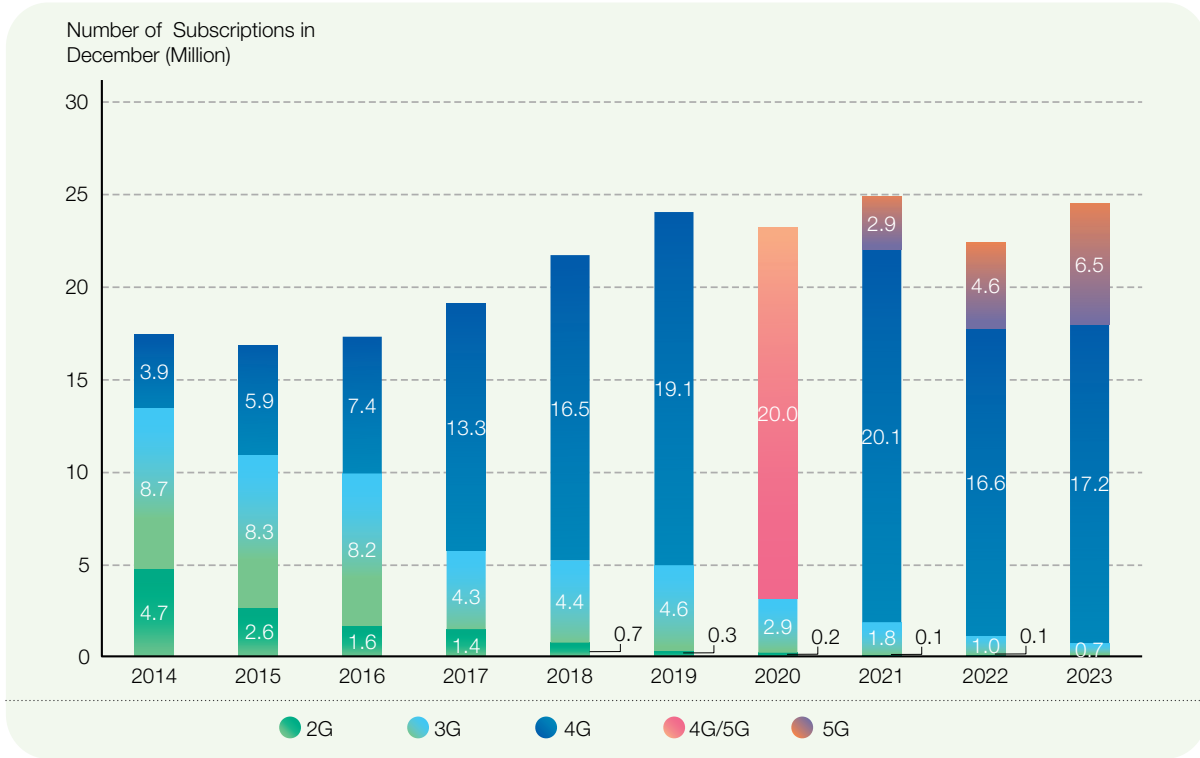


Figure 9: Mobile Service Subscriptions of Postpaid and Prepaid SIM (2014 to 2023)

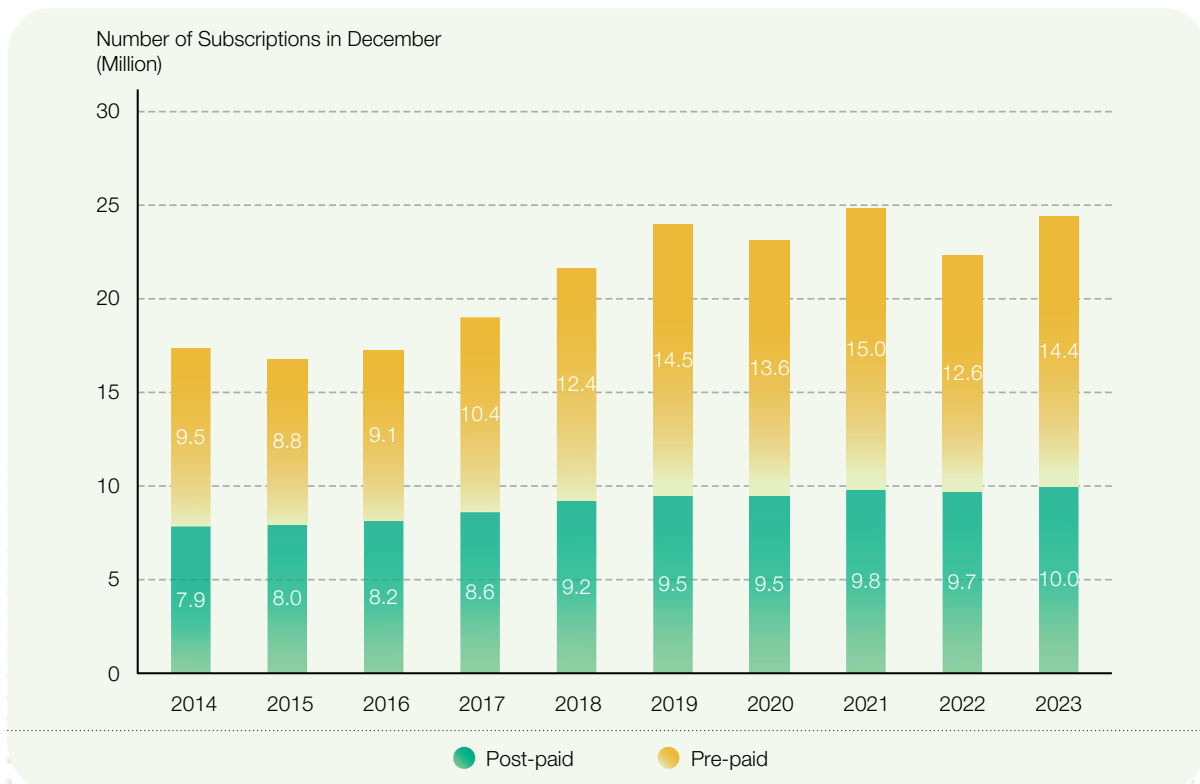
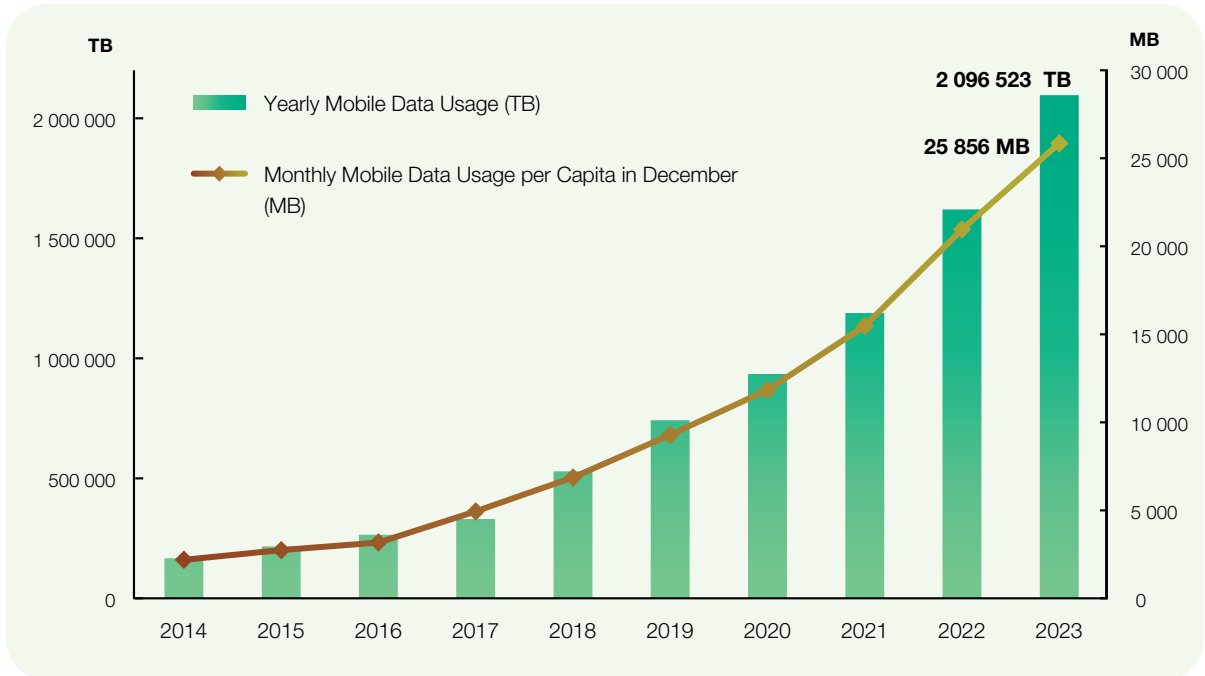


Figure 10: Mobile Data Usage (2014 to 2023)



Fixed Communications Services

The local fixed communications services market has been fully liberalised with no preset limit on the number of licences to be issued for fixed services, or deadline for submission of licence applications. Furthermore, there is no specific requirement on network roll-out and investment and licensees may provide their services according to their proposals.



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As at March 2024, there were 28 local FNOs holding UCLs for the provision of local fixed services, providing around 66 fixed lines per 100 households, one of the highest in the world. They were, in alphabetical order:

- China Mobile Hong Kong Company Limited
- China Mobile International Limited
- China Telecom Global Limited
- China Unicom (Hong Kong) Operations Limited
- ComNet Telecom (HK) Limited
- Console Connect (HK) Limited
- Easy Tone Network Limited
- HGC Global Communications Limited
- HKBN Enterprise Solutions HK Limited
- HKBN Enterprise Solutions Limited
- HKC Network Limited
- HKT Global Operation (HK) Limited
- Hong Kong Broadband Network Limited
- Hong Kong Cable Television Limited
- Hong Kong Telecommunications (HKT) Limited
- NTT Com Asia Limited
- PCCW Global (HK) Limited
- PCCW-HKT Telephone Limited and Hong Kong Telecommunications (HKT) Limited
- Reach Networks Hong Kong Limited and Reach Cable Networks Limited
- SmarTone Communications Limited
- Telstra International Limited
- Towngas Telecommunications Fixed Network Limited
- TraxComm Limited
- Verizon Hong Kong Limited
- Village Telephone Limited
- VNET Group Limited
- Vodafone Enterprise Hong Kong Limited
- Xenith IG Hong Kong Limited

As at March 2024, 92.5% and 81.3% of households were able to enjoy a choice of at least two and three self-built customer access networks respectively. It is expected that the figures will keep growing as the carriers continue to roll out their networks.



Fixed Broadband Services

As at March 2024, 28 FNOs and 278 SBOs were authorised to provide broadband Internet access services in Hong Kong. With the continuous network rollout of FNOs, the Hong Kong community can enjoy nearly ubiquitous coverage of broadband networks through the deployment of various technologies including asymmetric digital subscriber line, hybrid fibre coaxial cable, fibre-to-the-building, fibre-to-the-home, etc. Broadband access to various applications and content services has become an integral part of the life of people in Hong Kong. As at March 2024, there were around 3 million residential and commercial fixed-broadband subscriptions, with the household penetration rate of around 97.2%. Broadband services are available at speeds up to 10 gigabits per second (Gbps). Around 90.1% of the fixed broadband subscriptions are supported by broadband services with speeds of 100 megabits per second (Mbps) or above. The statistics of fixed broadband subscriptions as at March 2024 and the statistics for the past ten years are shown in **Figure 11** and **Figure 12** respectively.

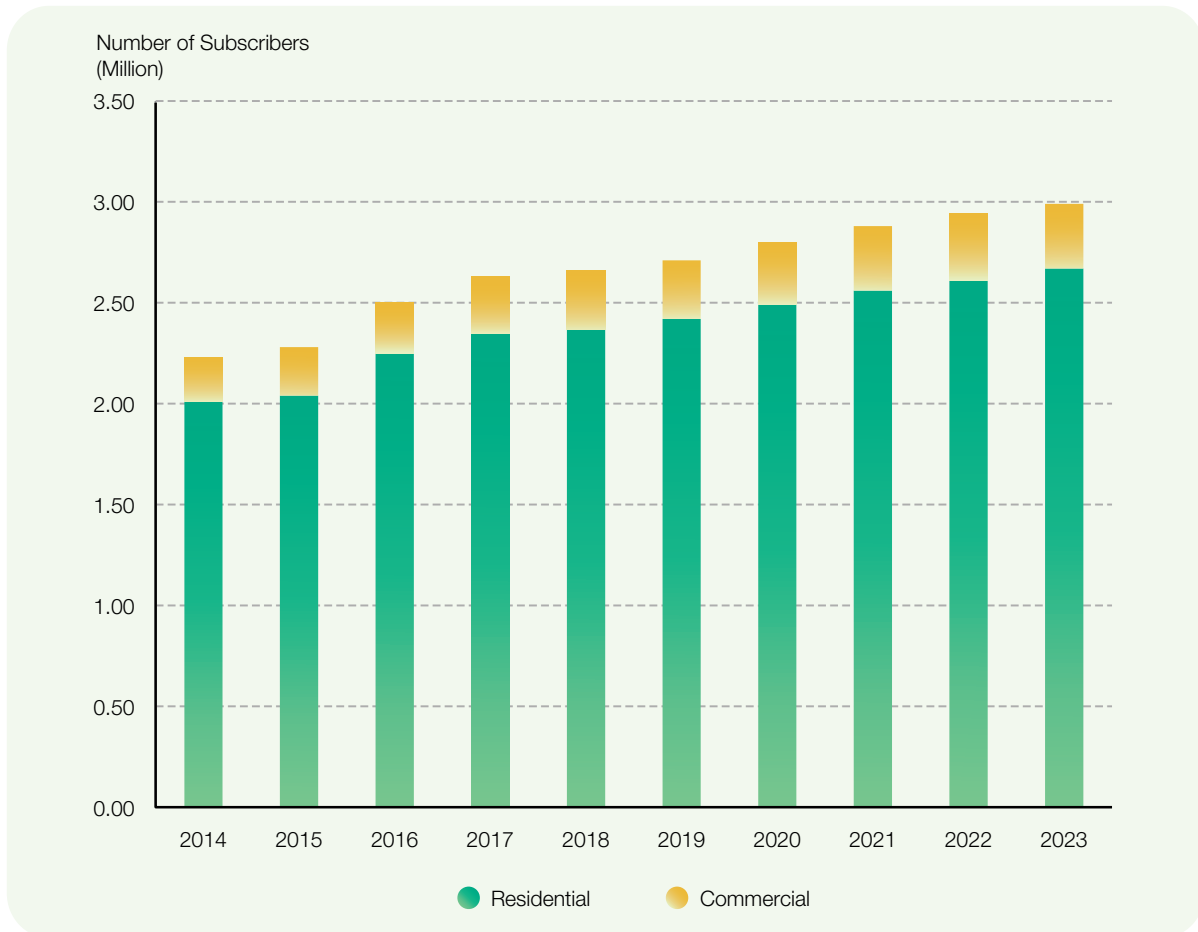
Figure 11: Statistics of Fixed Broadband Subscriptions (as at March 2024)

	No. of subscriptions	% share
Total no. of broadband subscriptions	2 955 410	100%
Broadband speed of 100 Mbps or above	2 662 990	90.1%
Broadband speed below 100 Mbps	292 420	9.9%
Residential	2 658 294	89.9%
Commercial	297 116	10.1%

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Figure 12: Fixed Broadband Subscriptions (2014 to 2023)*Internet of Things Services*

Internet of Things is a technology which enables the provision of communications platforms and services for interconnected devices to generate, exchange and consume data with minimal human intervention. Currently, Wireless Internet of Things (WIoT) licensees, MNOs and MVNOs are authorised to provide WIoT services. Since the creation of the WIoT licence in December 2017, four WIoT licences have been issued. With the development of new wireless technologies such as 5G mobile technologies and smart city applications, it is expected that there will be an increasing number of WIoT devices connecting to the public telecommunications networks in future.

External Telecommunications Services

The external telecommunications facilities market has been fully liberalised. As at March 2024, 41 FNOs were authorised to provide cable-based and/or non-cable-based external telecommunications facilities.

As at March 2024, there were eight cable landing stations in Hong Kong: two in Tong Fuk, three in Tseung Kwan O and the other three in Deep Water Bay, Chung Hom Kok and Cape D'Aguilar respectively, making it a major telecommunications and Internet hub in the region.

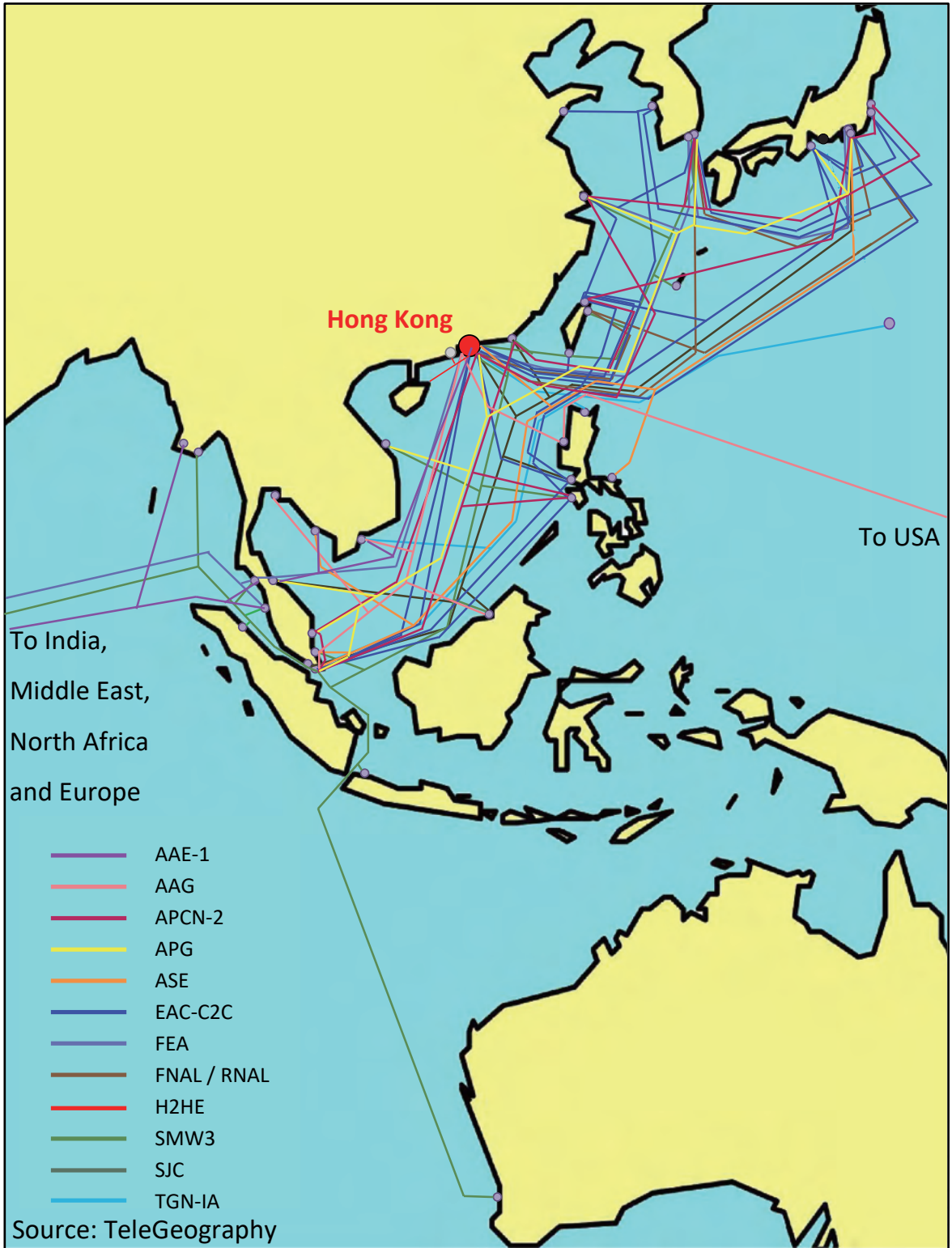
In March 2024, Hong Kong was connected to 12 regional and transcontinental submarine cable systems. They are Asia Africa Europe-1 (AAE-1), Asia-America Gateway Cable System (AAG), Asia Pacific Cable Network 2 (APCN-2), Asia Pacific Gateway (APG), Asia Submarine-Cable Express (ASE), EAC-C2C, FLAG Europe Asia (FEA), FLAG North Asia Loop (FNAL)/REACH North Asia Loop (RNAL), Hainan to Hong Kong Express (H2HE), Sea-Me-We 3 (SMW3), South-East Asia Japan Cable System (SJC) and TGN-Intra Asia Cable System (TGN-IA). As at March 2024, the total equipped external capacity exceeded 266 500 Gbps. Total external telephone traffic was 1.3 billion minutes for 2023. With the support of OFCA's single-point-of-contact service, several new regional or transcontinental submarine cable systems are under construction and scheduled to be put into service between 2024 and 2029.

CHAPTER

5

Overview of Major Developments in the Communications Market

Figure 13: Submarine Cables between Hong Kong and Other Economies



Satellite Services

Hong Kong adopts an open sky policy in regulating the provision of satellite services. Satellite-based telecommunications and television broadcasting services are provided via a multitude of satellites in the region with more than 160 transmitting/receiving satellite antennae in earth stations operated by a number of FNOs.

Licences are required for the operation of satellites and associated facilities. As at March 2024, there were a total of nine in-orbit geostationary satellites operated by two Hong Kong companies, namely Asia Satellite Telecommunications Company Limited and APT Satellite Company Limited, which are licensed to provide satellite communications services.