

Office of the Communications Authority Major Tasks and Projects for 2018-19

The major tasks and projects are categorised into “priority” and “normal” ones to indicate their relative importance.

(I) Priority Tasks/Projects

(1) Support to the CA

1. We will continue to support the CA to enable it to assume the full spectrum of its regulatory functions.

(2) Review of Legislation

2. The Government is reviewing the BO and TO and will liaise with the CA in the review exercise. We will support the Government and the CA in this exercise.

(3) Regulation of Telecommunications Services and Equipment

3. To cope with the rapid development of telecommunications services and technologies, we have established the Technical Regulatory Working Group to study the various technical regulatory issues related to telecommunications networks including Next Generation Network (NGN), systems and services in Hong Kong. We will work closely with the industry to address various technical regulatory issues including NGN issues to ensure the smooth development and deployment of new telecommunications services and technologies in Hong Kong.

4. Following our issue of the guidelines on mitigating the risk of gas explosion in telecommunications manholes in June 2010, fixed operators with manholes installed in public streets are required to follow the guidelines in conducting regular inspection and have been implementing mitigation measures and conducting sample inspections on their manholes in public streets. The mitigation measures set out in the guidelines are found to be effective in preventing gas explosion in telecommunications manholes. In order to further reduce the risk of gas explosion in telecommunications manholes, the guidelines were revised in July 2016 to require the operators to implement the mitigation measures for all the telecommunications manholes, irrespective of their internal volumes, in

accordance with the schedules specified in the guidelines. We will continue to monitor the implementation work of the operators in accordance with the requirements set out in the guidelines.

5. Having taken into account the views and comments received in the two rounds of public consultation conducted in 2016 and 2017 and the results of a study by an independent consultant, the CA and SCED announced their respective decisions in December 2017 on the arrangements for the re-assignment of 200 MHz of spectrum in the 900 MHz and 1800 MHz bands upon expiry of the existing assignment (during the period from November 2020 to September 2021) and the methods of determining the related spectrum utilisation fee. The new 15-year term of spectrum assignment for the spectrum in the 900 MHz band will be from 12 January 2021 to 11 January 2036, and that for the spectrum in the 1800 MHz band from 30 September 2021 to 29 September 2036. We will follow up with the work to implement the above decisions of the CA and SCED, including providing support to CEDB to make amendments to the subsidiary legislation, to offer right of first refusal of spectrum to the incumbent assignees, to conduct an auction for the remaining spectrum around end 2018, and to set up a working group for coordinating technical works with the existing mobile network operators and any new spectrum assignees arising from the spectrum re-assignment.

6. Local Assisted Access (LAA) is a technology which allows mobile operators to make use of the 5 GHz shared band, currently used for Wi-Fi services, for delivering mobile services so as to achieve a higher data rate or to offload data traffic from their mobile networks. The deployment of LAA in the shared band would therefore raise a number of technical and regulatory issues, including sharing between and coexistence of LAA and the existing Wi-Fi services, and the appropriate regulatory and licensing regime for assignment of the shared bands to specific parties for LAA operations. In early February 2018, the CA conducted a public consultation in relation to the provision of mobile services using LAA in the shared band. We will continue to support the CA to review the current licensing regime with a view to facilitating market development and possible deployment of this new technology in Hong Kong.

7. The development of Internet of Things (IoT) services and applications is becoming popular worldwide. Having taken into account the views and comments from the industry, the CA approved the creation of a new Wireless IoT Licence for the establishment, maintenance and operation of wireless networks and systems for the provision of wireless

IoT services in Hong Kong based on Low Power Wide Area Network technologies operating in the 920 – 925 MHz frequency band and this new licensing regime has been effective since 1 December 2017. We will continue to support the CA to review the licensing regime with a view to facilitating the development of IoT services in Hong Kong.

8. To cope with the problem of shortage of numbers for mobile services, the CA decided on 24 June 2016 to implement five measures in three phases with a view to achieving a more efficient use of the existing 8-digit numbering plan and making available additional number resources for mobile services. Following the full implementation of all the measures, an additional 15.72 million numbers in total will become available for allocation to mobile services. They are expected to be able to cope with the demand up to at least 2029. The first and the second phases of the measures have been implemented since 1 January 2017 and 1 July 2017 respectively, while the third phase of the measures will be implemented from 1 July 2021. We will continue to follow up with the operators in respect of the implementation of the necessary changes to their networks and systems to support the opening of the relevant number blocks. For the longer term development of the numbering plan, we will monitor the effectiveness of the measures as well as the on-going demand for telecommunications numbers as the market develops, especially with the launch of new IoT services and fifth generation mobile (5G) services in the near future. A consultancy study on the matter will be commissioned well before the anticipated life span of the existing 8-digit numbering plan comes to an end.

9. The CA issued a Code of Practice on the Cessation Arrangements for mobile virtual network operators (MVNOs) Services (CoP) which became effective as from 28 October 2017. The CoP sets out the requirements to ensure that MVNOs and their hosting mobile network operators would manage the service cessation arrangements in a better co-ordinated manner and that a reasonable advance notice will be given to the affected service subscribers and general public before any service cessation by a MVNO. In order to safeguard the MVNOs' commitment to comply with the CoP, MVNOs are imposed a performance bond requirement by the CA to secure the payment of any financial penalty due to any contravention of licence obligation on compliance with the CoP. OFCA will continue to monitor the effectiveness of the CoP and other administrative measures implemented earlier to strengthen the regulation of MVNO services.

10. Public payphone service is a form of basic telephone service

which the universal service provider (USP) is required under its universal service obligation (USO) to provide. The cost of providing public payphone service subject to the USO is shared by the fixed and mobile services operators. In view of the diminishing demand for public payphone service in recent years, we have embarked on a public engagement exercise since July 2017 with the relevant stakeholders, including site owners for in-building type public payphones and District Councils for kiosk type public payphones, with a view to determining the reasonable number of public payphones that should be subject to the USO. We will continue with the public engagement exercise in 2018/19.

(4) Facilitating Infrastructure Rollout

11. Since 2010, we have been offering a single point-of-contact service to prospective applicants to assist them in applying for the necessary statutory approvals for landing new submarine cables in Hong Kong. The overall response of the industry is positive. Four new regional and trans-Pacific submarine cable systems as well as one new domestic submarine cable system have already come into operation in Hong Kong since 2013. Four other new regional and transcontinental systems are under planning or construction and will be put into service in Hong Kong between 2018 and 2020. In addition, two new domestic submarine cables that will link up Tseung Kwan O and Siu Sai Wan are also under planning. We will continue to provide the service to facilitate the landing of new submarine cables in Hong Kong.

12. We have coordinated with the operators and liaised with the relevant Government departments and the Mainland authorities on the operators' proposals of utilising new cross-boundary infrastructures, such as the Hong Kong-Zhuhai-Macao Bridge for installation of cross-boundary optical fibre cables to increase the capacity and enhance the diversity of their cross-boundary facilities. We will continue to coordinate the matter with the parties concerned.

13. To help sustain Hong Kong's position as an advanced wireless city, we strive to assist mobile and fixed operators in making use of Government buildings and public facilities, such as lamp posts and other street furniture, for installing radio base stations and Wi-Fi systems respectively. We will also provide support to the Innovation and Technology Bureau in launching a pilot Multi-functional Smart Lampposts scheme at selected urban locations, under which the smart lampposts will be used to provide convenient data services and collect various real-time city

data, enhance city and traffic management, and complement the future infrastructure development for 5G mobile services. We will work with the operators and relevant Government departments to streamline and fast track the application process. In tandem, we will continue to facilitate mobile operators to roll out their mobile broadband services by deployment of the hill-top sites and Government buildings in remote areas.

14. In the 2017 Policy Address, the Chief Executive proposed for the Government to provide telecommunications companies with financial incentives in the form of subsidies to encourage the extension of fibre-based network to villages in remote locations. We will work with CEDB to finalise the detailed arrangements of the subsidy scheme, and seek the approval of the Finance Committee of the Legislative Council for the necessary funding before launching the tendering exercise.

(5) Facilitating Access

15. We will continue to facilitate access to buildings by fixed operators for the installation of in-building telecommunications facilities for the conveyance of telecommunications and broadcasting services.

16. The CE in C formally granted a free TV licence to Fantastic Television Limited (Fantastic TV) in May 2016. As of October 2017, we have approved the use of the In-building Coaxial Cable Distribution Systems of Hong Kong Cable Television Limited to deliver Fantastic TV's free TV service in 16 346 buildings. We will continue to render support and assistance to Fantastic TV to facilitate its access to buildings for the installation of in-building telecommunications facilities for the conveyance of its services.

(6) Consumer Protection

17. A voluntary Customer Complaint Settlement Scheme (CCSS), set up by the telecommunications industry has been implemented on a long-term basis starting from 1 May 2015. The CCSS aims to help resolve billing disputes in deadlock between telecommunications service providers and their customers by means of mediation. We will continue to support the CCSS by contributing the necessary funding, screening the applications against prescribed criteria for referral to the CCSS for conducting mediation, and monitoring the performance and the governance of the scheme.

18. In order to protect consumer interest and enhance transparency in the process of contract conclusion, we worked closely with the industry to draw up and implement self-regulatory measures in relation to telecommunications service contracts. After active discussions with the industry, the Industry Code of Practice for Telecommunications Service Contracts, drawn up by the Communications Association of Hong Kong (CAHK), an industry association, and the major service providers, has come into operation in July 2011. Since then, the number of complaint cases in relation to disputes over telecommunications service contracts received by OFCA has reduced significantly. Having regard to the implementation experience and consumers' feedback, we made a number of suggestions to CAHK to further enhance the Industry Code. CAHK revised the Industry Code in October 2014 following discussions with participating operators. The revised Industry Code took effect in May 2015. We will continue to monitor the implementation and effectiveness of the revised Industry Code. Also, to enhance service information transparency and to better inform consumers, we published in November 2016 on our website the details of the arrangements adopted by major residential broadband service providers to handle service termination requests from service users. Such information will be updated periodically to facilitate consumers in making informed choices in obtaining/renewing service contracts.

19. The fair trading sections of the TDO have commenced operation since 19 July 2013. The CA is conferred concurrent jurisdiction to enforce the fair trading sections in respect of the commercial practices of the telecommunications and broadcasting licensees which are directly connected with the provision of a telecommunications or broadcasting service under the TO or the BO. We have been working closely with the Customs & Excise Department, the principal enforcement agency of the TDO, to ensure a coordinated approach to tackle unfair trade practices under the concurrent jurisdiction arrangement. We will continue to closely monitor developments in the telecommunications and broadcasting markets, investigate cases involving unfair trade practices, and where circumstances warrant, take enforcement actions in accordance with the powers conferred on the CA under the TDO.

(7) Spectrum Management

20. A statement on "Spectrum Utilisation Fee for Spectrum Assigned Administratively" was jointly issued by SCED and the former Telecommunications Authority in September 2011. To promote the efficient use of spectrum, we have implemented the charging scheme for

SUF for the use of spectrum assigned administratively at congested frequency bands with effect from 1 January 2018. The first payment of the related SUF will be due on 1 January 2020, in accordance with the transitional arrangements as set out in the statement.

21. The World Radiocommunication Conference (WRC) of the ITU was held in November 2015. We assisted the CA in implementing the decisions of the WRC in consultation with the Radio Spectrum and Technical Standards Advisory Committee. We have revised the frequency allocation of six frequency bands in Hong Kong accordingly, effective from 1 January 2017. Thereafter, we have started the preparatory work for the next WRC to be held in November 2019.

22. The CA promulgated its work plan on 21 March 2017 for making available additional spectrum to meet the demand of public mobile (including fifth generation mobile, 5G) services towards 2020 and beyond, and outlined a roadmap for the release of new spectrum to the industry, covering the 3.4 – 3.6 GHz band, 26 GHz band (24.25 – 27.5 GHz) and 28 GHz band (27.5 – 28.35 GHz). We assisted the CA in conducting a public consultation between 27 July 2017 and 7 September 2017 to seek views and comments on the proposed change in frequency allocation of the 3.4 – 3.7 GHz band from the present fixed satellite service to mobile service, to take effect in 2020. We also engaged a consultant in August 2017 for advice on the technical mitigating measures to ensure the co-existence of Satellite Master Antenna Television systems with future public mobile services to be operating in the 3.4 – 4.2 GHz band, the work of which will be completed by early 2018. The CA will issue a consultation paper jointly with SCED in the second quarter of 2018 to solicit views and comments on the arrangements for assignment of the spectrum in the 3.4 – 3.6 GHz band for the provision of public mobile services as well as the related SUF.

23. We issued spectrum vacation notices in April 2017 to spectrum assignees in the 26 GHz band in order to vacate the said spectrum by April 2019. An invitation for expression of interest (“EOI”) was issued in December 2017 to invite views and comments of the industry and other interested parties in respect of frequency planning, services and applications to be provided, equipment availability and timing of spectrum assignment, shared use of spectrum, network rollout plan, etc. of using the available spectrum in the 26 GHz and 28 GHz bands for the provision of 5G services. Taking into account the submissions to the EOI invitation, we will conduct a consultation in mid 2018 to solicit views and comments of the industry and other interested parties on the allocation and related

assignment arrangements for the relevant frequency spectrum.

24. Spectrum to be used by or on behalf of the Government is managed administratively by OFCA. We completed in early 2017 the third review of the efficiency of the spectrum used by the Government and posted our findings on our website. In that round, we have reviewed the Guidelines for Spectrum Assignment for Land Mobile Systems and Fixed Links Deployed by Government Users in Hong Kong last revised in 2013 and concluded that no further revision was warranted for the time being. We also concluded that the existing frequency bands reserved for Government use only should continue to be maintained. The next review will be conducted in 2019-20. In the meantime, we will continue to promote adherence with the abovementioned Guidelines by users of government spectrum.

25. We installed a radio monitoring and direction finding system for our Radio Monitoring Unit back in 2001 to assist us in performing the radio monitoring and radio frequency interference investigations in Hong Kong. As the system has reached the end of its serviceable life, there is a need to procure a replacement system. We issued the tender for a new system in September 2017. The new system is expected to be put into service by March 2019.

(8) Regulation of Broadcasting Services and Equipment

26. In May 2016, the CE in C formally granted a 12-year free TV licence to Fantastic TV to provide free TV services by a fixed network, under which Fantastic TV is required to launch an integrated Chinese channel and an integrated English channel by 30 May 2017 and 30 May 2018 respectively. Fantastic TV launched its integrated Chinese channel on 14 May 2017. We will closely monitor the roll-out of its integrated English channel by the extended deadline (i.e. by 30 July 2018). In addition, Fantastic TV submitted an application to the CA for employing broadcasting spectrum, on top of a fixed network, as an additional transmission means for the delivery of its licenced free TV service in June 2016. At the request of Fantastic TV, the CA has put on hold the processing of Fantastic TV's application since February 2017 until such time when Fantastic TV is ready to resume its discussion with the CA.

27. In view of the discussions about indirect advertising and sponsorship in free TV programmes in the community, and having regard to the changing landscape of the local TV market with the entry of new

licensees, the CA expedited its research on the regulation of indirect advertising and sponsorship in free TV services in overseas jurisdictions, and conducted a survey to gauge public attitudes and views towards the issue concerned. Having considered the findings of the research and the survey, the CA has completed its review of the relevant provisions in the codes of practice governing indirect advertising and product/service sponsorship. The CA has launched a one-month public consultation on 28 March 2018 on the proposed relaxation of the regulation of indirect advertising. We will continue to support the CA in taking forward the relaxation proposals.

28. Pursuant to a referral made by the Securities and Futures Commission in May 2017 on matters relating to the shareholding structure of TVB, we supported the CA in examining regulatory issues relating to the shareholding change applications submitted by TVB in 2015 and 2016. In addition to seeking advice from its legal adviser, the CA invited TVB to provide clarifications and additional information to facilitate the CA's consideration of the relevant regulatory issues. We will continue to support the CA in following up on the issues concerned.

29. Since the launch of DTT services in late 2007, a total of 29 transmitting stations had been constructed by the free TV licensees, bringing the overall DTT coverage to at least 99% of the population in 2014. With the assignment of broadcasting spectrum to HKTVE as an additional means of transmission, on top of its fixed network, to provide DTT services from 2 April 2016, we will continue to work with TVB and HKTVE to improve the reception in the few areas in Hong Kong where reception problems are identified.

30. In view of the DTT penetration rate and the arrangement for realisation of digital dividend in Hong Kong, the Government announced in December 2014 that the working target for switching off analogue terrestrial television (ASO) would be adjusted from end 2015 to end 2020, with a review of the target date to be conducted in 2017-18. We set up an expert group with the Mainland authorities in August 2012 for frequency coordination after ASO and will continue to explore whether the vacated radio spectrum can be allocated for new services. We will continue to provide technical support to CEDB in reviewing the working target for ASO and other related work.

(9) Competition Affairs

31. In September 2013, the CA announced the findings of its investigation into the complaints against the violation of the competition provisions of the BO by TVB and the sanction on TVB. The CA found TVB in breach of sections 13(1) and 14(1) of the BO, imposed on TVB a financial penalty of HK\$900,000, and directed TVB to end the anti-competitive practices concerned and to take a number of remedial actions. TVB lodged a statutory appeal with the CE in C in October 2013 against the CA's decision and applied in December 2013 for judicial review, inter alia, of the appeal mechanism to the CE in C under the BO as well as the CA's decision on the investigation.

32. The Court handed down its judgement on 29 January 2016. Of the seven grounds submitted by TVB, the Court ruled in favour of TVB on two grounds: (i) the appeal structure under section 34 of the BO (Appeal to CE in C) is in contravention of Article 10 of the Hong Kong Bill of Rights; and (ii) paragraph 277 of the CA's Decision, which required TVB to abandon all contractual clauses and policies in question and imposed other ancillary orders, went beyond what was necessary to redress the anti-competitive act of TVB. The Court concluded that the CA's Decision should be quashed. On 26 February 2016, the CE in C and the CA filed their Notices of Appeal to the Court of Appeal. We will continue to support the CA in handling the legal proceedings relating to the appeal.

33. On 2 May 2014, the CA announced its consent under the merger provision of the TO (namely section 7P) to the proposed acquisition of CSL New World Mobility Limited, a carrier licensee under the TO, by HKT Limited. The consent was subject to conditions imposed on the carrier licensees concerned. We will continue to monitor the compliance by the licensees concerned with these conditions.

34. The CO commenced full operation on 14 December 2015. The CA is conferred concurrent jurisdiction with the Competition Commission (the Commission) to enforce the CO in respect of the conduct of undertakings in the telecommunications and broadcasting sectors, whilst the competition provisions in the BO and the TO have been repealed subject to transitional arrangements. The CA and the Commission have signed a Memorandum of Understanding to coordinate the performance of their functions on which they have concurrent jurisdiction under the CO. We will continue to assist the CA in enforcing the CO in the telecommunications and broadcasting sectors.

(II) Normal Tasks/Projects

(1) Regulation of Telecommunications Services and Equipment

35. In 2017, three replacement UCLs were issued to existing licensees for the provision of external fixed telecommunications services and aeronautical mobile services. In addition, three new UCLs were issued for the provision of internal fixed telecommunications services and external fixed telecommunications services. We will continue to provide support to the CA in handling UCL applications.

36. In 2011, two incumbent mobile operators successfully bid for the radio spectrum in the 850 MHz and 900 MHz bands. Both have fulfilled the rollout obligation. We will continue to coordinate with the successful bidder of the 900 MHz band, the railway operator for operating the GSM-R system of the Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong-Express Rail link and mobile operators providing radio coverage in the country parks and remote areas, for the shared use of the overlapping frequencies in order to avoid mutual interference.

37. In 2014, we conducted an auction for assigning 49.2 MHz of radio spectrum in the 1.9 – 2.2 GHz band. Three incumbent mobile carriers successfully bid for the radio spectrum with assignment period commencing on 22 October 2016, two of which are required to fulfil the rollout obligation. One successful bidder has already fulfilled the rollout obligation. We will continue to monitor the rollout progress of the remaining one successful bidder.

38. The procedures for licensees to file interconnection agreements with OFCA and the arrangements for their publication were updated in March 2012. A database has been developed for safekeeping the interconnection agreements received by OFCA. All the interconnection agreements received (including Type I and II interconnection, blockwiring and LAC, etc.) have been published at OFCA's website. We will continue to handle any new interconnection agreements received from interconnecting parties accordingly.

39. Mobile operators are required to pay royalties for the use of radio spectrum in the 900/1800 MHz bands for provision of telecommunications services. We will continue to monitor their regulatory accounting reports to ensure compliance with the accounting manual that specifies the accounting practices for separation accounting and reporting

of network turnover.

40. Mandatory Type II Interconnection at exchange level and at buildings with more than one self-built customer access networks was withdrawn in full on 30 June 2008. We will continue to monitor the network rollout of the alternative self-built customer access networks of fixed operators.

41. To stimulate and promote further development of our broadband infrastructure, we launched a voluntary registration scheme for residential buildings connected with fibre-based access networks in November 2010. The scheme was extended to cover non-residential buildings in April 2013. Under the scheme, fibre-connected buildings are categorised into two classes, i.e. the fibre-to-the-home (FTTH) buildings and the fibre-to-the-building (FTTB) buildings. As of October 2017, 15 500 residential buildings were registered with the scheme, representing about 84% of the total number of households in Hong Kong. 1 600 non-residential buildings were also registered with the scheme. We will continue to encourage participation of industry players.

42. We will continue to combat unauthorised telecommunications activities, including the sale, establishing, maintaining, possessing and/or using unauthorised telecommunications systems and devices, which are in breach of the TO, the relevant regulations and the conditions of the various telecommunications licences.

43. By end November 2017, a total of 28 base stations serving country parks and the Hong Kong Geopark have been set up by mobile operators. We will continue to facilitate the installation of more base stations by these operators for improving mobile network coverage in country parks, the Hong Kong Geopark and rural areas.

44. In order to provide hikers with the necessary information on mobile network coverage in country parks and the Hong Kong Geopark, we have prepared 171 digital maps which show such coverage in those areas and posted them on our website for public information. We will continue to update the maps when new base stations are installed.

45. As of 31 March 2018, a net amount of 7.56 million numbers had been returned by the operators since the implementation of the number fee regime in August 2008. We will continue to facilitate the operators' return of numbers and review the usage of the numbering resources in a

timely manner to promote the effective and efficient use of telecommunications numbers and codes.

46. We will continue to discuss and exchange views with the Ministry of Industry and Information Technology of the Mainland on further opening up and lowering of the entry barrier to the telecommunications market in the Mainland to Hong Kong Service Suppliers under CEPA.

47. Telecommunications licensees holding telephone numbers for the provision of fixed and mobile telephone services are required to pay universal service contribution (USC) to the universal service provider for the net cost of meeting the USO. The last review of the levels of USC for the years 2015 and 2016 was completed with the results promulgated in November 2017. We will continue to calculate the USC in a fair, reasonable and efficient manner, and promulgate the calculated USC levels on a regular basis.

48. Following the implementation of a new computerised system for processing applications for and renewals of private mobile radio systems licences (the Electronic Licensing System), we will extend the system to cover other private telecommunications licences in 2018.

49. We commissioned an independent third party to design, establish, operate and support a broadband speed test system in Hong Kong which enables and facilitates end users of fixed and mobile broadband services to test the performance of their broadband services. This test system sets a dedicated reference for local measurement and demonstration purposes. The system was launched in December 2010. In December 2013, we enhanced the system to support IPv6 and modified the iOS and Android apps to record location information in the test result logs. The system was further upgraded between 2014 and 2017 to enhance its performance. As of 30 September 2017, an accumulated total of more than 76 million tests were performed with an average daily hit rate of 30 765. We will continue to monitor the system performance and improve it taking into account market developments.

(2) Spectrum Management

50. To ensure the orderly development of new services and to minimise interference, we will continue to coordinate the use of radio spectrum for broadcasting and telecommunications services with

neighbouring authorities.

(3) Regulation of Broadcasting Services and Equipment

51. We will continue to monitor the performance of the broadcasting licensees and ensure their compliance with the relevant legislation and licence conditions.

52. All broadcasting licensees are required to observe the relevant codes of practice issued by the CA. By virtue of the Charter of Radio Television Hong Kong promulgated in August 2010, RTHK should also ensure that all its TV and radio services are in compliance with the relevant codes of practices of the CA. In particular, the programme codes set out the standards to be generally observed in programmes, covering issues such as taste and decency, the portrayal of sex and nudity, the use of language, impartiality and fairness. The advertising codes deal with standards for the presentation and content of advertisements and sponsored programmes. The technical codes set out the technical standards of television and sound broadcasting services.

53. To ensure the compliance with the codes of practice by broadcasting licensees, we will continue to act on complaints lodged by the public in a rigorous and transparent manner.

54. To allow consumers to make an informed choice in purchasing DTT receiving equipment compliant with the local DTT standard, we will continue to operate the labelling scheme for DTT receivers.

55. We will continue to regulate the technical performance of the licensed broadcasters.

56. We will continue to improve the reception of the existing free terrestrial television and sound broadcasting in the territory, especially in areas where reception is not satisfactory.

57. We will continue to combat the import, export, trading and commercial use/possession of unauthorised television decoders.

(4) Regulation of Unsolicited Commercial Electronic Messages

58. The UEMO has been in operation since December 2007. Based on our operational experience, we have made substantial revisions to

the operational procedures. In September 2012, we computerised the complaint report management system to enhance the propriety and security control for our enforcement under the UEMO. The relevant code of practice (CoP) has also been updated and came into effect on 30 November 2013. The proposed amendments to the UEMO to allow service of notices issued by the CA by hand or by ordinary post, in addition to registered mail, were passed by the LegCo and came into effect on 5 December 2014. We will continue to review and enhance the effectiveness of enforcing the UEMO.

59. We will continue to handle and investigate reports of suspected contravention of the UEMO and take appropriate actions following the technology neutral principle. We will continue to review the report handling procedures. We will also provide support and advisory services to CEDB on spam-related issues.

60. We will continue to maintain the Do-not-call Registers (DNCs) for fax, short message and pre-recorded telephone message respectively for use by the general public, and for businesses/organisations as senders of commercial electronic messages.

61. We will continue to publicise the regulations under the UEMO and the operation of the three DNCs to ensure that businesses and the public are aware of their obligations and rights under the UEMO.

62. We will continue to liaise with local, Mainland and overseas anti-spam organisations and enforcement agencies to facilitate cooperation in spam control and sharing of experience and intelligence of anti-spam issues.

(5) Advisory and Support Services

63. We will continue to provide support to the communications satellite operators registered in Hong Kong by attending satellite co-ordination meetings and issuing licences for the launching and operation of new or replacement satellites.

64. We will continue our coordination with local, Mainland and overseas satellite operators and administrations on satellite launching, coordination and interference matters.

65. We will continue to strengthen Hong Kong's participation, by

both the Government and the private sectors, in international and regional telecommunications fora, and to provide support to regional/international telecommunications projects.

66. We will continue to provide support to CEDB and TID on the implementation and further expansion of the CEPA and the closer co-ordination with Guangdong with respect to the cross-border provision of telecommunications services in the Mainland by Hong Kong service suppliers.

67. We will continue to support CEDB and TID in establishing free trade agreements with other economies with a view to facilitating market access and the provision of telecommunications services.

(6) Technical Standards

68. We will continue to monitor the development of telecommunications standards and formulate and update the local standards where necessary.

69. We will continue to monitor the process and performance of LCBs in the provision of testing and certification services under the accreditation scheme administered by the OFCA.

70. We will continue to implement the Mutual Recognition Arrangement for conformity assessment of telecommunications equipment led by the Asia-Pacific Economic Cooperation Telecommunications and Information Working Group.

71. We will continue to monitor the electrical safety and the radiation exposure limit of uncertified mobile phones placed on the market. In 2017, we commissioned a laboratory to conduct measurement of the Specific Absorption Rate (SAR) for 20 uncertified mobile phones. The test indicated that the SAR values of all the 20 mobile phones were below the 2W/kg limit as recommended by the International Commission on Non-Ionizing Radiation Protection.

(7) Corporate Affairs and Handling of Consumer Complaints

72. In line with the OFCA's role in promoting Information and Communications Technology (ICT) applications over telecommunications networks, we will sponsor and fund special seminars, projects and

campaigns for promoting the safe use of ICT for improving quality of life, operating efficiency and learning.

73. We will continue to promote the smart use of communications services, especially new services of which consumers may not have sufficient knowledge, through the launch of the annual consumer education campaign, which offers various activities and programmes for public participation such as public seminars, roving exhibitions etc., communications through the mass media, the OFCA's website, the "Communications Master – OFCA" Facebook Fan Page and joint efforts with various user groups and industry organisations.

74. On the handling of consumer complaints, we will ensure that complaints involving possible contraventions of the provisions of the TO, the BO, the UEMO, the TDO and the CO or licence conditions are attended to promptly. For complaints which fall outside the scope of the legislative provisions and relevant licence conditions, we will ensure that they are promptly referred to the operators concerned so that they may be dealt with swiftly and effectively.

75. To help the industry, the media and the public understand the new developments in the communications market and the OFCA's new initiatives, we will organise industry and media activities as necessary for effective communication.

76. We will continue to enhance the public complaint register such that we may keep track of the public complaints and generate complaint statistics in a more efficient manner.

(8) Consumer Protection

77. To safeguard consumer interests and increase the transparency of the pricing information related to mobile content services (MCS), the CAHK issued a voluntary code for the provision of chargeable mobile content services to govern the practices of third party content service providers (CSPs) in January 2010. Established by the CAHK in March 2010, the Administrative Agency (AA) implemented an industry self-regulatory scheme in accordance with the code. The OFCATF sponsored the operation of the AA and monitored the effectiveness and the governance of the scheme. Since 2011, the number of complaints in relation to MCS has reduced substantially, reflecting the effectiveness of the scheme through collaboration with CAHK to address consumers' concerns.

In light of past experiences and the latest market situation, as well as the persistently low level of complaints about MCS in the recent years, CAHK, in consultation with the industry and OFCA, streamlined the self-regulatory arrangements under the code from 1 April 2017 such that mobile operators took up a more prominent role to ensure continual compliance with the requirements set out in the code by CSPs while the AA ceased operation starting from 1 April 2017. We will continue to monitor the effectiveness of the code.

78. Fixed and mobile broadband service providers may implement Fair Usage Policies (FUP) to ensure that their customers will be given a fair opportunity to access their broadband services. In order to provide guidance to broadband service providers on how they may implement FUP and to enhance the transparency of service information to facilitate better informed consumer choices, the CA promulgated a set of mandatory guidelines in November 2011, setting out the relevant guiding principles for compliance by service providers. The guidelines took effect from February 2012 and the number of complaints related to FUP has been decreasing since then. We will continue to monitor the market developments and the compliance status of broadband service providers as applicable.

79. To tackle the problem of mobile bill shock, we promulgated in May 2010 a series of preventive measures for the industry to adopt, which include allowing customers to opt out of individual services; setting a charge ceiling; setting a usage cap for all kinds of usage-based mobile services; and alerting customers through short messages when their predetermined usage threshold is reached, or when their roaming data usage is triggered. To increase the transparency of the relevant service information, we have published the measures implemented by individual operators on our website and have been providing regular updates since August 2010. While the number of related complaints has been decreasing, we will continue to monitor the situation.

80. In order to enhance the transparency of the service level of the mobile broadband service market, mobile operators have published the performance pledges and the actual performance statistics of their mobile broadband services since September 2010 and January 2011 respectively. The performance pledges and statistics serve to inform the public of the standards of services that can be expected from the mobile operators, such as network availability, service restoration, customer complaint handling and technical performance. The performance pledges and statistics are updated quarterly, and are available on the respective websites of the mobile

operators and via hyperlinks on our website. We will continue to monitor the performance of mobile operators.

81. With a view to enhancing the transparency of the pricing of chargeable items in the provision of telecommunications services by local fixed and mobile operators, we issued in October 2011 a voluntary Code of Practice in Relation to Billing Information and Payment Collection for Telecommunications Services. The Code of Practice requires telecommunications service providers to provide customers with itemised billing information for verification of charges, take reasonable steps to ensure accuracy of billing and collection of payment, and report to the OFCA in a timely manner in the event of any incident involving systematic errors in these aspects. As of November 2017, seven local fixed and four mobile operators have pledged compliance with the Code of Practice. We have published on our website a consumer alert and will continue to monitor the compliance situation.

(9) Human Resources Management

82. A Training and Development Committee has been established to oversee the implementation of OFCA's training and development policies so as to make holistic plans to meet the training needs of staff and to strengthen arrangements for grooming officers with strong potentials. We will continue to promote a learning culture in the office and provide training opportunities for staff at all levels to enhance their professional and managerial competencies, ensure healthy succession, and keep pace with the advent of new technologies. We will also arrange overseas management programmes and explore opportunities for staff attachment to policy bureaux, overseas regulatory authorities and the relevant authorities in the Mainland to broaden the horizon of our staff and prepare them for greater challenges.

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