

立法會
Legislative Council

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seen by the Administration)

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Finance Committee of the Legislative Council

Minutes of the 35th meeting
held at Conference Room 1 of the Legislative Council Complex
on Friday, 13 July 2018, at 2:31 pm

Members present:

Hon CHAN Kin-por, GBS, JP (Chairman)
Hon Michael TIEN Puk-sun, BBS, JP (Deputy Chairman)
Hon James TO Kun-sun
Hon LEUNG Yiu-chung
Hon Tommy CHEUNG Yu-yan, GBS, JP
Prof Hon Joseph LEE Kok-long, SBS, JP
Hon Jeffrey LAM Kin-fung, GBS, JP
Hon WONG Ting-kwong, GBS, JP
Hon Starry LEE Wai-king, SBS, JP
Hon CHAN Hak-kan, BBS, JP
Dr Hon Priscilla LEUNG Mei-fun, SBS, JP
Hon WONG Kwok-kin, SBS, JP
Hon Mrs Regina IP LAU Suk-yee, GBS, JP
Hon Paul TSE Wai-chun, JP
Hon Claudia MO
Hon Steven HO Chun-yin, BBS
Hon Frankie YICK Chi-ming, SBS, JP
Hon WU Chi-wai, MH
Hon YIU Si-wing, BBS
Hon MA Fung-kwok, SBS, JP
Hon Charles Peter MOK, JP
Hon CHAN Chi-chuen
Hon CHAN Han-pan, BBS, JP

Hon LEUNG Che-cheung, SBS, MH, JP
Hon Kenneth LEUNG
Hon Alice MAK Mei-kuen, BBS, JP
Dr Hon KWOK Ka-ki
Hon KWOK Wai-keung, JP
Hon Dennis KWOK Wing-hang
Dr Hon Fernando CHEUNG Chiu-hung
Dr Hon Helena WONG Pik-wan
Hon IP Kin-yuen
Dr Hon Elizabeth QUAT, BBS, JP
Hon Martin LIAO Cheung-kong, SBS, JP
Hon POON Siu-ping, BBS, MH
Dr Hon CHIANG Lai-wan, SBS, JP
Ir Dr Hon LO Wai-kwok, SBS, MH, JP
Hon CHUNG Kwok-pan
Hon Alvin YEUNG
Hon Andrew WAN Siu-kin
Hon CHU Hoi-dick
Dr Hon Junius HO Kwan-yiu, JP
Hon LAM Cheuk-ting
Hon Holden CHOW Ho-ding
Hon SHIU Ka-fai
Hon SHIU Ka-chun
Hon Wilson OR Chong-shing, MH
Hon YUNG Hoi-yan
Dr Hon Pierre CHAN
Hon CHAN Chun-ying, JP
Hon Tanya CHAN
Hon CHEUNG Kwok-kwan, JP
Hon HUI Chi-fung
Hon LUK Chung-hung, JP
Hon LAU Kwok-fan, MH
Dr Hon CHENG Chung-tai
Hon KWONG Chun-yu
Hon Jeremy TAM Man-ho
Hon Gary FAN Kwok-wai
Hon AU Nok-hin
Hon Vincent CHENG Wing-shun, MH
Hon Tony TSE Wai-chuen, BBS

Members absent:

Hon Abraham SHEK Lai-him, GBS, JP
Hon Christopher CHEUNG Wah-fung, SBS, JP
Hon Jimmy NG Wing-ka, JP
Hon HO Kai-ming
Hon Kenneth LAU Ip-keung, BBS, MH, JP

Public officers attending:

Ms Alice LAU Yim, JP	Permanent Secretary for Financial Services and the Treasury (Treasury)
Ms Carol YUEN, JP	Deputy Secretary for Financial Services and the Treasury (Treasury) 1
Mr Mike CHENG Wai-man	Principal Executive Officer (General), Financial Services and the Treasury Bureau (The Treasury Branch)
Mr Nicholas YANG Wei-hsiung, GBS, JP	Secretary for Innovation and Technology
Ms Annie CHOI Suk-han, JP	Commissioner for Innovation and Technology
Mr Ivan LEE Kwok-bun, JP	Deputy Commissioner for Innovation and Technology
Mrs Millie NG KIANG Mei-nei, JP	Deputy Secretary for Innovation and Technology (1)
Ms Eva YAM Ya-ling	Acting Deputy Secretary for Innovation and Technology (2)
Mr Edward YAU Tang-wah, GBS, JP	Secretary for Commerce and Economic Development
Mr Clement LEUNG Cheuk-man, JP	Permanent Secretary for Commerce and Economic Development (Communications and Creative Industries)
Mr Keith GIANG Tsz-sheung	Principal Assistant Secretary for Commerce and Economic Development (Communications and Creative Industries) A
Miss Agnes WONG Tin-yu, JP	Director-General of Communications, Office of the Communications Authority

Miss Elaine HUI Ching-chi	Assistant Director-General of Communications (Market and Competition), Office of the Communications Authority
Mr Andrew LO Tsz-him	Senior Regulatory Affairs Manager (Market and Competition 13), Office of the Communications Authority

Other persons attending:

Mr Albert WONG Hak-keung	Chief Executive Officer, Hong Kong Science and Technology Parks Corporation
Mr George TEE	Chief Technology Officer, Hong Kong Science and Technology Parks Corporation
Mr Peter YAN King-shun	Chief Executive Officer, Hong Kong Cyberport Management Company Limited
Ms Maria LAM Shook-fun	Chief Corporate Development Officer, Hong Kong Cyberport Management Company Limited

Clerk in attendance:

Ms Anita SIT	Assistant Secretary General 1
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Staff in attendance:

Ms Ada LAU	Senior Council Secretary (1)7
Mr Raymond SZETO	Council Secretary (1)5
Miss Queenie LAM	Senior Legislative Assistant (1)2
Mr Frankie WOO	Senior Legislative Assistant (1)3
Miss Yannes HO	Legislative Assistant (1)6

Action

The Chairman reminded members of the requirements under Rule 83A and Rule 84 of the Rules of Procedure.

Item 1 — FCR(2018-19)38

INNOVATION AND TECHNOLOGY FUND

HEAD 111 — INNOVATION AND TECHNOLOGY

Subhead 101 — Innovation and Technology (block vote)

New Subhead — "Research centres/laboratories for establishment of research clusters"

HEAD 184 — TRANSFERS TO FUNDS

Subhead 992 — "Payment to the Innovation and Technology Fund"

CAPITAL INVESTMENT FUND

HEAD 962 — INDUSTRY

New Subhead — "Equity in the Hong Kong Science and Technology Parks Corporation for supporting healthcare and artificial intelligence and robotics technologies researches and its tenants/incubatees"

New Subhead — "Equity in the Hong Kong Cyberport Development Holdings Limited for supporting its tenants/incubatees and promoting the development of e-sports"

2. The Finance Committee ("FC") continued with the deliberation on FCR(2018-19)38. The Chairman said that this item sought the approval of FC for:

- (a) a supplementary provision of \$20 billion under Head 184 Transfer of Funds Subhead 992 Payment to the Innovation and Technology Fund ("ITF") to enable –
 - (i) the continued operation of the existing funding schemes/support programmes under ITF and introduction of various new initiatives; and
 - (ii) the creation of a new commitment to provide financial support to establish research clusters in Hong Kong;
- (b) a commitment to inject \$10 billion as equity from the Capital Investment Fund ("CIF") to the Hong Kong Science and Technology Parks Corporation ("HKSTPC") for providing facilities to support healthcare and artificial intelligence and

robotics technologies research, and strengthening support measures for its tenants/incubatees; and

- (c) a commitment to inject \$300 million as equity from the CIF to the Hong Kong Cyberport Development Holdings Limited ("HKCDHL") for strengthening the support to its tenants/incubatees and promoting the development of e-sports in Hong Kong.

Existing programmes under the Innovation and Technology Fund

Application procedures

3. Mr Tony TSE said that the procedures for applying for funding schemes and support programmes under ITF were cumbersome. This was at variance with the Administration's conclusion in paragraph 6 of the discussion paper on this item about such schemes and programmes operating smoothly and satisfactorily.

4. Commissioner for Information and Technology ("C for IT") explained that there were over 10 funding schemes in operation under ITF. Relatively more details were required from applicants for programmes on research and development ("R&D") as clear information regarding the technical work and the milestones etc. would be needed. For other programmes such as the R&D Cash Rebate Scheme ("CRS"), Technology Voucher Programme ("TVP") and Internship Programme, the application forms consisted only of a few pages seeking essential information. The Administration had streamlined the application procedures as far as possible, and was prepared to consider further suggestions.

5. Mr Jeremy TAM indicated support for the Internship Programme and enquired about the application process. According to his understanding, applicants were required to put up advertisements with the Labour Department and in jobsDB, wait for one week before submitting their applications, and another four weeks for the outcome. Undergraduates were also required to possess first or second class honours. As these were not shown in the transcripts, they had to wait for letters to be issued by the universities on the class of honours. Mr TAM saw a need for the unduly long recruitment process to be expedited, as otherwise the prospective interns would turn to other employments.

6. C for IT said that the Innovation and Technology Commission ("ITC") required only two to three days to process applications under the Internship Programme, but HKSTPC and the Cyberport required relatively

more time to assist their incubatees and tenants in the application process. The programme neither required applicants to put up advertisements via specific media or platforms nor interns to have degrees with specific honours. Chief Executive Officer ("CEO"), HKSTPC supplemented that the Internship Programme was a reimbursement scheme. It usually took HKSTPC two weeks to vet the applications for reimbursement followed by less than one week by ITC, thereby making up a total of three to four weeks. He would clarify the concern with Mr TAM separately after the meeting.

7. Mr Martin LIAO pointed out that according to the 2018 Global Innovation Index Report which analysed the economic situation of 126 economies, Singapore ranked first in Asia because of effective monitoring by its Government in terms of both quality and quantity as well as direct investment from overseas, and Hong Kong only came fourth. He said that some biotechnology companies in Hong Kong had criticized the Government for being bureaucratic when processing applications for subsidy, to the extent of asking for original copies of certificates of academic and experience qualifications. This had caused difficulties in particular to scientists from overseas. In contrast, few questions were raised on the content of the R&D programmes. Mr LIAO enquired how the application process could be simplified and attention could be focused on the content of the projects.

8. C for IT agreed with Mr LIAO on the need to simplify procedures and facilitate applications as far as possible. In general, if the researcher concerned had been engaged in R&D work under one of the funding schemes, objective information on their expertise and experience should usually be readily available. More detailed documentary proof would generally only be required when the applications involved substantial amount of funding and there was no readily available information relating to the researcher concerned. She said that the content of the R&D projects would be examined by an expert group, and clarification would be sought with the applicants if necessary.

Commercialization of research and development results

9. Referring to paragraph 12 of the discussion paper on the commercialization of R&D results, Mr Tony TSE enquired about:

- (a) the amount of income generated so far to ITF by the five R&D centres from ITF-funded projects; and
- (b) the reason for the proposal to allow the R&D centres to retain the income in future.

10. C for IT said that the income generated was about \$11 million. The Administration proposed to allow the R&D centres to retain such income in future as a form of encouragement and incentive. It was hoped that such income would be used for strategic activities or staff development, both of which might not be possible at the moment owing to limited resources. In response to Mr TSE on whether the usage of the income could be specified, C for IT said that while the operation expenses of these R&D centres such as staff salary, rental, etc., which were covered by ITF, were all specified, the Administration hoped to give flexibility to these centres over the usage of the income generated from the commercialization of their products. She stressed, nevertheless, that such usage would still require approval by the respective governing boards and ITC.

Procurement policy

11. Mr SHIU Ka-chun expressed discontent about a case in which public organizations in Hong Kong including the Hospital Authority and government departments declined to procure a nano-mask, which was developed and produced by a company in Hong Kong under ITF's sponsorship and had Hong Kong as its brand name, notwithstanding its having won many prizes internationally. Mr CHAN Chi-chuen shared Mr SHIU's concern and quoted another case where a product which could not be commercialized in Hong Kong had subsequently developed successfully with financial subsidy from both the Mainland and overseas.

12. C for IT said that the case quoted by Mr SHIU concerned the procurement policy of public organizations which might be constrained by cost considerations. The Government was reviewing the procurement policy with a view to facilitating the procurement of innovative products. She said that the companies could apply for support under the Public Sector Trial Scheme ("PSTS") which provided funding for public organizations to try new products / technologies developed by companies in HKSTPC / Cyberport, as well as those arising from ITF projects. She added that under PSTS, there was no requirement to invite quotations/tenders and accept the lowest bid. She undertook to follow up the case concerned in conjunction with relevant R&D centre.

13. Mr SHIU Ka-chun criticized the Government for adopting a passive attitude and only leaving it to R&D centres to look for public organizations to procure their products before funding became possible. He said that the case in question arose in 2015 but the procurement policy had remained unchanged since then and the case had remained unresolved. This illustrated the difficulty which the innovation and technology ("I&T") industry in Hong Kong was facing and the little assistance the Government was rendering. He stressed his disappointment with the case and his intention to follow up the progress of the case each and every time the Innovation and Technology Bureau ("ITB") sought funding approval from FC.

14. Mr WU Chi-wai remarked that the procurement policy was restricted by the Agreement on Government Procurement of the World Trade Organization ("WTO"). Given the impact which such R&D products would have on Hong Kong's Gross Domestic Product ("GDP"), improvement should be made to the procurement policy to facilitate the procurement of such R&D products by government departments.

15. Secretary for Innovation and Technology ("S for IT") said that the Chief Executive had set out in her Policy Address delivered in October 2017 eight major areas to spearhead I&T development in Hong Kong. One of these was for the Government to lead changes to procurement arrangements, and this was being examined. One possibility being considered was an increase in the weighting of the I&T factor versus the cost factor while at the same time still complying with WTO requirements. This would increase the prospect for technology products or services to be procured locally.

Mainland-Hong Kong Joint Funding Scheme (MHKJFS)

16. Given that the Administration would collaborate with the Ministry of Science and Technology to set up the MHKJFS, Mr LEUNG Yiu-chung enquired if the Administration had reviewed the effectiveness of the Guangdong-Hong Kong Technology Co-operation Funding Scheme ("GHKTCFS") and its impact on Hong Kong.

17. C for IT explained that under the MHKJFS, a team from a Hong Kong university would collaborate with a team from a research institute or enterprise in the Mainland and make applications to their respective authorities. The scientific outcome arising from the collaboration would be jointly owned by the Hong Kong and Mainland institutes. She said that the GHKTCFS had been useful in facilitating research collaboration,

enhancing knowledge exchange and manpower training in universities in Hong Kong, creating patents and intellectual properties, and providing solid foundations for parties concerned to proceed for further scientific research.

Enterprise Support Scheme

18. Mr YIU Si-wing referred to the Enterprise Support Scheme ("ESS") and enquired:

- (a) whether an unclear understanding of the criteria of ESS by the industry might have accounted for the low success rate of only 74 applications out of 287 being supported;
- (b) whether subsidy was available for software development and if so, the mode of subsidy;
- (c) the actions which would be taken if the pre-set targets of the projects could not be met; and
- (d) whether Hong Kong enterprises which collaborated with Mainland enterprises could qualify for subsidy under ESS.

19. On (a), C for IT explained that almost 300 applications had been received under the Scheme and some of them were still being processed. The success rate had increased from 18% in the first year to almost 50% in 2018, accompanied by an improvement in the quality of applications. This was illustrative of a clearer understanding of the operation of the Scheme by companies engaged in R&D work. As regards (b), the subsidy was available also for software development provided that it was related to R&D work on I&T. If the R&D work was concerned with enhancing the operating effectiveness of the company, then TVP might be more suitable. On (c), C for IT clarified that funding would not be provided in one go but by stages, and only when satisfactory progress been made would funds be disbursed for the next stage of work. This arrangement would alleviate worries about possible deviation from pre-set milestones. On (d), for individual research projects, the portion of R&D work which could not be undertaken in Hong Kong might also qualify for funding support and applications would be considered on the basis of their own merits.

Partnership Research Programme

20. Dr Helena WONG said that members of the Democratic Party were in support of the funding proposals. She declared interest as a lecturer of

the Hong Kong Polytechnic University, and enquired about the proposal to merge the collaborative stream of the Innovation and Technology Support Programme ("ITSP") with the University-Industry Collaboration Programme. She asked if the merger would have any positive or negative impact on local universities and other relevant parties.

21. In response, C for IT said that there would not be any adverse impact on the parties concerned. The two programmes had existed because of historical reasons and both provided funding support for collaborative projects between private companies and public research institutions or universities with slightly different rules such as project duration. The merger aimed to rationalize the administrative arrangements and minimize confusion to applicants. She confirmed that no upper limit would be set on the number of projects undertaken by the organizations concerned.

Allocation of resources

22. Mrs Regina IP said that the development of enterprises in the past years had confirmed that I&T had created most values, and the performance of many I&T enterprises had surpassed that of traditional brick-and-mortar enterprises. While she was in strong support of the Administration's funding proposals because I&T development in Hong Kong had lagged behind that of neighbouring cities, she enquired about the resources available under ITF.

23. C for IT said that the Administration had sought funding support of \$5 billion in 1999 and another \$5 billion in 2015. Together with an investment income of over \$4 billion, the total amount of resources under ITF was about \$14.6 billion. As all resources would have been committed by end-2018, it was necessary to seek supplementary provision.

24. Referring to Enclosure 1 to the discussion paper which showed a total funding of some \$8.8 billion for 2 478 programmes under the ITSP, Mrs Regina IP said that the small amount of funding for each project did not provide room for innovation or breakthrough. She enquired if the 2 478 projects contained some outstanding ones.

25. In response, C for IT said that when ITSP commenced operation in 1999, the needs came mainly from local universities and research institutions. The I&T atmosphere had changed in recent years and the Government had rolled out many different programmes to meet present-day needs. These included ESS and CRS for private enterprises, and PSTS and TVP which facilitated technology adoption in the community. As for

examples of outstanding researches, C for IT said that ITSP had provided funding support for successive R&D projects undertaken by two research teams of a local university, and the teams subsequently formed start-ups to commercialize the research outcomes. Both start-ups had in a few years' time evolved to be unicorns. She undertook to provide further examples on ITSP projects with outstanding performance.

[*Post-meeting note:* The supplementary information provided by the Administration was issued to members vide LC Paper No. FC38/18-19(01) on 8 November 2018.]

New initiatives under the Innovation and Technology Fund

Technology Talent Scheme

26. Regarding the Postdoctoral Hub programme to be launched under the Technology Talent Scheme, Mr CHAN Chi-chuen said that as doctoral degree might not bring better job prospects, the number of local students pursuing doctoral degrees was small. The scarce supply of such talent might result in the recruitment to the programme of talent from the Mainland or overseas, thus nullifying the objective of the programme in nurturing local talent. This would result in a vicious cycle of less local talent going for doctoral degree and making it difficult for Hong Kong to groom local talent. Mr CHAN asked how the Administration could ensure that priority would be accorded to the recruitment of local talent.

27. Mr LEUNG Yiu-chung expressed similar views. He was worried that the Postdoctoral Hub programme might be made used of by talent from outside Hong Kong as a stepping stone for furthering their own career in the I&T industry, and resources would be spent on training them up instead of local talent. He asked if the Administration would set a quota on the number of such talent to be recruited from outside Hong Kong.

28. In reply, C for IT said that there were over 900 doctoral degree graduates in science, technology, engineering and mathematics ("STEM") each year. About 20% of them were local graduates, meaning an annual supply of about 200 such local talent. The programme would help retain them in the local I&T field. She also said that local graduates would have a natural advantage as the recruitment procedures were simpler and issues such as visa applications and accommodation arrangements would not arise. C for IT believed that companies would only resort to recruiting talent from outside Hong Kong if the relevant expertise was not locally available. She assured members that the Administration would keep in view the progress and the operation of the programme. As to whether a

quota would be set on the number of local versus non-local talent to be recruited under the Postdoctoral Hub programme, C for IT said that no such quota would be set.

29. Dr Helena WONG made further enquiries about the programme including the monthly allowance for the postdoctoral talent, duration of subsidy, and estimated number of researchers.

30. C for IT said that ITF would provide a monthly allowance of \$32,000 for each postdoctoral talent and the relevant companies could also top up the allowance with their own resources if they wished. Each eligible ITF project or organisation could engage two postdoctoral talent. No quota would be set on the total number of postdoctoral talent to be supported under the programme. The funding support would cover the engagement of each talent for up to 24 months. If the R&D work lasted more than 24 months, the company concerned might continue the engagement of the talent with its own resources. The Administration had set aside \$500 million for the Technology Talent Scheme, which included the Postdoctoral Hub programme. In response to Dr WONG's question, C for IT said that in the event of short supply of suitable candidates, the possibility of renewing the funding for postdoctoral talent with outstanding performance beyond 24 months could be reviewed.

31. Mr Gary FAN considered the 24-month duration for subsidizing postdoctoral researchers too short, as this would neither provide job security to the researchers nor would it be conducive to the sustainability and effectiveness of the R&D work. He also pointed out that the number of postdoctoral talent taking up I&T researcher jobs in Hong Kong in the past years were few (57 out of 430, 61 out of 438, and 59 out of 407 between 2013-2014 and 2015-2016), and enquired if the Administration had set any quantitative targets.

32. C for IT said that the Administration's primary consideration when designing the programme was to retain the postdoctoral talent in Hong Kong although they might move around jobs within the profession. She believed that if the talent had demonstrated their professional knowledge and effectiveness, the companies concerned would retain them to continue with the R&D work. Nevertheless, she understood members' concerns and undertook to review the duration of the engagement one year after launching the programme to assess the possibility of allowing for more flexibility. C for IT added that the effect of the programme would be seen after its implementation. Apart from retaining local talent, the programme could also bring in talent from outside Hong Kong, in particular those with expertise which was in short supply in Hong Kong.

33. Ir Dr LO Wai-kwok indicated support for the Technology Talent Scheme but was of the view that the Scheme should not be restricted to companies within the Science Park and the Cyberport. He said that it should be open to all I&T companies in Hong Kong which together could play a part in training up and retaining talent in Hong Kong and in attracting talent from overseas. He saw a need for the Government to act quickly and boldly in this respect, and apply less restrictions.

34. S for IT said that the Administration would review the scheme at a suitable juncture bearing in mind the possibility of further expansion.

Research-related infrastructure and facilities

Pilot batch production facilities

35. Mr AU Nok-hin referred to the proposal for \$2.7 billion to be spent on facilities for healthcare and artificial intelligence ("AI") and robotics technologies researches. He said that only 18 out of the 272 Chinese medicine products manufacturers in Hong Kong met the requirements of Good Manufacturing Practice ("GMP"), and enquired how such funding and the provision of one-stop core facilities would help small and medium enterprises in the Chinese medicine industry. Mr WU Chi-wai also saw a need for assistance to be provided to enhance the standard of the R&D products of the medicine industry for meeting GMP requirements, as the commercialization of their products would be conducive to such products becoming part of the supply chain and to Hong Kong becoming a manufacturing centre in biotechnology.

36. C for IT assured members that the Government had all along been providing assistance to the pharmaceutical industry, including the Chinese medicine industry. For instance, hardware and facilities in the Hong Kong Institute of Biotechnology Limited adjacent to the Science Park were available to assist small Chinese medicine companies. She stressed that all healthcare manufacturing facilities had to comply with GMP standards. The provision of the 'one-stop' core facilities would assist medical research teams to manufacture biomedical products in pilot batches for clinical trial purposes. In case pharmaceutical manufacturers required premises for their new production facilities, the industrial estates would be able to address their needs. As regards the development of biotechnology, C for IT said that the needs of the industry and the laboratories varied. The HKSTPC would try to make available GMP-grade facilities for their use.

Scale and estimates of the research-related facilities

37. Also following up on the \$2.7 billion sought for facilities for healthcare and AI and robotics technologies research, Mr CHAN Chi-chuen criticized the Administration for providing little information in paragraphs 38 and 41 (ii) of the discussion paper about the facilities involved.

38. C for IT said that those were all essential facilities, based on experiences of other research establishments in similar technology areas. The exact facilities required were uncertain at this stage as it would depend on the scale of the research laboratories in the research clusters and their needs as well as those of the tenants and incubatees in the Science Park. The facilities required would be assessed by the Governing Committee and the Facility Committee of respective research cluster. At Mr CHAN's request in relation to the \$2.7 billion funding support sought, C for IT undertook to provide information on:

- (a) the estimated cost for each of the six core facilities for healthcare and AI and robotics technologies researches stated in paragraph 38;
- (b) the principle(s) for the Administration's cost estimates; and
- (c) the equipment required for each facility (i.e. the basis for which the estimations in (a) and (b) above had been worked out) .

C for IT also undertook to include in future annual reports of HKSTPC the plans and progress of the two research clusters.

[*Post-meeting note:* The supplementary information provided by the Administration was issued to members vide LC Paper No. FC38/18-19(01) on 8 November 2018.]

Animal research

39. Ms Claudia MO expressed concern on the use of animals for experiments. She referred to an assurance given by Mrs Fanny LAW of HKSTPC that only small animals such as guinea pigs would be used for experiments and that it would all be for medicine research purpose. Ms MO asked if this remained the Administration's stance.

40. C for IT said that she had confirmed the above at the meeting of the Panel on Commerce and Industry. As it was a healthcare research cluster, all medicine and therapy must go through animal research and drug testing before they could go for clinical trials. There was a need for animal experiments for medicinal research work.

41. Ms Claudia MO said that major universities in Hong Kong had set up animal laboratories which were in operation daily, and questioned the need for such laboratories to be duplicated in the Science Park. She considered the Administration's reply on the subject (issued vide LC Paper No. CB(1)1204/17-18(01) on 28 June 2018) evasive as no mention was made about the use of guinea pigs. Ms MO also referred to the data provided by the Administration in March 2018 on animals used for experiments during the period 2013 to 2016. It showed that about 1 700 dogs, 1 300 cats and over 3 000 rabbits had been used, and she considered the situation worrying. She enquired about the following:

- (a) whether the Science Park would only use guinea pigs for experiments, and the reason for animal laboratories to be set up therein instead of its working in collaboration with local universities;
- (b) whether dogs and cats would be used for experiments in addition to guinea pigs and rabbits;
- (c) the Administration's stance for using cell culture and computer modelling in this artificial intelligence ("AI") age instead of animals; and
- (d) details on the \$1 billion to be spent on the establishment of animal laboratories.

42. C for IT said that the Administration had studied the matter in conjunction with local universities. The existing animal facilities in the universities were of small scale and could barely meet their own needs. The establishment of a new healthcare research cluster would increase the demand for animal laboratory substantially. As regards the types of animals to be used, she said that different types of mice and rats would normally be used. The types of animals needed would be dependent on the type of experiments which the laboratories were engaged in. For instance, rabbits would be needed for eye-related research, while pigs would be needed for surgery-related research. C for IT said that computer modelling might not be able to test accurately the toxicity and pharmacology of new medicines, and animal tests were essential before the

medicines could be applied to human. As for the funding sought for the establishment of animal laboratories, C for IT said that \$1 billion was the ceiling and flexibility would be exercised. She said that this amount would last for a period of time but no breakdown was available at the moment. While the scale of the healthcare research cluster might be small initially, it was expected to expand subsequently with the admission of more laboratories.

43. CEO, HKSTPC added that while animal experiments were still required, technology was improving and the use of animals for experiment would be avoided as far as possible, such as in the case of a company in the Science Park which had used stem cells to produce heart muscles. In response to Ms MO, CEO, HKSTPC said that the life span of small animals was usually short while bigger animals such as pigs and cows might not necessarily die after experiments.

Manpower supply and training

44. Dr Elizabeth QUAT spoke in support of the funding proposals but expressed concern over the shortage of manpower. She pointed out that the problem existed not only in I&T companies, nor just in the Science Park and the Cyberport. Companies in other industries including banking, insurance, etc. which wanted to develop applied I&T were unable to find the necessary personnel. Dr QUAT said that sole reliance on the Technology Talent Admission Scheme, through which 1 000 I&T talents might be made available to the Science Park and the Cyberport, would not solve the problem. It was necessary to address the I&T manpower shortage problem also confronting other industries. She asked how the funding sought would help in training up more local I&T talent and attracting talent from the Mainland and overseas.

45. While sharing Dr QUAT's concern, S for IT explained that the manpower shortage problem which banks were facing was a global problem not unique to Hong Kong. Big data and I&T talent were in short supply worldwide, and part of the funding sought would be for establishing a research cluster for AI where I&T companies and universities could train up big data talent. In addition, the Technology Talent Admission Scheme would help expedite the admission of talent by obviating the need for companies to go through complicated application procedures each time they recruited a candidate. S for IT added that there were 9 000 STEM graduates in Hong Kong each year and the Administration hoped to find quality posts to retain them. He stressed that all these required persistent and long-term efforts.

46. C for IT supplemented that part of the funding sought also aimed to retain I&T graduates in Hong Kong through providing them with internship opportunities. Experience showed that about 70% of students who had undergone internship planned to remain in the technology profession or take up technology-related work after graduation. The Postdoctoral Hub programme would be of further assistance in retaining local postdoctoral talent as well as attracting talent from outside Hong Kong.

47. Mr LEUNG Yiu-chung criticized the Government for not adopting a holistic approach to drive the development of I&T in Hong Kong, as there was a lack of Government initiatives to train up local I&T talent. He considered it necessary to tackle the problem of manpower shortage at source by instilling interest in I&T in primary and secondary students, and dedicating resources to programmes designed for this purpose. Otherwise, few would take up I&T related subjects at universities thus resulting in few local I&T graduates, and the additional resources sought ending up mainly in the recruitment of I&T talent from the Mainland and overseas.

48. S for IT said that efforts of the Government on various fronts were contributing to local I&T talent development. The strong research capability and international credibility of universities in Hong Kong would be conducive to creating high quality jobs for the 9 000 STEM graduates each year. Provision of support to small and medium enterprises, which comprised over 95% of enterprises in Hong Kong, and start-ups would create an enabling environment. These efforts would be augmented by attracting institutions that were among the global top echelon in I&T to come to Hong Kong to train up local talent. S for IT appreciated Mr LEUNG's concern and would discuss with the Education Bureau with a view to enhancing STEM education for primary and secondary school students to nurture their interest in I&T.

49. C for IT added that the Administration was supportive of popular science education for primary and secondary school students. The General Support Programme would provide funding support for science-related activities. It was noted that primary and secondary school students had become more interested in science, and had participated in many I&T fairs and competitions.

Control mechanism

50. Mr Gary FAN expressed worries about appointments to the Governing Committee which would approve the admission of institutions to the research clusters, and their supporting functional committees.

Unlike academia assessments where the applicant and the assessment authority could not identify each other, and where overseas authorities might be invited to conduct the assessment to avoid conflicts of interest, such an arrangement might not apply in the appointments to the Governing Committee and their supporting committees, thereby creating opportunities for loopholes. He enquired how the Administration could ensure that these committees would be objective, impartial and fair, and act without any conflicts of interest.

51. C for IT said that the Administration would look for persons knowledgeable in the respective fields for appointment to the Governing Committee and its supporting committees. She assured members that a strict mechanism for declaration of interests would be put in place, and both the Administration and HKSTPC would have the responsibility of monitoring the operation of the research clusters. In addition, representatives from the Administration would also serve on the Governing Committee and its committees.

52. In response to Mr FAN on whether applicants for subsidy under ITF could approach members of the Vetting Committee, C for IT said that given the close exchange within the I&T profession, it was impractical to impose restrictions on persons in the I&T profession as to who they could or could not contact. Nevertheless, she understood Mr FAN's concern and would try to stipulate in the relevant code of conduct a requirement for committee members who had been in contact with applicants or had discussed the relevant research programmes etc. to make declarations of interest. Consideration would also be given to the inclusion of advice to committee members regarding the avoidance of such contacts.

53. Mr CHU Hoi-dick expressed concern on whether there were any code of conduct and moral standards governing R&D work on AI and robotics technologies under ITF and in the Science Park, and if restrictions could be applied to R&D work on particular areas or to the transfer of certain techniques to particular parties. S for IT said that he believed members of the relevant vetting committees were persons of integrity and would bear this in mind when vetting applications and allocating resources.

Other related issues in Science Park

Tenancy agreements

54. Mr Alvin YEUNG enquired if the Science Park had any strategy for ascertaining whether their tenants were genuinely engaged in the stated business and employing R&D staff. He referred to a case in which a

semiconductor company had reportedly rented an office of 400 ft² in the Science Park at a monthly rental of \$6,000 simply for facilitating business with its clients overseas but without conducting any actual business in Hong Kong.

55. CEO, HKSTPC said that the Science Park had in place a strict mechanism for verifying the business of their tenants. Before admission to the Science Park, his staff would examine the work of the companies concerned and confirm that at least half of their staff members were engaged in R&D work in I&T. This would be verified by annual follow-up visits by his staff. If these companies failed to achieve the pre-set targets of their R&D work, their tenancies would not be renewed upon expiry. CEO, HKSTPC added that rental at the Science Park was set at market rate, and a monthly rental of \$6,000 for a 400 ft² office was unreasonable. While only companies which contributed to the I&T ecosystem would be retained, the Science Park also assisted in the I&T ecosystem as far as possible by identifying investors, providing connections with the industry, leading tenants to participate in exhibitions in the Mainland and overseas, and identifying clients for tenants. At Mr YEUNG's request, CEO, HKSTPC undertook to supplement information on tenancies which were terminated or not renewed as a result of failure to fulfil the requirement of employing the set ratio of R&D staff or in relation to the nature of business.

[Post-meeting note: The supplementary information provided by the Administration was issued to members vide LC Paper No. FC38/18-19(01) on 8 November 2018.]

56. In response also to Mr YEUNG on whether tenants in the Science Park were genuinely employing R&D staff, CEO, HKSTPC said that the Chief Technology Officer ("CTO") of HKSTPC had 20 to 30 staff members who were experts in the respective I&T streams. Each of these I&T managers had sound knowledge of their respective technology areas and was responsible for a particular group of clients. They would meet frequently with the clients to understand their business, ascertain their needs, and check if they were achieving the purposes of their programmes. CEO, HKSTPC added that he had met with over 600 clients in the past three years.

Enhancement of ancillary facilities

57. Mr CHAN Chi-chuen referred to paragraph 39 of the discussion paper and asked for details on the \$540 million to be spent on ancillary facilities in the Science Park. In response, CEO, HKSTPC said that the

Science Park had been in operation for 17 years and Phase 1 was ageing. It was therefore necessary to dedicate resources to enhance the ancillary facilities. This included improving energy efficiency and transportation infrastructure for its 17 000 working population. He stressed that the proposed improvements to the ancillary facilities were all essential.

Occupancy rate

58. Mr AU Nok-hin said that the estimate of 4 600 jobs being created in the Science Park by 2025 was based on an assumption of full occupancy of Phases 1 to 3 of Science Park. He quoted media reports in previous years about offices in the Science Park being left vacant for long periods, and asked if data was available to support the above assumption. CEO, HKSTPC said that the current occupancy rate in the Science Park was 87% and situations such as that reported by the media in earlier years should no longer exist. Stage 1 of the Science Park Expansion Programme would be ready for occupation as from mid-2019 and many tenants were already preparing to move in. He was confident of the target being met.

Cash flow projection

59. Mr Gary FAN referred to Enclosure 2 to the discussion paper and sought explanation on the cash flow projection of HKSTPC, in particular the increase in the net cash flow, excluding the \$10 billion Government injection, from \$307 million in 2025-2026 to \$667 million in 2027-2028. CEO, HKSTPC explained that significant expenditure and cash outflow was expected from 2018 to 2024 on account of the expenditure for several capital works projects. When the construction works were almost finished, most of the facilities would be generating positive operating income from 2024 onwards, and this explained why the net cash flow would improve from then onwards.

Management effectiveness

60. Dr Elizabeth QUAT enquired if consideration had been given to merging HKSTPC and HKCDHL to enhance management effectiveness given that the two groups of management were engaged in similar functions. S for IT said that the two organizations had their respective focus and merits, and their facilities were also different. The focus of the Cyberport was to develop the digital technology sector, and a financial technology cluster of over 250 companies had been developed within a period of two and a half years. On the other hand, the Science Park was bigger in scale and more suitable for deep science. Rather than merging

the two organizations, he believed that it would be more important to optimise the resources of both organizations.

Benefits to Hong Kong

Global innovation and technology hub

61. Ir Dr LO Wai-kwok declared interest as having served on the Board of Directors of HKSTPC for six years. He recalled that President XI Jin-ping had said in reply to 24 academicians in Hong Kong that more concrete actions would be taken for China's I&T development and that Hong Kong could develop into a global I&T hub. Ir Dr LO said that Hong Kong could look forward to more policy initiatives and direct subsidies from the Mainland which would bolster I&T collaboration between Hong Kong and the Mainland. He hoped that Hong Kong would ultimately develop laboratories on a state scale on its own. While indicating strong support for the funding proposal, he enquired about the measures which ITB and ITC would take, such as in the Science Park, to tie in with the state policy and encourage the establishment of high-end laboratories.

62. C for IT said in response that the Administration's proposal to establish two research clusters to attract world class R&D institutions would tie in with President XI's remarks that Hong Kong could be developed into an international I&T hub. While R&D centres in local universities were already collaborating with leading laboratories in the Mainland and overseas, the Administration believed that more could be done to demonstrate our edge in pooling talent in Hong Kong.

63. Mrs Regina IP said that Shanghai and neighbouring cities in the Pearl River Delta offered incentives for attracting potential I&T start-ups. She enquired about Hong Kong's strength in technological research, apart from the breakthrough from the support by President XI Jin-ping in I&T collaboration between research institutes in the Mainland and Hong Kong and the initial allocation of research funding of RMB 1 million for each State Key Laboratory in Hong Kong.

64. S for IT said that the Government had endeavoured to enhance support for I&T development so as to enable Hong Kong to shine in the fierce I&T race. The Chief Executive had set a goal to double the Gross Domestic Expenditure on R&D as a percentage of GDP to 1.5%, i.e. about \$45 billion a year, by 2022. To this end, leveraging Hong Kong's strong research capability and international outlook, the Government proposed to set up research clusters to attract world class scientific research institutions

and technology enterprises to Hong Kong. In response to Mrs IP on whether the advantage currently enjoyed by Hong Kong regarding export control would be affected by the China-US trade war, S for IT trusted that Hong Kong, which was a separate trade, customs and legal regime from the Mainland, should not be affected.

65. Mr CHU Hoi-dick said that attention should not be focused just on the financial benefits which I&T development would generate. He was concerned with the effect which the additional resources sought would have on the political future of Hong Kong. He held the view that President XI Jin-ping's support of the development of Hong Kong as a global I&T hub was indicative of a strong political background. He asked if the Administration had considered this factor and, given the uncertainty of the development of I&T in the future, if there were any moral standards governing what should not be done with the \$30 billion additional resources.

66. In response, S for IT reiterated that the main focus would be more on addressing social issues such as ageing population in Hong Kong, and technologies relating to national security were not involved.

67. On the goal for increasing the Gross Domestic Expenditure on R&D to 1.5%, Mr CHU Hoi-dick held the view that more resources should be provided to universities for R&D work. He enquired about the proportion of the resources of the 1.5% to be dedicated for R&D work of universities, ITF and the Science Park respectively, and if information was available on whether cities competing with Hong Kong were spending a bigger ratio on their universities.

68. S for IT affirmed that resources for I&T research work by both universities and enterprises had been on the increase. An additional funding of \$2 billion was provided by the last-term Government to the universities for mid-stream research, and Professor TSUI Lap-chee would shortly publish a report on a review on research funding. S for IT pointed out that the research efforts of private enterprises was also crucial for the development of I&T. In Hong Kong, about 60% of resources for I&T development came from the Government and 40% from the private sector, whereas the percentages were just the reverse in other places. For instance, in Shenzhen, the Government's contribution was only 10% with the remaining 90% from the private sector. He stressed on the need to reverse the ratio of public sector versus private sector expenditure on R&D from government-led to public-private participation. The Government had been addressing this particular issue by providing incentives to private

enterprises for conducting more R&D work. The proposed enhanced tax deduction for local R&D expenditure was one of the measures.

Employment opportunities

69. Mr LUK Chung-hung expressed support for the funding proposals, and enquired about assessments on the employment opportunities thus created including those for the I&T profession as well as jobs created with the \$10 billion approved for ITF in previous years. Mr LUK said that the supplementary provision of \$20 billion to ITF was a substantial sum, and enquired about the investment arrangements, room for added value, and management of the fund.

70. C for IT said that \$10 billion would be for providing infrastructure facilities and strengthening support for the tenants and incubatees of HKSTPC. It was estimated that approximately 4 600 jobs would be created, thus bringing the total number of jobs in Science Park from 17 200 to 21 800. Another \$10 billion would be for the establishment of two research clusters where R&D organizations from Hong Kong, the Mainland and overseas would be invited to join. Based on an estimate of 60 jobs in each research centre, the establishment of 20 such centres would create an additional 1 200 technology-related job opportunities. As for the \$10 billion approved for ITF in previous years, C for IT said that it was difficult to provide an estimate as many of the funding programmes had already been in operation.

71. Noting the 5 800 new technology-related jobs, Mr LUK Chung-hung enquired:

- (a) if manpower in the local market and graduates from local universities would be available to cope with the need;
- (b) if the Administration had consulted local universities for increasing the number of relevant programmes and graduates in the coming years; and
- (c) if there were estimates on the ratio of local and overseas talent to take up such jobs.

He emphasized that as I&T work involved many streams and professional techniques, ITB should exercise caution with its matching work.

72. In response, C for IT said that with about 9 000 STEM graduates from local universities, including some 900 doctoral degree talent, every

year, the training of manpower should not be a problem. Experience showed that many of these graduates might choose to move to other sectors or go to places outside Hong Kong for technology or research-related job opportunities. The Administration thus hoped to introduce measures to retain them in Hong Kong and also attract talent from overseas. As regards the ratio of local and overseas I&T talent for taking up the new jobs, C for IT said that such estimates were not available. While companies could identify suitable talent from outside Hong Kong, she believed that local candidates would have a natural advantage. She envisaged that only when these companies required special expertise or talent which were not readily available locally would they go for overseas recruitment.

Economic benefits

73. Mr WU Chi-wai was concerned with the contribution of the I&T industry and the intellectual property generated thereof towards Hong Kong's GDP. He enquired about the Administration's schedule for completion of studies on the setting of key performance indicators ("KPI") which he considered essential having regard to the significant resources being dedicated by the Administration in I&T development. He noted from LC Paper No. CB(1)1148/17-18(01) that KPI would be set on the number of R&D projects and the number of talent trained. Mr WU enquired if this meant that KPI would not be set on other aspects such as the number of patents produced or how the commercialized R&D results would contribute to Hong Kong's GDP. He held the view that these various aspects were closely interwoven. Otherwise, developments would be like that of a precedent case where the R&D work of a product was undertaken in Hong Kong but its productivity chain was in the Mainland, thereby contributing little to Hong Kong's GDP. Mr WU also emphasized the need to keep track of the progress of programmes of start-ups and whether their pre-set targets were being met. He said that of the annual expenditure of \$500 million of the Science Park, resources spent on training support and technology transfer were relatively small and enquired if support could be enhanced in this respect.

74. S for IT agreed with Mr WU regarding the importance of the productivity chain. He pointed out that the intellectual property right of the commercialised products belonged to the companies concerned, and the statistics of these companies through their various growth stages would be captured by the Census and Statistics Department. These developments together with the concern about patents were being examined with a view to identifying a clear way forward. On the economic benefits, C for IT said that the Administration had estimated that the total value added

annually of the Science Park would be increased by around \$5.3 billion, and many high quality jobs in R&D work would be created.

75. Dr Fernando CHEUNG referred to the \$14.6 billion under ITF and enquired about the economic and other benefits which such expenditure would bring to Hong Kong. He said that if the \$30 billion being sought were spent on the construction of elderly homes, 45 000 places would be made available thus resolving the accommodation problem faced by the elderly and the disabled in one go. He was concerned with how long the resources sought would last as, apart from stating that the financial support package of \$10 billion should be sufficient to sustain the operation of the two research clusters for 10 to 15 years, the Administration had not provided similar information for the rest of the funding sought.

76. S for IT said that Hong Kong had to step up efforts in developing I&T. Apart from the additional resources of \$30.3 billion which would have very focused usage, the resources of private enterprises in research work would also be important. He stressed that KPI had to be assessed and compiled over a period of time. Although not in the form of KPI, the Government did have data on jobs and economic benefits thus generated. C for IT supplemented that the Administration hoped to promote a diversified economy, and there were encouraging developments in the I&T sector in Hong Kong in recent years. For instance, we had two home-grown unicorns in the areas of biotechnology and AI respectively. Second, the number of start-ups in Hong Kong had increased tremendously to over 2 000 in the past few years. This notwithstanding, ITB/ITC would explore with the Census and Statistics Department further means to capture relevant data on jobs and economic benefits etc.

77. Dr CHENG Chung-tai referred to start-ups and businesses relating to sharing economy which might be new to Hong Kong and met with difficulties in their operation such as bicycle-sharing, and asked if the Government had studied the causes for their difficulties and could render assistance. He also quoted the case of the retail industry where the traditional method of displaying merchandise on racks was being replaced by the use of mobile applications, and enquired if the Government had set any direction in this respect.

78. C for IT said that there were both successful and unsuccessful cases of businesses operating with new economic models, such as that of the sharing economy quoted by Dr CHENG. Some start-ups operating sharing businesses in Hong Kong were successful and had grown to become unicorns. ITF did not specify the particular types of industry which qualified for assistance, and companies including start-ups were

eligible so long as they were engaged in R&D work. S for IT said that the Government held an open attitude towards the development of mobile applications, and would consider mainly whether the development direction of the companies concerned could be achieved. As for the Government's policy direction, the current focus would be on healthcare technologies and AI and robotics technologies.

Impact on the community

79. Dr Fernando CHEUNG expressed worries that the outcome of the Administration's proposals might not match expectations. He cited an example of significant resources having been spent on turning Hong Kong into a Wi-Fi city and the subsequent criticisms by the Director of Audit on the low speed of the public Wi-Fi system. He reiterated his concern on the benefits which the substantial resources would bring to Hong Kong's economy and community, and requested the Administration to provide examples on how the community would benefit from the new technology.

80. S for IT reiterated that ageing population was an acute problem in Hong Kong. With one-third of the population aged 50 and above, technologies on healthcare, AI and biotechnology would definitely be of help. He quoted as an example the contribution of Professor Dennis LO Yuk-ming of The Chinese University of Hong Kong to the global scientific community. His discovery of circulating foetal nucleic acids in the plasma of pregnant women and its translation into innovative non-invasive prenatal diagnostic tests had resulted in such tests being performed on millions of pregnant women globally. C for IT also referred to an anti-wandering device developed by a R&D centre. Although not every elderly care home had adopted the device, a large organisation had agreed to try out the product which might encourage other organizations to follow. A radio frequency identification tagged vest had also been put on trial by over 10 organizations. The Administration would promote PSTS actively to support the adoption of more new technologies and products.

81. Dr KWOK Ka-ki expressed concern on the extent to which resources to be dedicated to healthcare technologies and AI and robotics technologies could help patients in Hong Kong. He said that the situation in public hospitals was so bad that patients had to wait for an unduly long time for operations and not every hospital had surgical robotic systems for conducting operations. He criticised the Government for failing to deliver basic healthcare services, and remarked that even vaccine was in short supply.

82. S for IT said that surgical robotic systems currently used in Hong Kong were relatively big in size, whereas modern robotic facilities were smaller and would facilitate operations. As for vaccine, while its production required at least six months under the traditional healthcare technology, the process could be expedited significantly to two weeks by using new techniques. This was where I&T could help.

Development of e-sports

Strategy on e-sports

83. Mr Alvin YEUNG was concerned with the Government's strategy on the development of e-sports. He pointed out that the organisation of a major event, such as the Hong Kong E-sports and Music Festival in 2017 in which the Government had devoted \$30 million, was different from the development of an industry. In the same vein, the development of an e-sports venue in Cyberport would not suffice. Furthermore, e-sports had been promoted both as an industry and a sports in other places. Mr YEUNG asked if the Government had any strategy to make e-sports down-to-earth and nurture a positive understanding of e-sports among Hong Kong citizens, in particular parents who viewed e-sports as a game in which their children indulged.

84. S for IT said that the Government's proposal was to establish a world-class venue for holding competitions. The Government as a facilitator would use this venue as a model to demonstrate to the e-sports industry the standards of a world-class venue so that they would in turn develop similar venues in other places in Hong Kong. In addition, the venue would also help train local e-sports players as well as those in the related streams of management, commentator, instructor, etc. The Government's plan was to collaborate with institutes such as the School of Professional and Continuing Education of the University of Hong Kong ("HKU SPACE") which offered related programmes, with a view to developing the e-sports industry in Hong Kong in a balanced manner.

85. Mr Alvin YEUNG considered the location of the Cyberport remote and asked if the Government had plans to promote e-sports in various districts, and cooperate with the industry in organising small-scale activities for local citizens. S for IT said that companies engaged in the e-sports industry were already collaborating with the Cyberport in promoting e-sports. The Government would encourage the industry to develop e-sports venues outside Cyberport.

86. Mr CHAN Chi-chuen expressed concern on whether assistance would be provided to companies not collaborating with the Cyberport on the promotion of the e-sports industry. S for IT said that with regard to support to activities relating to the promotion of the e-sports industry, Cyberport would be open and fair to all stakeholders in the industry. He emphasized that e-sports activities could also be conducted outside Cyberport.

Venues for e-sports competition

87. Mr CHAN Chi-chuen referred to the estimated cost of \$50 million for developing the Cyberport Arcade into a venue for e-sports competitions with a capacity to accommodate 500 spectators. Noting that about six to eight events would be held annually as estimated by the Hong Kong Cyberport Management Company Limited ("HKCMCL"), a wholly-owned subsidiary of HKCDHL, he enquired how long the venue would last and the responsibility for future maintenance. On the other \$50 million to be provided to HKCMCL for supporting the development of the e-sports industry including the organisation of activities, Mr CHAN asked if rental would be collected from the users of e-sports venues in the Cyberport.

88. S for IT emphasized that e-sports competition venues had very strict requirements. Apart from the requirements on height and width, high-speed network connection was also required to minimize delays and facilitate live streaming. S for IT said that the intention was to continue to use the venue as far as possible. He confirmed that rental would be collected from users of the e-sports venues, and that HKCMCL would be responsible for maintenance of the venue.

89. Mr KWONG Chun-yu said that although the Government had set out a series of initiatives to develop the e-sports industry, the shortage of competition venues remained a handicap. Companies in the private sector which wanted to establish e-sports venues had to obtain a Places of Public Entertainment Licence but this, according to his understanding, was not possible for industrial buildings. He asked if the Administration could provide assistance in this respect and expedite actions. He suggested that apart from creating business opportunities, e-sports should also be promoted as a sports with interaction with Hong Kong citizens. Mr Alvin YEUNG expressed similar concerns about assistance to facilitate applications for competition venues by the industry.

90. S for IT said that the Financial Secretary would convene shortly a meeting among bureaux and departments to address the licensing and related problems. ITB had taken forward the development of e-sports in

response to the industry's request and the proposals had been made in consultation with them.

Grooming of e-sports talent

91. Mr AU Nok-hin asked if the Cyberport had plans to train up e-sports related talent such as cameraman, umpire and commentator, and the positioning of Cyberport in this respect. He further enquired if the responsibility for development of the e-sports industry would come under ITB or the Home Affairs Bureau. Dr Elizabeth QUAT also expressed concern regarding the grooming of e-sports talents and enquired about the details.

92. In reply, S for IT said that the Administration was training talent in collaboration with partners such as HKU SPACE. He reiterated that nurturing talent was the key to the development of the e-sports industry, and part of the resources sought would be dedicated to that. Chief Executive Officer, HKCMCL said that HKCMCL would provide subsidy to the e-sports industry in nurturing talent and this would include support for e-sports teams to participate in competitions outside Hong Kong.

Arrangement for scrutiny of this item

93. At 4:32 pm, the Chairman directed that the meeting be suspended for 10 minutes. The meeting resumed at 4:42 pm. At 5:38 pm, the Chairman remarked that, including this item, there were 23 items on the agenda pending FC's deliberation before the end of the current session on 18 July 2018. Given members had been discussing this item for four hours, he considered that the item had been thoroughly discussed. He would conclude the discussion and put the item to vote after all members currently on the wait-to-speak list had spoken.

Motion proposed by a member under paragraph 37A of the Finance Committee Procedure

94. At 6:00 pm, FC voted on whether [a motion](#) proposed by Mr CHAN Chi-chuen under paragraph 37A of the Finance Committee Procedure ("FCP") should be proceeded with forthwith. At the request of members, the Chairman ordered a division. The division bell was rung for five minutes. With the agreement of the Chairman, Mr CHAN Chi-chuen read out his proposed motion during the ringing of the division bell. The Chairman declared that the question on proceeding with the motion forthwith was negated.

Motion moved by a member under paragraph 47 of the Finance Committee Procedure

95. After FC decided against proceeding with the FCP37A motion, Dr Elizabeth QUAT moved without notice a motion under FCP 47 that in the event of further divisions being claimed in respect of any motions or questions under the same agenda item, FC should proceed to each of such divisions immediately after the division bell had been rung for one minute. The Chairman put the motion to vote. The Chairman declared that the motion was carried.

Voting on FCR(2018-19)38

96. There being no further questions from members, the Chairman put the four recommendations pertaining to FCR(2018-19)38 to vote seriatim. At the request of members, the Chairman ordered a division for each vote, and the division bell was rung for one minute for each vote.

The first voting: An injection of \$10 billion into ITF for supporting the continued operation of the existing ITF funding schemes/support programmes and introducing various new initiatives

97. The Chairman declared that 37 members voted in favour of and 7 members voted against the item. The votes of individual members were as follows:

For:

Mr Tommy CHEUNG Yu-yan	Prof Joseph LEE Kok-long
Mr WONG Ting-kwong	Ms Starry LEE Wai-king
Mr CHAN Hak-kan	Mr WONG Kwok-kin
Mrs Regina IP LAU Suk-ye	Mr Paul TSE Wai-chun
Mr Steven HO Chun-yin	Mr Frankie YICK Chi-ming
Mr WU Chi-wai	Mr YIU Si-wing
Mr Charles Peter MOK	Mr LEUNG Che-cheung
Ms Alice MAK Mei-kuen	Mr KWOK Wai-keung
Dr Helena WONG Pik-wan	Dr Elizabeth QUAT
Mr POON Siu-ping	Ir Dr LO Wai-kwok
Mr CHUNG Kwok-pan	Mr Alvin YEUNG
Mr Andrew WAN Siu-kin	Mr LAM Cheuk-ting
Mr Holden CHOW Ho-ding	Mr SHIU Ka-fai
Ms YUNG Hoi-yan	Dr Pierre CHAN
Mr CHAN Chun-ying	Ms Tanya CHAN
Mr CHEUNG Kwok-kwan	Mr HUI Chi-fung
Mr LUK Chung-hung	Mr LAU Kwok-fan
Mr Jeremy TAM Man-ho	Mr Vincent CHENG Wing-shun

Mr Tony TSE Wai-chuen
(37 members)

Against:

Mr LEUNG Yiu-chung
Mr CHAN Chi-chuen
Mr CHU Hoi-dick
Mr AU Nok-hin
(7 members)

Ms Claudia MO
Dr Fernando CHEUNG Chiu-hung
Dr CHENG Chung-tai

98. The Chairman declared that this recommendation was approved.

The second voting: An injection of \$10 billion into ITF for providing financial support to establish research clusters in Hong Kong

99. The Chairman declared that 38 members voted in favour of and 7 members voted against the item. The votes of individual members were as follows:

For:

Mr Tommy CHEUNG Yu-yan
Mr WONG Ting-kwong
Mr CHAN Hak-kan
Mrs Regina IP LAU Suk-ye
Mr Michael TIEN Puk-sun
Mr Frankie YICK Chi-ming
Mr YIU Si-wing
Mr LEUNG Che-cheung
Mr KWOK Wai-keung
Dr Elizabeth QUAT
Ir Dr LO Wai-kwok
Mr Alvin YEUNG
Mr LAM Cheuk-ting
Mr SHIU Ka-fai
Dr Pierre CHAN
Ms Tanya CHAN
Mr HUI Chi-fung
Mr LAU Kwok-fan
Mr Vincent CHENG Wing-shun
(38 members)

Prof Joseph LEE Kok-long
Ms Starry LEE Wai-king
Mr WONG Kwok-kin
Mr Paul TSE Wai-chun
Mr Steven HO Chun-yin
Mr WU Chi-wai
Mr Charles Peter MOK
Ms Alice MAK Mei-kuen
Dr Helena WONG Pik-wan
Mr POON Siu-ping
Mr CHUNG Kwok-pan
Mr Andrew WAN Siu-kin
Mr Holden CHOW Ho-ding
Ms YUNG Hoi-yan
Mr CHAN Chun-ying
Mr CHEUNG Kwok-kwan
Mr LUK Chung-hung
Mr Jeremy TAM Man-ho
Mr Tony TSE Wai-chuen

Against:

Mr LEUNG Yiu-chung
Mr CHAN Chi-chuen

Ms Claudia MO
Dr Fernando CHEUNG Chiu-hung

Mr CHU Hoi-dick
Mr AU Nok-hin
(7 members)

Dr CHENG Chung-tai

100. The Chairman declared that this recommendation was approved.

The third voting: A commitment to inject \$10 billion as equity from CIF to HKSTPC for providing facilities to support healthcare and artificial intelligence and robotics technologies researches, and strengthening support measures for its tenants/incubatees

101. The Chairman declared that 38 members voted in favour of and 6 members voted against the item. 1 member abstained from voting. The votes of individual members were as follows:

For:

Mr Tommy CHEUNG Yu-yan	Prof Joseph LEE Kok-long
Mr WONG Ting-kwong	Ms Starry LEE Wai-king
Mr CHAN Hak-kan	Mr WONG Kwok-kin
Mrs Regina IP LAU Suk-ye	Mr Paul TSE Wai-chun
Mr Michael TIEN Puk-sun	Mr Steven HO Chun-yin
Mr Frankie YICK Chi-ming	Mr WU Chi-wai
Mr YIU Si-wing	Mr Charles Peter MOK
Mr LEUNG Che-cheung	Ms Alice MAK Mei-kuen
Mr KWOK Wai-keung	Dr Helena WONG Pik-wan
Dr Elizabeth QUAT	Mr POON Siu-ping
Ir Dr LO Wai-kwok	Mr CHUNG Kwok-pan
Mr Alvin YEUNG	Mr Andrew WAN Siu-kin
Mr LAM Cheuk-ting	Mr Holden CHOW Ho-ding
Mr SHIU Ka-fai	Ms YUNG Hoi-yan
Dr Pierre CHAN	Mr CHAN Chun-ying
Ms Tanya CHAN	Mr CHEUNG Kwok-kwan
Mr HUI Chi-fung	Mr LUK Chung-hung
Mr LAU Kwok-fan	Mr Jeremy TAM Man-ho
Mr Vincent CHENG Wing-shun	Mr Tony TSE Wai-chuen

(38 members)

Against:

Mr LEUNG Yiu-chung	Ms Claudia MO
Mr CHAN Chi-chuen	Dr Fernando CHEUNG Chiu-hung
Mr CHU Hoi-dick	Dr CHENG Chung-tai

(6 members)

Abstained:

Mr AU Nok-hin
(1 member)

102. The Chairman declared that this recommendation was approved.

The fourth voting: A commitment to inject \$300 million as equity from CIF to HKCDHL for strengthening the support to its tenants/incubatees and promoting the development of e-sports in Hong Kong

103. The Chairman declared that 38 members voted in favour of and 7 members voted against the item. The votes of individual members were as follows:

For:

Mr Tommy CHEUNG Yu-yan	Prof Joseph LEE Kok-long
Mr WONG Ting-kwong	Ms Starry LEE Wai-king
Mr CHAN Hak-kan	Mr WONG Kwok-kin
Mrs Regina IP LAU Suk-ye	Mr Paul TSE Wai-chun
Mr Michael TIEN Puk-sun	Mr Steven HO Chun-yin
Mr Frankie YICK Chi-ming	Mr WU Chi-wai
Mr YIU Si-wing	Mr Charles Peter MOK
Mr LEUNG Che-cheung	Ms Alice MAK Mei-kuen
Mr KWOK Wai-keung	Dr Helena WONG Pik-wan
Dr Elizabeth QUAT	Mr POON Siu-ping
Ir Dr LO Wai-kwok	Mr CHUNG Kwok-pan
Mr Alvin YEUNG	Mr Andrew WAN Siu-kin
Mr LAM Cheuk-ting	Mr Holden CHOW Ho-ding
Mr SHIU Ka-fai	Ms YUNG Hoi-yan
Dr Pierre CHAN	Mr CHAN Chun-ying
Ms Tanya CHAN	Mr CHEUNG Kwok-kwan
Mr HUI Chi-fung	Mr LUK Chung-hung
Mr LAU Kwok-fan	Mr Jeremy TAM Man-ho
Mr Vincent CHENG Wing-shun	Mr Tony TSE Wai-chuen

(38 members)

Against:

Mr LEUNG Yiu-chung	Ms Claudia MO
Mr CHAN Chi-chuen	Dr Fernando CHEUNG Chiu-hung
Mr CHU Hoi-dick	Dr CHENG Chung-tai
Mr AU Nok-hin	

(7 members)

104. The Chairman declared that this recommendation was approved.

Item 2 — **FCR(2018-19)40**
HEAD 55 — **GOVERNMENT SECRETARIAT: COMMERCE AND ECONOMIC DEVELOPMENT BUREAU (COMMUNICATIONS AND CREATIVE INDUSTRIES BRANCH)**
Subhead 700 — **General non-recurrent**
New item — **"Subsidy Scheme to Extend Fibre-based Networks to Villages in Remote Areas"**

105. The Chairman advised that this item sought the approval of FC for a new commitment of \$774.4 million under Head 55 – Government Secretariat: Commerce and Economic Development Bureau ("CEDB") (Communications and Creative Industries) for implementing a subsidy scheme to extend fibre-based networks to villages in remote areas. The item had been discussed by the Panel on Information Technology and Broadcasting at its meeting on 14 May 2018. Mr Charles Peter MOK, Chairman of the Panel on Information Technology and Broadcasting, reported on the discussion of the Panel on the item. He said that the Panel was supportive of the Administration's funding proposal. Panel members had urged the Administration on previous occasions to provide broadband services to people living in remote areas. While Panel members generally welcomed the Administration's proposal to extend fibre-based networks to villages in remote areas, they were disappointed with the rolling out of such networks only to the vicinity of the entrances of the 300 villages and not to the household of the villagers. The Panel requested the Administration to take appropriate measures simultaneously, such as using mobile communications technology, to provide higher speed broadband services to people living in remote areas.

Selection of villages

106. Mr Alvin YEUNG enquired about the basis for selection of the 300 villages to be covered under the subsidy scheme, as he noted that some villages which were not selected were more remote than some selected ones.

107. Director-General of Communications, Office of the Communications Authority ("D-G of C, OFCA") explained that the Office of the Communications Authority ("OFCA") compiled the preliminary list of villages based on the villages specified in the Rural Representative Election Ordinance, the List of Recognized Villages under the New

Territories Small House Policy promulgated by the Lands Department, and the coverage information submitted by fixed network operators ("FNOs"). She added that currently only copper-based networks providing broadband services at a speed of 10 megabits per second ("Mbps") or below were available to these 300 villages on the preliminary list. OFCA had consulted the nine relevant District Councils ("DCs") and 27 Rural Committees ("RCs"), and would take into account their comments and the latest developments of the villages before finalizing the list of villages to be covered under the subsidy scheme.

108. Mr LEUNG Che-cheung appreciated that the subsidy scheme was people-oriented and he understood the Government's difficulty in taking care of each and every household. While noting that the list of villages might be adjusted, he asked if the final list of villages to be covered under the subsidy scheme would be announced. D-G of C, OFCA undertook to announce the confirmed list of villages which would be covered under the scheme.

[*Post-meeting note:* The supplementary information provided by the Administration was issued to members vide LC Paper No. FC28/18-19(01) on 29 October 2018.]

Selection of fixed network operators

109. Mr LEUNG Che-cheung enquired if the Government had a list of approved fixed network operators ("FNOs") whom villagers could approach for rolling out the networks to their households. He hoped more FNOs would participate in the scheme as fewer FNOs would mean higher costs for residents as a result of less competition and choice.

110. D-G of C, OFCA said that those FNOs who were awarded the tender would naturally have the incentive to roll out networks within the villages. Further, they would be required to open up at least 50% of the capacity of the subsidized facilities (including fibre-based submarine cables) for use by other FNOs for free. In response to Mr LEUNG's question, she affirmed that all FNOs eligible for participation in the tender exercise would need to have the relevant licence, and FNOs to be ultimately awarded the tender would also be announced. She also advised that the 300 villages would be grouped into six projects for tender.

111. While expressing support for the subsidy scheme which was of significant help in the development of Hong Kong into a smart city, Dr Elizabeth QUAT enquired if the six projects would be awarded to different FNOs, whether a cap would be set on the number of projects to be

awarded to an FNO, and whether the population covered in the six projects would be similar. D-G of C, OFCA said that more details would be available at the next stage when the Government devised the tender procedure. As the Government aimed to encourage more FNOs to participate in the subsidy scheme, consideration would be given to setting a cap on the number of projects to be awarded to an FNO. In grouping the villages into the six projects, OFCA had taken into account the geographical locations of the villages; varying degree of technical difficulties in implementation of the projects; as well as the need to offer more economic incentives for those projects which involve a higher degree of technical constraints.

112. Ms YUNG Hoi-yan spoke in support of the proposal. She sought clarification on whether the speed of 25 Mbps would be shared by an entire village or would be available to each individual subscriber. She also asked whether the Administration would give higher score to tender proposals which would benefit more villagers and commit to offering higher speed of broadband services.

113. D-G of C, OFCA said that if an FNO could reach an agreement with the villagers on enhancing the network within the village, the speed would not be limited to 25 Mbps but could be increased to at least 500 Mbps as in the case of the urban district. She explained that evaluation of a tender proposal would involve both the technical aspect and the amount of subsidy requested. An FNO who undertook to offer a broadband speed higher than 25 Mbps would get a higher score, and such a commitment could only be made possible if the FNO could enhance the copper-based networks within the villages to fibre-based networks. The commitment so made by an FNO would be written into the agreement to be signed between the FNO and the Government, and penalties would be imposed if the commitments could not be realized. In response to Ms YUNG, D-G of C, OFCA confirmed that the two end locations of the lead-in connection for each village, namely, the network interconnection point and the network termination point would be specified in the tender. While affirming that consultation would be made with DCs, RCs and other relevant persons in determining the two end locations of the lead-in connection, D-G of C, OFCA stressed that it would also be necessary to take into account the technical aspects such as the current termination points of the existing networks.

114. On the requirement for FNOs to open up at least 50% of the network for use by other FNOs, Mr AU Nok-hin enquired about the reason for setting such a percentage. He also enquired about the responsibility for future maintenance of the subsidized facilities, and whether the

Administration would introduce other measures if the broadband service costs remained high in remote villages after the implementation of the subsidy scheme.

115. D-G of C, OFCA said that the scheme only subsidized the capital cost incurred by FNOs. Maintenance of the network would be the responsibility of the FNOs concerned, although they could recover from other FNOs sharing the subsidized facilities reasonable maintenance expenses. The Government had to strike a balance between promoting competition and participation by more FNOs on the one hand, and providing sufficient incentives for FNOs to bid for the tender on the other. As such, the Government considered it appropriate to set the opening up percentage at 50%.

116. Mr Charles Peter MOK expressed worries that few or even no FNOs might be interested in building the new fibre-based networks or leasing such facilities. Some telecommunications operators had contacted him after learning about the Government's initiative from the Policy Address as they were uncertain about the details. He suggested that the Government should discuss the scheme with FNOs at an early stage, adding that the discussion should be held fairly with all parties concerned. In addition, Mr MOK said that some FNOs were worried about business opportunities after the networks had been rolled out, and held the view that the Government should render assistance in co-ordinating the promotion of services.

117. Dr Junius HO said that he supported the proposal, and enquired whether the 5G technology could replace the fibre-based fixed network. Dr HO held the view that such technology might be used currently in remote villages in the Mainland, and suggested that the Government could include such specifications in the tender to minimize obstacles.

118. In response, Senior Regulatory Affairs Manager (Market and Competition 13), OFCA advised that the two technologies complemented each other. While the fibre-based fixed network provided the capacity to the area concerned, 5G was a wireless technology which enabled convenient access of data service within a relatively small area. An FNO could choose to use either fibre-based fixed network or wireless technology (such as 5G) for the last mile connection to reach the service speed committed in the tender proposal, and the Government would not impose restrictions on the use of technology.

Network coverage

Within villages

119. Mr Alvin YEUNG said that many FNOs who had rolled out networks to villages had encountered difficulties with the last mile, i.e. coverage of networks within the villages. Complex issues such as land rights, road rights, permits for excavation works etc. had prevented them from extending the networks from the entrances of the villages concerned to the villagers' household. He asked if the Administration was aware that rolling out such networks within villages involved conflict of interest and might only be made possible through extremely high costs, and enquired how the Administration would ensure that the subsidy would be expended properly.

120. D-G of C, OFCA said that as land within the villages was mostly private land, it was not possible for the Government to make it mandatory for the FNOs to extend their fibre-based networks into the private village areas. Nevertheless, if FNOs committed in the tender proposals to provide high-speed broadband services within the villages, their proposals would get higher scores in the technical assessment. As high-speed broadband services could only be achieved if networks were extended within the villages, such tender design would encourage FNOs to reach commercial agreements with the villagers concerned to roll out the fibre-based networks within the villages.

121. In response to Mr YEUNG's question on whether FNOs had to produce the agreements reached with the villagers to the Administration when bidding for the tender, D-G of C, OFCA said that this would not be possible since at that early stage, FNOs would not know whether they would be awarded the tender. However, the commitments made by those FNOs awarded with tender would be incorporated into the agreements to be entered into with the Government. OFCA would monitor whether such commitments would be met, and would impose penalties such as deferred payment of subsidies, deduction of the amount of subsidies or calling on the performance bond in the event of failure in delivery of commitments.

122. Mr AU Nok-hin suggested that in order to enhance network coverage, the Administration should either consider a subsidy scheme to address the network coverage problem within the villages, or resolve the fundamental private land rights issue altogether.

123. Secretary for Commerce and Economic Development ("SCED") recalled that when he visited the North DC in August 2017, DC members conveyed the concern about the absence of fibre-based network coverage within villages despite the fact that Hong Kong was a prosperous city. He said that this might be due to different circumstances such as inadequate fibre-based backbone coverage, land rights, property rights, absence of owners' corporations or other forms of building management. SCED pointed out that there were currently 170 000 people in 300 villages who could only access to broadband services at a speed of 10 Mbps or below. If fibre-based networks could reach the vicinity of the village entrances, there would be incentive for operators to cover the last mile by rolling out networks into the villages, and villagers could have more choices of broadband services. He added that the last mile might be easier for some but harder for others, since some villages were densely populated areas whilst some were confronted with land rights or other problems involving significant investment or economic constraints. In response to Mr AU's question, SCED said that the \$774.4 million was an estimate and the ultimate amount would depend on the tender bid price for the six projects.

124. Mr CHU Hoi-dick said that fibre-based network had already been rolled out in 2015 in the village in Kam Sheung Road where he resided, but broadband service was still unavailable in 2018. There might be different reasons for such situations, and this illustrated that not as many as 170 000 people would benefit from the subsidy scheme. He asked if the Government would visit villages where networks had been rolled out within the villages to understand the situation and study the problems involved. He held the view that the Government should learn from the experience of FNOs concerned in Tai Po, Yuen Long and the North District with a view to coming up with feasible operation means. He added that some village stakeholders were shareholders of the FNOs concerned.

125. SCED said that the Government understood that there were many reasons inhibiting the rolling out of fibre-based networks within the villages and was doing all things possible to resolve the problems. While the rolling out of fibre-based networks to a village used to be purely a commercial activity of an FNO, the situation would be different with the introduction of the subsidy scheme which would provide financial incentives for FNOs and where competition would be encouraged.

126. Mr CHU Hoi-dick said that while rolling out network to the vicinity of village entrances was feasible as it involved public roads which were under the Government's control, it would be impractical to assume that FNOs could deal with issues within the villages. He considered it

impossible for the Government to achieve its policy objective without making reference to successful experiences.

Outlying islands

127. Mr CHAN Hak-kan spoke in support of the scheme. He remarked that the current coverage of fibre-based network was not ideal. He enquired if the scheme would cover outlying islands such as Cheung Chau and Lamma Island which had large population. Mr Charles Peter MOK remarked that as the costs of rolling out fibre-based submarine cables were very substantial, the Government should explore if there were existing submarine cables which were available for sharing in order to save resources.

128. Permanent Secretary for Commerce and Economic Development (Communications and Creative Industries) ("PS(CCI)") confirmed that the proposal included the rolling out of three submarine fibre-based cables to the Lamma Island, Cheung Chau and Peng Chau where their broadband speed would be enhanced significantly after the implementation of the subsidy scheme. He added that even if just copper-based networks were used for the last mile connection instead of fibre-based networks, the broadband speed would still be enhanced as the bandwidth and capacity of the current bottleneck (i.e. backbone connection between the main island to these outlying islands) would be upgraded.

129. Dr Elizabeth QUAT enquired if these three islands were the mostly populated ones, and whether the tender would list out the specific islands to be covered.

130. PS(CCI) said that some small islands which were less populated than the three islands could also get enhanced broadband services through the wireless technology. However, this would not apply to islands such as Tung Ping Chau on account of its distance and unstable electricity supply. D-G of C, OFCA supplemented that the tender would list all the villages to be included in the subsidy scheme, including the three islands as well as other smaller islands such as Tap Mun, Kat O and Ap Chau. She pointed out that stable electricity supply was a prerequisite before an island could be considered for inclusion in the subsidy scheme.

Villages in the urban area and old tenement buildings

131. Mr WU Chi-wai said that the network problem existed not only in remote villages but also in villages in the urban area and in old tenement buildings. He cited his office in Ngau Chi Wan Village as an example.

Although fibre-based network had been rolled out to the village entrance, fibre-based broadband service was still not available in his office because operators either declined to roll out the network within the village or charged high costs for such works. Operators also refused to roll out the network to units in old tenement buildings. While expressing support for the subsidy scheme, Mr WU held the view that FNOs should also be subsidised for improving fibre-based network coverage in villages in the urban area and in old tenement buildings. He enquired if the Administration had any strategy to provide higher speed broadband services to villages in the urban area and to old tenement buildings.

132. D-G of C, OFCA said in response that the telecommunications market in Hong Kong had been fully liberalized. The provision of service, network coverage and the type of technologies adopted were primarily determined by operators based on their commercial considerations. It was not possible for the Government to compel FNOs to provide high-speed broadband services. She said that residents in villages in the urban area and in old tenement buildings were relatively better off than those in remote villages as other choices such as the use of mobile broadband services were available. While the Government had no plan at this stage to provide financial incentive to FNOs for offering enhanced broadband services to households in the urban area, it would continue to encourage and facilitate FNOs to improve their network coverage and services in urban area.

133. Dr Elizabeth QUAT enquired if the Administration had estimated the number of villages and old tenement buildings which were not covered in the subsidy scheme but would be so covered in future schemes. SCED said that as the Government had to complete the subsidy scheme first and observe its effectiveness, it was not possible to give any undertaking at this stage. He added that during the consultation with DCs and RCs, the Government noted that some villages were either sparsely populated or abandoned and the need for their coverage did not arise. In any event, the provision of telecommunications infrastructure in various districts would facilitate future works.

Coordination by the Government

134. Mr LAM Cheuk-ting declared interest as a member of North DC. He said that his office was in Shek Wu Hui of Sheung Shui where broadband speed in many old tenement buildings was far from ideal. While indicating support for the subsidy scheme, he saw a need for the Government to go one step further by coordinating efforts among various parties, such as CEDB examining in conjunction with ITB the network

coverage situation in old tenement buildings, villages and old districts; and the Home Affairs Department ("HAD") and the Lands Department working jointly with RCs, village representatives, etc. in resolving the complex issues of land rights, road rights and excavation works. Only by so doing would costs be reduced and disruption to citizens be minimized.

135. SCED agreed with the need for more coordination, and said that was why the Government had undertaken consultation with various parties concerned. He said that if the issue was left with FNOs, they might only choose to roll out network to villages which reaped the most financial benefits. The Government had decided to tackle the problem with the use of Government money which, together with publicity on the scheme which had been devised to encourage competition and participation as well as liaison with district organizations, should bring benefits to all parties concerned. He was hopeful of assistance being rendered jointly by local residents, RCs, village representatives, etc. In response to Mr LAM's point on the focal point of contact within the Government setup, SCED advised that villagers could make initial contact with village representatives who in turn could approach HAD. After FNOs had been selected and announced in the future, the relevant FNOs would have to liaise with local residents on issues such as road works. If further assistance was required, HAD and other government departments as well as village representatives and DC members would all have a role.

136. At 6:55 pm, the Chairman directed that the meeting be extended by 15 minutes and he would put the item to vote after all members currently on the wait-to-speak list had spoken.

Voting on FCR(2018-19)40

137. There being no further questions from members, the Chairman put item FCR(2018-19)40 to vote. The Chairman declared that he thought the majority of the members present and voting were in favour of the item. The item was approved.

138. The meeting ended at 7:06 pm.