

**立法會**  
**Legislative Council**

LC Paper No. CB(4)187/17-18(05)

Ref. : CB4/PL/ITB

**Panel on Information Technology and Broadcasting**

**Meeting on 13 November 2017**

**Updated background brief on  
Capital Works Reserve Fund Head 710 Computerization Subhead A007GX  
(Block Allocation) – New administrative computer systems**

**Purpose**

This paper summarizes the major concerns and comments expressed by members on the last funding proposal for Block Allocation under the Capital Works Reserve Fund ("CWRF") Head 710 Computerization Subhead A007GX ("Block Allocation") – New administrative computer systems.

**Background**

2. CWRF Head 710 Computerization is the Head of Expenditure used for funding administrative computer systems, consultancies for feasibility studies and systems development. These projects serve to deliver the strategic outcome of the action area "Enabling the next generation of public services" under the Digital 21 Strategy. Funding mechanism varies according to whether a computerization project costs more than \$10 million<sup>1</sup>, between \$200,000 and \$10 million, and less than \$200,000<sup>2</sup>.

3. Projects that cost between \$200,000 and \$10 million are funded through a Block Allocation under CWRF Head 710 Subhead A007GX. The Government Chief Information Officer ("GCIO") has the delegated power to approve projects and authorize expenditure under the Block Allocation. Projects funded this way

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<sup>1</sup> These projects are subject to the approval of the Finance Committee and to be funded under separate subheads of Head 710.

<sup>2</sup> These projects are approved by individual bureaux/departments and funded through their respective operational expenses subheads under the General Revenue Account.

are normally called "block vote projects". The Block Allocation for a given financial year will fund the estimated cashflow requirements arising from block vote projects proposed by bureaux/departments ("B/Ds") and approved or to-be approved by GCIO.

4. Each year, the Office of the Government Chief Information Officer ("OGCIO") estimates the funding requirements for the Block Allocation in the following financial year by taking into consideration the cashflow requirements of approved block vote projects, new proposals submitted by B/Ds and anticipated new projects for various e-Government initiatives to be submitted, as well as the spending position of the Block Allocation.

5. For 2017-2018, the Finance Committee, having considered the recommendations of the Public Works Subcommittee, approved an allocation of \$990 million for the Block Allocation Subhead A007GX under Head 710 at its meeting held on 18 March 2017. The key expenditure items are set out at Annex 10 in Enclosure 10 to PWSC(2016-17)37 (**Appendix I**).

6. For 2018-2019, funding would be necessary to cover the cashflow requirement of on-going projects as well as new initiatives to support the implementation of the Policy Agenda as announced with the 2017 Policy Address. Extract from the relevant chapter of the Policy Agenda is in **Appendix II**.

### **Previous discussions**

7. At the meeting of the Panel on Information Technology and Broadcasting ("the Panel") held on 14 November 2016, members were consulted on the funding proposal of \$990 million in Block Allocation for 2017-2018. Members supported in principle the funding proposal. The major views and concerns expressed by members were summarized in the ensuing paragraphs.

### **Promoting the Government Cloud Platform**

8. Some members expressed concerns over the measures the Administration would adopt to increase the adoption rate and technological advance of Government Cloud Platform ("GovCloud"). The Administration advised that OGCIO had recently issued guidelines reiterating that B/Ds should either use public cloud service or GovCloud service for development or revamping of their e-services.

### Use of big data analytics

9. Some members enquired about the Administration's target, policy and strategy for the development and application of big data, and how it would ensure that new features and functionality of advanced technology could be used by B/Ds. The Administration advised that the Government would continue to release free data and information in digital formats for use by third party application developers to develop innovative applications. The Government would develop more application programming interfaces to facilitate their re-use. On ensuring that new features and functionality of advanced technology could be used by B/Ds, OGCIO would conduct regular workshops to update B/Ds on the availability of new hardware and software in the market. OGCIO would also issue guidelines for conducting regular software upgrade. Through procurement under the Standing Offer Agreement ("SOA") for information and communications technology ("ICT") products, B/Ds were supplied with updated versions of software and hardware for daily operational use.

10. Members were interested in how the Administration received public views on big data application and whether they would be analyzed. The Administration informed the Panel that views on big data application were collected by the relevant B/Ds. The Government would make use of mobile technology and big data analytics to facilitate the public to access government information and services, and enhance public services through better planning by B/Ds. Examples of new projects applying cloud technology and big data included the "Pilot Cloud Development Platform for Big Data Analytics Model" to be implemented by OGCIO.

### Cyber and system security

11. Some members enquired whether a unified security system would be installed against security threats faced by B/Ds. The Administration responded that firewalls and protective measures against ransomware, spams, and computer virus, etc., had been adopted in the central infrastructure, and system security measures were monitored daily. Individual B/Ds could install additional devices to protect their systems and information as necessary, and they were advised to conduct security risk assessment of, and audit on, their computer systems at least every two years.

12. Members queried the time interval by which the Administration reviewed the reliability of its system security measures. Members also queried how the security risk level of the Government computer systems compared to other institutions such as banks. The Administration advised that system security measures were monitored daily by the Government and the security risk

level of the Government computer systems was not high as indicated in, for example, the reports on ransomware by Kaspersky Lab and Symantec Corporation in 2016. The security risk level of the Government computer systems was comparable to that of banks.

#### New computerization projects in 2017-2018

13. Some members enquired about computer system upgrade and technology refresh in the previous financial year, and whether B/Ds had initiated the system upgrades and technology refresh projects on their own initiatives or at OGCI's request. Members further enquired about the reasons for the differences in project estimates for different B/Ds to upgrade their systems, and whether there was any limit on the cashflow granted for such purpose.

14. The Administration advised that guidelines on system upgrade and technology refresh had been issued for B/Ds; enhanced features had been included in the revamped GovHK portal ([www.gov.hk](http://www.gov.hk)) to make it more visually appealing and easier to users.

15. On the reasons for the differences in project estimates for different B/Ds to upgrade their systems, the Administration advised that some B/Ds needed to upgrade not only the software of their websites but also the hardware, such as servers, etc., which accounted for the differences. Certain assessment criteria were set by OGCI for the funding required by B/Ds to upgrade and refresh their computer systems.

#### Project performance

16. Some members expressed concern about the performance and the results of the projects funded under the Block Allocation. The Administration advised that in the past five years, all projects funded under the Block Allocation had been completed within budget, 96.6%-99.2% of projects had met the agreed specifications and 96.6%-97.9% of projects had achieved intended benefits.

17. The Administration informed the Panel that B/Ds had to submit to OGCI a Post Implementation Departmental Return setting out the achievements made and the reasons for any deviation from the original objectives, budget and schedule of the project within six months after the live-run of a system or completion of a study/programme. Panel members noted that less than two-thirds of projects were completed on schedule in 2015. Members enquired about measures to be taken by the Administration to improve project performance and operational efficiency for delivering and installing new computer equipment for

B/Ds. Members also enquired about measures to be taken to ensure that both computer software and hardware used by B/Ds were updated versions and models, and whether there was deployment of funds for urgent or higher priority projects under the proposed Block Allocation.

18. The Administration advised that the delay in finalizing user requirements and procurement, etc., had affected the timely completion of the projects. To enhance efficiency for delivery of computer equipment and ensure their versions and models were updated, B/Ds were encouraged to procure the products under SOA for ICT products. Funds were available for urgent or higher priority projects under the proposed Block Allocation for B/Ds which had urgent projects for implementation.

### **Latest position**

19. The Administration will brief the Panel on 13 November 2017 on the funding requirement for 2018-2019 for the implementation of computerization projects under the Block Allocation.

### **Relevant papers**

20. A list of the relevant papers is set out in the **Appendix III**.

**Enclosure 10 to PWSC(2016-17)37**

**Proposed Allocation in 2017-18 for the Block Allocation under  
Head 710 – Computerisation**

The provision sought for the only block allocation **Subhead A007GX** under **Head 710** is \$990 million. This is same as the approved allocation for 2016-17.

- 2. Details on the key expenditure items are set out at **Annex 10**.

**Capital Works Reserve Fund  
Head 710 Subhead A007GX**

*New Administrative Computer Systems*

Ambit : Administrative computer systems and consultancies for feasibility studies and systems development each costing between \$200,001 and \$10 million.

<b>Controlling Officer</b>	<b>Allocation for 2016-17 \$ million</b>	<b>Estimate for 2017-18 \$ million</b>	<b>Percentage change as compared with the 2017-18 allocation</b>
Government Chief Information Officer	990.00	990.00	—

**Part I : On-going key items**

<b>Project description</b>	<b>Project Estimate \$ million</b>	<b>Estimate 2017-18 \$ million</b>
1. Replacement of network equipment and systems, Food and Environmental Hygiene Department	9.90	5.33
2. Map application programming interfaces, Lands Department	9.82	4.74
3. Redevelopment of e-leave system, Civil Service Bureau	9.77	3.66
4. Pilot run of electronic submission of court case documents for Judiciary, Department of Justice	8.98	3.87
5. Enhancement of web-based school administration and management system, Education Bureau	8.94	3.61
6. Confidential messaging application, Leisure and Cultural Services Department	8.90	5.32
7. Upgrade of departmental portal and IT infrastructure, The Treasury	8.51	2.15
8. Enhancement of e-passport self-service kiosk, Immigration Department	7.89	4.21
9. Departmental information technology plan study, Rating and Valuation Department	4.64	2.84
10. IT security enhancement, risk assessment and audit, Government Logistics Department	4.10	2.11

**Annex 10 to PWSC(2016-17)37**

**Head 710 Subhead A007GX – Continued**

**Part II : Proposed new items**

<b>Project description</b>	<b>Project Estimate \$ million</b>	<b>Estimate 2017-18 \$ million</b>
1. Revamp of enterprise information management system, Efficiency Unit	9.53	4.53
2. Technology refresh for property stamping system, Inland Revenue Department	8.59	1.20
3. Technology refresh for minor employment claims integrated processing system, Labour Department	6.58	2.54
4. Enhancement of client information system for central referral of rehabilitation services—disabled pre-schoolers sub-system and child protection registry, Social Welfare Department	4.94	1.60
5. Map-based data visualisation and extraction features in public sector information portal, Office of the Government Chief Information Officer	4.25	1.45
6. Upgrade of email system and IT infrastructure, Audit Commission	4.23	2.30
7. Implementation of laboratory information system for non-clinical microbiology laboratory, Department of Health	3.33	1.44
8. IT security audit for office automation system and Hong Kong accreditation service system, Innovation and Technology Commission	3.13	2.08
9. Enhancement of IT security, Correctional Services Department	2.98	1.98
10. Data management system for mandatory energy efficiency labelling scheme (phase 3), Electrical and Mechanical Services Department	2.93	1.95



**Annex 10 to PWSC(2016-17)37**

**Head 710 Subhead A007GX – Continued**

**Part III : Others**

	<b>Estimate 2017-18 \$ million</b>
About 680 other on-going and new items with expected expenditure in 2017-18	931.09
<b>Total of Parts I to III :</b>	<b>990.00</b>

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### Innovation and Technology

- Plan for the setting up of key technology collaborative platforms in areas where Hong Kong has strong research and development (R&D) capabilities (such as biotechnology) and bring in internationally-renowned universities, research institutes and innovation and technology companies to join force with the local R&D community to carry out forward-looking collaborative R&D projects with social benefits, in order to bring together top quality talents from around the world and enhance the standards of local technology talents. (ITB) (New Initiative)
- Continue to undertake statutory planning procedures for the Lok Ma Chau Loop area according to the proposed land use planning in order to support the development of the Hong Kong/Shenzhen Innovation and Technology Park. (DEVB)
- Support the Hong Kong Science and Technology Parks Corporation in constructing the InnoCell adjacent to the Science Park to provide residential units and ancillary facilities for tenants/incubatees of the Science Park. (ITB)
- Support the 16 Partner State Key Laboratories and six Hong Kong branches of the Chinese National Engineering Research Centres to conduct R&D activities in a diverse range of disciplines. (ITB)
- Conduct a preliminary planning study on the development of an industrial estate near the Liantang/Heung Yuen Wai boundary control point. (ITB)
- Promote venture capital funds to invest in local innovation and technology start-ups through launching the Innovation and Technology Venture Fund. (ITB)
- Cyberport will join and support the Government's Space Sharing Scheme for Youth to provide some 20 000 square feet of off-site Smart-Space co-working space to further its support for innovation and technology start-ups. (ITB) (New Initiative)
- Facilitate trials of autonomous vehicles at appropriate locations. (THB) (New Initiative)
- Commence a feasibility study on the installation of in-vehicle units for better traffic management, tunnel toll payment, etc. Subject to the findings of the study and discussions with relevant stakeholders, we will explore the feasibility of installing in-vehicle units by owners of different types of vehicles on a voluntary basis. (THB) (New Initiative)

- Install a new generation of on-street parking meters which provide parking space vacancy information and accept remote payment through mobile applications. (THB) (New Initiative)
- Develop an "all-in-one" transport mobile application to facilitate one-stop search for walking, driving, public transport and real-time traffic information by the public. (THB) (New Initiative)
- Explore incorporating innovation and technology as a criterion into the procurement arrangements, rather than solely considering which is the lowest priced bid, in order to encourage local technological innovation. (ITB/FSTB) (New Initiative)
- Study the feedback from various sectors on the consultancy report with a view to publishing the Smart City Blueprint for Hong Kong within this year; and inject resources for proceeding immediately with the following projects to lay down an important foundation for smart city development:
  - providing an "eID", a key digital infrastructure for the development of smart city, for all Hong Kong residents, allowing them to use a single digital identity and authentication to conduct Government and commercial transactions online, which would foster the development of the new economic service model that emphasises direct interface with residents and consumers;
  - launching a pilot Multi-functional Smart Lampposts scheme at selected urban locations. The Smart Lampposts would provide convenient data services and collect various types of real-time city data, help enhance city and traffic management, and would complement Hong Kong's future infrastructure development for 5G mobile communications technology; and
  - reforming the development technology of e-Government systems and build a big data analytics platform to support the adoption of cloud services and new information technology by government bureaux and departments, thereby enhancing operational efficiency and cyber security. (ITB) (New Initiative)
- Establish a high-level and cross-bureau Steering Committee on Innovation and Technology, chaired by the Chief Executive, to examine and steer innovation and technology measures and smart city projects, to ensure that innovation and technology development of Hong Kong is driven in a highly efficient manner. (ITB) (New Initiative)
- Promote the use of technology by government departments to enhance their service quality through the earmarked funding of \$500 million. (ITB)

- Continue to subsidise, through the Innovation and Technology Fund for Better Living, innovation and technology projects which will bring more convenient, more comfortable and safer living to the public or will address the needs of specific community groups. (ITB)
- Continue to encourage car park operators in Kowloon East to provide real-time parking vacancy information for the convenience of motorists, thereby also helping to reduce traffic. Currently, real-time information of over half of the hourly parking spaces in the area is available to the public. (DEVB)
- Proceed to establish a Common Spatial Data Infrastructure, a geo-platform for the integration, exchange and sharing of geographic spatial data, to support the development of a smart city. (DEVB)
- Further carry out proof-of-concept trials relating to smart city development in Kowloon East to examine the effectiveness of different innovative concepts and their implementation modes and strategies. These trials will cover a kerbside loading/unloading bay monitoring system, illegal parking monitoring system, multi-functional smart lampposts, smart rubbish bin system, energy efficiency data system, and sharing of real-time roadworks information, etc. (DEVB)
- Continue to collaborate with different research and academic institutions, using Kowloon East as a major component in investigating smart city development, on subjects including a common digital platform with geographic information system functionality, tree health alert system, data mining techniques, and environmental air quality forecast, etc. (DEVB)
- Update the permanent exhibitions of the Hong Kong Science Museum and strengthen the museum's efforts on promoting Science, Technology, Engineering and Mathematics (STEM) education. (HAB) (New Initiative)

## List of relevant papers

Issued by	Meeting date/ Issue date	Paper
Panel on Information Technology and Broadcasting	14 November 2016	<p>Administration's paper on Capital Works Reserve Fund Head 710 Computerization Subhead A007GX (Block Allocation) – New administrative computer systems  <a href="#">LC Paper No. CB(4)58/16-17(03)</a></p> <p>Updated background brief on Capital Works Reserve Fund Head 710 Computerization Subhead A007GX (Block Allocation) – New administrative computer systems  <a href="#">LC Paper No. CB(4)58/16-17(04)</a></p> <p>Minutes of meeting  <a href="#">LC Paper No. CB(4)251/16-17</a></p>