

**CONTROLLING OFFICER'S REPLY**

**SB749**

**(Question Serial No. 5757)**

Head: (30) Correctional Services Department

Subhead (No. & title): ()

Programme: (1) Prison Management

Controlling Officer: Commissioner of Correctional Services (WOO Ying-ming)

Director of Bureau: Secretary for Security

Question:

Regarding the application of technology and other measures to be explored by the Correctional Services Department in the future, please tabulate the following information:

Correctional institution	Enhancement required for daily operation of correctional institution	Study approach	Expenditure involved (\$)	Estimated year of completion

Asked by: Hon CHEUNG Chiu-hung, Fernando (LegCo internal reference no.: 584)

Reply:

The Correctional Services Department (CSD) has been proactively developing "Smart Prison". The applied technology projects being implemented or studied are tabulated below:

Correctional institution	Enhancement required for daily operation of correctional institution	Study approach	Expenditure involved	Estimated year of completion of study
<b>A. Integrated Custodial and Rehabilitation Management System (iCRMS)</b>				
All correctional institutions	In 2016, CSD was granted funding by the Legislative Council to develop the iCRMS and to enhance the capacity of the existing information technology (IT) infrastructure, so as to improve the operational efficiency in the long run and to provide a good foundation for CSD to apply innovation and technology in the custodial management and rehabilitation programmes. The project involves establishing a core network infrastructure with enhanced network security, connectivity and resilience, which can facilitate the development of “Smart Prison” through further setting up of an Internet of Things network as required. In addition, the iCRMS will establish a centralised hosting platform for data storage and business application processing with enhanced system computing and recovery capability. The platform can provide greater flexibility of system expansion for developing “Smart Prison”, and also lay a cornerstone for correctional data analytics.	CSD has obtained professional advice on project management from the Office of the Government Chief Information Officer and commissioned a contractor to design and implement the project details.	A non-recurrent expenditure of about \$352.75 million.	The project is in the stage of application design and system upgrade. The whole project is expected to come into operation in 2023.
<b>B. Security and Monitoring System</b>				
<b>(1) Video Analytic Monitoring System</b>				
4 dormitories of Pik Uk Prison	<p>Correctional officers are currently required to carry out patrols and conduct visual checks on persons in custody (PICs) at intervals of not more than 15 or 20 minutes after PICs return to their cells, to ensure the discipline and safety of PICs.</p> <p>CSD introduced the “Video Analytic Monitoring System”, which is a closed circuit television (CCTV) system equipped with “video analytic” functions. By comparing the real-time images collected, the system can detect abnormal behaviours of PICs, including fighting, suicide by hanging and covering the CCTV cameras. This helps ensure that PICs are constantly under close supervision between patrols.</p>	CSD and the Electrical and Mechanical Services Department (EMSD) jointly develop the system.	The non-recurrent expenditure on system technological development is about \$1.56 million.	<p>The project commenced in 2018-19.</p> <p>The results of the trial run of the system were satisfactory, and the effectiveness assessment was completed in 2019 with satisfactory results.</p>

22 dormitories, 6 observation cells and the centre hospital of Pik Uk Prison			A funding of about \$9.64 million has been reserved under the TechConnect (Block Vote) of the Innovation and Technology Bureau (ITB).  After tendering process, the expenditure is about \$2.07 million.	The project commenced in 2019-20 and is expected to be completed in 2021.  CSD will modify the design of this system with reference to the experience obtained from the trial runs of "Video Analytic Monitoring System" in 4 dormitories of Pik Uk Prison.
Tai Tam Gap Correctional Institution (currently under refurbishment)	The new-generation Video Analytic Monitoring System is a CCTV system equipped with "video analytic" functions. By comparing the real-time images collected, the system can detect abnormal behaviours of PICs, including fighting, suicide by hanging and covering the CCTV cameras. Besides, the system is also equipped with "facial recognition" function so that face and identity matching can be conducted swiftly and accurately to confirm the identities of the relevant PICs in case emergency incidents (such as an attempted escape or a group fight) occur. This helps correctional officers implement an emergency plan and speed up the handling of incidents, thereby effectively enhancing the enforcement and supervision abilities of correctional officers and ensuring a safe custodial environment.	CSD and EMSD jointly develop the system.	The non-recurrent expenditure on system technological development is about \$2.52 million.	The project commenced in 2019-20.  The trial run is expected to be completed within 2020.  CSD will refine the design of this system with reference to the experience obtained from the trial runs of "Video Analytic Monitoring System" in 4 dormitories of Pik Uk Prison.

## (2) Robotic Monitoring System

Designated floors at Lai Chi Kok Reception Centre	The system makes use of robots to assist correctional officers' patrols. Under the assistance of the system, correctional officers can remotely monitor the situation of cells via a tablet or a monitor at the staff workstation. The system is also equipped with communication function. Correctional officers can instantly receive sound at the scene and have communication with the PICs concerned via the tablet in case of any unusual incidents. The system enables correctional officers to promptly handle such incidents and strengthen the supervision of PICs.	CSD and EMSD jointly develop the system.	The non-recurrent expenditure on system technological development is about \$1.28 million.	The project commenced in 2019-20.  The trial run is expected to be completed within 2020.
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<b>C. Operating and Management System</b>				
<b>(1) Passage Surveillance System</b>				
Designated Passages of Lo Wu Correctional Institution (LWCI)	<p>At present, correctional officers are required to manually count the number of PICs inside correctional institutions on a regular basis to ensure no escape occurs.</p> <p>CSD introduced the “Passage Surveillance System” to allow correctional officers to grasp the real-time locations of PICs and monitor their movement with a view to minimising the risk of escape and enhancing correctional officers’ readiness in emergency response.</p>	CSD and EMSD jointly develop the system.	Combined with the “Health Signs Monitoring System” installed at the centre hospital of LWCI, the total expenditure on system technological development is about \$2.43 million.	<p>The project commenced in 2018-19 and the effectiveness assessment was completed in 2019.</p> <p>The design concept of the project has been confirmed to be feasible in correctional institutions. CSD is currently enhancing the design of the system to further improve its stability and positioning accuracy.</p>
Designated area of Tai Tam Gap Correctional Institution (currently under refurbishment)	<p>With sensors installed in the institution and the signals from the “smart wristbands” worn by PICs, the new-generation “Movement and Location Monitoring System” can more accurately determine the real-time locations of PICs, and also detect PICs’ deviation from a designated area without authorisation. This helps enhance the security level of institutions. Besides, the “smart wristbands” are equipped with the heart rate detection function. If any abnormalities of heart rates are detected, the system will instantly raise an alarm to alert the correctional officers on duty for immediate follow-up action. This helps ensure the safety of PICs.</p>	CSD and EMSD jointly develop the system.	The non-recurrent expenditure on system technological development is about \$3.50 million.	<p>The project commenced in 2019-20.</p> <p>The trial run is expected to be completed within 2020.</p>

<b>(2) Health Signs Monitoring System</b>				
Centre hospital of LWCI	<p>Correctional officers are currently required to carry out patrols and conduct visual checks on PICs at intervals of not more than 15 minutes after PICs return to their cells, to observe the physical conditions of PICs with medical and nursing needs.</p> <p>CSD introduced the “Health Signs Monitoring System” for monitoring the physical conditions of PICs with medical and nursing needs, including those who have self-harm and suicide propensity. If any abnormalities of heart rates are detected, the system will instantly raise an alarm to alert the correctional officers on duty for immediate follow-up action. This helps ensure that PICs in the cells are constantly under close supervision between patrols.</p>	CSD and EMSD jointly develop the system.	<p>Combined with the “Passage Surveillance System” installed at the designated passages of LWCI, the total expenditure on system technological development is about \$2.43 million.</p>	<p>The project commenced in 2018-19 and the effectiveness assessment was completed in 2019.</p> <p>The design concept of the project has been confirmed to be feasible in correctional institutions. CSD is currently enhancing the design of the system to further improve its stability and positioning accuracy.</p>
2 halls and the centre hospital of Stanley Prison, the centre hospital of Tai Lam Centre for Women, and the sickbay and geriatric ward of Siu Lam Psychiatric Centre			A funding of about \$9.19 million has been reserved under the TechConnect (Block Vote) of ITB.	The project commenced in 2019-20 and is expected to be completed within 2021.

## **D. PIC Self-management System**

### **(1) PICs Self-learning System**

Designated units in the Category A Complex of Stanley Prison	<p>The system is equipped with tablets involving various functions and applications for PICs to self-learn and relieve stress, such as reading e-books, listening to music and watching videos related to rehabilitation. The purpose is to make use of technology to change the lifestyle of PICs, improve their learning ability, and enhance their self-management ability in preparation for their reintegration to society after release.</p>	CSD commissioned a contractor to design and implement the project.	<p>A non-recurrent expenditure on system technological development of about \$1.10 million.</p> <p>Besides, CSD has been received a donation of \$300,000 from the charity for buying e-books.</p>	<p>The project commenced in 2019-20.</p> <p>The trial run is expected to be completed within 2020.</p>
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<b>(2) Integrated Intelligent Communication System for PICs</b>				
Designated locations in the main wing of LWCI	After the PICs enrolling in the trial run have obtained the approval from the institutional management, they are allowed to call designated relatives and friends with the use of designated system in the institution in a self-service manner. This helps PICs maintain closer ties with their family members so as to enhance the effectiveness of rehabilitation.	CSD and EMSD jointly develop the system.	A non-recurrent expenditure on system technological development of about \$1.78 million	The project commenced in 2019-20. The trial run is expected to be completed within 2020.

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