

**For discussion on
18 January 2019**

Legislative Council Panel on Transport

**Report of Independent Review Committee on
Hong Kong's Franchised Bus Service**

PURPOSE

On 8 January 2019, the Government released the Report submitted by the Independent Review Committee on Hong Kong's Franchised Bus Service ("IRC") to the Chief Executive. This paper reports to Members on the follow-up actions of the Government in relation to the recommendations put forward in the Report.

BACKGROUND

2. Following the fatal traffic incident involving a franchised bus ("FB") on Tai Po Road on 10 February 2018, the Chief Executive set up the IRC to comprehensively review the operation and monitoring of FBs so as to ensure that public bus services of Hong Kong are safe and reliable. The IRC was chaired by the Honourable Mr Justice Michael Victor Lunn, with two members, namely Mr Rex Auyeung Pak-kuen and Professor Lo Hong-kam. The IRC commenced its work in late March 2018 and submitted a report to the Chief Executive on 31 December last year. The IRC put forward a total of 45 recommendations under 16 areas with a view to sustaining a safe and reliable FB service.

FOLLOW-UP ACTIONS OF THE GOVERNMENT

3. The Government appreciates the dedicated efforts by the IRC in completing the review for enhancing the safety of FBs. The great majority of the IRC's recommendations is very practical and have proven to be effective in other regions like London, Melbourne and Singapore to which the IRC has made

reference. The Government will, in collaboration with the FB operators, relevant government bureaux/departments and stakeholders where appropriate, proactively pursue the recommendations with a view to sustaining the Government's efforts in enhancing the safety of FBs.

4. Among the 45 recommendations put forward in the Report, 31 of them are implemented or being implemented by the Government, six are planning to implement, and the remaining eight are subject to study. The recommendations and the Government's follow up actions are detailed at **Annex**. Some recommendations involve legislative amendments, and the Government will consider and study these proposals in detail to formulate the next step.

5. The Government always attaches great importance to ensuring the safety of FB services. Indeed, following the fatal incident on 10 February 2018, the TD has already taken a number of proactive follow-up actions prior to the conclusion of the work of the IRC. The TD set up in March 2018 a Working Group on the Enhancement of Safety of FB ("Working Group"), which comprises representatives from all FB operators and major bus manufacturers, to consider and study possible measures to further enhance bus safety. TD has already turned this Working Group into a permanent setup and regular meetings will be held, which provides a common forum for the Government, FB operators and relevant experts to continue to discuss, study, implement, and promote various measures to enhance bus safety. In order to keep abreast of the advances in the technological safety devices suitable for FBs, the TD is going to set up a dedicated technology team in mid-2019 to follow up on the relevant technological developments. Besides, the TD plans to take a more proactive and focused approach to monitor and promote the safety of FB through the establishment of a dedicated safety team with dedicated officers, and led by a Safety Director. The TD will seek resources in accordance with established procedures.

6. Having taken into account of the recommendations made by the IRC, and in accordance with the proactive approach adopted by the Working Group, the TD will, in conjunction with the FB operators and relevant experts, continue to take forward the immediate and medium-term proposed measures in the following major areas to enhance the safe operation of FB services -

- (a) installation and enhancement of in-vehicle devices/technologies to assist safe driving;
- (b) enhancing the training and working environment of bus captains;
- (c) strengthening bus accident analyses and safety performance management; and
- (d) enhancing general road and infrastructure safety as well as introducing more bus-friendly measures.

INSTALLATION AND ENHANCEMENT OF IN-VEHICLE DEVICES / TECHNOLOGIES TO ASSIST SAFE DRIVING

Better use of electronic data recording device installed in FBs

7. It has been a franchise requirement for all FBs to be installed with the electronic data recording device (commonly called “black box”). Apart from the technological advancement of wireless data transfer in recent years, the current black boxes embrace functions including the recording of operational parameters (such as vehicle position, brake status, door status and push bell status).

8. Black box data is useful for accident/incident investigations. Furthermore, the TD has been discussing with the FB operators to better use the black box data so as to monitor the driving behavior of bus captains and enhance safety. According to the existing arrangement, all FB operators generate real-time alerts to drivers as well as exception reports automatically from the black box data in relation to instances of speeding over and above certain thresholds. The FB operators will review the exception reports, investigate improper driving behavior and take appropriate follow-up actions, such as issuance of verbal advice, verbal warning, written warning, or even dismissal should circumstances warrant. The FB operators have also stepped up remedial trainings for the bus captains identified. Apart from instances of speeding, the TD will also require all FB operators to generate real-time alerts to drivers and exception reports for follow-up actions in respect of harsh deceleration or acceleration¹, since these two parameters are particularly useful for handling non-collision incidents

¹ Currently, only the black boxes of the Kowloon Motor Bus / Long Win bus fleet automatically generate real-time alerts and exception reports on speeding, harsh deceleration or acceleration.

relating to passengers losing balance. The FB operators are also required to submit regular reports to TD on the review matters and follow-up actions. In the light of the IRC's recommendation, the TD will explore with the FB operators to institute a set of common thresholds for generating real-time alerts and exception reports on speeding, harsh deceleration or acceleration.

Trial and phased implementation of the bus monitoring and control system

9. All FB operators are making good progress in liaising with their suppliers of bus fleet management system to develop the prototype of the **bus monitoring and control system** ("BMCS")² with positioning function, operational information (such as vehicle speed, brake status, acceleration and deceleration rates, etc.) monitoring function and geo-fencing technology. By making use of the Global Positioning System or other positioning technologies, the BMCS will limit the speed of the bus such that the bus speed will match the legal speed limits at the actual bus locations. This real-time speed limit information can then be used to control the enhanced speed limiter (i.e. speed limiters with two speed settings), with a view to achieving the automatic speed limiting function in accordance with the corresponding speed limit of various road sections (i.e. 50 km/hour or 70km/hour depending on the road sections).

10. All FB operators have embarked on the **Phase 1 trial** of the BMCS, whereby real-time alerts will be provided to bus captains when the vehicle speed exceeds the corresponding legal speed limit. In particular, New World First Bus Services Limited and Citybus Limited have implemented the Phase 1 of the BMCS on their whole bus fleet since 18 September 2018.

11. As a medium-term goal, the Working Group recommended all FB operators develop a comprehensive BMCS for more effective management and control of bus fleet so as to reduce the potential risks arising from human errors. Following the commencement of the Phase 1 trial of the BMCS by the FB operators, the TD will review with them the effectiveness of the trial in the second quarter of 2019. Subject to the satisfactory trial result of Phase 1 and the satisfactory development of the speed limiter with two-speed setting by the major bus manufacturers, the FB operators will start the **Phase 2 trial** of the BMCS

² Generally speaking, the BMCS is a holistic use of the black box data, speed limiter, and geo-fencing technology for real-time alerts and monitoring of speeding, excessive acceleration and excessive deceleration.

within 2019 under which automatic speed limiting function in accordance with the corresponding speed limits of different road sections (i.e. 50km/hour or 70km/hour) can be achieved.

12. Apart from overseeing the trials by the FB operators, the TD will separately engage a consultant in mid-2019 to carry out an **independent study and trial** on vehicles to evaluate the applicability and effectiveness of using geofencing technology to control vehicle speed, which is one of the vital parts of the BMCS. With the findings of the independent trials, the TD will have further discussions with the FB operators with a view to developing a clear roadmap for enhancing the FB monitoring through the implementation of the BMCS. Besides, in the light of the IRC's recommendation, the TD will also explore with the FB operators the feasibility of making use of the relevant system to provide automatic alerts to the FB operators' control rooms for communicating with the bus captain as appropriate.

Installations of bus safety devices

13. All new double-deck buses procured from July 2018 onwards by the FB operators will be incorporated with (a) the **electronic stability control**³ ("ESC") and (b) **retarder for capping the maximum speed of the speed limiters on downhill**⁴ ("speed limiting retarder"). As at December 2018, 474 new buses have been ordered with ESC and speed limiting retarder.

14. According to the study of the Working Group, approximately 4 000 existing buses of newer models⁵ are suitable for retrofitting ESC and speed limiting retarders. Besides, the cost for retrofitting the aforesaid two devices is relatively low and the retrofitting works is more on the software equipment and minor installation works for sensors and components, rather than intensive vehicle structural modifications. Hence, it has relatively less impact on bus

³ The system improves the stability of a vehicle and reduces the risk of a vehicle to rollover in extreme cornering or evasive manoeuvres. When loss of steering control is detected, the system will automatically activate the electronic braking system of the vehicle to assist steering of the vehicle and keep it running on its intended track. The system may also reduce the engine power until the control of the cornering vehicle is regained.

⁴ The device will slow down a bus when the speed is over the pre-set threshold even under the downhill rolling situation.

⁵ The newer models refer to Euro V buses of ADL Enviro 500 manufactured from 2013, Volvo B9TL, and MAN A95 buses, and Euro VI buses.

availability. The effectiveness of these safety devices in enhancing vehicle safety is also proven. The Working Group will further confirm the cost effectiveness of retrofitting these safety devices before making a final decision on the retrofitting.

Installations of seatbelts on FBs

15. In order to provide an extra protection to seated passengers, all new buses ordered from July 2018 onwards will have all passenger seats installed with **seat belts**. As at December 2018, 474 new buses have been ordered with seat belts on all passenger seats.

16. Having regard to the practices in some overseas jurisdictions, the Working Group came to the conclusion that subject to further assessment on the technical, operational and financial feasibility, consideration may be given to retrofitting all seats in the upper deck with seat belts for buses deployed for specific routes (i.e. long-haul routes which are operated via expressways with relatively fewer bus stops). In line with the IRC's recommendation, the TD will engage an independent consultant in early 2019 to conduct a vigorous cost-benefit analysis on retrofitting passenger seat belts on upper deck of some of the existing buses before making a decision on implementing the proposal.

Trial use of driver assistance or monitoring device

17. Following the recommendations made by the Working Group, the FB operators have also embarked on the trials of **driver monitoring device, collision alert and lane keeping device** in 2018. The driver monitoring device monitors the bus captain's behavior on board and alerts him / her if it detects a lack of attention or drowsiness. On the other hand, the collision alert device is an add-on device which will give an alert to the bus captain in the situation when the bus is approaching too close to a vehicle / obstacle in front, whilst the lane keeping device is also an add-on device to alert the bus driver when the bus starts moving away from the lane other than proper steering.

18. The FB operators would review the effectiveness of these add-on devices through collecting feedback from their bus captains and reviewing their performance. The Working Group will further review the costs and benefits of these devices with a view to coming up with some recommendations and action plans by the FB operators in the latter half of 2019.

ENHANCING THE TRAINING AND WORKING ENVIRONMENT OF BUS CAPTAINS

Bus Captain Training

19. Following the recommendations of the Working Group, the TD issued a **Practice Note on Training Framework for FB Captains** (“Practice Note”) in early August 2018 setting out a set of industry-wide standard practices in respect of the FB captains’ training framework to all FB operators for implementation by phases starting from October 2018. As part of the implementation of the Practice Note, bus companies will each set up its own internal monitoring and audit mechanism to monitor the compliance of the Practice Note, to develop key indicators on the effectiveness of training for bus captains, and to review and determine appropriate actions or measures in the light of the findings of the monitoring effort. The relevant internal monitoring and auditing units should provide reports to the Management Boards of the bus operators concerned at least half-yearly, such that the Management Boards will help reinforce the importance of a robust management system to ensure that the training arrangements and their effectiveness can be monitored and evaluated in a regular and systematic manner, and be enhanced if required to suit the changing operating environment.

20. The TD will keep track of the implementation of the Practice Note, and review the Practice Note with the FB operators on a regular basis, in order to strive for the best standard practices to cater for the ever-changing operating needs and public expectations on safe FB services. In the light of the IRC’s recommendation, and with experience gained from implementing the training programmes and management systems by individual FB operators, the TD plans to further collaborate with the FB operators to identify common key indicators of the effectiveness of the bus captain training system in late 2019. Moreover, as part of the review of the Practice Note, the TD will also discuss with the FB operators on whether and how to include fatigue management of bus captains as well as dealing with abusive and angry passengers as separate modules in their refresher course or as separate programmes.

Bus captains working hours and rest time

21. To enhance driving safety of FB captains, the TD has promulgated guidelines on bus captain working hours and rest time since 1983⁶, and has updated the guidelines for six times since then. Following the TD's last update of the guidelines in February 2018, the FB operators started to implement the latest guidelines⁷ by phases since the second quarter of 2018, with targeted full implementation by the second quarter of 2019, subject to the progress of the recruitment of bus captains to fill up the shortfall arising from the shortening of duty hours and driving hours of the existing bus captains. The bus operators have been working hard to recruit new bus captains and retain the existing bus captains, including improvement in the remuneration packages.

22. In the light of the IRC's recommendation, the Working Group will review the recently amended guidelines upon its full implementation in the second quarter of 2019 to explore room for further improvement in terms of fatigue identification and management, possible restriction on 14-hour split-shift,

⁶ The concerned guidelines were named as "Guidelines on Bus Captains Working Hours, Rest Times and Meal Breaks" in 2010.

⁷ Guideline (1)(a) - Maximum duty hours in a shift should not exceed 12 hours, and driving hours therein should not exceed 10 hours.

Guideline (1)(b) - Duty hours in a special shift duty arranged to cater for service demand in the morning and evening peaks may exceed 12 hours but maximum duty hours should not exceed 14 hours, and driving hours therein should not exceed 10 hours. A rest break of no less than 3 consecutive hours should be provided in the special shift.

Guideline (2) - The off-duty break between 2 successive shifts should not be less than 10 hours. The total off-duty breaks in 3 successive shifts, other than special shift duties, should not be less than 22 hours.

Guideline (3) - Bus captains should have a rest break (inclusive of meal breaks) of at least 40 minutes after 6 driving hours, and within that 6-hour duty, they should have short rest breaks totalling not less than 20 minutes, of which no less than 12 minutes should be within the first 4 hours of duty. The time bus captains spend at a terminal point preparing for the next departure and monitoring boarding of passengers should not be regarded as rest break/short rest break.

Guideline (4) - Bus captains working for 8 hours or above in a shift should have a meal break of no less than 1 hour.

Note :

- (a) duty hours refer to the total number of hours from the beginning to the end of a shift, including all the rest breaks;
- (b) driving hours refer to the total hours performing driving duty plus short rest breaks in a shift; and
- (c) short rest breaks refer to rest time of less than 40 minutes.

and total hours of driving within certain periods of days, etc. The review is expected to complete in 2020. Whilst the FB operators already have their own mechanisms for the part-time captains to report their other employment, the TD will discuss with the FB operators with a view to further stipulating a set of arrangement for reporting and monitoring the working hours of part-time bus captains. So far, there has been near full compliance of the various regulations of the guidelines by the operators. As for the recommendation of stipulating the guidelines in regulations, the Government will consider and study the proposal in detail to formulate the next step.

Provision of rest and toilet facilities for bus captains at bus termini

23. The TD has endeavoured in every possible way to facilitate the **provision of ancillary facilities**, including regulator's kiosks, staff rest rooms and toilets at the bus termini. Since December 2017, the TD has set up a task force with representatives from relevant government departments and FB operators to oversee the applications for provision or upgrading of these facilities at the bus termini or public transport interchanges ("PTIs"), and will continue to work closely with those approving authorities through regular meetings with a view to speeding up the processing of the applications. In the light of the IRC's recommendation, a representative from the Transport and Housing Bureau will join the task force with a view to enhancing the coordination among the departments concerned in processing the applications.

24. Looking ahead, regulator kiosks, staff rest rooms and toilets are already classified as basic facilities in the planning of new bus termini and PTIs. We agree with the IRC's recommendation, and will provide such basic facilities in the planning of new bus termini and PTIs with a view to providing a better working environment for staff of FB operators. To this end, the TD has started reviewing the requirements for the provision of the concerned facilities, in consultation with the relevant bureaux/departments. Upon completion of the related work in mid-2019, the Transport Planning Design Manual, and the Hong Kong Planning Standards and Guidelines will be updated as appropriate.

Abuse and assaults on bus captains

25. To ensure driving safety and the provision of smooth service, the behaviour of FB passengers is regulated by legislation. Section 13A of the

Public Bus Services Regulation (Cap. 230A) stipulates that no passenger shall willfully impede or distract the bus captain. The act of assaulting bus captains at present could also be handled by various pieces of legislation. Noting that there has been increasing concern over abuse and assaults on bus captains in discharging their duties, the TD has embarked on / coordinated a series of **publicity campaign on passenger courtesy**, including :

- (i) the introduction of a new theme in TD's annual Safe Driving and Health Campaign 2018 to promote passenger courtesy.
- (ii) the rolling out of the radio and TV APIs to promote the right attitude of road users (including passengers) in collaboration with the Road Safety Council from the third quarter of 2018 onwards; and
- (iii) the production of an online video to raise public awareness and promote courtesy behaviour when using public transport with FB operators and the Mass Transit Railway Corporation Limited starting from the latter half of January 2019.

26. In the light of the IRC's recommendation, the TD and the Police will follow up on conducting long-term publicity programmes in this regard. Besides, the TD will discuss with the FB operators on **displaying notices** to remind bus passengers that abusing a bus captain is unacceptable and may be prosecuted, and explore with the FB operators the **feasibility of installing video cameras with audio capability** at the entrance of buses and where the bus captain is seated to facilitate the Police's enforcement actions. As for the recommendation of introducing specific legislation to make it an offence to make a threatening, abusive or insulting communication towards a bus captain, the Government will consider and study the proposal in detail.

STRENGTHENING BUS ACCIDENT ANALYSES AND SAFETY PERFORMANCE MANAGEMENT

Franchised bus accident data

27. The TD has been discussing with the FB operators for **standardising and aligning the compilation and presentation of bus accident data**.

Moreover, TD has requested the FB operators to report all accidents involving FBs on a monthly basis. Since it has been the TD's requirement for the bus operators to include a safety chapter in their annual Forward Planning Programmes ("FPPs") to be submitted to the Department each year, the FB operators will be required to conduct detailed elaboration and analysis on the accident statistics in terms of its nature, severity, causes, locations or routes so as to enhance bus safety more effectively. The FB operators have already, as requested by TD, agreed to have the accident data in the safety chapter of the FPP made public.

Safety performance indicators

28. With reference to the set of Safety Performance Indicators ("SPIs") adopted by Transport for London, the TD has already drawn up an initial set of **more nuanced SPIs** which include various accident rates covering the general safety issues, bus passenger safety, bus operation and network safety, bus engineering safety, safety of bus captains at work as well as safety management and assurance systems. The TD will discuss and finalise the SPIs with the FB operators, and align and standardise the relevant data format in mid-2019, with a view to measuring the safety performance by the new set of key performance indicators starting from the first quarter of 2020.

ENHANCING GENERAL ROAD AND INFRASTRUCTURE SAFETY AS WELL AS INTRODUCING MORE BUS-FRIENDLY MEASURES

Road safety management system

29. The TD has been pursuing various possible traffic improvement measures, such as improvement works at road junctions, designation of "yellow box", etc. to enhance road safety. With a view to reducing road casualties, the TD has been taking proactive actions to enhance road safety and develop the road safety management system. To ensure continuous improvement of the system, the TD reviews the system with reference to overseas practices and experience from time to time. Following a review in the first half of last year with reference to the ISO 39001 – Road Traffic Safety Management system, the TD considered that the introduction of a **Road Safety Audit** ("RSA") could further improve the concerned system by strengthening the performance evaluation and auditing work.

As distinct from the traditional accident investigation and prevention, the benefits of RSA are to identify potential road safety deficiencies that may threaten different road users before accidents occur, and propose measures to eliminate or mitigate those deficiencies. The TD proposes to conduct RSA at different stages of a project - from the planning and design stages to address road safety issues from the fundamental / technical aspects, to the handling of possible shortfall before the construction stage and the opening of roads. It is believed that RSA will contribute to accident reduction, fostering the importance of road safety engineering, raising safety awareness of all road users, and continually improving safety standards and procedures.

30. Apart from new roads, the TD and the Highways Department (“HyD”) have embarked on a joint consultancy study on “Review of Potential Roadside Safety Hazards in the Hong Kong Road Network” since May 2018. The study conducts systematic road safety checks for all existing roads with lengths of about 4 200 km (both bounds) so as to identify potential roadside safety hazards and formulate corresponding improvement schemes. A proposed RSA team will apply the concept of RSA to follow up on all the improvement schemes from their planning to implementation including detailed designs, issuing works request forms to HyD, scrutinising the associated temporary traffic arrangements, and evaluating the performance of the improvement works.

31. With the implementation of RSA to new and existing roads, it is believed that not only the road environment can be improved, but the knowledge and experience accumulated from RSA can also enhance the road design, contribute to accident reduction, improve the road safety standards and practices, as well as raise the safety awareness of all road users.

Bus-friendly measures

32. Under the public transport-oriented policy, various **bus priority measures** are implemented in major trunk roads in Hong Kong if circumstances allow. These measures include (a) bus-only lanes; (b) bus-only lane changing position; (c) setting up bus stops at pick-up and drop-off restricted zones; and (d) changing road junction design and adjusting road traffic light signal control. The TD has been striving to study, and will continue to identify suitable locations for introducing more bus priority measures as appropriate.

33. The TD also keeps abreast of the latest overseas practices and experience to bus-friendly measures and will commence trials, such as measures to enhance roadside protection to passengers awaiting buses, introduction of signage and road markings to facilitate buses leaving bus stop/lay-by. The TD is also studying the feasibility and applicability of **low speed limit zones** and exploring whether the measure will have safety benefits and whether it could reduce the difference in speeds among various types of vehicles. The TD would initially look for suitable road sections or locations in Central and Sham Shui Po Districts for the trial of low speed limit zones with a speed limit of 30km/hour. The trial scheme is expected to roll out in 2019.

34. Noting the implementation of various bus-friendly measures may reduce the capacity for use by other vehicles on the same road section and may result in reduction of the travelling speed of other vehicles, the TD is mindful in striking a proper balance between the impact on the overall efficiency of bus services and the traffic flow, as well as other road users in pursuing **more bus-friendly measures**. Relevant overseas experience in the provision of bus-friendly measures will be duly considered.

ADVICE SOUGHT

35. Members are invited to note the content of this paper and offer views on the various follow-up actions mentioned above.

Transport and Housing Bureau
Transport Department
January 2019

Report of the Independent Review Committee on Hong Kong’s Franchised Bus Service
Summary of Recommendations and the Government’s Responses

Recommendations by the Independent Review Committee	Government’s Responses
<p><i>(i) Safety Director</i></p> <p>(1) The Transport Department (“TD”) to establish a structure to develop a proactive approach to bus safety.</p> <p>(2) The TD to appoint a Safety Director and a small bus safety team.</p>	<p><u>Planning to implement</u></p> <ul style="list-style-type: none">● The TD will draw up the implementation plan for setting up a Safety Director and a small safety team. In the interim, the relevant divisions in the TD will continue to look after the safety issues relating to franchised bus safety. The TD will seek resources in accordance with established procedures in implementing the recommendation where appropriate.
<p>(3) Franchised bus operators to appoint their own Safety Directors.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none">● The TD will discuss with all franchised bus operators for the appointment of their own Safety Directors.
<p><i>(ii) Permanent Working Group on the enhancement of safety of franchised buses</i></p> <p>(4) Membership of the Permanent Working Group to be expanded to include independent members with expertise relevant to franchised bus safety.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none">● The TD has set up a Working Group on the Enhancement of Safety of Franchised Buses (“Working Group”) shortly after the Tai Po Bus incident in March 2018 to consider and study possible measures to further enhance bus safety. The TD has already turned this Working Group into a permanent set up so as to provide a regular platform for the Government, franchised bus operators and relevant experts to

Recommendations by the Independent Review Committee	Government's Responses
	<p>continue discuss and follow up on various initiatives to enhance franchised bus safety.</p> <ul style="list-style-type: none"> ● The TD is identifying suitable expert(s) as to be included as member(s) of the Working Group.
<p>(iii) Technological safety devices: TD's technology team</p> <p>(5) A dedicated technology team to be formed urgently in the TD.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● The TD will establish the transport technology team in mid-2019.
<p>(6) The technology team to establish lines of communication with well-respected overseas jurisdictions, such as Transport for London ("TfL") and Land Transport Authority of Singapore ("LTA") to share information.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● At present, lines of communication with well-respected overseas jurisdictions, such as TfL and LTA, to share information already exist. The transport technology team to be established would continue and further enhance such lines of communications and exchanges with overseas jurisdictions.
<p>(7) Franchised bus operators to appoint members of their own staff to be responsible for technological safety devices and to establish lines of communication with franchised bus operators in well-respected overseas jurisdictions to share information.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● At present, franchised bus operators already have lines of communications with well-respected overseas jurisdictions to share information. The TD will discuss with franchised bus operators to appoint dedicated staff to be responsible for technological safety devices and to enhance lines of communication with franchised bus operators in well-respected overseas jurisdictions to share information.
<p>(iv) Subsidies</p> <p>(8) The TD to establish a small fund to provide grants to franchised bus operators to promote the uptake of new safety technology.</p>	<p><u>Planning to implement</u></p> <ul style="list-style-type: none"> ● The TD will consider options (including making use of currently available funds) in providing funding to franchised bus operators to promote the uptake of new safety technology.

<p style="text-align: center;">Recommendations by the Independent Review Committee</p>	<p style="text-align: center;">Government's Responses</p>
<p>(9) The TD to engage an independent consultant to conduct a cost/benefit analysis in respect of the retrofitting of seat belts on the upper decks of some franchise buses.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● Before the release of this Report, the TD already deliberated the matter at the Working Group. All franchised bus operators already committed that all passenger seats of all new buses ordered from July 2018 onwards would be installed with seat belts as the additional cost would be marginal. On the other hand, for retrofitting of seat belts on passenger seats of existing buses, in light of the overseas experts' advice and that the use of seat belts is not common in urban routes because of the short journeys (in terms of both time and distance) taken by the urban buses and the moderate speeds on urban routes, the TD will conduct a vigorous cost/benefit analysis before implementing it. ● In this regard, the TD will engage a consultant in early 2019 with a view to completing the analysis in mid-2019.
<p>(10) The TD to engage an independent consultant to conduct cost/benefit analyses in respect of the retrofitting of the electronic stability control system ("ESC") and speed limiters with retardation function ("speed limiting retarder"), and all other safety devices proved to be technically successful, before the TD requires installation of those devices by franchised bus operators.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● Having considered the proven effectiveness of installing ESC and speed limiting retarder, the Working Group considered that it should be cost-effective to retrofit franchised buses with these safety devices if technically feasible. ● In response to the recommendation, the Working Group will further confirm the cost and benefits of retrofitting these safety devices.
<p><i>(v) Safety Performance Indicators</i></p> <p>(11) The TD to establish more nuanced Safety Performance Indicators ("SPIs").</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● The TD has already obtained information on TfL's SPIs and drawn up an initial set of proposed SPIs which cover various accident rates showing the general safety, bus passenger safety, operation and network safety, bus engineering safety, safety of drivers at work as well as safety management and assurance systems.
<p>(12) The TD to seek elucidation and clarification from TfL of the Safety Performance Indicators adopted by TfL.</p>	

Recommendations by the Independent Review Committee	Government's Responses
	<ul style="list-style-type: none"> ● The TD will discuss and finalise the SPIs with the franchised bus operators, and align and standardise the relevant data format in mid-2019, with a view to measuring the safety performance by the new set of key performance indicators starting from the first quarter of 2020.
<p><i>(vi) Franchised Bus Accident Data</i></p> <p>(13) The accident data material in the Bus Safety Chapter of the Forward Planning Programmes (“FPP”) to be made public.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● The TD has already required and secured the agreement of franchised bus operators to have the accident data in the Safety Chapter of the FPP made public. ● The TD will align and standardise the accident data with a view to publishing the accident data contained in the FPP to be submitted in June 2019 by end 2019.
<p>(14) The TD to require the franchised bus operators to report all franchised bus accidents to the TD on a monthly basis.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● The TD has required the bus operators to report all franchised bus accidents to the TD on a monthly basis. ● The TD will maintain a standardised database on such accidents to facilitate common reporting and analysis system.
<p>(15) Consideration should be given by the TD to instituting a common reporting/analysis system of franchised bus accident data.</p>	
<p>(16) The TD to stipulate to the franchised bus operators common thresholds for reporting instances of excessive speeding and harsh braking.</p>	<p><u>Planning to implement</u></p> <ul style="list-style-type: none"> ● The TD will explore the suitability and feasibility of stipulating common thresholds on excessive speeding, harsh braking and excessive acceleration among franchised bus operators in 2019.
<p>(17) The TD to stipulate to the franchised bus operators common thresholds of excessive acceleration.</p>	

<p style="text-align: center;">Recommendations by the Independent Review Committee</p>	<p style="text-align: center;">Government's Responses</p>
<p><i>(vii) Real-time alerts</i></p> <p>(18) The TD to require the franchised bus operators to provide real-time alerts of excessive speeding, deceleration and acceleration to bus captains and to generate records of those events.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● At present, the Kowloon Motor Bus Co. (1933) Ltd. (“KMB”)/ Long Win Bus Co. (“LW”) have real-time alerts through the black box for speeding, excessive deceleration and acceleration, whilst Citybus Limited (“CTB”)/New World First Bus Services Limited (“NWFB”) and New Lantao Bus Co. (1973) Ltd. (“NLB”) have real-time alerts for speeding. ● The TD has evaluated the technical feasibility of providing real-time alerts by consulting relevant equipment manufacturers, and will discuss with CTB/NWFB and NLB to implement real-time alerts for harsh acceleration and deceleration. ● Through the deliberation under Working Group, the TD has required all franchised bus operators to conduct trial of geo-fencing technology for real-time monitoring of speeding on roads with different speed limits. CTB/NWFB implemented the geo-fencing technology in their full fleet for trials in September 2018, whilst KMB/LW and NLB embarked on a trial of geo-fencing technology in 2018 with a view to evaluating its effectiveness in the second quarter of 2019.
<p>(19) The TD and franchised bus operators to explore the feasibility of making use of the generation of real-time, or near real-time, of excessive speeding, deceleration and acceleration to provide an automatic alert to the franchised bus operators Control Room, permitting communication with the bus if appropriate.</p>	<p><u>Planning to implement</u></p> <ul style="list-style-type: none"> ● The TD will explore with franchised bus operators on the feasibility and possible implementation timetable.

<p style="text-align: center;">Recommendations by the Independent Review Committee</p>	<p style="text-align: center;">Government's Responses</p>
<p><i>(viii) Bus captain training</i></p> <p>(20) The TD to collaborate with the franchised bus operators to identify key indicators of the effectiveness of the bus captain training system.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● The Practice Note on Training Framework for Franchised Bus Captains (“the Practice Note”) issued by the TD has been implemented by all franchised bus operators since October 2018. ● With experience gained from implementing the training programmes and management systems by individual franchised bus operators after one-year implementation, the TD will further collaborate with the franchised bus operators to identify and stipulate common key indicators of the effectiveness of the bus captain training system starting late 2019.
<p>(21) The TD to stipulate that fatigue management form part of the training courses provided to bus captains.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● This will be followed up at the Working Group as part of the review of the Practice Note after one year of implementation in late 2019.
<p>(22) The TD to provide funding for a special course/programme for bus captains to deal with abusive and angry passengers.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● The Practice Note has already included a requirement on the inclusion of a module on customer services at which the subject of handling difficult passengers is covered. The TD will discuss how the modules should be further refined when the Practice Note is reviewed in late 2019. ● The TD plans to arrange special course/programme for drivers of passenger public transport vehicles to deal with abusive and angry passengers, including franchised bus drivers, as part of TD’s large-scale annual road safety publicity campaign.

<p style="text-align: center;">Recommendations by the Independent Review Committee</p>	<p style="text-align: center;">Government's Responses</p>
<p><i>(ix) Guidelines on Bus Captain Working Hours, Rest Times and Meal Breaks</i></p> <p>(23) The Guidelines on working hours, etc. to be stipulated in regulations.</p>	<p><u>Subject to study</u></p> <ul style="list-style-type: none"> ● The TD will study the proposal and its wider implications in consultation with relevant government bureaux/departments.
<p>(24) An expert(s) on fatigue identification and management to be appointed as an <i>ad hoc</i> member of the Permanent Working Group.</p>	<p><u>Subject to study</u></p> <ul style="list-style-type: none"> ● The TD reviewed the Guidelines with franchised bus operators in late 2017 and the latest Guidelines revised in February 2018 will be implemented in full by the second quarter of 2019, allowing time for franchised bus operators to recruit additional bus captains. ● It is worth noting that the revised Guidelines with the maximum working hours reduced from existing 14 to 12 hours is on par with Australia (12 hours a day) and more stringent than Singapore (14 hours) and UK (16 hours), while the maximum driving hours reduced from existing 11 to 10 hours is on par with UK (10 hours). Although a split shift of 14 hours is still in place, a new requirement of offering a consecutive three hours break in between has been imposed. ● The TD will review the Guidelines after the full implementation of the revised Guidelines in the second quarter of 2019 with a view to completing the review in 2020. ● The TD will study the need for appointing an expert(s) on fatigue identification and management to be appointed as an <i>ad hoc</i> member of the Permanent Working Group.
<p>(25) Consideration to be given by the Permanent Working Group of whether permitting 14 hours of duty in a split shift is compatible with bus safety.</p>	
<p>(26) Consideration to be given by the Permanent Working Group to restricting the total hours of driving by a bus captain in periods of 14 or 28 days.</p>	
<p>(27) The Permanent Working Group to engage an independent consultant to conduct a cost/benefit analysis of the effect of abrogating the special shift exception to the 22 hours of duty rule, in particular the potential safety improvements, the number and cost of the additional bus captains that would be required and the implication to franchised bus fares.</p>	

<p style="text-align: center;">Recommendations by the Independent Review Committee</p>	<p style="text-align: center;">Government's Responses</p>
<p>(28) CTB/NWFB and TD to work closely together to ensure that CTB/NWFB provides adequate rest facilities for drivers working on split shifts.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● In September 2018, CTB/NWFB have provided a new rest room with sleeping area with beds and recliner chairs at Chai Wan Depot, and new rest facilities with beds and recliner chairs at the parking sites at Ocean Park and Sheung Wan for bus captains. The TD will continue to work with CTB/NWFB to explore provision of more rest facilities for bus captains at other convenient locations.
<p><i>(x) Part-time bus captains: other employment</i></p> <p>(29) The TD to stipulate to the franchised bus operators the information that they are required to obtain, maintain and update in respect of the other employment of part-time captains, including the nature of the employment and the hours worked.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● Each franchised bus operator already has its own mechanism for the part-time captains to report other employment. The TD will discuss with franchised bus operators to stipulate them to align the information obtained / kept regarding the part-time bus captains.
<p>(30) The TD to require NLB to obtain information and maintain records of the duty and driving hours and off-duty breaks in their other employment of the bus captains provided to them by KCM, or any other supplier of buses and drivers to NLB, and that NLB is required to be satisfied that, when they are performing driving duties for NLB, they are compliant with the Guidelines on Bus Captain Working Hours, Rest Times and Meal Breaks.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● The TD has required NLB, and NLB has committed, to obtain information and maintain records of the duty and driving hours and off-duty breaks in their other employment of the bus captains provided to them by supplier of buses and drivers.
<p><i>(xi) The provision of rest and toilet facilities for bus captains</i></p> <p>(31) The TD to amend the Transport Planning and Design Manual (“TPDM”) to delete the provision that toilet facilities for bus operator’s staff will not be required in a bus terminus if such facilities are available in a nearby development.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● While the provision is currently in the TPDM, the TD has requested and the Food and Environment Department has agreed in principle to consider providing public toilets at new public transport interchanges during the planning stage since 2016. In

<p style="text-align: center;">Recommendations by the Independent Review Committee</p>	<p style="text-align: center;">Government's Responses</p>
<p>(32) The TD to invite the Planning Department to amend paragraph 4.1.6 of Chapter 8 of the Hong Kong Planning Standards and Guidelines (“HKPSG”) to stipulate that the provision of toilets and rest facilities are required at bus termini.</p>	<p>any case, the relevant section of the TPDM is being revised with a view to completing the revision in mid-2019. Once the TPDM has been revised, corresponding amendments will be made to the HKPSG.</p>
<p>(33) The Government to provide built-in structures of a bus regulator’s office, and restrooms with toilets facilities at new public transport interchanges and bus termini.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● The TD has already committed to incorporating such facilities in the planning of new public transport interchanges and bus termini.
<p>(34) The TD to invite a representative of the Secretary for TH to become a member of the TD’s task force monitoring the provision of ancillary facilities at public transport interchanges and bus termini.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● THB’s representative will join the multi-departmental meeting coordinated by TD in monitoring the provision of ancillary facilities at public transport interchanges and bus termini.
<p><i>(xii) Abuse and assaults on bus captains</i></p> <p>(35) The TD and the Hong Kong Police Force (“HKPF”) to conduct a long-term programme in the news print media, television and social media to educate the public and abusing a bus captain performing his duties is not only unacceptable but also a criminal offence.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● The TD and the HKPF will follow up to conduct the long-term publicity programme.
<p>(36) The TD to require the franchised bus operators to display notices to remind franchised bus passengers that abusing a bus captain is unacceptable and constitutes a criminal offence.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● KMB has already displayed such a notice. The TD will require other bus operators to follow suit.

<p style="text-align: center;">Recommendations by the Independent Review Committee</p>	<p style="text-align: center;">Government's Responses</p>
<p>(37) The TD to require the franchised bus operators to install video cameras with audio capability at the entrance of buses and where the bus captain is seated.</p>	<p><u>Subject to study</u></p> <ul style="list-style-type: none"> ● The TD will discuss with the franchised bus operators on the recommendation.
<p>(38) The TD to propose specific legislation be enacted to make it an offence to make a threatening, abusive or insulting communication towards a bus captain performing his public duties.</p>	<p><u>Subject to study</u></p> <ul style="list-style-type: none"> ● The TD will review the adequacy of the existing legislation in dealing with threatening, abusive or insulting communication towards a bus captain performing his driving duties and its wider implications, in consultation with relevant government bureaux/departments.
<p><i>(xiii) Illegal stopping by vehicles at and near franchised bus stops</i></p> <p>(39) Legislative provisions to be presented to the Legislative Council as soon as possible to provide for the service of fixed penalty tickets, other than by affixing them to the vehicle or giving them to the vehicle driver, and to permit service by E-ticket.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● For illegal stopping of vehicles at bus stop, existing legislation, viz. Fixed Penalty (Criminal Proceedings) Ordinance (Cap. 240), already allows for serving fixed penalty tickets by post in addition to affixing the tickets to the vehicle or giving them personally to the person in charge of the vehicle. The Police are already conducting a territory-wide trial under which portable video cameras are used by police officers to record contraventions and take enforcement actions in respect of various offences under Cap. 240, including illegal stopping of vehicles at bus stops. For illegal parking of vehicles near a bus stop, existing legislation, viz. Fixed Penalty (Traffic Contraventions) Ordinance (Cap. 237), requires serving fixed penalty tickets by affixing the tickets to the vehicle or giving them personally to the person in charge of the vehicle only. After consulting the Legislative Council Panel on Transport in the second quarter of 2019, the Government plans to introduce an amendment bill into the Legislative Council to expand the means of serving fixed penalty tickets under Cap. 237 and related legislation to permit service by E-ticket.

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<p>(40) The TD and the Hong Kong Police Force to explore the feasibility of installing CCTV cameras at suitable vantage points, in particular lampposts, to monitor blackspots of illegal stopping by vehicles at and near franchised bus stops.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● The TD and Police are exploring the use of CCTV technologies to be mounted on lampposts to monitor blackspots of illegal stopping by vehicles. A trial is being planned to embark in 2019.
<p>(41) Franchised bus operators to cooperate with the police to make available CCTV recordings obtained by cameras mounted on franchised buses of illegal stopping by vehicles at and near franchised bus stops.</p>	<p><u>Subject to study</u></p> <ul style="list-style-type: none"> ● The TD will discuss with the Police and franchised bus operators on the recommendation.
<p><i>(xiv) Priority measures for franchised buses</i></p> <p>(42) The TD to give consideration to introducing a system of affording priority to buses as they exit bus stops to rejoin the highway.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● The TD has drawn up a proposed design of the scheme, with a view to launching a trial in 2019. If the trial is successful, it will be implemented in selected locations.
<p>(43) The TD to make greater use of bus lanes in appropriate locations.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● This is an on-going effort. The TD will continue to make greater use of bus lanes in appropriate locations.
<p><i>(xv) Route risk assessment</i></p> <p>(44) The TD to require the franchised bus operators to provide the TD with a <i>route risk</i> assessment for each of the routes on which their buses ply.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● The subject was discussed at the last Working Group meeting in December 2018, and will be further followed up at the Working Group.

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<p><i>(xvi) Speed limits</i></p> <p>(45) The TD to identify suitable locations to conduct trials of a low-speed zone of 30 km/h.</p>	<p><u>Implemented/Being implemented</u></p> <ul style="list-style-type: none"> ● The TD would initially look for suitable road sections or locations in Central and Sham Shui Po Districts for the trial in 2019.

**Transport and Housing Bureau
Transport Department
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