

LCQ20: Facilitating the application of information systems and development of autonomous vehicles

Following is a question by the Hon Charles Peter Mok and a written reply by the Secretary for Transport and Housing, Mr Frank Chan Fan, in the Legislative Council today (January 15):

Question:

It is learnt that the mainstream design of new-generation telematics is to connect smart devices and cloud platforms through radio waves for drivers to access driving information, communicate and browse the Internet for information, as well as to provide features that help enhance driving safety and efficiency. However, the existing legislation imposes stringent restrictions on the contents of the information or the view given by a visual display unit visible to the driver whilst in the driver's seat (visual display unit). As such, it is required to disable some features of new-generation telematics and even remove some accessories from them prior to vehicle registration. On the other hand, the Government indicated in April last year that the Policy Innovation and Co-ordination Office (PICO) would review the Road Traffic Ordinance (Cap. 374) and relevant subsidiary legislation to see whether the relevant legislation was capable of supporting the development and application of autonomous vehicles and telematics. In this connection, will the Government inform this Council:

(1) of the progress of the review of Cap. 374 and relevant subsidiary legislation conducted by PICO as well as the outcome so far;

(2) given that the new-generation telematics operable in an interactive mode have gradually become mainstream and standard devices for vehicles and are widely used in other places, whether the authorities will, in the light of technological advancement, amend the Road Traffic (Construction and Maintenance of Vehicles) Regulations (Cap. 374A) to the effect that all of the features of such type of systems are permitted to be used in Hong Kong; if so, of the details; if not, the reasons for that;

(3) whether it will consider, before all of the features of new-generation telematics are permitted to be used in Hong Kong, amending section 37 of Cap. 374A to impose different requirements on the respective applicable features of telematics when a vehicle is moving or parked, to the effect that telematics with the following features are permitted to be installed in vehicles: display of restricted information (e.g. television programmes and stored visual images which are not for the purpose of navigating the vehicle) for viewing by the driver whilst in the driver's seat when the vehicle is parked; and

(4) of the expected date on which the legislation will be amended to allow

the application of autonomous driving technology (e.g. the automated car-hailing feature) in Hong Kong?

Reply:

President,

Upon consultation with the Policy Innovation and Co-ordination Office (PICO), my reply to the various parts of the Hon Charles Peter Mok's question is as follows:

(1) Reviewing the legislation and regulations that impede innovation and technology (I&T) and economic development is one of the Government's eight major directions for I&T development. PICO's work in this respect includes a review of the Road Traffic Ordinance (Cap. 374) and its subsidiary legislation to see whether the legislation is capable of supporting the development and application of autonomous vehicle (AV) technology and telematics in Hong Kong. During the course of the study, PICO maintained liaison with the Transport and Housing Bureau and the Transport Department (TD) to better understand the local situation. PICO also conducted research on the development of and facilitation measures for relevant technologies in other cities; as well as the applicability of other jurisdictions' experience in the local context.

In brief, in respect of the application of visual display units, PICO has noted that the current Road Traffic (Construction and Maintenance of Vehicles) Regulations (Cap. 374A) (the Regulations) already allow a driver to view driving-related information whilst in the driver's seat, including the required navigation and driving information. As for AV technology, PICO considers that a clear legal framework will be conducive to the development of the technology in the long run. In this regard, TD has commenced studying relevant legislative amendments.

(2) and (3) As mentioned in Part (1) of the reply above, the Regulations already allow a driver to view the following information on a visual display unit whilst in the driver's seat:

- (i) the current state of the vehicle or its equipment;
- (ii) the current closed-circuit view of any part of the vehicle or the area surrounding the vehicle;
- (iii) the current location of the vehicle; or
- (iv) any other information for the only purpose of navigating the vehicle.

The above provisions governing the use of visual display units are intended to ensure road safety through enabling drivers to drive attentively without being distracted by visual images not relevant to driving. As compared with other cities, Hong Kong is densely populated with heavy traffic; high level of concentration is required on the part of drivers when driving. If the Government allows drivers to view information that is currently restricted (e.g. television programmes and stored visual images) whilst their vehicles are stationary, it will jeopardise road safety as the drivers could be distracted by the information displayed.

Overall speaking, apart from allowing telematics to provide drivers with information in compliance with the requirements of the Regulations (e.g. driving-related information), the Regulations could cater for the development of today's advanced driver assistance systems (e.g. Lane Keep Assist alert system), thereby facilitating the application of such systems on vehicles in Hong Kong for safer driving.

(4) On promoting AV technology, TD set up the Technical Advisory Committee on the Application of Autonomous Vehicle Technologies in Hong Kong in November 2019. The Committee, comprising representatives and experts from the trade and relevant research and development institutes, will explore how best to draw up an appropriate regulatory framework for AVs. TD will work in close collaboration and liaison with the trade and make reference to local experience of trials of AV technology when contemplating the long term regulatory framework with necessary legal backing. Besides, TD published a new set of "Guidance Notes on the Trials of Autonomous Vehicles" in December 2019 to stipulate safety guidelines on the trials of AVs so that the trade could have a firmer grasp of the requirements for conducting AV trials on roads under the existing legislation.

Separately, TD has commenced studying the necessary legislative amendments with a view to allowing the trade to conduct trials of innovative technologies through a "regulatory sandbox" approach, and is working in close collaboration with the trade to jointly stipulate the regulatory model for AVs as well as the conditions and supporting measures required for trials of AVs. The objective is to create a suitable and safe road environment for such trials. We will conduct relevant research in full swing and report our findings to the relevant Panel of the Legislative Council in due course.