

行政院所屬各機關因公出國人員出國報告書

(出國類別：其他(國際會議))

亞太經濟合作會議 (APEC)
第四十八次運輸工作小組會議報告

服務機關：交通部

姓名職稱：劉信宏科員

出國地點：俄羅斯莫斯科

出國期間：108 年 11 月 18 日至 11 月 21 日

報告日期：109 年 2 月 24 日

目 錄

頁次

一、 會議目的	1
二、 會議時間與地點	1
三、 我國與會代表	1
四、 會議議程	3
五、 陸運專家小組會議	6
六、 結論與建議	111
七、 附件	133

亞太經濟合作會議第四十八次運輸工作小組會議報告

一、會議目的

APEC 運輸工作小組會議(TPT-WG)為整合 APEC 區域內運輸系統，發展智慧型運輸科技，訂定運輸技術與安全標準，促成運輸技術合作，並加速運輸部門自由化，以促進亞太地區之貿易自由與經濟發展為目標。

二、會議時間與地點

會議時間：108 年 11 月 18 日至 11 月 21 日。

會議地點：俄羅斯莫斯科 Holiday Inn Moscow Sokolniki。

三、我國與會代表

我國出席第 48 次運輸工作小組會議代表團成員共計 19 人，由交通部運輸研究所副所長黃新薰博士擔任領隊；出席會議之代表團成員依路、海、空及複合運輸領域分工，詳如下表：

出席人員單位職銜及分工

序次	姓名	單位	職稱	備註
1	黃新薰	交通部運輸研究所	副所長	領隊
2	吳東凌	交通部運輸研究所	組長	複合運輸
3	周家慶	交通部運輸研究所	高級運輸 分析師	複合運輸
4	林文閔	交通部道路交通安全督導委員會	技正	陸運
5	林姿雅	交通部航政司	技士	海運
6	劉信宏	交通部路政司	科員	陸運
7	吳英立	交通部民用航空局	簡任技正	空運
8	朱衍達	交通部民用航空局	科長	空運
9	張任緯	交通部民用航空局	專員	空運
10	張嘉紋	交通部航港局	副組長	海運
11	王瑋瑤	交通部航港局	科員	海運
12	吳昆峯	國立交通大學	副教授	陸運
13	許志成	財團法人車輛安全審驗中心	處長	陸運
14	呂春福	車輛公會(台灣本田汽車)	部長	陸運
15	陳冠翔	臺灣港務股份有限公司	管理師	海運

16	林良泰	逢甲大學	教授兼學務長	複合運輸
17	張和盛	逢甲大學	專案經理	複合運輸
18	顏君聿	台灣經濟研究院	組長	專案
19	劉禹伸	台灣經濟研究院	副研究員	專案



我國代表團成員合影

四、會議議程

本次 APEC 運輸工作小組(TPT-WG)會議，依主辦會員體俄羅斯安排，包括全體會員大會及 4 個專家小組會議，且並未循往例召開次級專家小組會議，各次級專家小組討論議題

納入其所屬專家小組會議議程中討論(自第 45 次會議逐步採行此模式，是否舉辦次級專家小組會議交由專家小組主席及該次主辦會員體決定)，由 4 個專家小組會議主席彙整該小組及其次級專家小組討論之結論共識，向全體會員大會報告，各日會議重點摘要如下：

(DAY 1) 11 月 17 日 星期日

時間	會議及主題	擬議出席代表說明
14:00-17:00	會前安排會議	主事成員、副主事成員、各專家小組主席、計畫指導員、主辦國(俄羅斯)

(DAY 2) 11 月 18 日 星期一

時間	會議及主題	擬議出席代表說明
07:00-12:00	代表團報到	辦理報到事宜
08:00-09:00	領隊會議	請領隊、運研所吳東凌組長、台經院顏君聿組長、*劉禹仲副研究員代表出席
09:15-12:30	大會開幕式	全體代表出席 (請台經院團隊協助整理會議紀要)
12:30-14:00	午餐	
14:00-15:30	周邊會議／議題：女性參與運輸(WiT)	請台經院顏君聿組長、*劉禹仲副研究員代表出席
15:45-18:30	專家小組分組會議	
	空運專家小組(AEG)	請民航局吳英立簡任技正、朱衍達科長、*張任緯專員代表出席
	海運專家小組(MEG)	請航港局張嘉紋副組長、王瑋瑤科員、*航政司林姿雅技士、港務公司陳冠翔管理師代表出席
	陸運專家小組(LEG)	請路政司劉信宏科員、*道安會林文閔技正、交通大學吳昆峯副教授、車安中心許志成處長、車輛公會(台灣本田公司)呂春福部長代表出席
	複合運輸與智慧型運輸系統專家小組(IIEG)	請運研所周家慶高級運輸分析師、逢甲大學林良泰學務長、張和盛專案經理、台經院顏君聿組長、*劉禹仲副研究員代表出席

(DAY 3) 11月19日 星期二

時間	會議及主題	擬議出席代表說明
08:30-12:00	各專家小組分組會議	請相關代表持續代表出席
	空運專家小組(AEG)	
	海運專家小組(LEG)	
	陸運專家小組(MEG)	
	複合運輸與智慧型運輸系統專家小組(IIEG)	
12:00-13:00	午餐	
13:00-17:00	技術參訪	請各位代表視需要斟酌參加

(DAY 4) 11月20日 星期三

時間	會議及主題	擬議出席代表說明
08:30-12:30	各專家小組分組會議	請相關代表持續代表出席
	空運專家小組(AEG)	
	海運專家小組(LEG)	
	陸運專家小組(MEG)	
	08:30-10:30 LEG 與 IIEG 共同會議 (自駕車議題)	請運研所周家慶高級運輸分析師代表出席
	複合運輸與智慧型運輸系統專家小組(IIEG)	請運研所吳東凌組長、逢甲大學林良泰學務長、張和盛專案經理、台經院顏君聿組長、*劉禹仲副研究員代表出席
12:30-13:30	午餐	
13:30-17:00	各專家小組分組會議	請相關代表持續代表出席
	空運專家小組(AEG)	
	海運專家小組(LEG)	
	陸運專家小組(MEG)	
	複合運輸與智慧型運輸系統專家小組(IIEG)	
19:00-22:00	歡迎晚宴	全體代表出席

(DAY 5) 11月21日 星期四

時間	會議及主題	擬議出席代表說明
08:30-10:30	各專家小組分組會議	請相關代表持續代表出席
	空運專家小組(AEG)	
	海運專家小組(LEG)	
	陸運專家小組(MEG)	
	複合運輸與智慧型運輸系統專家小組(IIEG)	
10:30-10:45	茶敘時間	
10:45-13:00	周邊會議／議題：運輸教育	請台經院顏君聿組長、*劉禹仲副研究員代表出席
13:00-14:30	午餐	

14:30-17:00	閉幕大會	全體代表出席 (請台經院團隊協助整理會議紀要)
-------------	------	----------------------------

五、陸運專家小組會議(LEG)

1. 本次 LEG 會議將次及專家小組議題納入討論：
 - (1) 道路與軌道安全次級專家小組(Road and Rail Safety Experts Sub-Group, LEG-SAF)
 - (2) 車輛標準調和次級專家小組(Vehicle Standards Harmonization Sub-Experts Group, LEG-VSHG)
2. 本次 LEG 會議由俄羅斯 Irina Bykova 女士擔任主席，參與會員體有澳洲、加拿大、中國大陸、印尼、韓國、馬來西亞、巴布亞紐幾內亞、菲律賓、俄羅斯、中華臺北、泰國等 13 個會員體代表出席會議。
3. 馬來西亞於會中提出「電動公車永續發展生態系統藍圖」概念文件，涵蓋供應鏈、基礎建設發展、相關投資財務模型、勞動力發展等層面，期盼能為馬來西亞架構成功電動公車試點計畫，並提供經驗予其他 APEC 會員體參考；巴布亞紐幾內亞則於會中提出「提升區域連結性與經濟成長：建立具韌性之陸運基礎建設最佳實務研討會」概念文件，期盼藉由本計畫執行可建

立 APEC 陸運基礎建設(道路與橋樑)之設計手冊，並規劃於 2020 年 7 月舉辦研討會。此兩份概念文件草案經與會之 LEG 會員體同意，各會員體如有相關評論建議或共同主辦意願則於 2019 年 12 月 20 日前提供 LEG 主席彙整。

4. 本次會議亦重新檢視陸運專家小組 2019 年工作計畫 (2019 Work Plan)，LEG 主席及各會員體同意將前述兩份概念文件納入工作計畫據以執行。
5. LEG 主席於會中報告道路與軌道安全次級專家小組之主席、副主席，以及車輛標準調和次級專家小組主席選舉事宜，並尋求各會員體有無推薦擔任之意願，請在 2019 年 12 月 20 日前回覆。會中加拿大及印尼表達不須再選舉擔任次級專家小組主席與副主席之必要性，但韓國則表示次級專家小組召開可針對特定議題進行深度交換意見，建議維持次級專家小組架構，我國亦表達支持立場。LEG 主席綜整各會員體意見，建議若 2020 年 2 月份前如未有會員體表達願意擔任次級專家小組主席與副主席之意願，LEG 主席將向大會主席 (Shepherd) 及 APEC 秘書處報告，建議次級專家小組存

在與否應審慎評估，並進行修改運輸工作小組權責範圍，但 LEG 仍支持原於車輛標準調和次級專家小組討論、更新及分享車輛安全法規調和資訊持續於 LEG 中運作，以利各會員體參考。

6. 我國於會中報告 2018 年下半年至 2019 上半年車輛安全法規標準調和進程，原則上以每年 2 次審視聯合國 UN/ECE 車輛安全法規更新狀況，並由相關車輛業者公會團體提出法規修訂建議，循程序進行討論，特別是受到廣泛關注的法規項目或涉及調和一致性之議題。在煞車及驅動裝置部分，調和包含輪胎、動態煞車等 6 個項目(共 10 項法規)，主動安全部分調和包含安全帶、安全帶固定裝置、座椅強度等 10 個項目(共 19 項法規)，一般安全性部分則調和包含安全玻璃、燃油箱安裝規定等 7 個項目(共 21 項法規)，燈光及號誌部分調和包含 LED 光源、反光標誌、HID 頭燈、晝行燈等 16 個項目(共 24 項法規)。另外在聯合國道路安全行動十年架構下，我國分為三個群組逐步調和更多聯合國車輛安全法規，總共有 10 項法規已完成發布、9 項法規待發布，另外 3 項已有草案刻正研討中。馬來西亞洽詢

我國除了 WP.29 及 UN/ECE 車輛法規之外，是否討論調和美國或中國大陸等更多法規體系及項目，我方則回應樂見於 APEC 運輸工作小組會議中討論更多例如美國聯邦機動車輛安全標準(FMVSS)內容，促進經濟體間資訊交流與分享，且我國目前亦有開放小客車以符合 FMVSS 符合性證明文件申請少量車輛型式安全審驗之機制，雖然沒有直接調和 FMVSS，而是透過法規同等替代符合方式進行採認。

7. 俄羅斯於會中報告其導入聯合國車輛安全法規成為歐亞經濟聯盟區域內法規之過程，其技術性法規原則範疇涵蓋車輛由設計、生產到回收過程之生命週期，且無論於歐亞經濟聯盟區域內製造或進口之車輛皆適用一致原則，針對國際間車輛安全法規會採直接適用的方式，其他部分則考量區域內車輛營運使用、經濟發展優先性等因素予以訂定。在 CU TR 018/2011 技術性規範架構下，整車部分已包含 94 項聯合國法規、2 項全球技術性法規，車輛零組件部分則包含 87 項聯合國法規，預計 2021 年將完成第三階段聯合國法規導入 CU TR 018/2011 技術性規範。

8. 韓國於會中向各經濟體報告更新 WP.29 會議近況及最新發展情形，WP.29 近期關注於自動駕駛車輛法規討論，並啟動 3 個非正式工作小組進行研討，包含自動駕駛車輛基本安全要求、自動駕駛車輛驗證方法及自動駕駛車輛資料儲存與事故紀錄器等。另外，在聯合國法規部分包含 1 項新法規(緊急煞車輔助系統)、26 項修正法規；全球技術性法規部分則沒有新的法規項目，但包含 3 項既有法規的修正。其他議題包含探討建立自動駕駛車輛駕駛情境資料庫之必要性，後續並持續針對使用中車輛監測系統及自動緊急呼救系統等進行討論。另外全球技術性法規也針對電動車輛安全性及電池回收等環境議題規範進行討論，並期盼未來有進一步結果。

9. 本次陸運專家小組(LEG)及複合運輸與智慧型運輸系統專家小組(IEEG)於 11 月 20 日上午聯合舉辦自駕車議題之共同會議，針對美國及日本起草之「自動駕駛車輛導引指南(AV Principles and Guidelines)」，內容包含自駕車發展以促進安全、服務導向、技術中立、法規調和、駕駛資訊與人員訓練、貿易政策、實驗測試、

市場範圍及通訊網路安全等面向，期盼為 APEC 區域內自駕車發展凝聚共識，惟韓國於會中表達反對現階段討論此草案內容，認為自駕車雖為新興科技，現階段由各會員體依該地區特性、需求進行發展與測試，而非一開始即提出指引等限縮其發展性。APEC 秘書處計畫主持人 Mr. Lee 表示會於其他合適之會議(如 APEC 汽車對話會議)再與各會員體共識討論，並適時在於 TPT-WG 會議報告。

六、結論與建議

1. 參加 APEC 運輸工作小組會議可促進我國於國際場域之能見度，而其中陸運專家小組討論議題，包含原有道路與軌道安全次級專家小組(LEG-SAF)及車輛標準調和次級專家小組(LEG-VSHG)就陸運安全、法規調和及創新科技應用等探討之面向，將有助於了解 APEC 各經濟體重要計畫、政策執行狀況及發展趨勢，並交流分享我國經驗，尋求合作機會，建議應持續派員參與會議。
2. 本次會議我國於陸運專家小組會議中報告 2018 年下半年至 2019 上半年車輛安全法規標準調和進程，除了讓

APEC 各會員體明瞭我國車輛安全法規持續調和國際法規之目標與決心，減少彼此法規認知差異及貿易障礙，我國目前法規體系以調和聯合國 UN/ECE 為主，對於馬來西亞、美國近期關注我國是否調和更多其他法規體系及項目等，我方樂見於 APEC 運輸工作小組會議中有更多討論，可藉由資訊分享及明瞭各會員體法規調和之差異性著手，再進入是否調和其他法規體系之實質討論，同時建議各經濟體應持續更新目前導入 UN 法規之狀況，及關注全球法規調和論壇 WP.29 相關活動及重點資訊。

3. 本次運輸工作小會議將次級專家小組會議(LEG-SAF、LEG-VSHG)議題合併於陸運專家小組會議中討論，雖可適度整合相關議題，具備更大之會議彈性，惟各會員體原於次級專家小組討論之代表出席較不踴躍，致使以往對於道路、軌道安全及車輛標準調和之議題較無深入交流機會，未來除鼓勵各會員體踴躍及推派人員參加會議，並可參考本次與複合運輸與智慧型運輸系統專家小組聯合舉辦自駕車會議之模式，針對特定議題召開跨領域會議，並由關注該議題之經濟體主導

或合作，以利聚焦及共識。

4. 我國可藉由 APEC 運輸工作小組會議場域，擴大培養我國國際人才，積極安排更多人員參加會議，包含政府機關、學術單位，並鼓勵更多民間機構及相關之業者公會派員參加，維持與其他經濟體之互動關係並培養人脈。

七、附件

本次會議資料。



Asia-Pacific
Economic Cooperation

Advancing
Free Trade for Asia Pacific
Prosperity



Asia-Pacific
Economic Cooperation

- **Amendment/Revision as considering UN Regulations**
- **Plan for Introducing New UN Regulations**
- **Summary**

1.Periodical Review :

Twice a year (1st half & 2nd half),

2.Proposal by any interest group

① Extensive concerns

② Clarification

③ Harmonization issue

Item	2 nd half of 2018	1 st half of 2019
Tyre	R54 00-23 、 R75 00-S17-C1 、 R30 02-S20	
Dynamic Braking	R13 11-S16 、 R13h 01-S1	
Brake assist systems	R139 00-S1	
Electronic stability control systems (ESC)	R140 00-S2	
Steering equipment	R79 02-S1 、 R79 03	
Speed limitation devices	R89 00-S3	

Item	2 nd half of 2018	1 st half of 2019
Seat Belt	R16 06-S9-C1、R16 06-S10-C1、R16 07-S1-C1、R16 07-S2-C1、R16 07-S3	R16 06-S11、R16 07-S4、R16 08
Belt anchorage	R14 09	R14 R5-C2
AECS		R144 00
Seat strength		R17 09
The protection of the occupants in the event of a lateral collision		R95 03-S7
HYDROGEN FUELLED VEHICLES (L)		R146 00

Item	2 nd half of 2018	1 st half of 2019
Door latches and retention components		R11 04-S2
Frontal impact with focus on restraint systems	R137 00-S1、R137 01-S1	
Battery electric vehicles safety		R100 01-S5
The protection of the occupants in the event of a frontal collision		R94 03-S1

Item	2 nd half of 2018	1 st half of 2019
The location and identification of hand controls, tell-tales and indicators	R121 00-S10 、 R121 01-S3	

Item	2 nd half of 2018	1 st half of 2019
Flammability of the interior materials for motor vehicle & Installation	R118 02-S4 、 R118 03-S1	
Installation of fuel tank		R34 02-S6 、 R34 03-S2

Item	2 nd half of 2018	1 st half of 2019
Light Installation		R48 05-S12 、 R48 06-11 、 R74 01-S10 、 R74 01-S11
AFS		R123 02
LED light sources	R128 00-S7	R128 00-S8
Retro-reflective markings		R104 01
Reflex reflector		R3 03
Reversing lamp		R23 01
Filament lamp and HID light source		R99 02-S14 、 R37 03-S47
Front fog lamp		R19 05
Rear fog lamp		R38 01

Item	2 nd half of 2018	1 st half of 2019
Direction indicator 、 Front position lamps 、 Tail lamps 、 Stop-lamp 、 High mounted / S3 stop lamps 、 End-outline marker lamp		R50 01 、 R7 03 、 R6 02
Rear marking plates for heavy and long vehicles		R70 02
Parking lamp		R77 01
Daytime running lamp		R87 01
Side marker lamp		R91 01
HID Headlamp		R98 02
Headlamp except HID		R112 02 、 R113 03

Pillar 3 :

Safer Vehicles

11

No	UN Reg.	Title	Status Quo
1-1	R58	RUPD	Waiting for announcement
1-2	R73	LPD	
1-3	R93	FUPD	
1-4	R26	External Projection for M1	Announced
1-5	R61	External projections of commercial vehicles	Announced
1-6	R87	DRL	Announced
1-7	R121	Location and identification of hand controls, tell-tales and indicators	Announced
1-8	R128	LED Light Source	Announced
1-9	R89	Speed limitation devices	Announced
1-10	R130	LDW(S)	Announced
1-11	R127	Pedestrian Safety	Waiting for announcement
1-12	R131	AEBS	Announced

1
2

No	UN Reg.	Title	Status Quo
2-1	R21	INTERIOR FITTINGS	Waiting for announcement
2-2	R29	CAB OF A COMMERCIAL VEHICLE	Waiting for announcement
2-3	R70	REAR MARKING PLATES	Announced
2-4	R125	THE FORWARD FIELD OF VISION	Waiting for announcement

No	UN Reg.	Title	Status Quo
3-1	R34	Prevention of fire risks in the event of collision	Announced *for rear-end collision
3-2	R32	Rear-end collision	Waiting for announcement
3-3	R117	Tyres, rolling resistance, rolling noise and wet grip	Drafted for discussion *for rolling resistance and wet grip
3-4	R136	Electric Safety of category L (EV-L)	Drafted for discussion
3-5	R137	Frontal impact with focus on restraint systems	Waiting for announcement
3-6	R145	ISOFIX anchorage systems, ISOFIX top tether anchorages and i-Size seating positions	Drafted for discussion

#3rd Group Candidates

- UN R35-00-S1 - Foot controls;
- UN R111-00-S1 - Handling and stability of vehicles;
- UN R135-00 - Pole Side Impact (PSI)

1. Keep moving

2 times yearly, Periodical Review on updating of UN Regulations
and just completed the discussion with industry

2. ~1st half of 2019 ready for discussion

GRRF: 10 items 2nd half of 2018 / 0 items 1st half of 2019

GRSP : 8 items 2nd half of 2018 / 11 items 1st half of 2019

GRSG: 8 items 2nd half of 2018 / 13 items 1st half of 2019

GRE : 1 items 2nd half of 2018 / 23 items 1st half of 2019

15

4. Introducing more UN Regulations

- 1st Group of 12 candidates
 - 8 Announced
 - 4 Waiting for announcement(UNR 58, 73, 93, 127)
- 2nd Group of 4 candidates (UN R21, 70, 125, 29)
 - 1 Announced
 - 3 Waiting for announcement(UN R21, 125, 29)
- 3rd Group of 9 candidates
 - 1 Announced
 - 2 Waiting for announcement
 - 3 Drafted for discussion

16

APEC

Asia-Pacific
Economic Cooperation



Thank you for your attention!



VSCC 財團法人車輛安全審驗中心
Vehicle Safety Certification Center



**Advancing
Free Trade for Asia-Pacific
Prosperity**



Euro-Asian Economic Union

Treaty on the Eurasian Economic Union (EAEU)
Annex № 9
Protocol on technical regulating within the framework of EAEU



**The Customs Union Technical Regulation «Concerning Safety of Wheeled
Vehicles» (CU TR 018/2011)
(Adopted by the Decision of the Commission of the Customs Union of 9 December
2011 № 877)
Entered into force 1 January 2015**

- Assurance of vehicle safety at all stages of the life cycle: from design and production to recycling
- Equal requirements to domestic – made in the Euro-Asian Economic Union – and imported vehicles
- Direct application of the international regulations in regards to automotive industry products (UN Regulations, UN GTRs)
- Establishment of the limited number of the national requirements considering specifics of vehicle operation in the territory of the Euro-Asian Economic Union
- Consideration of the national/regional economy priorities and development

Technical Regulation

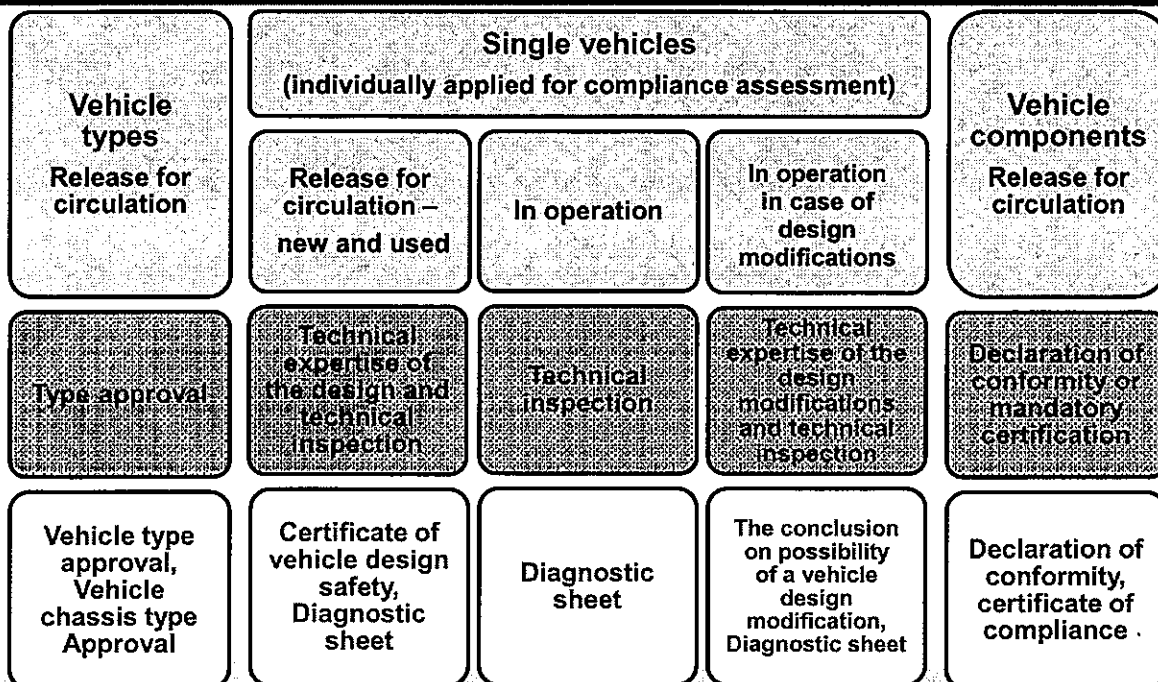
- I. General
- II. Definitions
- III. The rules of circulation on the market
- IV. Safety requirements
- V. Compliance Assessment
- VI. Marking by a uniform sign of product circulation on the market
- VII. Safeguard clause
- VIII. Final provisions

Annexes

- 1. List of objects for regulating
- 2-3. Requirements for vehicle types
- 4. Requirements for single vehicles
- 5. Overall and weight restrictions
- 6. Requirements for special vehicles
- 7. Requirements for vehicle identification and marking
- 8. Requirements for vehicles in operation
- 9. Requirements for some changes in the design of the vehicle
- 10. Requirements for vehicle components
- 11. Division of vehicles into types and modifications
- 12. List of application documents
- 13. Questions for assessment of production
- 14-18. Forms of documents issued as a result of compliance assessment
- 19. Forms and schemes of compliance assessment of vehicle components

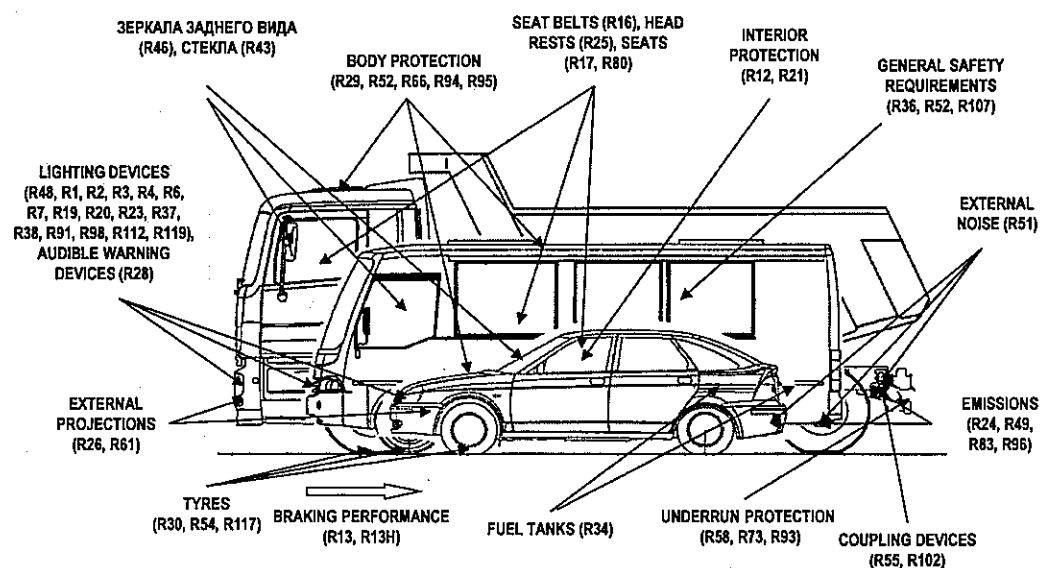
APEC

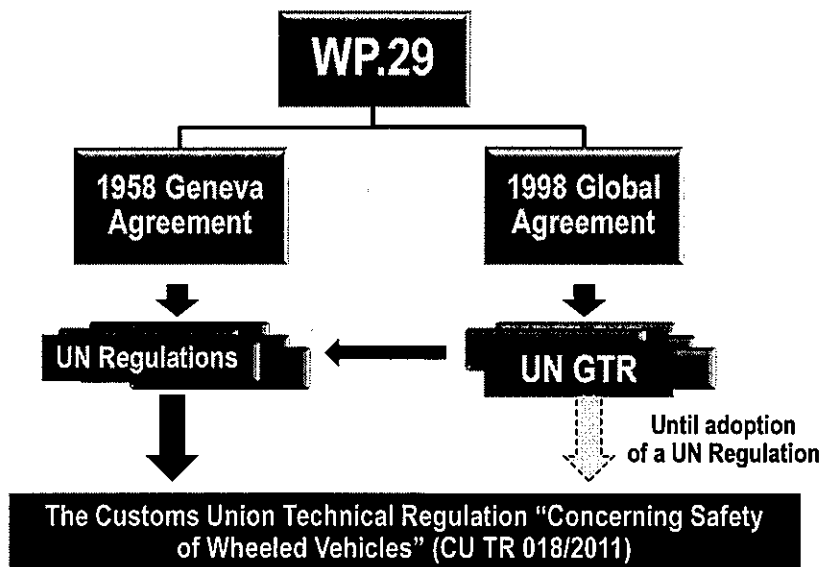
Asia-Pacific
Economic Cooperation



APEC

Asia-Pacific
Economic Cooperation





CU TR 018/2011 refers to:

Whole vehicles:

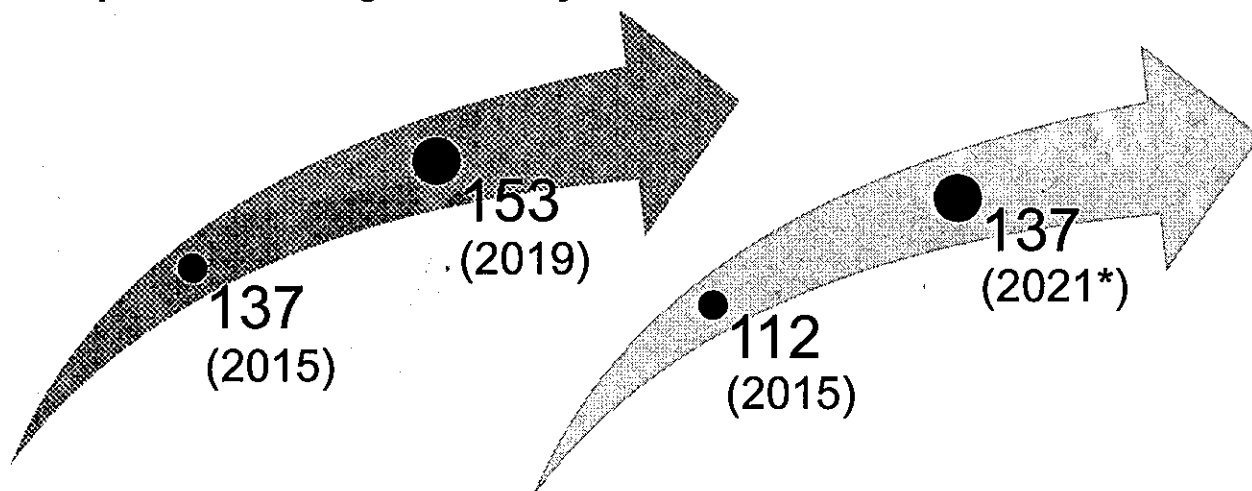
94 UN Regulations

2 UN GTR

Vehicle Components:

87 UN Regulations

Adoption of UN Regulations by WP.29



Implementation of UN Regulations in CU TR 018/2011

* 2021 – Target date for adoption of the 3rd package of amendments to CU TR 018/2011

Introduction of the requirements of UN Regulation Nos.:

- 1) 128: Light Emitting Diode (LED) light sources
- 2) 129: Enhanced Child Restraint Systems (ECRS)
- 3) 130: Lane Departure Warning System (LDWS)
- 4) 131: Advanced Emergency Braking Systems (AEBS)
- 5) 132: Retrofit Emission Control Devices (REC)
- 6) 133: Reusability, recyclability and recoverability
- 7) 134: Safety-related performance of hydrogen-fueled vehicles (HFCV)
- 8) 135: Pole Side Impact performance (PSI)
- 9) 136: Vehicles of category L with regard to specific requirements for the electric power train
- 10) 137: Passenger cars in the event of a frontal collision with focus on the restraint system
- 11) 138: Quiet Road Transport Vehicles with regard to their reduced audibility
- 12) 139: Brake Assist Systems (BAS)

Introduction of the requirements of UN Regulation Nos.:

- 13) 140: Electronic Stability Control (ESC) Systems
- 14) 141: Tyre Pressure Monitoring Systems (TPMS)
- 15) 142: Motor vehicles with regard to the installation of their tyres
- 16) 143: Heavy Duty Dual-Fuel Engine Retrofit Systems (HDDF-ERS) to be installed on heavy duty diesel engines and vehicles
- 17) 144: Accident Emergency Call Systems (AECS)
- 18) 146: Safety related performance of hydrogen-fueled vehicles of categories L1, L2, L3, L4 and L5
- 19) 148: Light-Signalling Devices
- 20) 149: Road Illumination Devices
- 21) 150: Retro-Reflective Devices
- 22) 151: Blind Spot Information Systems for the Detection of Bicycles
- 23) 152: Advanced emergency braking systems for light vehicles



www.nami.ru/en



www.facebook.com/fgupnami



[@fgupnami](https://twitter.com/fgupnami)



www.youtube.com/user/namiMoscow

1. UN/ECE/WP.29 Plenary Meeting
2. Recent Key Issues in WP.29
3. Report on WP.29 meeting
4. Progress on the development of UN GTRs

◆ Since the last APEC TPT-WG meeting, two plenary meetings were held

● **178th WP.29** (24 – 28 June 2019)

- UN Regulations : 27
 - New UN Regulation : 1
 - Amendments of UN Regulations : 26
- UN GTRs
 - New GTR : 0
 - Proposal for the amendment of UN GTR : 3

178 th			
UN Reg.	new	1	Advanced Emergency Braking System
	amendment	26	GRBP (6), GRSP (10), GRPE (6), GRVA (4)
UN GTR	new	0	
	amendment	3	15, 19, 15

◆ **Working Party on Automated Vehicle (GRVA)**

- Terms of References (ToRs) of GRVA and 3 Informal Working Groups were approved by WP.29 at the 178th session.
- Informal Working Groups

Informal Working Groups	Chair
Functional Requirements for Automated and Autonomous Vehicles (FRAV)	U.S, China, Germany
Validation Method for Automated Driving (VMAD)	Canada, Japan, the Netherlands
Data Storage System for Automated Driving/Event Data Recorder (DSSAD/EDR)	Japan, the Netherlands, U.S

- ◆ Discussion on the schedule of plenary meeting due to UN budget issue
 - The Secretary to GRSG will be vacant, but the UN is not going to fill in the position due to its budget issue.
 - GRSG meeting in October was held as it was scheduled
 - For saving budget, the 179th plenary meeting was shortened from 5 to 3 days (AC.2: morning 12 Nov, WP.29: afternoon 12 Nov – Nov. 14)
- ◆ Automated driving signal
- ◆ Informal Working Group on Intelligent Transport System
- ◆ Informal Working Group on Dummy Standards

- ◆ **1958 Agreement (UN regulations)**
 - New UN regulation: 1 (Advanced Emergency Braking System)
 - Amendment to existing regulations
 - 26 amendments were adopted
GRBP (6), GRSP (10), GRPE (6), and GRVA (4)

◆ GRBP (6 amendments)

- R30 (02): amend to add the definition of Extended Mobility Tyre (EMT)
- R51 (03): amend to include Additional Sound Emission Provisions (ASEP)
- R64 (03): amended to include more vehicle categories of which shall be equipped with temporary use spare unit and/or run-flat tyres
- R75 (00): amend to add the specifications and symbols of tyres classified with speed category for motorcycles/mopeds
- R117 (02): amended the type approval number of tyres
- R138 (01): amend the measurement method and speed range of test for quiet road transport vehicles

◆ GRSP (10 amendments)

- R17 (09): clarification of vehicle categories of which standards are applied
- R44 (04): new approval and extension of approval of child restraint system
- R129 (00-6, 00-9, 02, 03): harmonization of warning labels of child restraint system
- R14 (07): change of the quoted paragraph number from the French version standards on seat strength
- R145 (00): change of the quoted paragraph number from the French version standards on child restraint system (ISOFIX)
- R129 (00): paraphrase of Russian version standards on child restraint system
- R129 (03): paraphrase of French version standards on child restraint system

◆ GRPE (6 amendments)

- R24 (03): Amendment to a quote from UN R No.85 (Measurement of the net power) for the emission of diesel vehicles
- R83 (06, 07): Amendment followed the amendment to a quote from GTR No.19 (Emissions of M1 and N1 vehicles)
- R85 (00): Amendment to the procedure of the net power and the 30 min. power of vehicles
- R115 (00): Amendment followed the amendment to a quote from UN R.85 and GTR no.15 (LNG and CNG retrofit system)
- R83 (07): amendment to a quote from emissions of M1 and N1, and redundant phrases

◆ GRVA (4 amendments)

- R78 (04): amend to add new regulations including electric motorcycle braking (regenerative braking system)
- R90 (02): amendment to the tests of replacement brake lining assemblies for vehicles of category L
- R139 (00): amend to clarify the vehicle categories of which Brake Assist System (BAS) shall be equipped
- R140 (00): amend to specify the vehicle categories of which Electronic Stability Control System (ESC) shall be equipped

◆ **1998 Agreement (UN GTRs)**

- New UN GTR: 0
- Amendment to existing UN GTR: 3
 - GTR no. 15: the 5th amendment to the WLTP*
 - GTR no. 19: the 2nd amendment to the EVAP WLTP
 - GTR no. 15: amendment to the French version of WLTP

* Worldwide Harmonized Light Vehicle Test Procedure

◆ **Others**

- Discussion on the necessity of a database of scenarios for establishing standards for automated driving
 - Members shared understanding on the necessity of various scenarios for verification of automated driving safety
 - Multi-User Scenario Catalogue for Connected and automated vehicles (MUSICC) from the U.K and TRANSPOLIS from France explained their projects
 - Discussion for collecting and sharing scenarios will be continued through VMAD

- Regular inspection standards (annexed to 1997 Agreement)
 - Explained the results of meetings held in Seoul (Apr.) and in Belgium (May)
 - Explained on-going discussions:
 - Monitoring system for vehicles in use
 - Regular inspection on Automatic Emergency Call Systems (AECS)

◆ 178th WP29 (development & amendment of UN GTRs: 14)

- UN GTR No.2 (Worldwide Motorcycle emission Test Cycle (WMTC))
 - IWG on EPPR will submit a formal proposal of amendment to GRPE in May 2020 and work on the draft amendment of GTR No.18 (OBD for motor vehicles)
- UN GTR No.3 (Motorcycle braking)
 - Harmonizing GTR No.3 and UN R No.78. A formal document was submitted to GRVA
- UN GTR No.6 (Safety glazing)
 - GRSG adopted the draft amendment to UN GTR No.6 (Safety Glazing) that Korea proposed
 - The adopted document will be submitted to WP29 (Mar 2020) and expected to be adopted

◆ 178th WP29 (development & amendment of UN GTRs: 14)

- UN GTR No.7 (Head restraints)
 - submitted the 4th report on the 2nd phase
- UN GTR No.9 (Pedestrian safety)
 - Korea proposed an amendment to introduce a test procedure for active protection device (active hood).
 - The amendment will be adopted at the 179th plenary meeting.
- UN GTR No.13 (Hydrogen and Fuel Cell Vehicles(HFCV) Phase 2)
 - Requested an approval for the activities to conduct research on HFCV
 - Plan to develop 2nd phase standards by 2020
 - Draft an amendment to the current standards, include more categories of vehicle, and draft a standards for fuel tank performance

◆ 178th WP29 (development & amendment of UN GTRs: 14)

- UN GTR No.15 (Worldwide harmonized Light vehicle Test Procedures (WLTP)-Phase 2)
 - Japan and EU proposed to extend the roadmap and IWG for the Phase 2a research on WLTP
- UN GTR No.16 (Tyres)
 - Russia proposed to amend the standards for friction of snow tyres and wet grip performance test
- UN GTR No.18 (On-board diagnostics for two- or three-wheeled motor vehicles)
 - Derived from the research on the amendment to GTR No.2 (motorcycle emission)
- UN GTR No. 19 (EVAPorative emission test procedure for the Worldwide harmonized Light vehicle Test Procedure (WLTP EVAP))
 - Proposed by the EU and Japan
 - After the GTR on WLTP was made in 2014, GTR for evaporation has been separated to be discussed.

◆ 178th WP29 (development & amendment of UN GTRs: 14)

- UN GTR No.20 (Electric Vehicle Safety (EVS))
 - The IWG on EVS is carrying out the followings for the 2nd phase development of standards:
 - (a) Water immersion test,
 - (b) Long-term fire resistance test,
 - (c) Rechargeable Electrical Energy Storage System (REESS) rotation tests,
 - (d) REESS vibration profile,
 - (e) Flammability, toxicity and corrosiveness of vented gas
 - (f) Thermal propagation and method of initiation in battery system
 - (g) Post-crash REESS safety assessment and stabilization procedures,
 - (h) Light electric vehicles (e.g. L6 & L7, low speed vehicles)
 - (i) Protection during Alternating Current and Direct Current charging and feeding process,
 - (j) Overcurrent requirement plus tests
 - The IWG activities was expected to be finished by the end of 2021.

◆ 178th WP29 (development & amendment of UN GTRs: 14)

- Draft UN GTR on Quiet Road Transport Vehicles (QRTV)
 - The U.S proposed the development of QRTV at the 155th WP29 Plenary meeting
 - Chair: the U.S, Vice Chair: Japan, Secretary: EU
 - Clarify the noise, performance requirement and test procedure
- Global Real Driving Emissions (GRDE)
 - Development of test procedure for measuring emission on real road
 - Chair: EU, Vice Chair: Japan & Korea
 - Changed Timeline was adopted in 178th WP29,
the final draft will be reviewed by GRPE until Jun 2020

◆ 178th WP29 (development & amendment of UN GTRs: 14)

● Electric Vehicles and the Environment (EVE)

- The IWG on EVE has requested to approve the following standards development:
 - (a) Determination of powertrain performance: November 2019 (research)
 - (b) Battery performance and durability: November 2018 (research)
 - (c) Markings of energy consumption: June 2018
 - (d) Reuse of battery
- (Power Determination) Completed draft will be submit to GRPE in Jan 2020
- (Battery Durability) Status report on durability assessment will be submit to GRPE in Jan 2020



www.apec.org



www.facebook.com/APECnews



@APEC and @Bollard_APEC



www.linkedin.com/company/asia-pacific-economic-cooperation-apec-secretariat

Economy	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Australia	44										Recently applied - R16, R43, R46, R48 To be considered over 2015 - R10, R11, R16, R17, R26, R28, R43, R46, R51, R54, R56, R77, R79, R83, R87, R119, R123, R125 Recently applied through WP.20 R138, R139, R140, R141 Recently applied (still is not yet UN) R11, R77, R87, R119 To be considered over 2017 - R9, R10, R13-H, R16, R17, R26, R28, R46, R51, R54, R79, R83, R123, R125			
Brunei														
Canada	21 (R6, 11, 13H, 20, 31, 41, 42, 48, 51, 53, 57, 60, 72, 78, 81, 97, 98, 112, 113, 116, 123)	1 (R116)	2 (R11, 42)						1 (R78)			3 (R13H, 51, 60)	3 (R48, 53, 123)	
Indonesia	7								3 (R 17, R25, R40)	(R83, R13, R13-H, R14, R79, R30, R31)				
Japan	80								8 (R43, 60, 64, 76, 125, 129, 130, 131)	10 (R4, 21, 34, 37, 60, 69, 112, 117, 128, 135)	6 (R48, 51, 66, 134, 136, 137)	6 (R87, 110, 139, 140, 141, 142)	4 (R0, 136, 144, 145)	
Republic of Korea	65	2 (UN R13H, 19)	9 (UN R14, 39, 53, 57, 73, 85, 104, 107, 123)	1 (UN R48)	9 (UN R9, 10, 12, 46, 79, 87, 90, 112, 123(update), 125)	4 (UN R42, 64, 85, 91)	7 (UN R1, 2, 8, 13(update), 20, 50, 72, 112(update), 113, 53(update), 107(update))		15 (R3, 4, 7, 16, 21, 23, 50, 58, 54, 55, 58, 70, 96, 100, 119)			18 (UN R10(update), 18, 27, 36, 96, 60, 70(update), 75, 81, 90, 104(update), 107(update), 121, 124, 127, 130, 131, 13)	2 (UN R77, 138)	
Malaysia	77								NA	23 UN Regulation out of 77 UN Regulation has been implemented through Vehicle Type Approval (VTA) Process since 1 Jan 2015 (R4, R10, R11, R19, R21, R23, R26, R24, R27, R28, R44, R45, R48, R55, R50, R61, R64, R77, R83, R84, R85, R86, R87, R88, R89, R90, R91, R92, R93, R94, R95, R96, R97, R98, R99, R100, R101, R102, R103, R104, R105, R106, R107, R108, R109, R110, R111, R112, R113, R114, R115, R116, R117, R118, R119, R120, R121, R122, R123, R124, R125, R126, R127, R128, R129, R130, R131, R132, R133, R134, R135, R136, R137, R138, R139, R140, R141, R142, R143, R144, R145, R146, R147, R148, R149, R150, R151, R152, R153, R154, R155, R156, R157, R158, R159, R160, R161, R162, R163, R164, R165, R166, R167, R168, R169, R170, R171, R172, R173, R174, R175, R176, R177, R178, R179, R180, R181, R182, R183, R184, R185, R186, R187, R188, R189, R190, R191, R192, R193, R194, R195, R196, R197, R198, R199, R200, R201, R202, R203, R204, R205, R206, R207, R208, R209, R210, R211, R212, R213, R214, R215, R216, R217, R218, R219, R220, R221, R222, R223, R224, R225, R226, R227, R228, R229, R230, R231, R232, R233, R234, R235, R236, R237, R238, R239, R240, R241, R242, R243, R244, R245, R246, R247, R248, R249, R250, R251, R252, R253, R254, R255, R256, R257, R258, R259, R260, R261, R262, R263, R264, R265, R266, R267, R268, R269, R270, R271, R272, R273, R274, R275, R276, R277, R278, R279, R280, R281, R282, R283, R284, R285, R286, R287, R288, R289, R290, R291, R292, R293, R294, R295, R296, R297, R298, R299, R300, R301, R302, R303, R304, R305, R306, R307, R308, R309, R310, R311, R312, R313, R314, R315, R316, R317, R318, R319, R320, R321, R322, R323, R324, R325, R326, R327, R328, R329, R330, R331, R332, R333, R334, R335, R336, R337, R338, R339, R340, R341, R342, R343, R344, R345, R346, R347, R348, R349, R350, R351, R352, R353, R354, R355, R356, R357, R358, R359, R360, R361, R362, R363, R364, R365, R366, R367, R368, R369, R370, R371, R372, R373, R374, R375, R376, R377, R378, R379, R380, R381, R382, R383, R384, R385, R386, R387, R388, R389, R390, R391, R392, R393, R394, R395, R396, R397, R398, R399, R400, R401, R402, R403, R404, R405, R406, R407, R408, R409, R410, R411, R412, R413, R414, R415, R416, R417, R418, R419, R420, R421, R422, R423, R424, R425, R426, R427, R428, R429, R430, R431, R432, R433, R434, R435, R436, R437, R438, R439, R440, R441, R442, R443, R444, R445, R446, R447, R448, R449, R450, R451, R452, R453, R454, R455, R456, R457, R458, R459, R460, R461, R462, R463, R464, R465, R466, R467, R468, R469, R470, R471, R472, R473, R474, R475, R476, R477, R478, R479, R480, R481, R482, R483, R484, R485, R486, R487, R488, R489, R490, R491, R492, R493, R494, R495, R496, R497, R498, R499, R500, R501, R502, R503, R504, R505, R506, R507, R508, R509, R510, R511, R512, R513, R514, R515, R516, R517, R518, R519, R520, R521, R522, R523, R524, R525, R526, R527, R528, R529, R530, R531, R532, R533, R534, R535, R536, R537, R538, R539, R540, R541, R542, R543, R544, R545, R546, R547, R548, R549, R550, R551, R552, R553, R554, R555, R556, R557, R558, R559, R560, R561, R562, R563, R564, R565, R566, R567, R568, R569, R570, R571, R572, R573, R574, R575, R576, R577, R578, R579, R580, R581, R582, R583, R584, R585, R586, R587, R588, R589, R590, R591, R592, R593, R594, R595, R596, R597, R598, R599, R600, R601, R602, R603, R604, R605, R606, R607, R608, R609, R610, R611, R612, R613, R614, R615, R616, R617, R618, R619, R620, R621, R622, R623, R624, R625, R626, R627, R628, R629, R630, R631, R632, R633, R634, R635, R636, R637, R638, R639, R640, R641, R642, R643, R644, R645, R646, R647, R648, R649, R650, R651, R652, R653, R654, R655, R656, R657, R658, R659, R660, R661, R662, R663, R664, R665, R666, R667, R668, R669, R670, R671, R672, R673, R674, R675, R676, R677, R678, R679, R680, R681, R682, R683, R684, R685, R686, R687, R688, R689, R690, R691, R692, R693, R694, R695, R696, R697, R698, R699, R700, R701, R702, R703, R704, R705, R706, R707, R708, R709, R710, R711, R712, R713, R714, R715, R716, R717, R718, R719, R720, R721, R722, R723, R724, R725, R726, R727, R728, R729, R730, R731, R732, R733, R734, R735, R736, R737, R738, R739, R740, R741, R742, R743, R744, R745, R746, R747, R748, R749, R750, R751, R752, R753, R754, R755, R756, R757, R758, R759, R760, R761, R762, R763, R764, R765, R766, R767, R768, R769, R770, R771, R772, R773, R774, R775, R776, R777, R778, R779, R780, R781, R782, R783, R784, R785, R786, R787, R788, R789, R790, R791, R792, R793, R794, R795, R796, R797, R798, R799, R800, R801, R802, R803, R804, R805, R806, R807, R808, R809, R810, R811, R812, R813, R814, R815, R816, R817, R818, R819, R820, R821, R822, R823, R824, R825, R826, R827, R828, R829, R830, R831, R832, R833, R834, R835, R836, R837, R838, R839, R840, R841, R842, R843, R844, R845, R846, R847, R848, R849, R850, R851, R852, R853, R854, R855, R856, R857, R858, R859, R860, R861, R862, R863, R864, R865, R866, R867, R868, R869, R870, R871, R872, R873, R874, R875, R876, R877, R878, R879, R880, R881, R882, R883, R884, R885, R886, R887, R888, R889, R890, R891, R892, R893, R894, R895, R896, R897, R898, R899, R900, R901, R902, R903, R904, R905, R906, R907, R908, R909, R910, R911, R912, R913, R914, R915, R916, R917, R918, R919, R920, R921, R922, R923, R924, R925, R926, R927, R928, R929, R930, R931, R932, R933, R934, R935, R936, R937, R938, R939, R940, R941, R942, R943, R944, R945, R946, R947, R948, R949, R950, R951, R952, R953, R954, R955, R956, R957, R958, R959, R960, R961, R962, R963, R964, R965, R966, R967, R968, R969, R970, R971, R972, R973, R974, R975, R976, R977, R978, R979, R980, R981, R982, R983, R984, R985, R986, R987, R988, R989, R990, R991, R992, R993, R994, R995, R996, R997, R998, R999, R1000, R1001, R1002, R1003, R1004, R1005, R1006, R1007, R1008, R1009, R1010, R1011, R1012, R1013, R1014, R1015, R1016, R1017, R1018, R1019, R1020, R1021, R1022, R1023, R1024, R1025, R1026, R1027, R1028, R1029, R1030, R1031, R1032, R1033, R1034, R1035, R1036, R1037, R1038, R1039, R1040, R1041, R1042, R1043, R1044, R1045, R1046, R1047, R1048, R1049, R1050, R1051, R1052, R1053, R1054, R1055, R1056, R1057, R1058, R1059, R1060, R1061, R1062, R1063, R1064, R1065, R1066, R1067, R1068, R1069, R1070, R1071, R1072, R1073, R1074, R1075, R1076, R1077, R1078, R1079, R1080, R1081, R1082, R1083, R1084, R1085, R1086, R1087, R1088, R1089, R1090, R1091, R1092, R1093, R1094, R1095, R1096, R1097, R1098, R1099, R1100, R1101, R1102, R1103, R1104, R1105, R1106, R1107, R1108, R1109, R1110, R1111, R1112, R1113, R1114, R1115, R1116, R1117, R1118, R1119, R1120, R1121, R1122, R1123, R1124, R1125, R1126, R1127, R1128, R1129, R1130, R1131, R1132, R1133, R1134, R1135, R1136, R1137, R1138, R1139, R1140, R1141, R1142, R1143, R1144, R1145, R1146, R1147, R1148, R1149, R1150, R1151, R1152, R1153, R1154, R1155, R1156, R1157, R1158, R1159, R1160, R1161, R1162, R1163, R1164, R1165, R1166, R1167, R1168, R1169, R1170, R1171, R1172, R1173, R1174, R1175, R1176, R1177, R1178, R1179, R1180, R1181, R1182, R1183, R1184, R1185, R1186, R1187, R1188, R1189, R1190, R1191, R1192, R1193, R1194, R1195, R1196, R1197, R1198, R1199, R1200, R1201, R1202, R1203, R1204, R1205, R1206, R1207, R1208, R1209, R1210, R1211, R1212, R1213, R1214, R1215, R1216, R1217, R1218, R1219, R1220, R1221, R1222, R1223, R1224, R1225, R1226, R1227, R1228, R1229, R1230, R1231, R1232, R1233, R1234, R1235, R1236, R1237, R1238, R1239, R1240, R1241, R1242, R1243, R1244, R1245, R1246, R1247, R1248, R1249, R1250, R1251, R1252, R1253, R1254, R1255, R1256, R1257, R1258, R1259, R1260, R1261, R1262, R1263, R1264, R1265, R1266, R1267, R1268, R1269, R1270, R1271, R1272, R1273, R1274, R1275, R1276, R1277, R1278, R1279, R1280, R1281, R1282, R1283, R1284, R1285, R1286, R1287, R1288, R1289, R1290, R1291, R1292, R1293, R1294, R1295, R1296, R1297, R1298, R1299, R1300, R1301, R1302, R1303, R1304, R1305, R1306, R1307, R1308, R1309, R1310, R1311, R1312, R1313, R1314, R1315, R1316, R1317, R1318, R1319, R1320, R1321, R1322, R1323, R1324, R1325, R1326, R1327, R1328, R1329, R1330, R1331, R1332, R1333, R1334, R1335, R1336, R1337, R1338, R1339, R1340, R1341, R1342, R1343, R1344, R1345, R1346, R1347, R1348, R1349, R1350, R1351, R1352, R1353, R1354, R1355, R1356, R1357, R1358, R1359, R1360, R1361, R1362, R1363, R1364, R1365, R1366, R1367, R1368, R1369, R1370, R1371, R1372, R1373, R1374, R1375, R1376, R1377, R1378, R1379, R1380, R1381, R1382, R1383, R1384, R1385, R1386, R1387, R1388, R1389, R1390, R1391, R1392, R1393, R1394, R1395, R1396, R1397, R1398, R1399, R1400, R1401, R1402, R1403, R1404, R1405, R1406, R1407, R1408, R1409, R1410, R1411, R1412, R1413, R1414, R1415, R1416, R1417, R1418, R1419, R1420, R1421, R1422, R1423, R1424, R1425, R1426, R1427, R1428, R1429, R1430, R1431, R1432, R1433, R1434, R1435, R1436, R1437, R1438, R1439, R1440, R1441, R1442, R1443, R1444, R1445, R1446, R1447, R1448, R1449, R1450, R1451, R1452, R1453, R1454, R1455, R1456, R1457, R1458, R1459, R1460, R1461, R1462, R1463, R1464, R1465, R1466, R1467, R1468, R1469, R1470, R1471, R1472, R1473, R1474, R1475, R1476, R1477, R1478, R1479, R1480, R1481, R1482, R1483, R1484, R1485, R1486, R1487, R1488, R1489, R1490, R1491, R1492, R1493, R1494, R1495, R1496, R1497, R1498, R1499, R1500, R1501, R1502, R1503, R1504, R1505, R1506, R1507, R1508, R1509, R1510, R1511, R1512, R1513, R1514, R1515, R1516, R1517, R1518, R1519, R1520, R1521, R1522, R1523, R1524, R1525, R1526, R1527, R1528, R1529, R1530, R1531, R1532, R1533, R1534, R1535, R1536, R1537, R1538, R1539, R1540, R1541, R1542, R1543, R1544, R1545, R1546, R1547, R1548, R1549, R1550, R1551, R1552, R1553, R1554, R1555, R1556, R1557, R1558, R1559, R1560, R1561, R1562, R1563, R1564, R1565, R1566, R1567, R1568, R1569, R1570, R1571, R1572, R1573, R1574, R1575, R1576, R1577, R1578, R1579, R1580, R1581, R1582, R1583, R1584, R1585, R1586, R1587, R1588, R1589, R1590, R1591, R1592, R1593, R1594, R1595, R1596, R1597, R1598, R1599, R1600, R1601, R1602, R1603, R1604, R1605, R1606, R1607, R1608, R1609, R1610, R1611, R1612, R1613, R1614, R1615, R1616, R1617, R1618, R1619, R1620, R1621, R1622, R1623, R1624, R1625, R1626, R1627, R1628, R1629, R1630, R1631, R1632, R1633, R1634, R1635, R1636, R1637, R1638, R1639, R1640, R1641, R1642, R1643, R1644, R1645, R1646, R1647, R1648, R1649, R1650, R1651, R1652, R1653, R1654, R1655, R1656, R1657, R1658, R1659, R1660, R1661, R1662, R1663, R1664, R1665, R1666, R1667, R1668, R1669, R1670, R1671, R1672, R1673, R1674, R1675, R1676, R1677, R1678, R1679, R1680, R1681, R1682, R1683, R1684, R1685, R1686, R1687, R1688, R1689, R1690, R1691, R1692, R1693, R1694, R1695, R1696, R1697, R1698, R1699, R1700, R1701, R1702, R1703, R1704, R1705, R1706, R1707, R1708, R1709, R1710, R1711, R1712, R1713, R1714, R1715, R1716, R1717, R1718, R1719, R1720, R1721, R1722, R1723, R1724, R1725, R1726, R1727, R1728, R1729, R1730, R1731, R1732, R1733, R1734, R1735, R1736, R1737, R1738, R1739, R1740, R1741, R1742, R1743, R1744, R1745, R1746, R1747, R1748, R1749, R1750, R1751, R1752, R1753, R1754, R1755, R1756, R1757, R1758, R1759, R1760, R1761, R1762, R1763, R1764, R1765, R1766, R1767, R1768, R1769, R1770, R1771, R1772, R1773, R1774, R1775, R1776, R1777, R1778, R1779, R1780, R1781, R1782, R1783, R1784, R1785, R1786, R1787, R1788, R1789, R1790, R1791, R1792, R1793, R1794, R1795, R1796, R1797, R1798, R1799, R1800, R1801, R1802, R1803, R1804, R1805, R1806, R1807, R1808, R1809, R1810, R1811, R1812, R1813, R1814, R1815, R1816, R1817, R1818, R1819, R1820, R1821, R1822, R1823, R1824, R1825, R1826, R1827, R1828, R1829, R1830, R1831, R1832, R1833, R1834, R1835, R1836, R1837, R1838, R1839, R1840, R1841, R1842, R1843, R1844, R1845, R1846, R1847, R1848, R1849, R1850, R1851, R1852, R1853, R1854, R1855, R1856, R1857, R1858, R1859, R1860, R1861, R1862, R1863, R1864, R1865, R1866, R1867, R1868, R1869, R1870, R1871, R1872, R1873, R1874, R1875, R1876, R1877, R1878, R1879, R1880, R1881, R1882, R1883, R1884, R1885, R1886, R1887, R1888, R1889, R1890, R1891, R1892, R1893, R1894, R1895, R1896, R1897, R1898, R1899, R1900, R1901, R1902, R1903, R1904, R1905, R1906, R1907, R1908, R1909, R1910, R1911, R1912, R1913, R1914, R1915, R1916, R1917, R1918, R1919, R1920, R1921, R1922, R1923, R1924, R1925, R1926, R1927, R1928, R1929, R1930, R1931, R1932, R1933, R1934, R1935, R1936, R1937, R1938, R1939, R1940, R1941, R1942, R1943, R1944, R1945, R1946, R1947, R1948, R1949, R1950, R1951, R1952, R1953, R1954, R1955, R1956, R1957, R1958, R1959, R1960, R1961, R1962, R1963, R1964, R1965, R1966, R1967, R1968, R1969, R1970, R1971, R1972, R1973, R1974, R1975, R1976, R1977, R1978, R1979, R1980, R1981, R1982, R1983, R1984, R1985, R1986, R1987, R1988, R1989, R1990, R1991, R1992, R1993, R1994, R1995, R1996, R1997, R1998, R1999, R2000, R2001, R2002, R2003, R2004, R2005, R2006, R2007, R2008, R2009, R2010, R2011, R2012, R2013, R2014, R2015, R2016, R2017, R				

Autonomous Vehicle Principles and Guidelines

Recognizing the importance of automated/autonomous vehicles (AVs), the APEC Automotive Dialogue supports the development of the framework guidance and processes being pursued at the global level in the World Forum for Harmonization of Vehicle Regulations Working Party 29 (UN WP.29).¹

Specifically, the APEC Automotive Dialogue highlights the following AV priorities:

1. **Enhancement of Safety:** AVs hold great promise to significantly increase the level of road safety, but also introduce some new challenges. The APEC Auto Dialogue supports advancing the life-saving potential of automation.
2. **Technology Neutrality:** To facilitate technology advancement, we support the development of technology-neutral policies through an open process with input from all relevant stakeholders.
3. **Performance-Based:** To avoiding restricting or limiting future innovation, we support utilization of performance-based standards for AVs.
4. **Consumer Information and Training:** To address the anticipated differences in the use and operation of automated vehicles from those of conventional vehicles, vehicle manufacturers should develop, document, and maintain education and training programs.
5. **Cyber-Security:** To defend against cyber-attacks and protect consumers' and drivers' privacy, automated vehicles should be protected in accordance with established best practices for cyber vehicle physical systems.
5. **Rational Standards/ Testing:** Manage/oversee AVs in a manner that avoids unnecessary, unwarranted, or premature regulations and allow AV testing in the operational design domains that match where deployments will ultimately occur (e.g., testing permitted in urban environments)
6. **Complementary Infrastructure:** To ensure that the development of physical infrastructures and technologies is complementary to all AVs and do not vary by market or region.
7. **Trade Policies:** To ensure that the introduction of AVs will not lead to new trade barriers (i.e., tariff, quotas and non-tariff measures).

¹ As outlined in Document ECE/TRANS/WP.29/2019/34 at the World Forum for Harmonization of Vehicle Regulations Working Party 29.



OVERVIEW REPORT ON THE 48TH MEETING OF THE APEC TRANSPORTATION WORKING GROUP

18-21 November 2019, Moscow, Russia

Seongkyun Cho, TPT-WG Lead Shepherd

A OVERVIEW OF THE MEETING

Introduction

Russia hosted the 48th meeting of the Transportation Working Group (TPT-WG48) on 18-21 November 2019, in Moscow, Russia. The meeting was held at the Holiday Inn Moscow Sokolniki.

The Honourable Dmitry Zverev, State-Secretary - Deputy Minister of Transport of the Russian Federation, and Mr. Yury Petrov, Assistant Minister of Transport of the Russian Federation and Russia's Head of Delegation, welcomed delegates to the Opening Plenary on 18 November 2019.

The Lead Shepherd and other delegates expressed their thanks and appreciation for the hospitality extended by Russia in hosting this meeting.

The outcomes of the meeting are summarised in this report. All official papers from the meeting are available on the APEC website by selecting the TPT-WG pages on <http://mddb.apec.org/pages/browseGroup.aspx>.

Participation

A total of 16 economies attended the meeting: Australia; Canada; China; Hong Kong, China; Indonesia; Japan; Republic of Korea; Malaysia; New Zealand; Papua New Guinea; Peru; the Philippines; Russia; Chinese Taipei; Thailand; and the United States. Macao, China participated in this meeting as Official Guest to TPT-WG.

Representatives from the APEC Port Services Network (APSN), APEC Seafarers Excellence Network (APEC SEN) and APEC Energy Research Center (APEREC) also attended. The Lead Shepherds of HRDWG Working Group attended the meeting. The APEC Secretariat was represented by the Programme Director.

Keynote Speeches

The Honourable Dmitry Zverev, State-Secretary - Deputy Minister of Transport of the Russian Federation, delivered a keynote address to the Opening Plenary, during which he highlighted Russia's transportation priorities in APEC -- diversification and development of smart supply chains, utilization of digital technologies, improving road traffic safety, collaboration in developing joint personnel training, development and integration of remote areas. Also, he introduced the historical background and contents of the 210th anniversary of transport authority and transport education in Russia.

Lead Shepherd emphasized integration as a critical theme of the overall TPT-WG, comprised of (1) integration between economic development and transport investment, (2) collaboration between transport and education, and (3) cooperative strategy between energy and transport.

Programme

The TPT-WG48 programme included Opening and Closing Plenaries, and meetings of the Experts Groups -- Aviation (AEG), Intermodal and Intelligent Transport Systems (IIEG), Land (LEG) and Maritime (MEG). All Sub-groups' agendas were incorporated into their relevant Experts Groups' agendas. Two side meetings -- on Women in Transport (WiT) and Transport Education -- were held before the Closing Plenary.

B OUTCOMES, PROJECTS AND OTHER INITIATIVES

Heads of Delegation Meeting

The United States made a presentation on their Concept Paper on Enhancing the Impact of APEC Transportation Working Group Meetings and Programming. TPT-WG Heads of Delegation agreed to continue to discuss this paper at coming meetings in 2020.

TPT-WG economy members were requested to provide their comments and inputs to this U.S. paper inter-sessionally. The United States will incorporate all the received comments into the paper and re-circulate it to TPT-WG members before the next meeting.

TPT-WG 48 Policy Direction and Priorities

TPT-WG Terms of Reference (TOR) Discussion

Deputy Lead Shepherd briefed TPT-WG members on the inter-sessional discussions related to the revision of TPT-WG's TOR. Program Director restated the agreement that was reached at TPT-WG47 to integrate all the TORs of TPT-WG Experts Groups and their Sub-Groups into the overall TPT-WG TOR. Deputy Lead Shepherd

presented a final revised draft of the TPT-WG TOR, which was endorsed by TPT-WG members at the Closing Plenary.

As next steps, when Program Director submits the TPT-WG Report to SCE early next year, he will also submit the revised TPT-WG TOR to SCE for its endorsement. SCE will then report on the revised TOR to SOM and request that SOM endorse it.

2019 APEC Services Competitiveness Roadmap Matrix

Lead Shepherd explained the background of updating the ASCR (APEC Services Competitiveness Roadmap) Implementation Plan and how it relates to the APEC Connectivity Blueprint 2015-2025, TMM9 Statement, and APEC Services Cooperation Framework. Program Director added the history of past developments on TPT-WG-related outputs and indicators in the ASCR Implementation Plan. TPT-WG endorsed the following revised ASCR Matrix as drafted by Lead Shepherd.

- **Outputs:**
 - Modernization of transport, expansion of digital connectivity with state-of-the-art ICT technology
 - International transport education or training in cooperation with HRDWG
 - Enhancement of APEC port connectivity through APSN activities
- **Targets**
 - TPT-WG submits the summary report of outputs to SOM in 2025.
- **Indicators**
 - Related TPT-WG projects
 - Related policy guidelines
 - Related forums or conferences

Thematic Talks

As part of the Opening Plenary, the Korean Deputy Minister for Territorial and Urban Development, Dr. Ahn, Choo Whoan, made a presentation regarding how to design transportation infrastructure to maximize urban regeneration's performance. He indicated that the roles of transport should include providing people with appropriate accessibility to various types of community-based S.O.C.s. He gave an example of a municipality where the regeneration theme is 'tourism' that needs to build more transport capacity to perform the 'function.' His presentation suggested sample solutions: (1) aligning road and pedestrian space to be environmentally friendly, (2) organizing the transport system through the functional arrangement of neighborhood roads, (3) arranging parking lots and introducing a parking sharing system, and (4) utilizing transport-related space resources.

Dr. Young Tae Kim, Secretary-General of the International Transport Forum (ITF) at the OECD, highlighted the importance of seamless, integrated transport solutions to unlocking regional economic development opportunities. He stressed the importance of transport innovation, in particular in the fields of shared mobility and automation, in improving integration of transport systems to deliver better connectivity and accessibility. Dr. Kim discussed the importance of rethinking government policy and regulation to help unlock the benefits of the latest technological developments. He also highlighted the challenge of national transport investment appraisals not fully

accounting for regional development objectives. The ITF helps its member economies, including APEC members, address this challenge through several high-level projects, which ITF discussed with APEC membership in the AEG and IIEG meetings of the TPT-WG48. The discussed topics included connecting remote communities, accessibility and mobility, and shared mobility and automation.

Cross-fora Collaboration

(Cross-fora collaboration with HRDWG)

Chair of the Side Meeting on Transport Education, Mr. Vladimir Timonin, Vice-rector of the Russian University of Transport, highlighted that the efficiency of transport system operation largely depends on how qualified specialists are. APEC economies should have the possibility to exchange best practices and work out coordinated solutions to personnel training for international transport project design and implementation.

- Mr. Timonin stressed that the Ministers at the 10th APEC Transportation Ministerial Meeting in October 2017 in Port Moresby reiterated the importance of competent human resources in creating a safe, secure, reliable, effective and seamless transport system in the APEC region, and encouraged collaboration of APEC economies in developing joint personnel training.
- He noted that in support of this idea the APEC Conference “Cooperation in the field of transport education for the benefit of transport connectivity in the APEC region” was held on 7-8 February 2018 in Moscow, Russia. The Conference revealed promising areas for further cooperation by APEC economies in the field of transport education.
- Mr. Timonin also highlighted that initiatives on education, personnel training and capacity building are cross-fora issues. Therefore, it is critically important that TPT-WG cooperate with HRDWG.

(Cross-fora collaboration with EWG)

During the Opening Plenary, two Asia Pacific Energy Research Centre (APERC) representatives -- Mr. David Wogan, Assistant Vice President, and Mr. Alexey Kabalinskiy, Researcher -- presented the findings from the 7th Edition of the APEC Energy Demand and Supply Outlook. These highlight the share of transport in current and future energy demand, and the role it could play should economies seek to attain the aspirational energy goals or adopt the deep decarbonisation pathways. During the Closing Plenary, APERC proposed to work further with APEC economies to track transport technology development and formulate modelling assumptions. Plenary sessions and Experts Group discussions provided a great opportunity to network with colleagues from APEC economies, and discuss future co-operation on modelling and sectoral research.

Projects Updates

Program Director updated TPT-WG members that through Project Sessions 1 and 2 in 2019, TPT-WG successfully got seven projects funded. He highlighted that this was the highest number within the past 10 years. He explained the approval process for APEC projects, introduced in 2018, which includes how to draft, submit, and endorse project Concept Notes or proposals for each APEC-relevant fund.

Experts Group Discussions

The Final Reports from the Expert Groups were presented and approved at the Closing Plenary. The Final Reports are available on the Meeting Document Database.

AEG

The Aviation Experts Group successfully and efficiently completed discussions, attended by (28) delegates from (13) economies. Two guests, from the International Transport Forum (ITF) and National Business Aviation Association (NBAA), participated in the meeting.

The United States updated the progress of the Performance-Based Communication and Surveillance (PBCS) project that the AEG endorsed, which will support a workshop in April 2020 to help expand APEC PBCS implementation capabilities.

The delegates had meaningful discussions and shared experiences related to the following main themes: Connectivity, Unmanned Aircraft Systems (UAS), Security Culture and Insider Threat, Women in Aviation, and Aviation Skills Training and Workforce Planning. The ITF presented on connectivity of remote communities and public acceptability and integration of drones. The AEG and IIEG-GIT also held a successful joint session on UAS, including discussion of UAS integration pilot projects and counter UAS.

The AEG also discussed four new Concept Notes proposed by the United States -- on (1) Workshop on Security Culture, (2) Building Randomness and Unpredictability into AVSEC Countermeasure Development and Implementation, (3) Roadmap for the Hiring and Training of Flight Standards Inspectors, and (4) Connectivity -- that will incorporate elements related to safety, security, and economic issues.

The delegates agreed the main themes will help cohesiveness on issues of common concern and allow continuous discussion and sharing of experiences to develop feasible projects. To facilitate this, the AEG encouraged more input from economies and participants to support the development and resolution of key issues in the future. The Women in Transportation Taskforce Chair also urged the AEG to designate a focal point to i) participate in the Women in Transportation discussions to offer an aviation perspective, and ii) to encourage continued discussion of women in aviation in the AEG meetings.

LEG

Mrs. Irina Bykova (Russia) chaired the TPT-WG48 LEG meeting. The following economies attended this meeting: Australia, Canada, China, Indonesia, Korea, Malaysia, Papua New Guinea, the Philippines, Russia, Chinese Taipei, and Thailand.

Malaysia and Papua New Guinea submitted the draft Concept Notes “Development of Electric Bus Ecosystem and Pilot Program for Sustainable Implementation in

Malaysia and APEC Region” and “Best Practices Workshop on Building Resilient Land Transportation Infrastructure”, respectively, for LEG comments and endorsement. LEG agreed to consider the proposed draft Concept Notes inter-sessionally and provide comments, including potential co-sponsoring, to the LEG Chair by 20 December 2019.

LEG reviewed its Work Plan 2019 and decided to include the draft Concept Notes submitted by Malaysia and Papua New Guinea: “Development of Electric Bus Ecosystem Blueprint and Pilot Program for Sustainable Implementation in Malaysia and APEC Region” and “Best Practices Workshop on Building Resilient Land Transportation Infrastructure”, respectively.

Chair of LEG announced vacancies in the positions of LEG-SAF Chair/Vice-Chair and LEG-VSHG Chair and encouraged economies to nominate candidates by 20 December 2019. If there are no nominees for these positions, the Chair of LEG will inform Lead Shepherd and APEC Secretariat that the LEG-SAF and LEG-VSHG Sub-groups have not met in two years so their continued existence should be reviewed. Notwithstanding this, LEG recognizes and values the continuing importance of updating, reviewing, and sharing information among economies with regard to vehicle standards harmonization.

LEG discussed 14 presentations on major developments in land transport, innovative and emerging technologies in land transport, safety in land transport, and vehicle standards harmonization:

- Accessibility, Business, Population, Income, and Synergy (Korea);
- Establishment History of Korea Railroad Comprehensive Test Track, Current Status and Meaning (Korea);
- Russian Railways: Developing Cooperation with Asia and the Pacific (Russia);
- Developing Infrastructure of Russian Railways (Russia);
- Express Container Service by RZD Logistic: Trans-Siberian Land Bridge (Russia);
- Big Data Analysis for Transport (Korea);
- Regulating Ride Hailing Services (Malaysia);
- Updates on Traffic Safety (Chinese Taipei);
- Progress Report on “Developing Guidelines for Motorcycle Crash Data Collection and Reporting in the APEC Region” (Chinese Taipei);
- Traffic Safety Policy for Accident Reduction (Korea);
- ERA-GLONASS: Innovative Technologies in Road Safety (Russia);
- Progress Report on Harmonization in Chinese Taipei (Chinese Taipei);
- Implementation of UN Regulations in the Regional Regulatory System of the Euro-Asian Economic Union (Russia); and
- Recent update of UNECE/WP29 (Korea).

Australia, Canada, Korea, Malaysia, New Zealand, Russia, the Philippines, Chinese Taipei, and Thailand provided progress reports on Vehicle Standards Harmonization. Korea from LEG provided a presentation at the IIEG-LEG-GIT-ITF joint session on the topic of Autonomous Vehicles.

IIEG

The IIEG meeting was chaired by the IIEG Deputy Chair and was attended by 38 delegates representing 11 APEC economies. One delegate from Macao, China attended as an observer, and delegates from the International Transport Forum (ITF), and Cruise LLC attended as non-member participants.

Updates were provided on four on-going projects: Disruptive Technologies and the Changing Nature of Work in the Transportation Sector (Canada); Promote Supply Chain Connectivity by Enhancing and Better Understanding Digital Innovation in APEC Port Industry (China); Combatting Human Trafficking by Addressing Illicit Uses of Transportation (U.S.); and Identifying Uses of App-Based Transportation Mobility Technologies for Inclusive Smart Cities (U.S.).

The IIEG Deputy Chair led a discussion on the IIEG's input to TPT-WG's Terms of Reference (TOR), which was later endorsed by IIEG members.

Nine Economy Reports were presented by six economies and the ITF on various intermodal and ITS developments. Among these Economy Reports, two (China, New Zealand) focused on intermodal/multimodal logistics, one (ITF) focused on supply chain resiliency and connectivity, two (Korea and the U.S.) focused on emerging technologies session, and four (Malaysia, Chinese Taipei, the U.S. and ITF) focused on the crossing-cutting theme of accessibility and mobility.

The IIEG, LEG and GIT held a joint session on the topic of autonomous vehicles, with presentations from the China, the U.S., Korea, Japan, and the ITF.

The GNSS Implementation Team (GIT) met during TPT-WG48 and also held a joint session with AEG to share counter UAS and identification. An update on their activities has been included in the IIEG Final Report.

MEG

Maritime Experts Group and Maritime Security Sub-group (MEG-SEC) successfully and efficiently completed discussions that were attended by 31 delegates from 16 economies. Representatives of APSN and APEC SEN also attended. Fruitful discussions were held on MEG's four policy priorities: supply chain connectivity, capacity building of the maritime workforce, green port/shipping, and safety and security.

The MEG welcomed the valuable outcomes of the project on slow steaming by Chile. Updates of other on-going projects were provided, and comments were made for successful implementation. The new Secretary General of APEC SEN reported its official launch, recent activities, and plans for 2020. The MEG also received seven informative economy reports.

In addition to the MEG themes, security-related issues were discussed under the MEG-SEC, including the maritime security initiative updates, and economy reports on ISPS Code (International Ship and Port Facility Security Code) implementation. A new concept note on joint assessment and information sharing was endorsed.

Finally, it was agreed that the election to determine the new Deputy Chair of the MEG

will be held at the TPT-WG49 in 2020.

Side Meeting on Women in Transport

The Women in Transportation (WiT) Taskforce Chair provided an overview of the topics discussed in the WiT Side Meeting, particularly highlighting discussion around the use of data to develop actionable policy recommendations to improve women's access to and representation in the spectrum of transport sector jobs. Of particular note was discussion surrounding the presentation by the International Transport Forum (ITF), which shared preliminary results from a gender-related study of its members that demonstrated that the 2018 average female participation rate in the transport sector was only 17 percent. This finding, though collected from economies that are not a part of APEC, underscored the goals of the WiT Taskforce regarding data collection in the APEC region to enable data-driven solutions. Side Meeting participants shared their interest in best practices developed to address women's participation in transportation jobs. In response, the Chair highlighted the 2017 publication of the "Compendium of Best Practices", which contains lessons learned in various organizations, both public and private, from activities under the WiT Data Framework.

The WiT Chair, with support from the Secretariat, sought nominations for Focal Points in each economy and Experts Group that has not yet designated a point of contact. The Taskforce Chair also encouraged economies and Experts Groups to consider submitting concept notes for projects that include gender elements in order to improve the chance of obtaining funding, noting that many of the recently successful concept notes were geared in some way toward increasing transportation opportunities for women. The Chair also proposed that a WiT Side Meeting be held on the first day of TPT-WG49 so that Experts Groups would be better enabled to discuss Taskforce initiatives. No objections were raised regarding that proposal and, pending arrangement by the Host Economy, the Side Meeting will be scheduled as recommended.

Side Meeting on Transport Education

Mr. Vladimir Timonin, Vice-rector of the Russian University of Transport, chaired the Side Meeting on Transport Education. The following economies attended this meeting: Australia; Canada; Hong Kong, China; Indonesia; Japan; Republic of Korea; Malaysia; New Zealand; Papua New Guinea; Russia; Chinese Taipei; and the United States.

At the Side Meeting, 6 presentations were discussed:

- Transport Higher Education and Training of the Russian Federation: Figures and Vision (Russia, Russian University of Transport);
- Competency Model of a Transport University (Russia, Samara State University of Railway Engineering);
- Disruptive Technologies and the Changing Nature of Work in the Transportation Sector (Canada);

- Global Logistics: Wildau-Yekaterinburg-Jakarta University of Transportation Partnership (Russia, Ural State University of Railway Engineering)
- Training of Specialists for the Digital Economy (Russia, Samara State University of Railway Engineering); and
- Digital Technologies in the Management of an Educational Institution of Higher Education: Experience of Applying Development Directions (Russia, Siberian State University of Water Transport).

The Chair highlighted that initiatives on education, personnel training and capacity building are cross-fora issues. The Side Meeting welcomed HRDWG's, WiT Taskforce's, and APEC SEN Secretariat's interventions.

APEC Port Service Network (APSN) Presentation

The APSN presented an update report on its recent activities in 2019, including its revision of the Rules of Procedure of the APSN Council, the 12th Meeting of its Council and the 8th Advisory Board Meeting, the outcome of the APSN Forum on Digital Innovation and Port Connectivity, the progress report on the APEC Port Study Center and the 2019 GPAS Award Ceremony in Peru. The TPT-WG noted with appreciation the APSN's ongoing efforts to promote port and supply chain connectivity and green growth of the APEC port industry, and encouraged all APEC members to actively participate in the APSN, its 2020 Forum on Smart Ports to be held in Qingdao, China and the GPAS program, in particular.

APEC Seafarers Excellence Network (APEC SEN)

The APEC Seafarers Excellence Network provided the session plenary with an overview of the newly established body under the TPT-WG MEG, along with the structure of its organization. Plenary participants were able to observe the timeline of key activities in the APEC SEN's progress towards establishment and into 2020. In particular, the successful establishment of APEC SEN, 1st Steering Council and Experts Group Meeting along with the progress of the APEC Onboard Training project (TPT 2019 03) were discussed by APEC SEN Secretary General Mr. Dong Jae Lee and APEC Task Force Team Lead Dr. Seunghee Choi.

The goal and overall objective of APEC SEN is to establish an inclusive, high-quality, one-stop online portal and offline network satisfying the current and emerging needs of the shipping industry and seafarers of the APEC region, while promoting information, knowledge, and skills transfer for seafarers, industry, academia, and related entities. The key expectations for APEC SEN are to 1) strengthen employability through online and offline maritime education and training; 2) attain improved welfare ensuring a high degree of work-life balance onboard vessels as well as ashore; and 3) assist career development and job transition through re-training in the digital age to come. APEC SEN is led by the Secretariat and Secretary General with a Steering Council overseeing three Expert Groups (EG): EG 1) Maritime Education and Training; EG 2) Seafarers' Better Welfare; and EG 3) Recruitment, Career Development and Job Transition.

The progress of the APEC Onboard Training project (TPT 2019 03) was outlined in three phases with expected output dates:

- ① Research activities – October 2019;
- ② A workshop onboard for the establishment of a well-designed and well-structured program – June 2020; and
- ③ A pilot training program targeted for young maritime leaders in the APEC region wishing to engage in maritime industry as marine officers in the future – November 2020.

Another requirement and key criterion in the selection process of the onboard training program was the minimum of 20% women participants in activities and pilot program.

The most recent activity from the 1st APEC SEN Steering Council and Expert Group Meetings, which were held on 21-23 October 2019, were also shared. At these meetings, 103 representatives from 14 APEC member economies participated to discuss and establish the following: election of APEC SEN leaders, endorse Expert Groups working plan for 2020-2025, and commence discussions on future cooperation of seafarer-related organizations with APEC SEN.

Classification of Meeting Documents

Lead Shepherd wrapped up the TPT-WG48 meeting by stressing the need to submit Concept Notes within the deadlines, summarizing and submitting the minutes of all agendas, and appreciating the excellent cooperation of all APEC members.

C MANAGEMENT AND ADMINISTRATIVE MATTERS

Future TPT-WG Meetings

TPT-WG49

The United States confirmed that the 49th TPT-WG meeting will be held in Guam from April 20 to 23 (dates to be confirmed).

TMM11

TPT-WG members agreed to hold a regular TPT-WG meeting rather than a ministerial meeting in the fall of 2020 if no economy volunteers to host TMM11. Highlighting that TPT-WG is a member-driven forum that requires members' active engagement and voluntary participation, Program Director encouraged all members to consider hosting either a regular TPT-WG meeting or a ministerial meeting in the coming few years. Further to this, Lead Shepherd indicated that holding a regular TPT-WG meeting would not replace the TMM11 officially, as per the TPT-WG TOR.

Upcoming Conference, Seminars, and Other Events

Program Director will update TPT-WG members on the schedule of upcoming workshops when these are confirmed.