Country Report

- Republic of Korea -

5th. Nov. 2019

Korea Automobile Testing and Research Institute

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1. Introduction : Overview of Korean Road Transport

- **Population** : 51.85millions (2018)

- **Drivers** : 32.16 millions (62.0%)

- **Vehicle Registration** : 23.2 millions (2018)

  * Increased 3.1% compared to the year of 2017(22.5 millions)

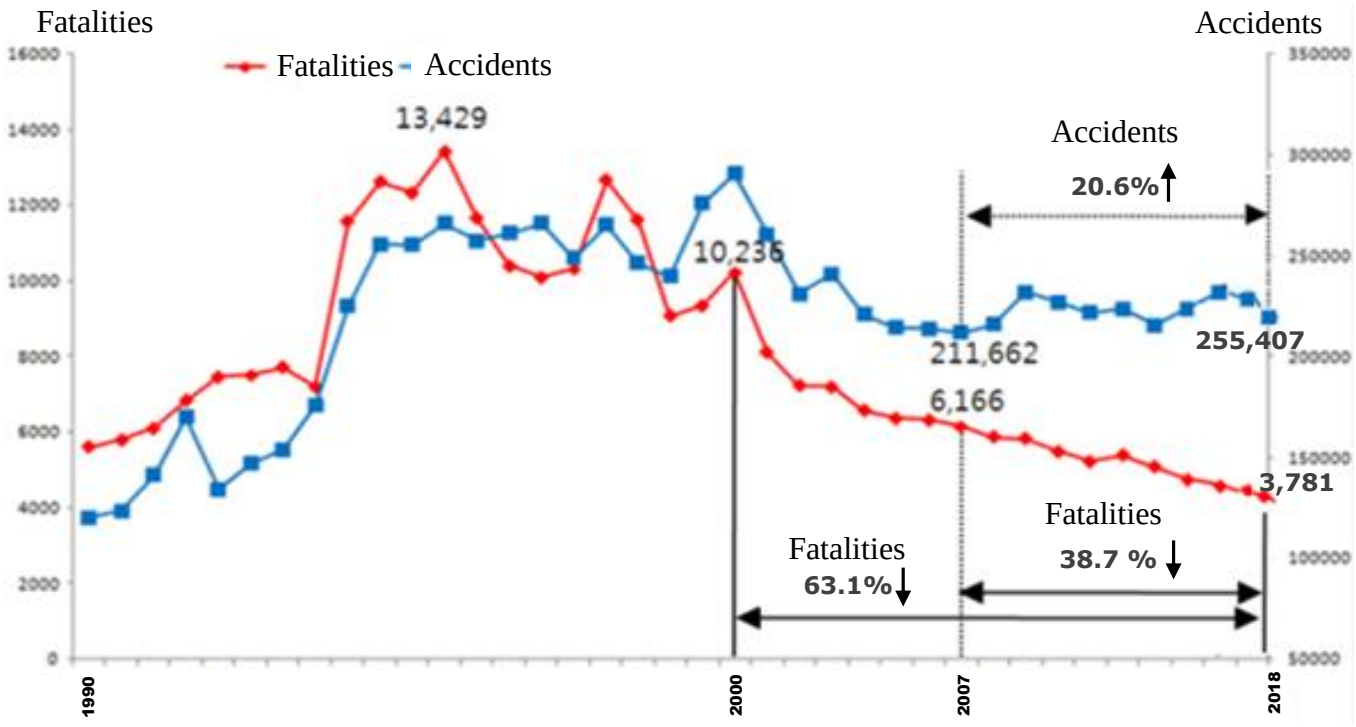
  * 0.45 veh./population, 1.131 veh./house, 447.4 veh./1,000 people

- **Roads**: 110,714 km (86.28% paved) as of Nov. 2018

  * Expressway : 4,767 km (operated by ITS)

1. Introduction : Statistics related to Road Safety and Automotive Industries

- **Road traffic accidents** : 255,407 / **Fatalities** : 3,781(2018, -10% comparison of 2017(4,185)
- The number of road traffic accident fatalities was at the highest-peak in 1991 (13,429 people), and then it is decreasing continuously.
- A change of fatalities reduction ratio (▼ 32.1%, 1,181 people) is becoming slower during the last planning period (2007~2017).



1. Introduction : Statistics related to Road Safety and Automotive Industries

- Korean automotive industries have produced around **4.0 million automobiles** in 2018, **1.55 million for domestic uses and 2.45 million for export**

	2012	2013	2014	2015	2016	2017	2018
Domestic	1,410,857	1,383,358	1,463,893	1,589,393	1,600,154	1,560,202	1,552,346
Export	3,170,634	3,089,283	3,063,204	2,974,114	2,621,715	2,530,194	2,449,651
Total	**4,581,491**	**4,472,641**	**4,527,097**	**4,563,507**	**4,221,869**	**4,114,913**	**4,001,997**

<Vehicle Production in Korea>

- The number of imported automobile has sharply increased from 0.16 million in 2013 to **0.32 million** in 2018, almost **2.0 times increase**

	2013	2014	2015	2016	2017	2018
Passenger(M1)	156,497	196,359	243,900	225,279	288,711	315,634
Other vehicles	4,755	7,092	6,592	10,865	11,989	7,962
Total	**161,252**	**203,451**	**250,492**	**236,144**	**300,700**	**323,596**

< Statistics on imported vehicles into Korea >

2. Activities in WP.29

- Participation **in WP29 plenary meeting and 6 GRs**

  * Vice Chair of GRSP since 2014

- **Participation in Informal Working Groups**

  1) Vehicle Interior Air Quality(VIAQ) : Chair Country
  2) Panoramic Sunroof Glazing : Chair Country
  3) UN GTR No.9 phase 2 (Deployable Pedestrian Protection System) : Chair Country
  4) Electric Vehicle Safety(EVS) : TF Leader
  5) Electric Vehicle and Environment(EVE) : TF Leader
  6) UN GTR No.13(HFCV) phase 2 : Vice-chair
  7) Intelligent Transport Systems- Automated Driving(ITS-AD)
  8) Quiet Road Transport Vehicles (QRTV GTR)
  9) Simplifications of the Lighting and Lighting Signalling Regulations(SLR)
  10) Visibility, Glare and Levelling
  11) WLTP Phase 2
  12) Automatically Commanded Steering Functions(ACSF)
  13) UN GTR No.7 Phase 2
  14) AEBS Phase 2
  15) UN GTR No.16(Tyres) Phase 2

2. Activities in WP.29

Main Activities in WP.29

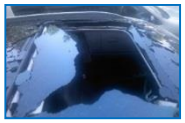
- Participation in WP.29 plenary meetings & 6 GRs

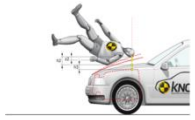
  * Vice Chair of GRSP since 2014

- Participation in 17 Informal Working Groups (as of Oct. '19)

Chair & Vice-chair

- **Chairmanship**
  - (GRSG) **Panoramic Sunroof Glazing IWG**
  - (GRSP) **UN GTR No.9 Phase 2** : Deployable Pedestrian Protection System
- **Vice-Chairmanship**
  - (GRPE) **Vehicle Interior Air Quality** (VIAQ)
  - (GRSP) **UN GTR No.13(HFCV)** Phase 2
- **TF Leader**
  - (GRSP) UN GTR No.13(HFCV) Phase 2





AV & Others

- **Autonomous Vehicle**
  - Automatically Commanded Steering Functions
  - Cyber Security & OTA
  - VMAD (Validation Method For AD)
  - AEBS for passenger vehicle
- **Other Informal Working Groups**
  - Electric Vehicle Safety(EVS)
  - Electric Vehicle and Environment(EVE)
  - Simplifications of the Lighting and Lighting Signaling Regulations(SLR)
  - Visibility, Glare and Levelling
  - WLTP Phase 2
  - GTR No.7 Phase 2 (Head restraint System)
  - EPPR IWG, GTR No.16 (Tires) Phase 2

3. Status of Harmonization with UN R/GTRs

Introduced status of harmonization with UN regulations and UN GTRs

- Totally, 65 UN regulations and 13 UN GTRs were introduced into KMVSS
- Summary of harmonized UN regulations & UN GTR in 2017 ~ 2019

Year	UN Regulation	UN GTR
2017	R18 : Protection against unauthorized use R27 : Advance warning triangles R36 : Construction of public service vehicles(space for fire extinguisher) R66 : Strength of the superstructure of large passenger vehicles R69 : Rear marking plates for slow moving vehicles R75 : Pneumatic tyres(moped, motorcycle) R81 : Rear-view mirrors(motorcycle) R 90 : Replacement brake lining assemblies R121 : Identification of controls & tell-tales R124 : Passenger car wheel R127 : Pedestrian Safety Performance R130 : Lane departure warning system R131 : Advanced Emergency Braking System(AEBS) R139 : Brake Assist Systems R140 :Electronic Stability Control R141 : Tyre Pressure Monitoring System	GTR No. 2 : Motorcycle emission GTR No. 17 : Crankcase & evaporative emissions of L-category vehicles GTR No. 18 : On-Board Diagnostic (OBD) systems for L-category vehicles

Year	UN Regulation	UN GTR
2018	R77 : Parking Lamps R138 : Quiet Road Transport Vehicle(QRTV) R79 : Steering equipment(RCP and ACSF) R94 : Frontal collision protection R137 : Frontal impact with focus on restraint systems R.95 : Lateral collision protection R135: Pole side Impact	GTR No. 3 : AEBS for Motorcycle
2019	R79 : Steering equipment(ACSF, CSF) R78 : Braking category L vehicle (ABS) R125 : Forward field of vision of drivers R94 : Frontal collision protection R10 : Electromagnetic compatibility	

4. Plan & Progress on amending KMVSS in 2019

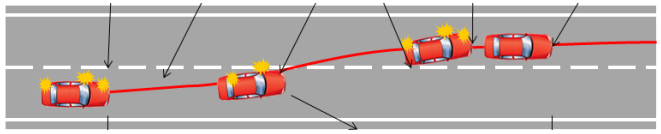
- Plan to amend KMVSS in 2019 (7 items)

Item No.	Item	Reference Regulation	Status
1	Commercial Vehicle Cab Controller	-	Ongoing
2	Installation of lighting for Emergency Vehicles	-	Ongoing
3	Automatically Commanded Steering Function	UN R79	Ongoing
4	Installation of ABS for Micro Mobility	UN R78	Ongoing
5	Driver Field of View for Commercial Vehicle	UN R125	Ongoing
6	Improvement of Airbag Warning Label	UN R94	Ongoing
7	EMC Compatibility for Motorcycle	UN R100	Ongoing

<Auto Commanded Steering Function>

Realizing Level 2 Autonomous Vehicle

- Auto Parking, Changing Lane and etc



- Installation Target : All vehicles (optional)
- Date of entry into force : 1st. Jan. 2020

<Installation of lighting for Emergency Vehicle>

Improving visibility for other drivers and pedestrians

- Installation Target : Emergency Vehicles
- Date of entry into force : 1st. Jan. 2020

Thank you very much ! !

Korea Transportation Safety Authority
Korea Automobile Testing & Research Institute