

ISO/TC22 국제표준화회의 보고서

감수: 탁태오 교수 (강원대학교)

□ 회의 개요

- 회의명 : ISO/TC22 (Road vehicles) Plenary Meeting
- 기간 및 방법 : 2021년 4월 8일(목) ~ 4월 9일(금), 웹미팅 (Zoom)
- 참 석 : 독일, 영국, 프랑스, 이탈리아, 한국, 일본, 중국, 스위스, 스웨덴, 말레이시아 등 47명
 - 우리나라 : 탁태오 교수 (강원대학교)

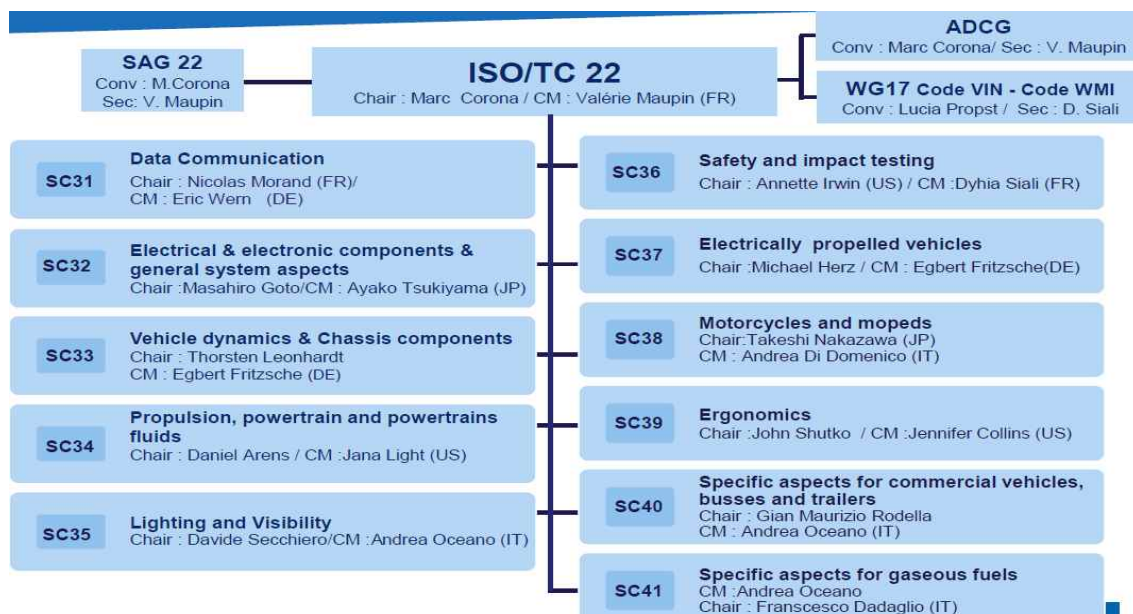
□ 회의 내용

1. TC22 표준제정 범위 및 구조

- 1) Scope : All questions of standardization concerning compatibility, interchangeability and safety, with particular reference to terminology and test procedures (including the characteristics of instrumentation) for evaluating the performance of the following types of road vehicles and their equipment as defined in the relevant items of Article 1 of the convention of the Road Traffic, Vienna in 1968 concluded under the auspices of the United Nations :

- mopeds (item m) ;
- motor cycles (item n) ;
- motor vehicles (item p) ;
- trailers (item q) ;
- semi-trailers (items r) ;
- light trailers (item s) ;
- combination vehicle (item t) ;
- articulated vehicles (item u).

2) 구조



○ Code VIN/Code WMI

- ISO 3779 및 ISO 3780 개정을 위한 WG17 (Code VIN - Code WMI) 신설
- 2020년 12월 13일, ISO 3779 및 ISO 3780 개정작업 착수
 - * ISO/AWI 3779, Road vehicles – Vehicle identification number (VIN) – Content and structure
 - ISO/AWI 3780, Road vehicles – World manufacturer identifier (WMI) code

2. SC별 활동 보고

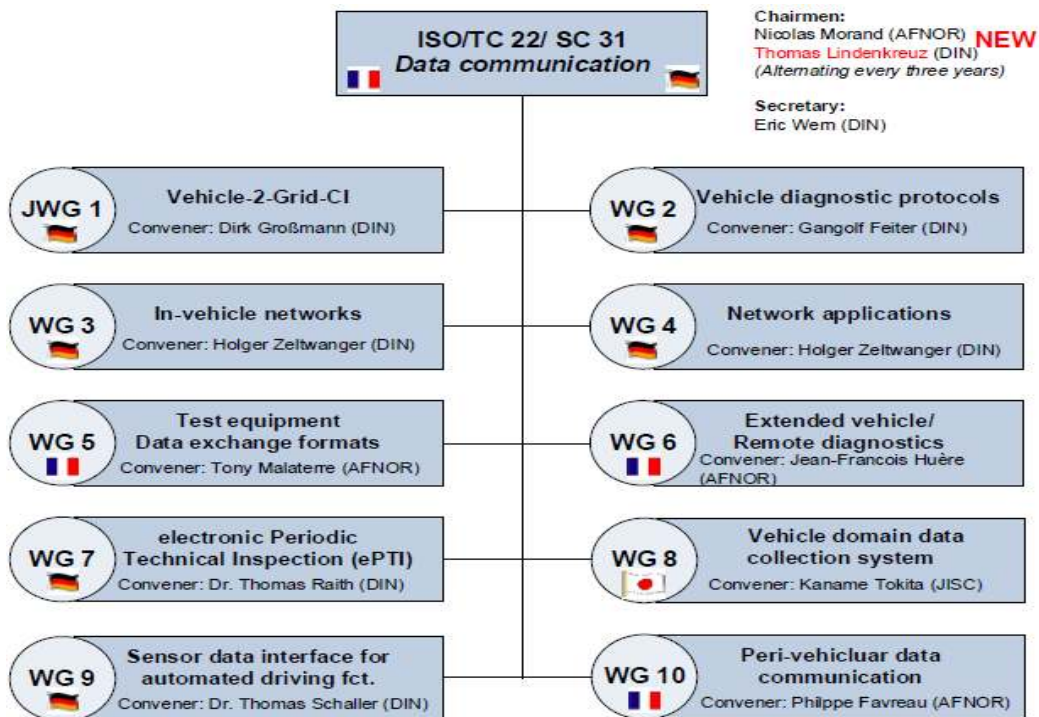
1) SC31 (Data communication)

○ Scope : Data communication for vehicle applications

This includes:

- Data buses and protocols (including dedicated sensor communication);
- V2X communication (including V2G);
- Diagnostics;
- Test protocols;
- Interfaces and gateways (including those for nomadic devices);
- Data formats;
- Standardized data content.

○ WGs



○ 주요 프로젝트

- ISO 20794 (Clock extension peripheral interface (CXPI)) 시리즈 제정
 - Part 2: Application layer
 - Part 3: Transport and network layer
 - Part 4: Data link layer and physical layer

- Part 5: Application layer conformance test plan
- Part 6: Transport and network layer conformance test plan
- Part 7: Data link and physical layer conformance test plan
- ISO 21111 (In-vehicle Ethernet) 시리즈 제정
 - Part 1: General information and definitions
 - Part 2: Common physical entity requirements
 - Part 3: Optical 1-Gbit/s physical entity requirements and conformance test plan
 - Part 5: Optical 1-Gbit/s physical layer system requirements and test plans
- ISO 21806 (Media Oriented Systems Transport (MOST)) 시리즈 제정
 - Part 1: General information and definitions
 - Part 2: Application layer
 - Part 3: Application layer conformance test plan
 - Part 4: Transport layer and network layer
 - Part 5: Transport layer and network layer conformance test plan
 - Part 6: Data link layer
 - Part 7: Data link layer conformance test plan
 - Part 8: 150-Mbit/s optical physical layer
 - Part 9: 150-Mbit/s optical physical layer conformance test plan
- ISO 23132:2020, Road vehicles – Extended Vehicle (ExVe) time critical applications – General requirements, definitions and classification methodology of time-constrained situations related to Road and ExVe Safety (RExVeS)
- 개정
 - ISO 13400-2:2019, Road vehicles – Diagnostic communication over Internet Protocol (DoIP) – Part 2: Transport protocol and network layer services
 - ISO 14229-1:2020, Road vehicles – Unified diagnostic services (UDS) – Part 1: Application layer
- 폐지
 - ISO 20828:2016, Road vehicles – Security certificate management
 - ISO 22896:2006, Road vehicles – Deployment and sensor bus for occupant safety systems
- SC31에서는 현재 53개의 프로젝트 진행중
- 주요 관심 과제
 - SC31은 올바른 WG에 적합한 전문가 보유 및 하나의 프로젝트가 여러 WG에 분산되는 것을 방지하고, 미래 검증 아키텍처를 구축하기 위해 더 많은 OSI 계층과 애플리케이션 기반 구조를 조사하고 있으며, WG2 (Vehicle diagnostic protocols), WG3 (In-vehicle networks), WG4 (Network applications)의 제안에 대한 장단점을 평가중으로서 WG별 활동 영향과 SC31의 프로젝트를 재분배하는 방식을 평가할 예정임
 - 잠재적인 개발 아이템
 - 차세대 트럭 및 트레일러 인터페이스
 - CAN XL
 - 차세대 OBD 표준
 - 미국은 일부 용어를 포괄적인 의미의 용어로 변경하여 사용할 것을 요청함. 이것은 대부분의 SC31 표준에 관계되어 있고, 향후 여러 번 또는 몇 문화와 언어에 따라 변경될 수 있으므로 기

제정된 표준과의 호환성 문제 고려 및 ISO 수준의 글로벌 결정이 필수적임

- “Master/Slave” timer and clock → “Primary/Secondary” timer and clock
- “Male/Female connector” → “socket/plug”

- 표준 작성에 전문가의 참여가 점점 저조하여 표준의 질적 수준에 중대한 문제가 발생할 수 있음.
(특히, OPEN Alliance (자동차 이더넷 관련) 사양을 ISO 21111 시리즈 이전)

○ 차기 회의 : 2021.6.24

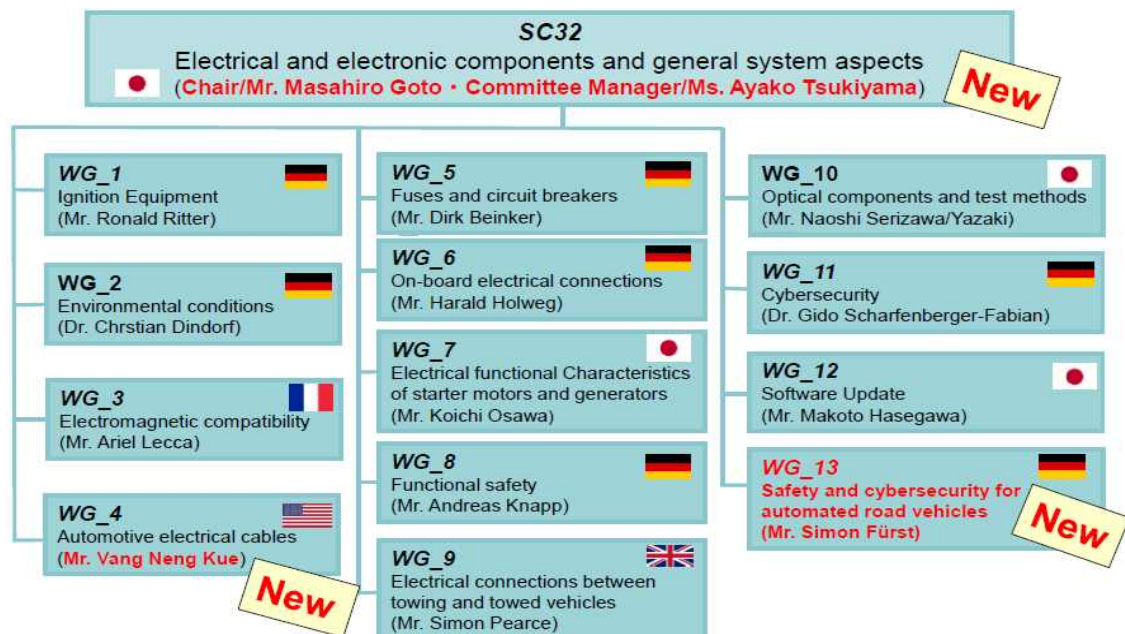
2) SC32 (Electrical and electronic components and general system aspects)

○ Scope : Electrical and electronic (E/E) components and cross-sectional specifications for E/E systems and components

This includes:

- Wiring harness (e.g cables, connectors, interconnections)
- Dedicated connectors (e.g trailer connectors, OBD-connector)
- Dedicated E/E components and parts (e.g. alternators, fuses, ignition equipment)
- EMC
- Environmental conditions
- Functional safety
- Cybersecurity
- Dedicated optical components
- Software update.

○ WGS



○ 주요 프로젝트

- ISO/SAE FDIS 21434, Road vehicles - Cybersecurity engineering (WG11)
 - ISO/SAE JWG은 3,000개 이상의 기술적인 코멘트를 논의하고, FDIS 단계로 진행하기로 함.
- ISO/DIS 21448, Road vehicles – Safety of the intended functionality (WG8)

- ISO/CD 24089, Road vehicles – Software update engineering (WG12)
- ISO/AWI TS 5083, Road vehicles – Safety and cybersecurity for automated driving – Design, verification and validation (WG13)
 - 다른 위원회와 관련된 내용이 있으며, 많은 수정이 필요한 복잡한 표준이 될 가능성 있음
 - 동 표준을 개발하기 위한 WG13 (Safety and cybersecurity for automated road vehicles) 신설
 - * WG명은 논의중
- SC32에서는 현재 32개의 프로젝트 진행중

○ 차기 회의 : 2021.6월

3) SC33 (Vehicle dynamics and chassis components)

- Scope : Lateral and longitudinal vehicle dynamics and controls/ systems/ functions affecting vehicle dynamics, such as chassis components, wheels, steering, brakes and suspension. This includes automated driving, means and performance of collision avoidance and mitigation.

○ WGs

- WG2 : Vehicle dynamics of passenger cars (convenor: Matthijs Klomp - Secretariat: Sweden)
- WG3 : Driver assistance and active safety functions (convenor: Markus Armbrust, - Secretariat: Germany)
- WG5 : Wheels (convenor: Michael Yagley, USA)
- WG6 : Vehicle dynamics of heavy commercial vehicles & busses (convenor: Lea Laine, - Secretariat: Sweden)
- WG9 : Test scenario of AD-systems (convenor: Zhao Wang, - Secretariat: China)
- WG10 : Brake linings and friction (convenor: Sebastian Gramstat, - Secretariat: Germany)
- WG11 : Simulation (convenor: Taeoh Tak, Kangwon National University, Korea)
- WG14 : Brake fluids (convenor: Michael Hilden, - Secretariat: Germany)
- WG15 : Field load specification for brake modulation system (convenor: Jochen Bodemann, - Secretariat: Germany)
- WG16 : Active safety test equipment (convenor: Monica Ringvik, - Secretariat: Sweden)

○ 주요 프로젝트

- ISO 21233, Heavy commercial vehicles and buses - Vehicle dynamics simulation and validation - Closing-curve test (WG6, PRF stage)

AWI	WD	CD	DIS	FDIS	PUB
- ISO 22140, Passenger cars - Validation of vehicle dynamics simulation Lateral transient response test methods (WG11, FDIS submitted)

AWI	WD	CD	DIS	FDIS	PUB
- ISO 22733-1, Road vehicles - Test method to evaluate the performance of autonomous braking systems - Part 1: car to car (WG3, FDIS 준비중)

AWI	WD	CD	DIS	FDIS	PUB

 - 강원대학교에서 제안한 표준으로서 2021년 발행 예정
- ISO 34501, Road vehicles - Terms and definitions of test scenarios for automated driving system (WG9, DIS Limit date: 2021-10-27)

AWI	WD	CD	DIS	FDIS	PUB
- ISO 34502, Road vehicles - Engineering framework and process of scenario-based safety evaluation (WG9, DIS Limit date: 2021-10-27)

AWI	WD	CD	DIS	FDIS	PUB
- ISO 34503, Road vehicles - Taxonomy for operational design domain for automated driving systems (WG9, DIS Limit date: 2021-10-29)

AWI	WD	CD	DIS	FDIS	PUB

- ISO 34504, Road vehicles - Scenario attributes and categorization
(WG9, DIS Limit date: 2021-10-29)

AWI	WD	CD	DIS	FDIS	PUB
					

- ISO 34505, Road vehicles - Evaluation of test scenarios for automated driving systems
(PWI stage, WG9, 2021년 진행예정)

○ 주요 관심 과제

- 자동차 분야 특히, 자율주행과 관련된 표준을 발행하는 능력 및 역량의 분할, 식별 및 조정
필요한 작업의 증가로 자동차 분야의 표준화를 위한 선도적 플랫폼인 TC22의 입장 방어 필요
- 자율주행과 관련된 ADCG (Automated Driving Coordination Group)은 활동을 시작해야 하며, 표준화
(ISO/TC22) 및 규제 (UNECE/WP29/GRVA)의 활동을 조정해야 함.

* GRVA : Automated and Connected vehicles

○ 차기 회의 : 2021.6.8 ~ 6.9 또는 6.15 ~ 6.16

4) SC34 (Propulsion, powertrain and powertrain fluids)

- Scope : Systems and components for combustion-based propulsion (such as; coolant, engines, filters, piston pins/rings, powertrain, testing methods, testing procedures, measurement testing apparatus, fuel injection equipment, as well as characteristics and additive fluids definitions (e.g. (AUS32), except lubricants, brake fluids, and fuels.

○ WGs

- AG1 : Paraffinic Fuel Lubricity (Convenor: Paul Henderson)
- WG1 : Fuel Filters (Convenor: None at this time. Candidate being voted on via CIB currently)
- WG2 : Injection equipment (Convenor: Neil Wilson - Secretariat: USA)
- WG3 : Air filters (Convenor: Birgit Renz - Secretariat: Germany)
- WG4 : Piston Rings (Convenor: Andreas Seal - Secretariat: Germany)
- WG5 : Engine Test Code (Convenor: Daniel Glassford - Secretariat: USA)
- WG6 : Water injection (Convenor: Joel Op de Beeck - Secretariat: Belgium)
- WG9 : Piston Pins (Convenor: Marco Maurizi - Secretariat: Germany)
- WG11 : Filtration performance, laboratory and engine test methods for crankcase ventilation systems
(Convenor: Bryan Steffen - Secretariat: USA)
- WG14 : NOx reduction additive (Convenor: Peter Schupp - Secretariat: Germany)
- WG17 : Road vehicles - Cleanliness of components (Convenor: Markus Rochowicz - Secretariat: France)

○ 주요 프로젝트

- Cyclic flow and vibration에서의 필터 효율 시험에 관한 표준 개발
 - ISO/AWI 19612, Road vehicles - Diesel engine fuel filters - Single pass method of evaluation
filtration performance of a fuel filter under cyclic flow conditions in combination
with mechanical vibration (WD stage, WG1)
- 요소 여과 시스템 성능 측정에 관한 시험 표준 개발
 - ISO/WD 23820, Road vehicles - Determination of the filtration efficiency of urea filter modules
(WD stage, WG1)
- 승용차용 물 분사 기술에 관한 WG 신설
- 향후 개발 아이템

- 미래 엔진 기술에 관한 표준 - 고온 및 고압 엔진 적용을 위한 고효율 필터 및 새로운 코팅 재료

○ 차기 회의 : 2021.10.12 ~ 10.13

5) SC35 (Lighting and visibility)

○ Scope : Visibility and Conspicuity; Lighting and light-signalling and safety glazing materials.

○ WGs

- WG1 : Lighting and light-signalling (Convenor: Mr. Eric Blusseau - Secretariat: France)
- WG2 : Safety glazing (Convenor: Mr. Daryl Trate - Secretariat: USA)
- WG3 : Visibility (Convenor: Mr. Dan Selke - Secretariat: USA)

○ 주요 프로젝트

- New approved work items
 - ISO/AWI 24650, Road Vehicles – Sensors for automated driving under adverse weather conditions
 - Assessment of the cleaning system
 - ISO/AWI TS 21957, Road vehicles – Visibility – Specifications and test procedures for Head-up displays (HUD)
 - ISO/AWI 6041, Road vehicles – Safety glazing materials – Method for the determination of relevant optical characteristics in camera sensing areas
- Establishment of liaison with IEC/TC110 (Electronic displays)

6) SC36 (Safety and impact testing)

○ Scope : Protection of occupants and vulnerable road users, including

- Passive safety assessment (including vehicle safety preconditioning) :
 - Functional analysis
 - Evaluation of devices and systems
 - Virtual testing
- Accident analysis
- Post-crash safety

○ WGs

- WG1 : Car collision test procedures (Convenor: Frantz JOURDA - Secretariat: FRANCE)
- WG2 : Child restraint systems (Convenor: Lotta JAKOBSSON - Secretariat: SWEDEN)
- WG3 : Instrumentation (Convenor: Claudia PICON - Secretariat: FRANCE)
- WG5 : Anthropomorphic test devices (Convenor: Annette IRWIN - Secretariat: USA)
- WG6 : Performance criteria expressed in biomechanical terms (Convenor: Xavier TROSSEILLE - Secretariat: FRANCE)
- WG7 : Traffic accident analysis methodology (Convenor: Anders KULLGREN Secretariat: SWEDEN)

○ 주요 프로젝트

- 제정
 - ISO/TR 27957, Road vehicles – Temperature measurement in anthropomorphic test devices – Definition of the temperature sensor locations (WG3)
 - ISO 21612, Road vehicles – Crosstalk determination for multi-axis load cell (WG3)

- ISO 13216-4, Road vehicles – Anchorages in vehicles and attachments to anchorages for child restraint systems – Part 4: Lower tether anchorages (WG2)
 - ISO 12353-1, Road vehicles – Traffic accident analysis – Part 1: Vocabulary (WG7)
 - New project
 - ISO/PWI 6172, Road vehicles – Industrialization of modern anthropomorphic test devices (ATDs)
 - ISO/PWI 4654, Road vehicles – Advanced automatic collision notification (AACN) systems – Algorithm and parameters for injury risk classification (WG7)
 - SC36에서는 현재 39종의 표준 개발중
- 차기 회의 : 2021.5월

7) SC37 (Electrically propelled vehicles)

- Scope : Specific aspects of electrically propelled road vehicles, electric propulsion systems, related components and their vehicle integration
- WGs
 - WG1 : Safety requirements and terminology (Convenor: Mr. Rothe - Secretariat: Germany)
 - WG2 : Performance and energy consumption (Convenor: Y. Fujimoto - Secretariat: Japan)
 - WG3 : Rechargeable energy storage (Convenor: M. Reichert - Secretariat: Germany)
 - WG4 : Systems and components connected to electric propulsion systems (Convenor: Y. Shibata - Secretariat: Japan)
 - WG5 : Requirements for power transfer (Convenor: Mr. Loewel - Secretariat: Germany)
- 주요 프로젝트
 - ISO 5474 (Functional requirements and safety requirements for power transfer) 시리즈 (WG5)
 - Part 1: General (CD stage)
 - Part 2: AC power transfer (CD stage)
 - Part 3: DC power transfer (CD stage)
 - Part 4: Magnetic field wireless power transfer – Safety and interoperability requirements (WD stage)
 - Part 5: Automated conductive power transfer (WD stage, TS)
 - ISO 17409:2020, Electrically propelled vehicles – Conductive power transfer – Safety requirements (WG1)
 - ISO 19363:2020, Electrically propelled vehicles – Magnetic field wireless power transfer – Safety and interoperability requirements (WG1)
 - ISO 21498 (Electrical specifications and tests for voltage class B systems and components) 시리즈 (WG4)
 - Part 1: Voltage sub-classes and characteristics (2021.1.28, 제정)
 - Part 2: Electrical tests for components (2021.2.18, 제정)
 - ISO 21782 (Test specification for electric propulsion components) 시리즈 (WG4)
 - Part 4: Performance testing of the DC/DC converter (Proof stage)
 - Part 5: Operating load testing of the motor system (Proof stage)
 - Part 7: Operating load testing of the DC/DC converter (Proof stage)
- 향후 개발 아이템
 - 상용차용 메가와트 충전 시스템
 - 충전 지속시간 측정 방법

- 트레일러의 전압 class B 전력 전송

○ 차기회의 : 2021.9월

8) SC38 (Motorcycles and Mopeds)

- Scope : Standardization of motorcycles, mopeds and their components, concerning compatibility, interchangeability, safety, terminology and test procedures (including the characteristics of instrumentation), in order to evaluate their performances.

Motorcycles and mopeds are to be intended as defined in the relevant definition of ISO 3833.

○ WGs

- WG1 : Pollution and energy (Convenor: Mr. Masayoshi Mori - Secretariat: JAPAN)
- WG2 : Electric mopeds and motorcycles (Convenor: Mr. Federico Vitale - Secretariat: ITALY)
- WG3 : Functional Safety (Convenor: Mr. Takeshi Nakazawa - Secretariat: JAPAN)
- WG5 : Controls (Convenor: Mr. Federico Vitale - Secretariat: ITALY)

○ 주요 프로젝트

- ISO/DTR 3152 “Road vehicles – Comparison of Part 12 with other parts of ISO 26262”
- 기타사항 : 모터사이클 및 모페드에 관한 요구사항이 포함된 신규 제안은 SC38에 정보를 제공하기로 한 TC22 결의안을 상기시킴 (TC22 Resoulution 907 - SC38 topics)

○ 차기회의 : 2021년말

9) SC39 (Ergonomics)

- Scope : ISO/TC22/SC39 is responsible for standardization related to ergonomic issues and driver interaction with driver environment and driver systems in road vehicles as directed and approved by TC22. Items of concern include: Controls, displays and tell-tale localization, Symbols, Hand reach and R & H point determination, and TICS onboard-MMI.

○ WGs

- WG3 : Controls, displays and tell-tale localization (Convener: Lawrence Smythe - Secretariat: USA)
- WG5 : Symbols (Convener: Kathleen Allanson - Secretariat: Germany)
- WG7 : Hand reach and R and H point determination (Convener: Patrick Garrett - Secretariat: USA)
- WG8 : TICS on-board MMI (Convener: Andreas Keinath - Secretariat: Germany)

○ 주요 프로젝트

- ISO/WD TS 5283, Road vehicles – Ergonomic aspects of driver monitoring and system interventions in the context of automated driving
- ISO/AWI 23408, Road Vehicles – Ergonomic aspects of foot control layout, location, spacing and clearance
- InterACT 프로젝트 워크숍

○ 차기회의 : 2021.4.30

10) SC40 (Specific aspects for light and heavy commercial vehicles, busses and trailers)

- Scope : Specific aspects for heavy duty trucks, commercial vehicles, busses, trailers, as well as their bodyworks and interfaces (e.g. couplings) which are not covered by other SCs of TC22

○ WGs

- WG1 : Mechanical couplings (Convenor: Mr. Carlo Tagliaferri - Secretariat: Italy)
- WG2 : Bodywork Exchange Parameters for commercial vehicles (BEP)
(Convenor: Mr. Gian Maurizio - Secretariat: Sweden)

○ 주요 프로젝트

- ISO/PWI 1103, Road vehicles – Coupling balls for caravans and light trailers – Dimensions
- ISO/AWI 6563, Rear load carrier for wheeled vehicle and its trailer – Requirements and test methods
- ISO/AWI 5216, Commercial road vehicles – Ball races – Interchangeability

11) SC41 (Specific aspects for gaseous fuels)

- Scope : Specifications of construction, installation and test of components for vehicles using gaseous fuels, including their assemblies and the interface with refuelling systems

○ WGs

- WG3 : Fuel system components and refuelling connector for vehicles propelled by gaseous fuel
(Convenor: Mr. D. Goldin - Secretariat: Italy)
- WG4 : Fuel system components and refuelling connector for vehicles propelled by Liquefied Natural Gas (LNG)
(Convenor: Mr. J. Del Alamo, - Secretariat: Italy)
- JWG5 : Joint ISO/TC22/SC41 - ISO/TC197 WG: Fuel system components and refuelling connector for vehicles propelled by blends of natural gas and hydrogen (Convenor: Mr. A. Castagnini - Secretariat: Italy)
- WG6 : Fuel system components and refuelling connector for vehicles propelled by Liquefied Petroleum Gas (LPG) (Convenor: Mr. M. Zilioli - Secretariat: Italy)
- WG7 : General safety requirements for gaseous fuelled vehicles and terminology
(Convenor: Mr. P. Dijkhof - Secretariat: Italy)
- WG8 : Fuel system components and refueling connector for vehicles propelled by Dimethyl Ether (DME)
(Convenor: Mr. S. Yudanov - Secretariat: Italy)
- WG9 : Training, competence and conformity assessment (Convenor: Mr. D. Goldin - Secretariat: Italy)

○ 주요 프로젝트

- ISO/TC197과 2개의 JWG 신설
 - SC41 산하에 JWG5 신설 (Fuel system components and refuelling connector for vehicles propelled by blends of natural gas and hydrogen)
 - ISO/TC197 산하에 JWG30 신설 (Fuel system components and refuelling connector for vehicles propelled by blends of natural gas and hydrogen)
 - * ISO/TC197 : Hydrogen technologies
- SC41 작업범위에 충전소 (fuelling station) 포함

○ 향후 개발 아이템

- CNG 및 LNG 충전소에 관한 표준 개정
- SC41에서 다루고 있는 기체 연료에 관한 충전소 표준 개발

3. 구급차 (ambulances)에 대한 중국의 프로젝트 제안

- TC22는 구급차가 TC22의 작업범위에 속하는지를 확인하기 위한 CIB를 ISO 사무국에 요청하기로 하였으며, CIB의 내용은 차기 회의에서 SC40과 중국에서 준비할 자료를 기반으로 차기 회의에서 SAG (Strategic Advisory Group) 멤버와 함께 준비하기로 함.
- 구급차에 관한 사항이 TC22의 작업범위에 포함된다면 중국에서 제안한 음압실 (Negative pressure cabin) 프로젝트에 대한 NWIP 절차가 빠르게 시작될 것임.

4. SC40 활동

- TC22는 SAG가 SC40에서 진행하고 있는 66개의 프로젝트, 즉 구급차와 같은 특수 목적 차량 측면에 대해 SC40의 작업범위를 확장할 수 있는 옵션을 고려하여 SC40의 미래에 대한 제안을 2021년 7월말 까지 마련하기로 함.

5. SC41 작업범위 확장

- TC22는 SC41의 작업범위에 충전소 (fuelling station)를 확장해달라는 SC41의 요청을 언급하고, TC22의 작업범위를 조정해야할 필요성을 포함해 6월말 예정인 TC22의 투표를 위한 준비를 SC41 간사와 SAG 멤버에게 요청함.

6. ISO/SAE PSDO 개정에 관한 TC22의 입장

- TC22는 개정된 ISO/SAE PSDO 협정 (agreement)에 대한 빠른 서명의 필요성을 확인하고, SC37에서 곧 새로운 프로젝트가 제안될 것임을 언급함.

7. ADCG (Automated Driving Coordination Group) 활동 후속조치

- TC22는 ADCG 활동 보고서를 확인하고, TC22와 TC204 (Intelligent transport systems)의 투표를 통해 ToR을 승인하기 위하여 5월 회의에서 ADCG ToR을 최종 확정하기로 함

8. ISO/TC268 SC2 (Smart transportation) 신설

- TC22는 TC268 (Sustainable cities and communities) SC2 신설에 관한 투표를 언급하고, 새로운 SC2의 작업범위에 TC22 관련 모든 활동에 대한 제한을 요청할 것을 TC22 CM (Committee Manager)에게 요청함.
- 또한 SC2가 승인될 경우, TC22는 TC268에 liaison을 TC268/SC1 (Smart community infrastructures)에서 TC268/SC2로 변경할 것을 요청하기로 함.

9. 차기 회의는 2022년 2/4분기에 일본에서 개최하기로 하고 세부일정은 2021년 12월에 확정하기로 함.

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