中国汽车技术研究中心有限公司
China Automotive Technology and Research Center Co., Ltd.
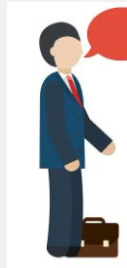
Proposal for V2V data interaction

For the 14th meeting of WP.29/GRVA
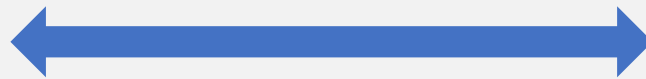
Submitted by the experts from China
2022/09/27

Data interaction improves driving safety

- **Promote the connectivity of vehicles.** Whether a vehicle can send and receive data accurately is an important factor for the vehicle to realize connection function.
- **Improve traffic safety.** Based on the V2V data interaction, vehicles can realize functions such as vehicle fault warning, forward collision warning, emergency braking warning, to improve traffic safety.

Language, grammar and truth-telling
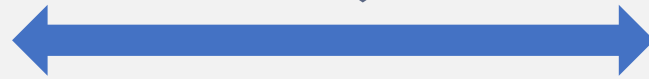
Achieve effective communication

similar

| data content | data format | data rules |

vehicle interconnection

reminder of secondary accident

forward collision warning

V2V data interaction has a broad practice for standards and regulations

1.ISO

ISO/TC22/SC31
☐ WG6 Extended vehicle/Remote diagnostics

2.ITU

ITU has developed standards related to connected vehicles, such as H.550, H.560, Y.4119, etc

3.IEC

IEC has formulated relevant standards for communication interface between vehicle and grid

4.SAE

☐ SAE has formulated SAE J2735, SAE J2945 and SAE J3161 series standards.

5.Europe

European ETSI has formulated four types of networked vehicle standards, including active road safety, cooperative traffic efficiency, cooperative local service and global Internet service, covering V2V, V2I, V2N,etc
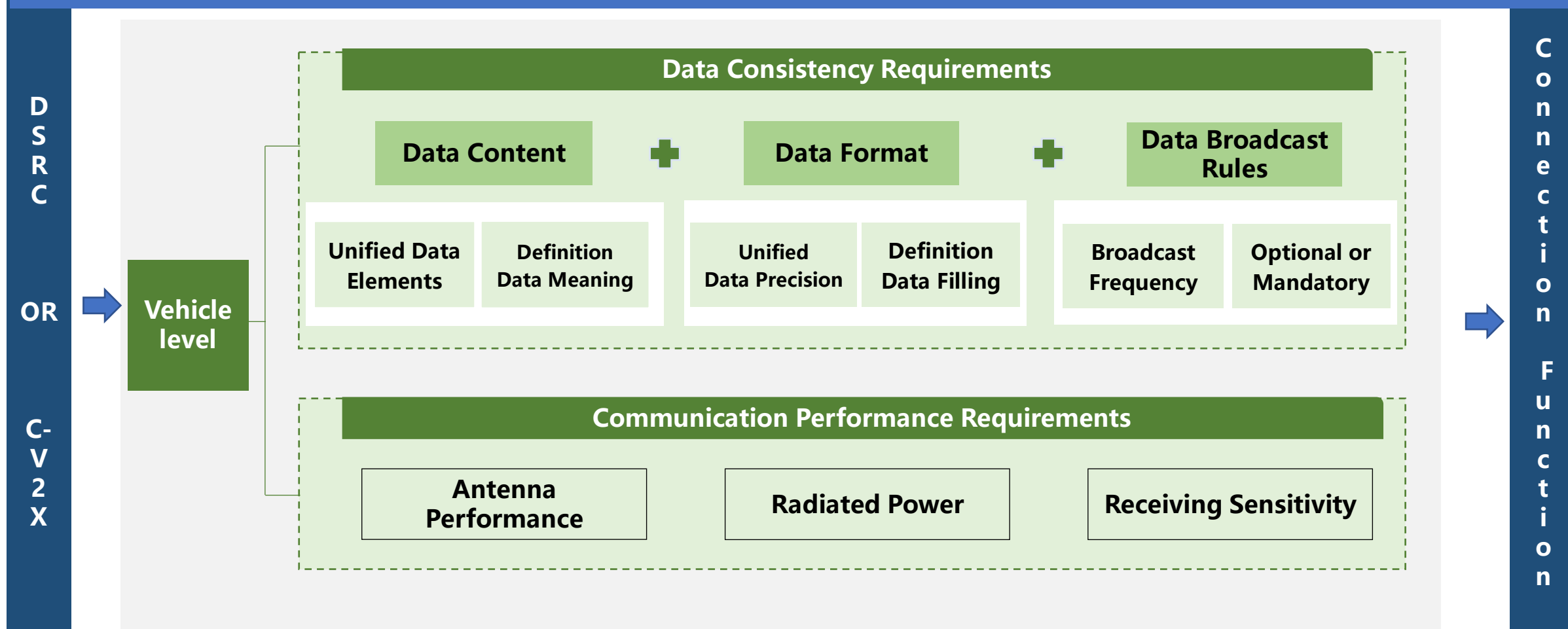
6.Japan

The ITS Connect Promotion Association of Japan has promoted the formulation of message sets, communication specifications, communication security, testing and other standards.

Proposal for carrying out preliminary research on V2V data interaction

- ☐ **China proposes to carry out preliminary research on V2V data interaction at the WP.29 level, so as to promote vehicle connectivity and improve driving safety around the world.**
- ☐ **Standardize the content and format of V2V data interaction, and do not restrict the communication technology route.**

DSRC

OR

C-V2X

Vehicle level

Data Consistency Requirements

Data Content + **Data Format** + **Data Broadcast Rules**

| Unified Data Elements | Definition Data Meaning | Unified Data Precision | Definition Data Filling | Broadcast Frequency | Optional or Mandatory |

Communication Performance Requirements

Antenna Performance   **Radiated Power**   **Receiving Sensitivity**

Connection Function

How to carry out V2V data interaction

Is the object of V2V data interaction regulation a system or a whole vehicle?

If V2V data interaction regulations are formulated, at what level should this work be carried out? A dedicated Task Force or other Task Force?

How to coordinate the formulation of standards/regulations on the communication level of V2V data interaction?

Thank you for your attention!

Contacts: Sun Hang, sunhang@catarc.ac.cn

Wu Jiajie, wujiajie@catarc.ac.cn