FEDERATION
INTERNATIONALE
DE L'AUTOMOBILE

Vehicle On-Board Authorisation Concept

To be discussed at the UNECE / GRVA Informal Working Group
on Cyber Security and Over-The-Air Software Updates (CS/OTA)
Document# TFCS-31-XX

RECENT PROGRESS

- 2 formal group meetings with several NGOs and CPs, discussion based on TFCS-30-04

- Reaching out to further CPs to seek additional input

- Discussed in detail ISO 21177, ISO/TS 21184, ISO/TS 21185, ISO/DTS 5616 as a possible pathway for on-board authorisation of data. Researching further.

- Conducting survey among participants for 6- / 12-month goals and path forward

- Terms of Reference / Rules of Procedure in preparation

FUTURE OUTLOOK

- Next meeting Sep 5: > review Terms of Reference / Rules of Procedure
  > summarize participants' suggested goals and path forward
  > open to all IWG on CS/OTA participants, please contact S. Beiker

- Scope to set use cases, security levels, roles, level of technology-specificity, UNRs...

- Potential baseline document to summarize data access / privacy / security by regions

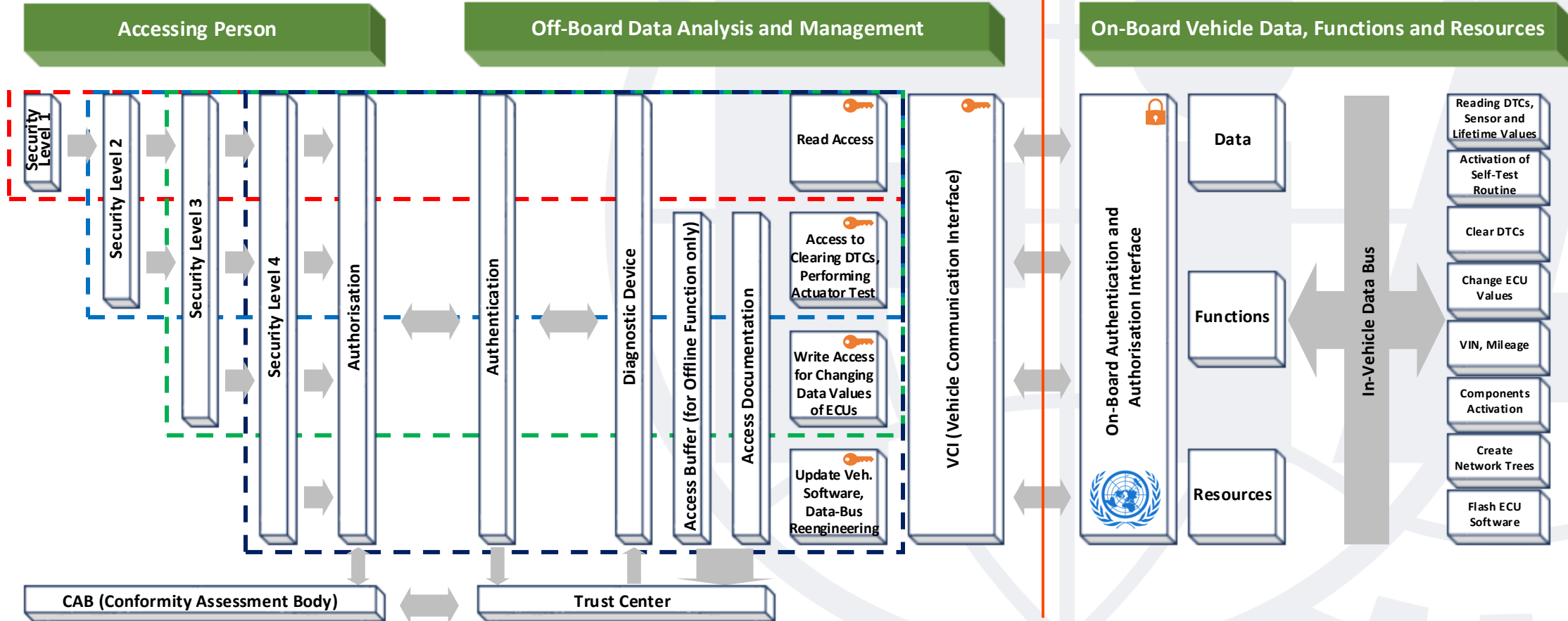- Aiming for some early recommendations to GRVA by end of 2024

An authorisation concept shall split responsibilities and differentiate between off- / on-board data & functions

- for context only, taken from TFCS-30-04 -

Architecture example for off-board and on-board authentication and authorisation - *conceptual* -

🔑 Devices serving as "key"
> responsibility of individual Contracting Parties

🔒 Devices serving as "lock"
> responsibility of UNECE

Accessing Person

Off-Board Data Analysis and Management

On-Board Vehicle Data, Functions and Resources

- Security Level 1
- Security Level 2
- Security Level 3
- Security Level 4
- Authorisation
- Authentication
- Diagnostic Device
- Access Buffer (for Offline Function only)
- Access Documentation
- 🔑 Read Access
- 🔑 Access to Clearing DTCs, Performing Actuator Test
- 🔑 Write Access for Changing Data Values of ECUs
- 🔑 Update Veh. Software, Data-Bus Reengineering
- 🔑 VCI (Vehicle Communication Interface)
- 🔒 On-Board Authentication and Authorisation Interface
- Data
- Functions
- Resources
- In-Vehicle Data Bus
- Reading DTCs, Sensor and Lifetime Values
- Activation of Self-Test Routine
- Clear DTCs
- Change ECU Values
- VIN, Mileage
- Components Activation
- Create Network Trees
- Flash ECU Software

CAB (Conformity Assessment Body)

Trust Center

Source: ÖAMTC, adapted

PUT CITIZENS IN THE POLE POSITION

Maintain the balance between vehicle security and accessibility over the vehicle's lifetime

Respect citizens' privacy and put them in control