



FIA Consumer Views on Automated and Connected Vehicles

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A WORLD IN MOTION

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INTERNATIONALE
DE L'AUTOMOBILE

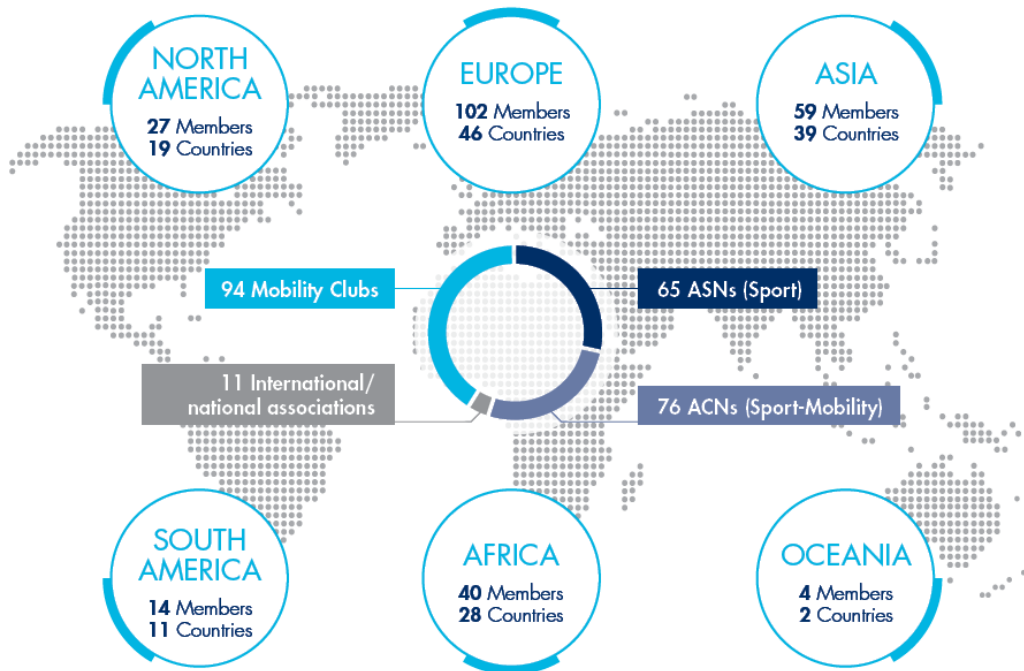
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THE FIA: a worldwide presence

246 member organisations representing over 80 million people from 145 countries



Founded in 1904, with headquarters in Paris, the Fédération Internationale de l'Automobile (FIA) is a non-profit making association.

It brings together 246 national motoring and sporting organisations from 145 countries on five continents.

Its member clubs represent 80 millions of motorists

SPORT

Mission: ensures that fair, capably regulated and above all safe events are conducted in all corners of the globe.



MOBILITY

Mission: ensure that safe, affordable and clean systems of transport are available to all.





FIA Consumer Views on Automated and Connected Vehicles

- Automated and Connected Vehicles may improve Road Safety and offer new smart Mobility Services for the benefit of road users.

The FIA welcomes the UNECE initiative to regulate IT Security, Data Privacy and Over The Air Updates

- The FIA sees potential for improvement in the current drafts of GRVA, such as:
 1. Next to software, also hardware shall be updated
 2. A harmonized communication channel shall ensure highest security as well as authorised remote access to in-vehicle-data

3. IT security shall be ensured over the lifetime of the vehicle



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IT security over the lifetime of the vehicle; is this a topic for UNECE WP 29?

Existing examples of UN Regulations (1958) that cover the lifetime of the vehicle are:

No. 59 (Replacement (retrofit) silencing systems)

No. 83 (including durability requirements and "in use" requirements)

No. 90 (Replacement braking parts)

No. 133 (Recyclability of motor vehicles)

National Legislation?

Current legislations on national or regional level do not cover IT security issues, like updates of soft- or hardware. IT security is a new area in automotive regulation and requires technical adequate specifications, like updated software with better performance

FIA sees UNECE as the right place to regulate IT security over the lifetime of the vehicle

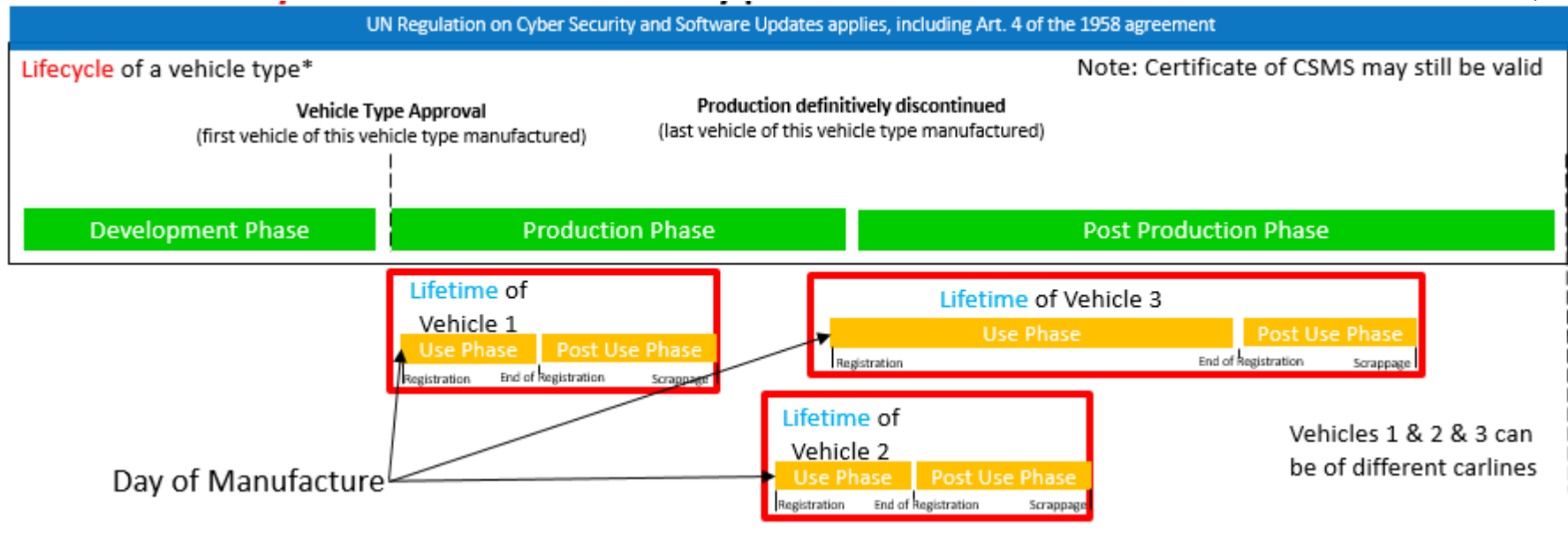


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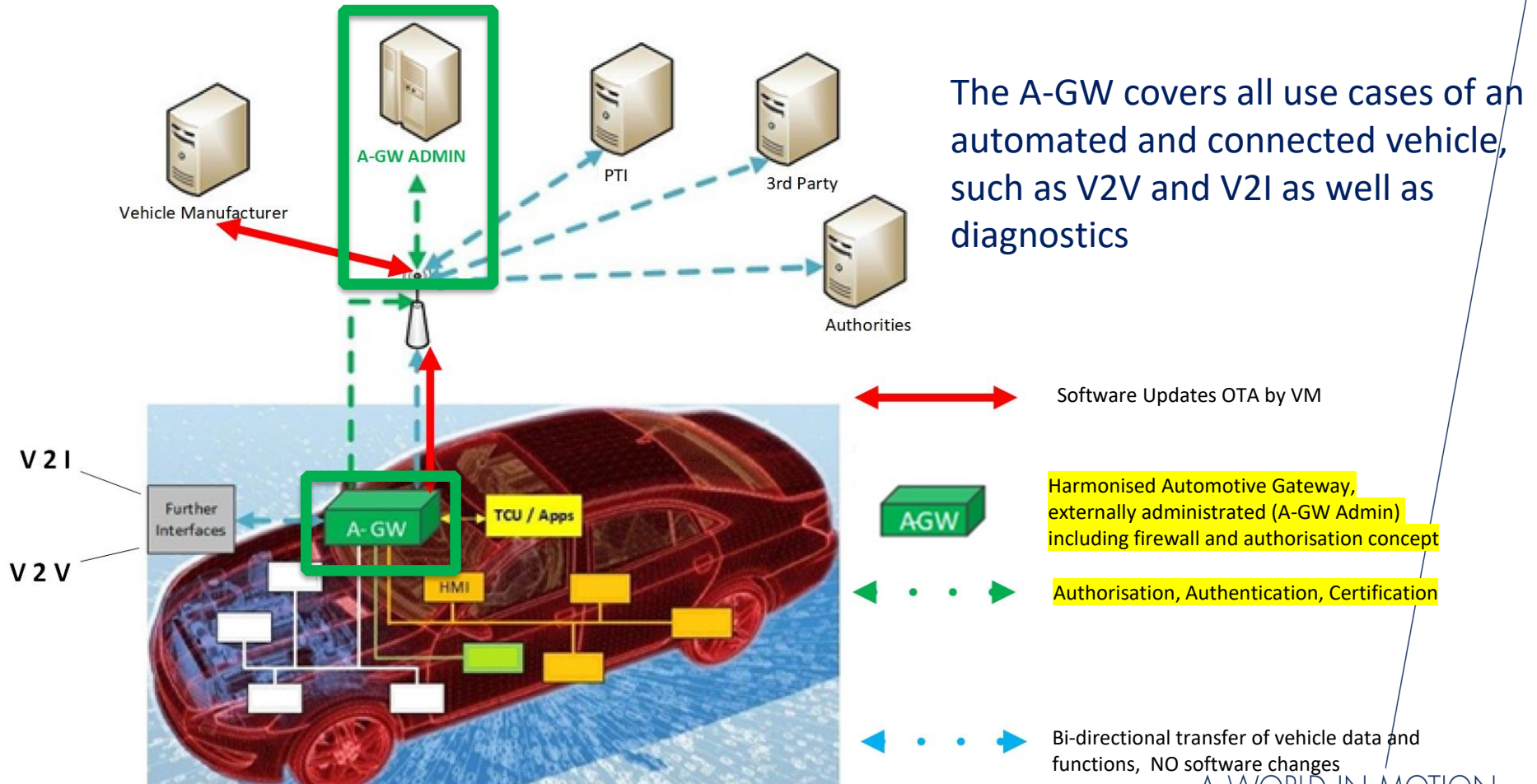
Lifetime vs Lifecycle

The Lifetime of a vehicle starts with first registration of the vehicle and ends with the scrapping of the vehicle. It does not end with its decommissioning!

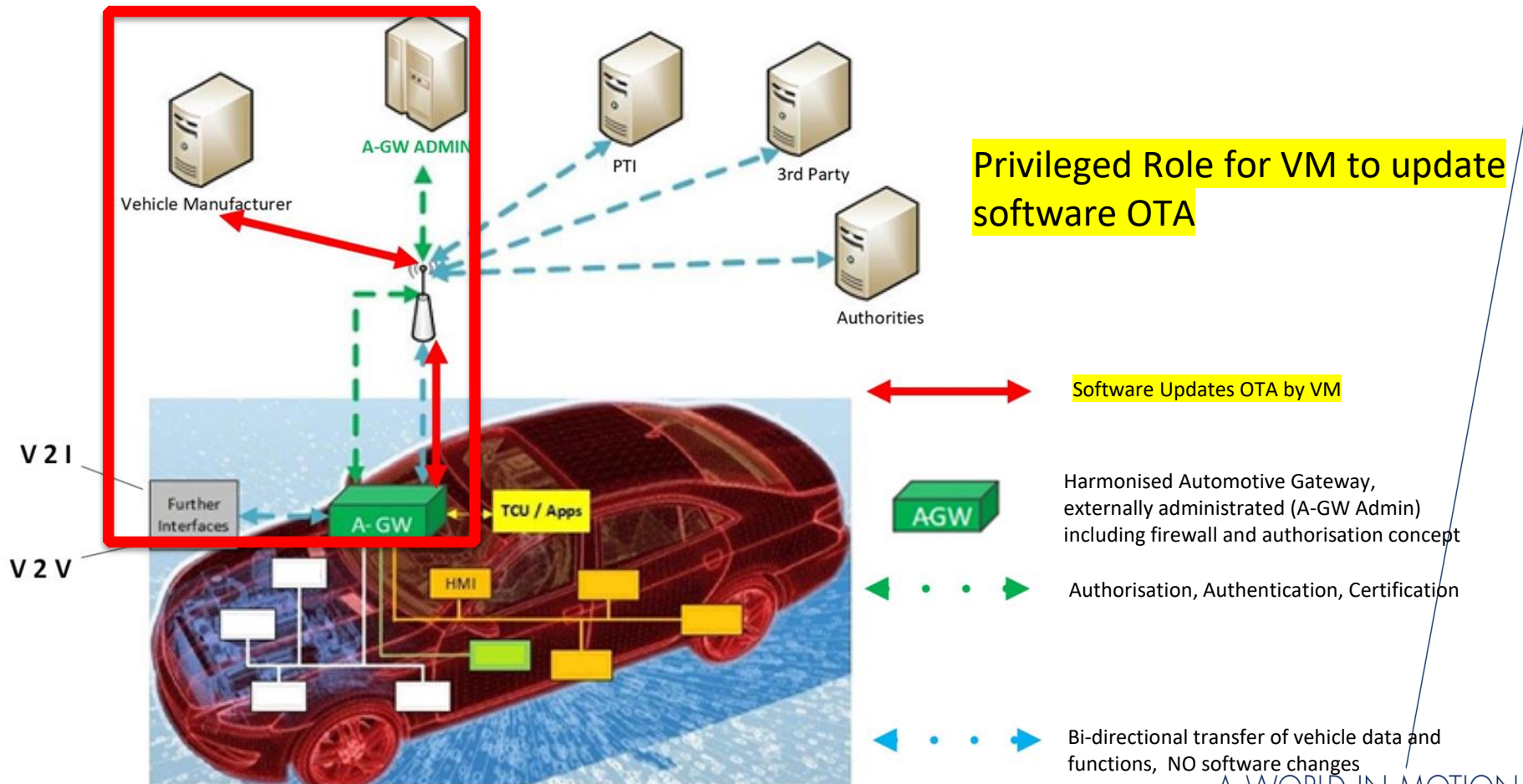
Lifecycle is related to the CSMS of a vehicle manufacturer, consumers need certainty for their vehicles, so **Lifetime** is the relevant term to look at



A harmonized communication channel can ensure highest IT security over the lifetime, e.g. an Automotive Gateway (A-GW)



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Privileged Role for VM to update software OTA

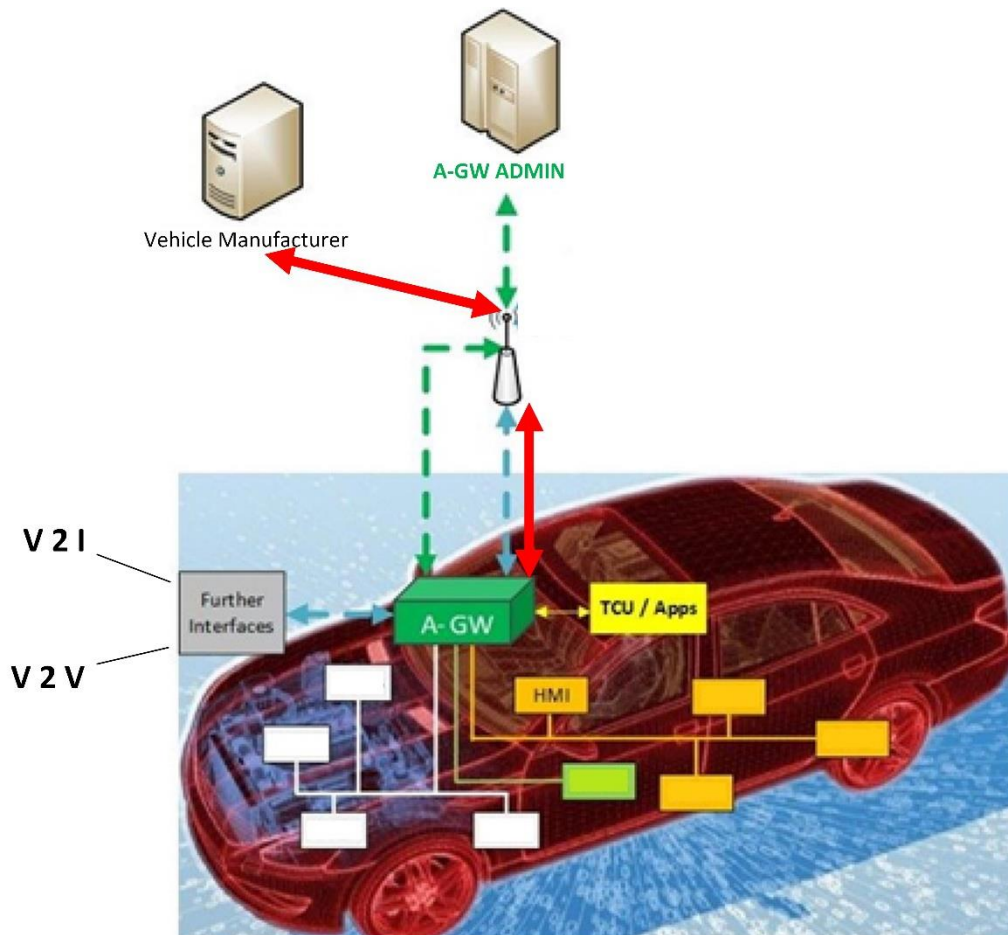
Software Updates OTA by VM

AGW
Harmonised Automotive Gateway, externally administrated (A-GW Admin) including firewall and authorisation concept

Authorisation, Authentication, Certification

Bi-directional transfer of vehicle data and functions, NO software changes

A harmonized communication channel can ensure highest IT security over the lifetime, e.g. an Automotive Gateway (A-GW)

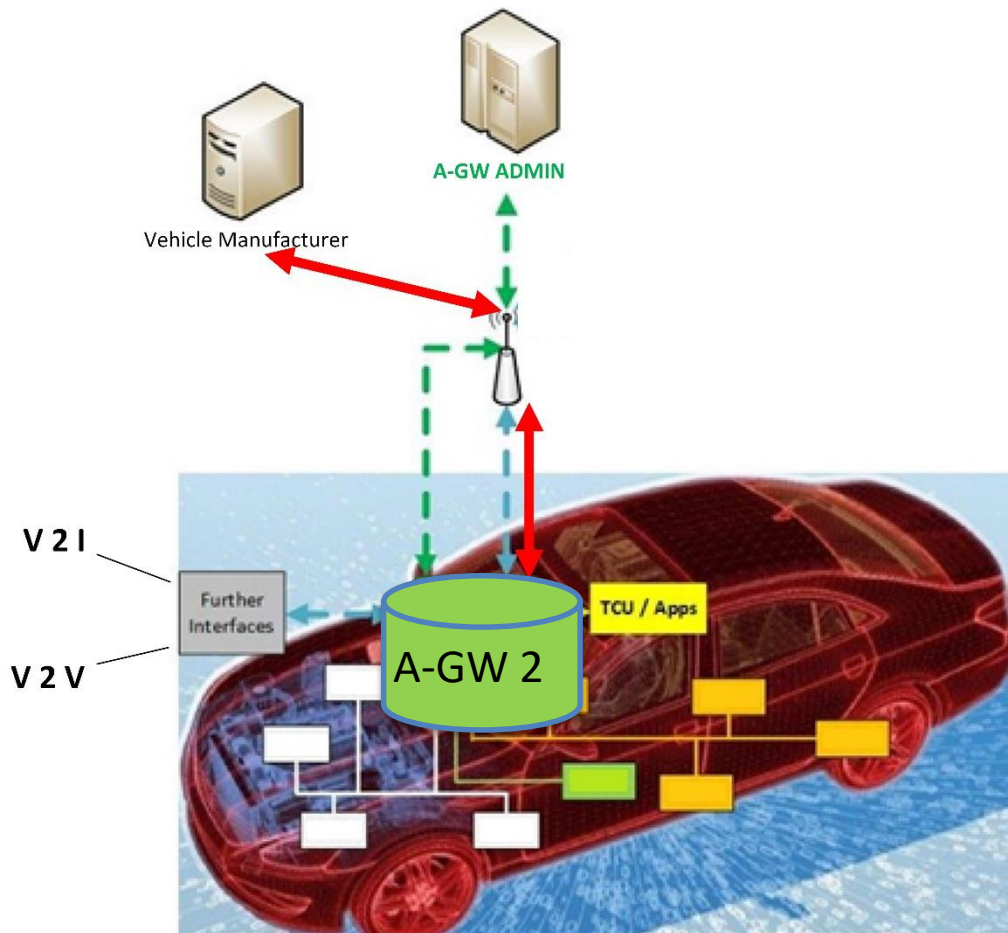


After Cyber Attack

Example 1 : The VM updates the software of ECU(s) and the firewall of the A-GW by OTA update by his privileged role through a communication channel to the vehicle

←→ Software Updates OTA by VM

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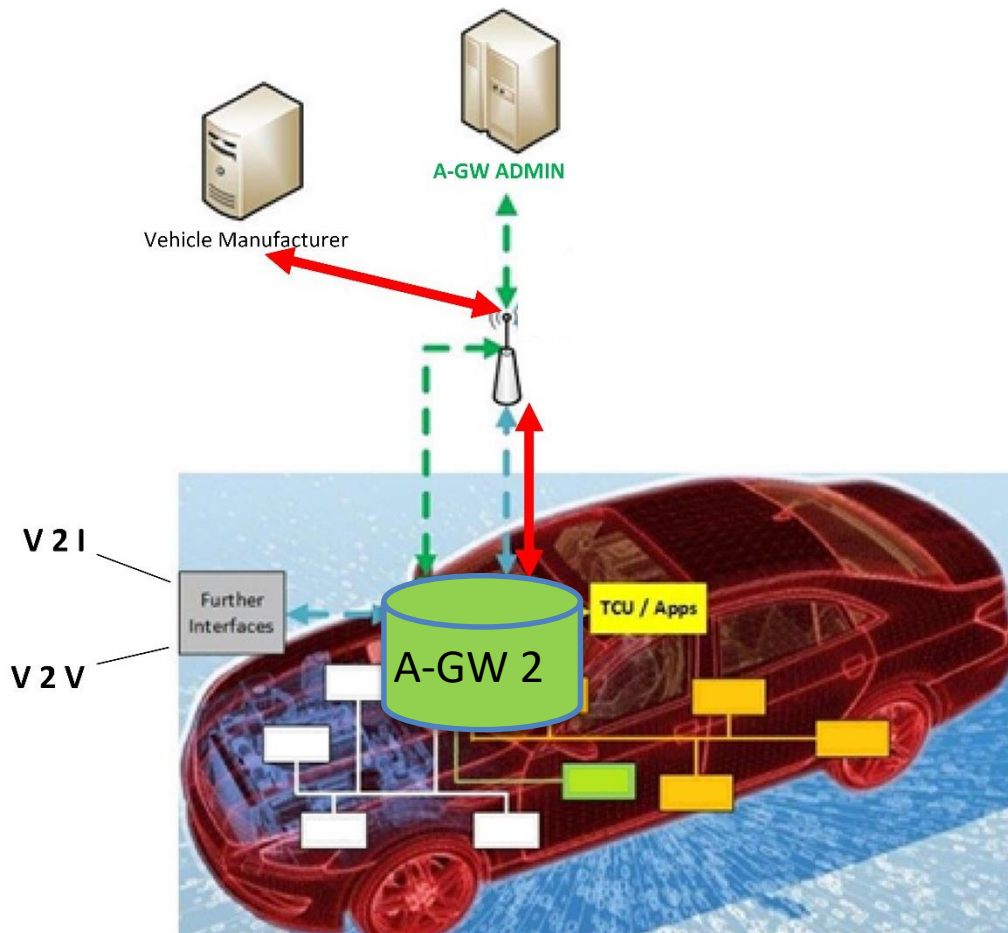
After Cyber Attack

Example 2 : The hardware is not any more powerful enough to tackle new cyber attacks.

The vehicle manufacturer decides to update the Automotive Gateway. It is the central unit that controls the data stream from / to the in-vehicle-network



A harmonized communication channel can ensure highest IT security over the lifetime, e.g. an Automotive Gateway (A-GW)



By using a harmonized communication channel from /to the vehicle, hardware updates over the lifetime of the vehicle are possible.

Even if the mobile network changes, a simple hardware update of the A-GW is sufficient to keep the vehicle securely connected.



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**FIA proposes WP 29 to mandate GRVA to regulate
IT Security over the Lifetime of a Vehicle
at UNECE level in the framework of the 1958 agreement**



#SaveKidsLives



READ IT SIGN IT SHOW IT DELIVER IT ABOUT



FIA ACTION
FOR ROAD SAFETY

TO MAKE THE ROADS SAFER FOR EVERYONE,
COME AND SIGN OUR PLEDGE

PLEDGE YOUR SUPPORT TO THE
10 GOLDEN RULES
FOR SAFER MOTORING

SIGN THE PLEDGE

<p>01 BELT UP</p> 	<p>02 RESPECT THE HIGHWAY CODE</p> 	
<p>04 CHECK MY TYRES</p>	<p>05 DRIVE SOBER</p>	<p>03 OBEY THE SPEED LIMIT</p>
<p>07 PAY ATTEN- TION</p>	<p>08 STOP WHEN I'M TIRED</p>	<p>06 PROTECT MY CHILDREN</p> 
<p>09 WEAR A HELMET</p> 	<p>10 BE COURTEOUS AND CONSIDERATE</p>	

Thank you for your attention