

Submitted by the expert from UK,
Co-Chair of the TF on CS/OTA

Informal document **GRVA-04-45**
4th GRVA, 24-27 September 2019
Agenda items 5(a) and 5(b)

Report on the status of the cyber security and software update process recommendations

Content

1. Background
2. Outcome of test phase
3. Status of the draft recommendations
4. Outstanding items

Background

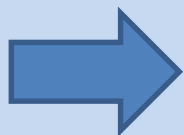
- The remit of the group was to produce
 - a regulation addressing cyber security issues
 - a regulation addressing over the air update issues
- How the recommendations were developed
 - The group contained experts from Contracting Parties and NGO's (CITA, FIA, ITU, OICA, CLEPA, ISO and others)
 - Eighteen physical meetings have been held to agree the proposed recommendations plus twenty-nine ad-hoc meetings (plus some side meetings)
- Work started on 21 December 2016

2. The test phase

Overview

Aim of the „test phase“?

- => Provide guidance on how to assess the regulatory requirements and documentation required
- => Verify the effectiveness/robustness of the Regulation(s)
- => Verify that approval authorities/technical services are able to reach the same conclusions based on identical OEM documentation



*Aim was to assure the Regulation(s)
and not to test the products!*

Test phase by numbers

What happened

- ⇒ Testing started in February and ended in August.
 - ⇒ Gather information
 - ⇒ Agree how to assess the regulations
 - ⇒ Do the assessment
- ⇒ 7 Contracting Parties (DE, FR, ESP, ROK, JPN, UK and NL)
- ⇒ Over fifteen manufacturers (from categories M and N)

Conclusions

Group consensus

- ⇒ The group concluded that:
 - ⇒ Initial assessment is positive
 - ⇒ General concept works as intended
 - ⇒ No “show stoppers” identified
- ⇒ The approach adopted by TS/AA/OEM’s and experience gained was captured in “Interpretation Documents”
- ⇒ Refinement to the regulatory text was made based on the learning from implementation
- ⇒ **Conclusion: *the regulations works as intended and will provide value.***

Conclusions

Round robin testing (1 OEM and 2 TS/AA)

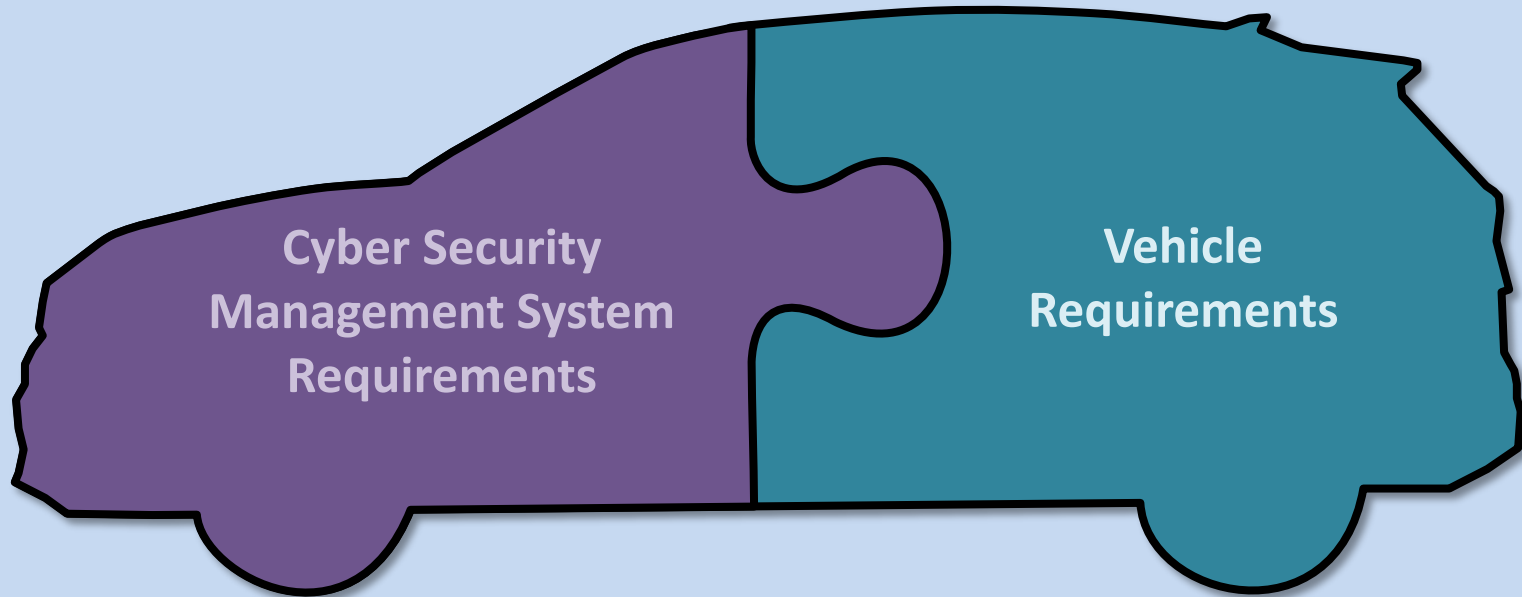
- ⇒ The manufacturer concluded that:
 - ⇒ The different TS/AA demonstrated the same understanding of the regulations
 - ⇒ The different TS/AA demonstrated the same understanding of the documentation they required
 - ⇒ The draft ISO/SAE 21434 provided a useful aid to the assessment and harmonising approaches
 - ⇒ ***The round robin testing provides an indicative positive result*** that a similar conclusion might be reached if a full information package were available

3. Status of the draft recommendations

Summary of the cyber security requirements

The group developed a split approach for the cyber security assessment:

- i) Assessment of relevant vehicle manufacturer management system
- ii) Assessment and certification of vehicles



Organizational structure
& processes

Design of the vehicle architecture,
risk assessment and
implementation of mitigations

Cyber Security recommendation status

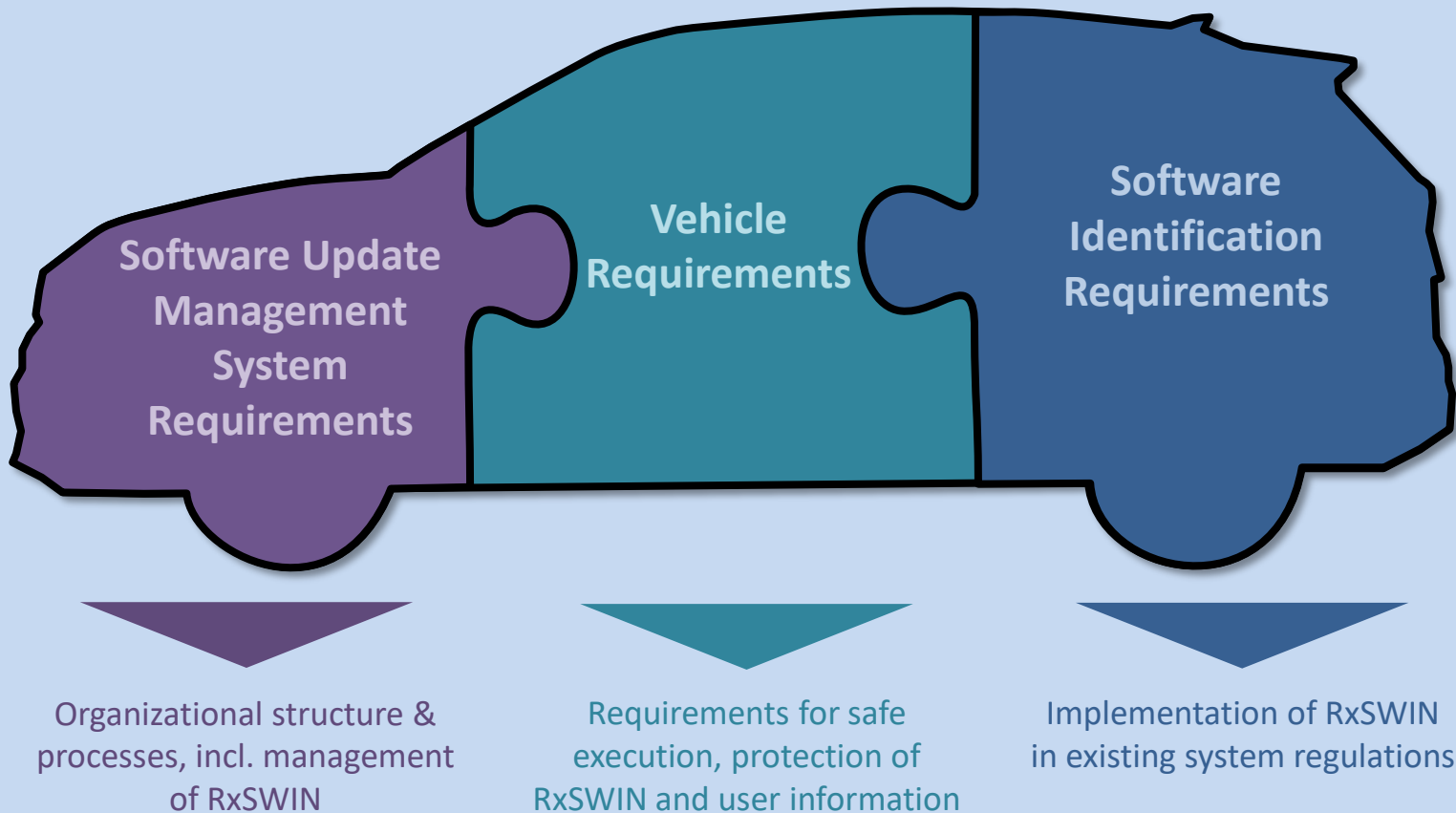
Updates to ECE-TRANS-WP29-GRVA-2019-02e

- ⇒ Clarifications to the requirements mostly complete
 - ⇒ Outstanding comments mainly in the guidance section
- ⇒ Added a requirement for OEM to declare they meet the requirements
 - ⇒ Format of the declaration to be proposed
- ⇒ Consideration of data access
 - ⇒ Proposed revised text to be agreed
- ⇒ Requirements for information package copied in from R79
 - ⇒ Proposed text to be agreed
- ⇒ Proposal for which categories to include to be agreed (or deferred to GRVA)

Summary of the software update requirements

The group developed a split approach:

- i) Assessment of relevant vehicle manufacturer management system
- ii) Assessment and certification of vehicles
- iii) Implementation of a software identification scheme



Software update recommendation status

Updates to ECE-TRANS-WP29-GRVA-2019-03e

- ⇒ Clarifications to the requirements mostly complete
 - ⇒ Outstanding comments mainly in the guidance section
- ⇒ Added a requirement for OEM to declare they meet the requirements
 - ⇒ Format of the declaration to be agreed
- ⇒ Requirement to permit RxSWIN (software reference number) to be held off-vehicle if underlying information can be read from the vehicle
 - ⇒ Proposed text to be agreed
- ⇒ Requirements for information package copied from R79
 - ⇒ Proposed text to be agreed
- ⇒ Proposal for which categories to include to be agreed

4. Outstanding items

Outstanding work items

What we recommend as next steps

- ⇒ The proposed regulations are provided to GRVA as standalone documents
 - ⇒ Should be possible to provide finished documents for next GRVA
- ⇒ The task force develops a proposal for a 00 series
 - ⇒ May be possible if scope can be agreed
- ⇒ The “guidance” part of the regulation is provided to GRVA as standalone resolutions
 - ⇒ Should be possible for next GRVA
- ⇒ The “interpretation documents” are provided to GRVA
 - ⇒ Format to be confirmed (working paper or resolution)
 - ⇒ May not be possible for next GRVA

Future planned (and potential) meetings

