

## Introduction: Webinar rules

- Webinar rules:
  - The Webinar will start in few minutes
  - You'll be muted all along the Webinar
  - There's a chatting box to ask your questions or send your comments when you want
  - Please address these comments and questions to the user "The REUSE Company" and not to the presenter directly
  - If you have any technical issue please use this chatting box, or mail us at: [support@reusecompany.com](mailto:support@reusecompany.com)
  - The Webinar will be recorded. A link to the recording will be sent to you in few days



# WEBINARS 2018

Requirements Quality  
along the Supply Chain

Wednesday, 05 August 2020

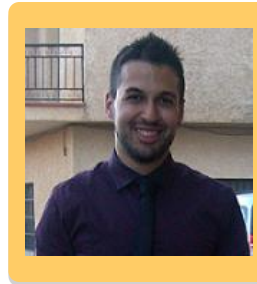
## Presenters' profile

- ▶ Eugenio Parra
  - ▶ Quality Rules Architect



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- ▶ Borja López
  - ▶ Rich Authoring Tool Architect



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- › Description of The Reuse Company
- › Why Requirements Quality along the Supply Chain?
- › The concept of Quality Certificate
- › Demos
  - › Workflow between OEM and Suppliers
- › Q&A

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### Aerospace and Defense



### Automotive



### Energy



### Consulting



### Banking



### Health care



### Other industries



**SQA -System Quality Analyzer**  
Global Quality Management



**SIM –System Interoperability Manager**

Tailorable Interoperability Platform

- R+ Manager

Managing requirements transformations

Managing models transformations

- T+ Manager

Managing traceability

- Reasoning Manager

Task based environment



**Systems  
Knowledge  
Repository  
(SKR)**



**Systems  
Knowledge Base  
(SKB)**



**Systems  
Assets Store  
(SAS)**



**RAT –Rich Authoring Tool**  
Smart text authoring

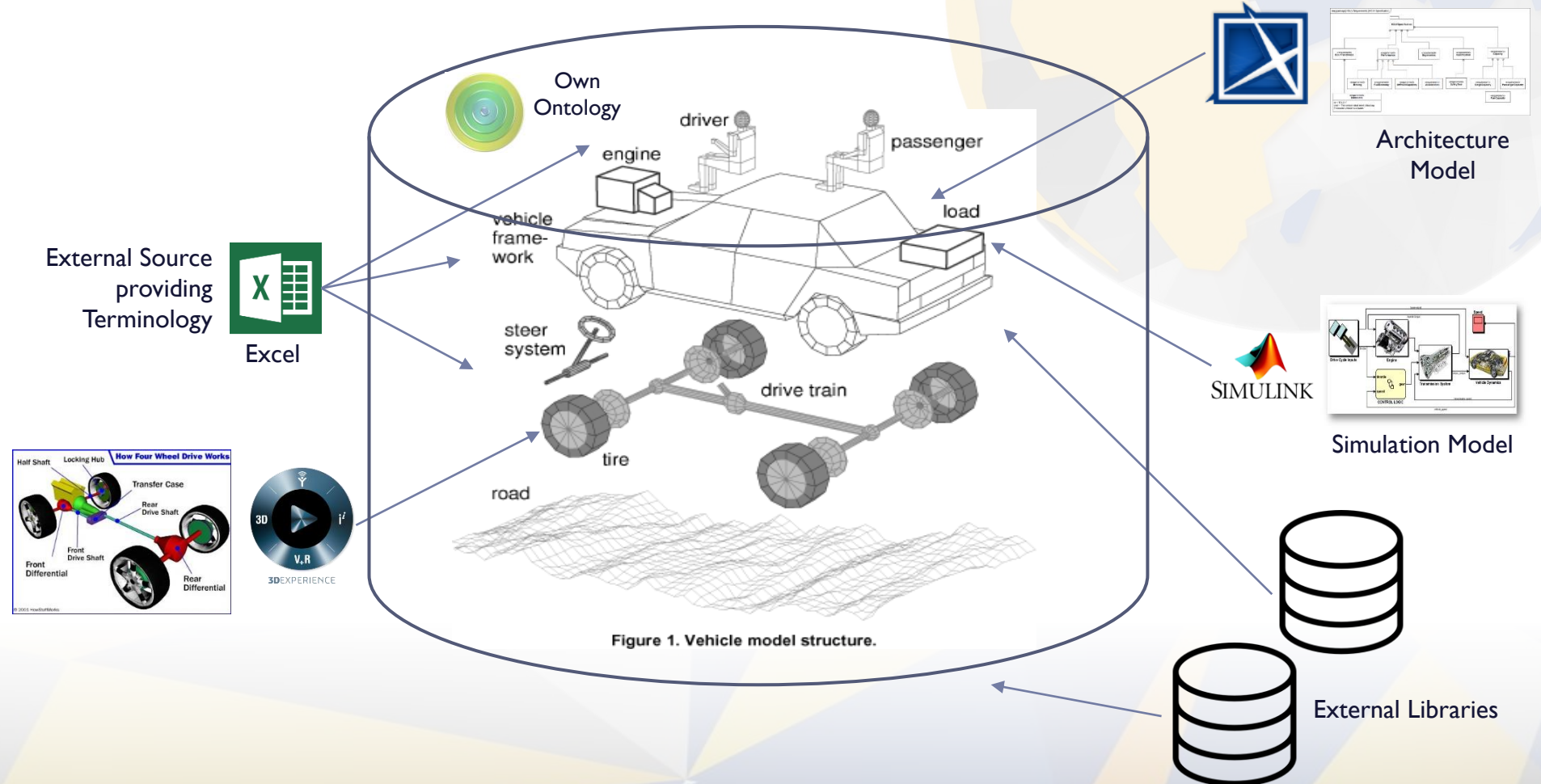


**SKM –System Knowledge Manager**  
Management of System Knowledge  
Libraries



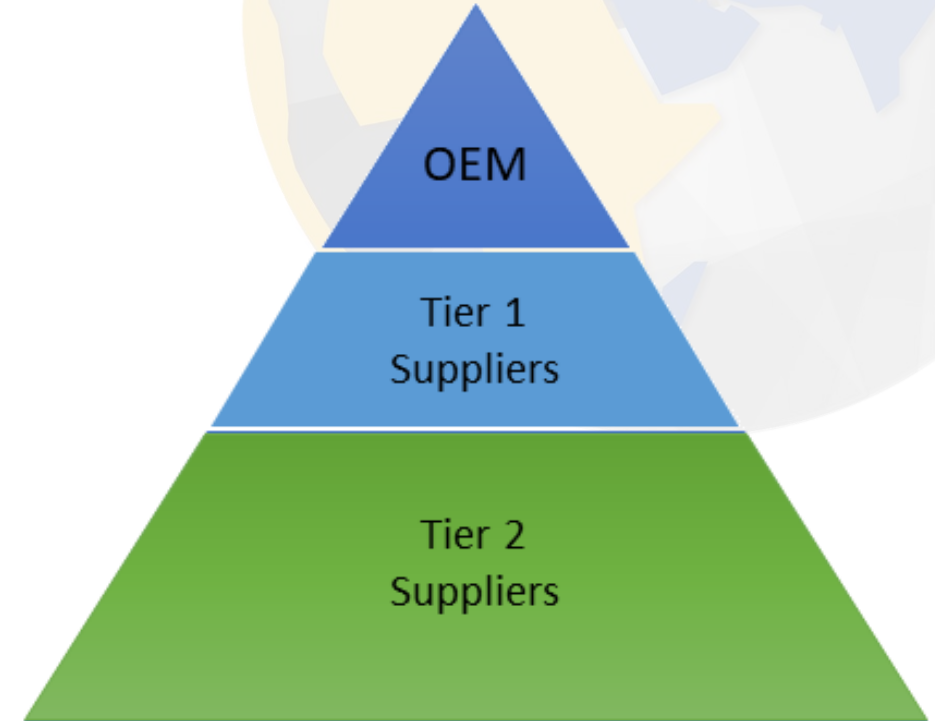
- › Description of The Reuse Company
- › **Why Requirements Quality along the Supply Chain?**
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Different stakeholders can be involved in the whole product lifecycle

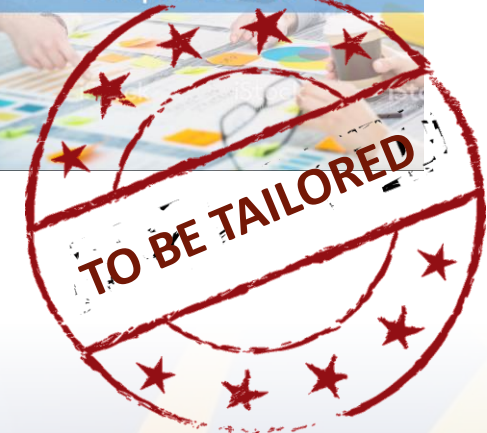
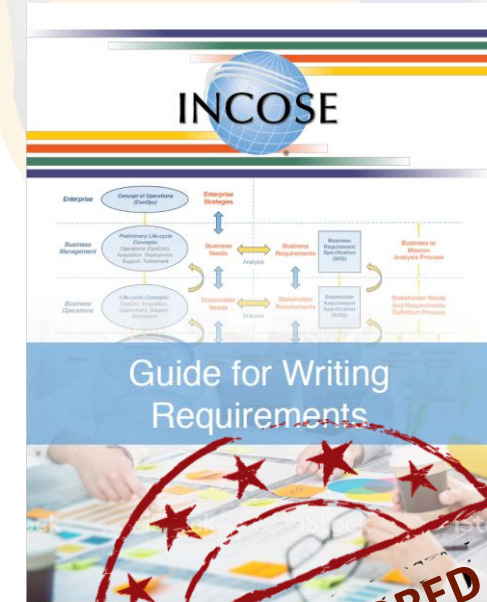
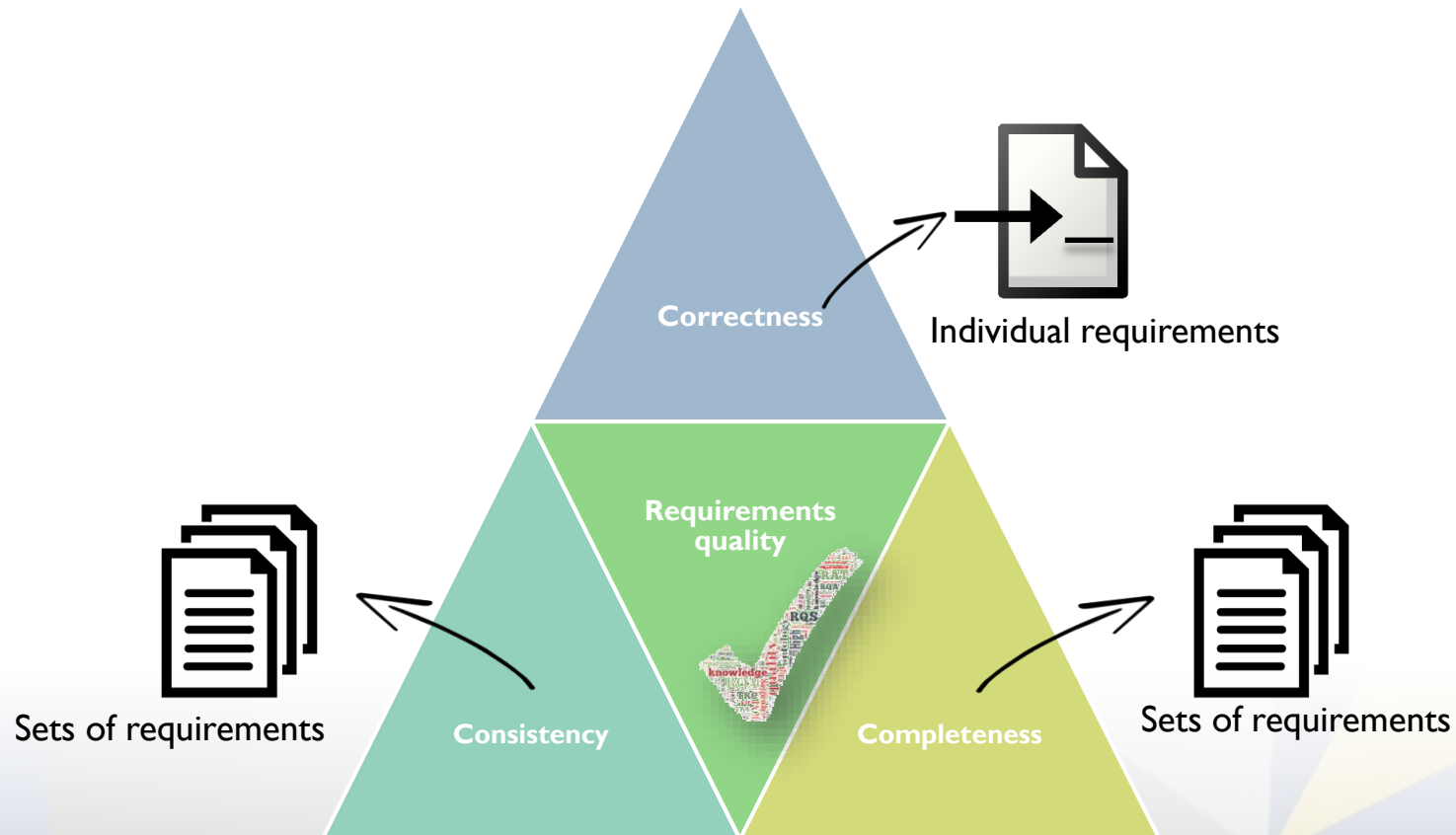


### Different roles along the Supply Chain

- Very common to find the **supply chain** approach.
- Involves not only the OEMs, but also the 1<sup>st</sup> and 2<sup>nd</sup> tier:
  - OEMs have a necessity.
  - Suppliers just solve it.
- Different companies, different processes:
  - Any supplier might match the requirements, but not be an approved supplier.



- Requirements Quality metrics: CCC Approach
- CCC – Correctness, Completeness and Consistency



- But ... Requirements Quality between different tiers?
  - Absolutely!
- Scenario:
  - The OEMs to define the quality rules to be compliant with.
  - The suppliers to develop the products according to the rules defined by the OEMs.
  - The suppliers to send reports to the OEM with the evolution of the quality of the specifications.
  - The OEMs to control the evolution of the quality of the different suppliers.
- Implemented in SQA → **Quality Certificate**

## The concept of Supply Chain

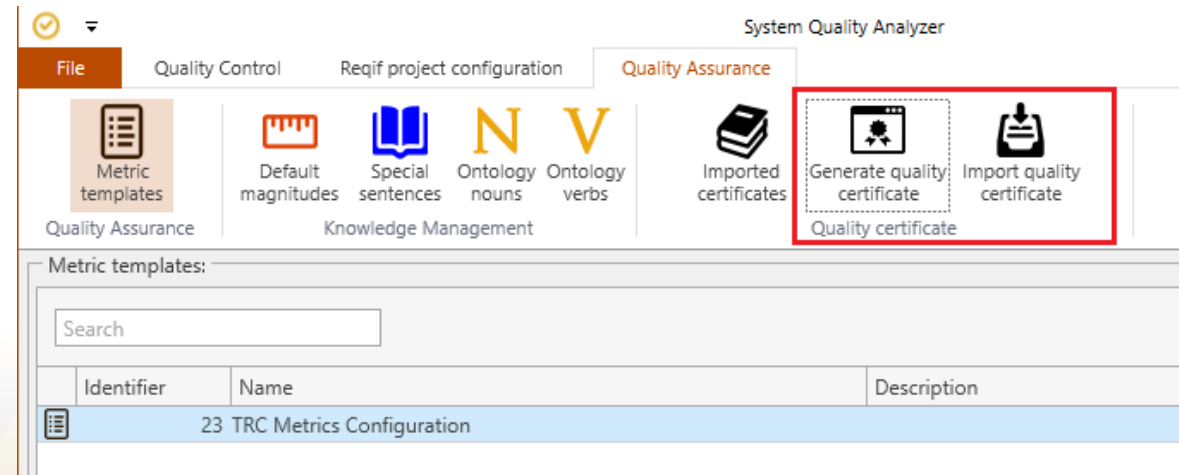




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- › **The concept of Quality Certificate**
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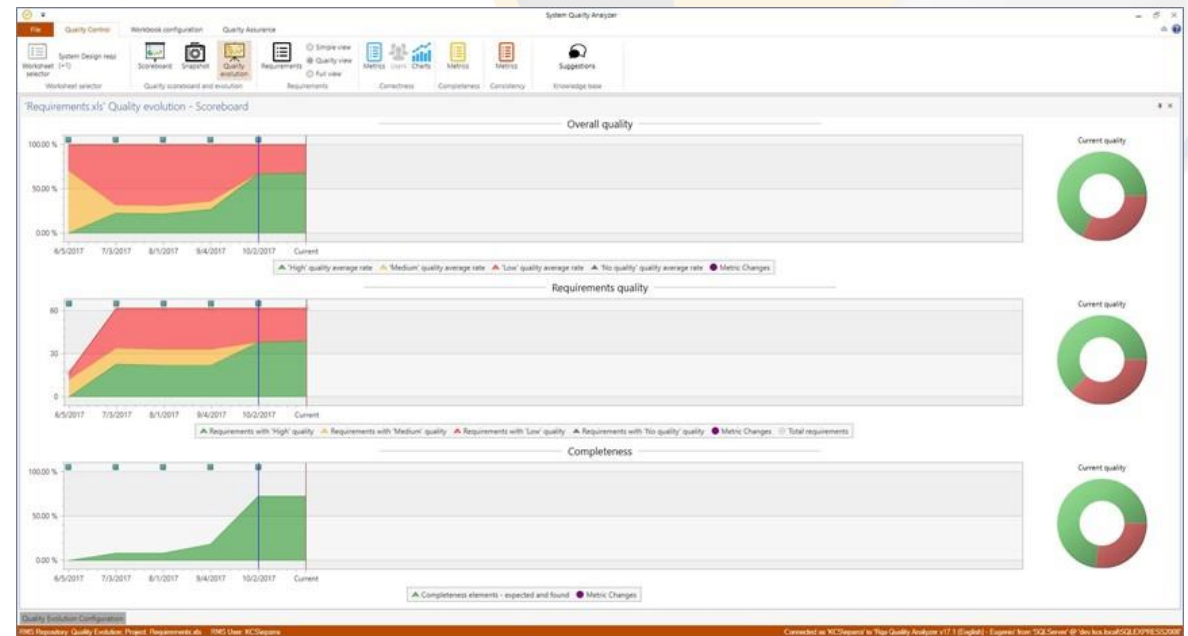
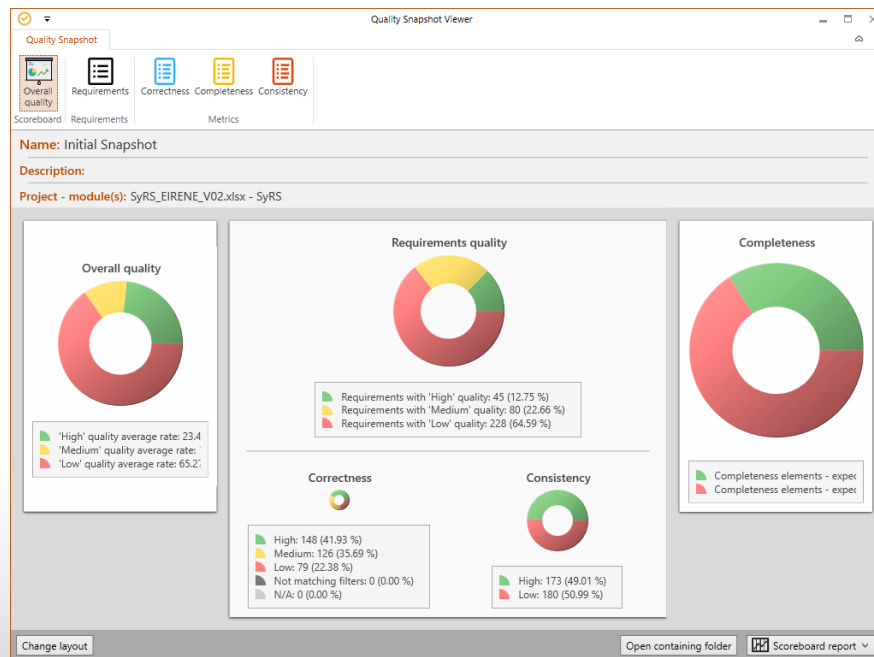
### The concept of Quality Certificate

- **Quality Certificate:** Set of quality rules stored in a self-contained package (file) that can be distributed along the Supply Chain.
- Any SQA user can produce a Quality Certificate with a set of quality rules.
- The Quality Certificate can be easily sent to the Suppliers.
  - When the Quality Certificate is received by any supplier, it can be easily imported in SQA (plug & play approach).

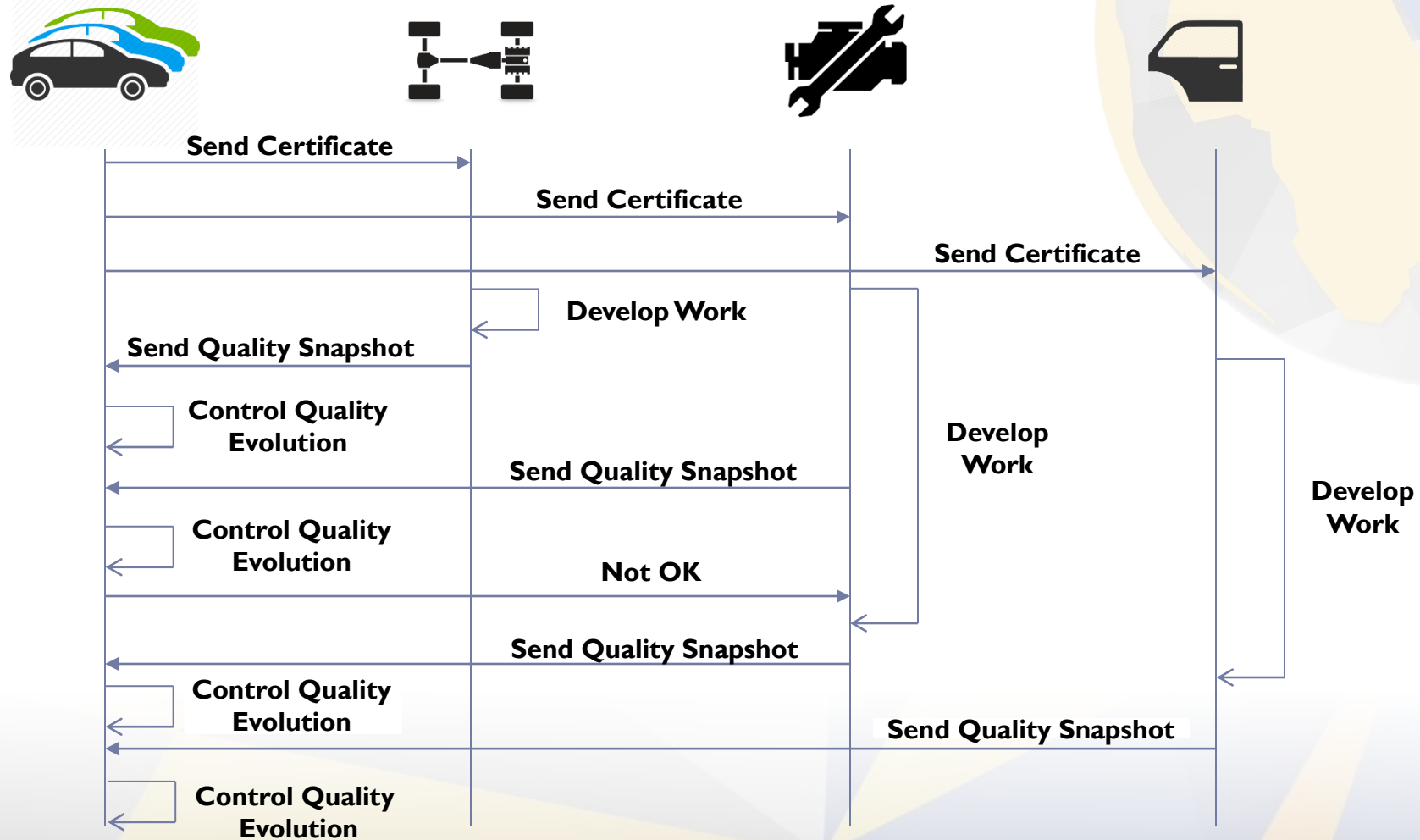


### Quality Snapshots and Quality Evolution

- SQA allows the user to make snapshots of the current state of the quality at different moments in time.
- The suppliers can generate reports to be used by the OEMs to track the evolution of the quality.



### Quality along the Supply Chain: Big Picture



### How to protect the Quality Certificates

- Can the Suppliers change the definition of the quality metrics defined in the Quality Certificate?
- It's up to the OEMs (fully customizable).



#### **Open-source (white box)**

Suppliers can:

- Use the Quality Certificate.
- See what's inside.
- Modify the metrics after importing.



#### **Read-only (gray box)**

Suppliers can:

- Use the Quality Certificate.
- See what's inside.
- ~~- Modify the metrics after importing.~~



#### **Locked (black box)**

Suppliers can:

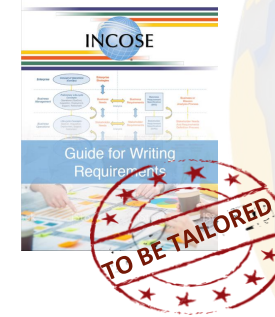
- Use the Quality Certificate.
- ~~- See what's inside.~~
- ~~- Modify the metrics after importing.~~



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### ➤ Part 1 (**OEM**):

- Using SQA to define a set of quality metrics for a subsystem.
- Generating a Quality Certificate to deploy among the suppliers.



### ➤ Part 2 (**Supplier**):

- Using SQA to integrate the received Quality Certificate.
- Developing the subsystem specifications and checking Requirements Quality.
- Generating periodic quality snapshots to send to the OEM.

Requirements										Correctness	Score	M...	Label	Correct...	Consistency	Is...
C	ID	Project	Work...	W	Text											
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### ➤ Part 3 (**Back to the OEM**):

- Using SQA to check the evolution of the quality of the subsystem developed by the supplier.



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