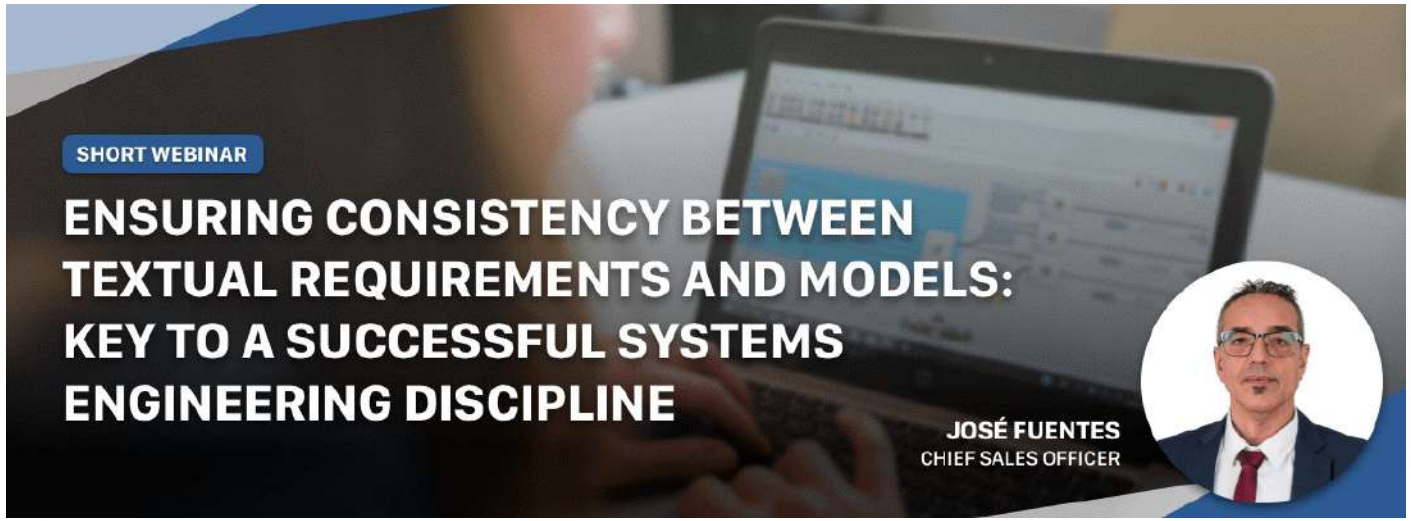
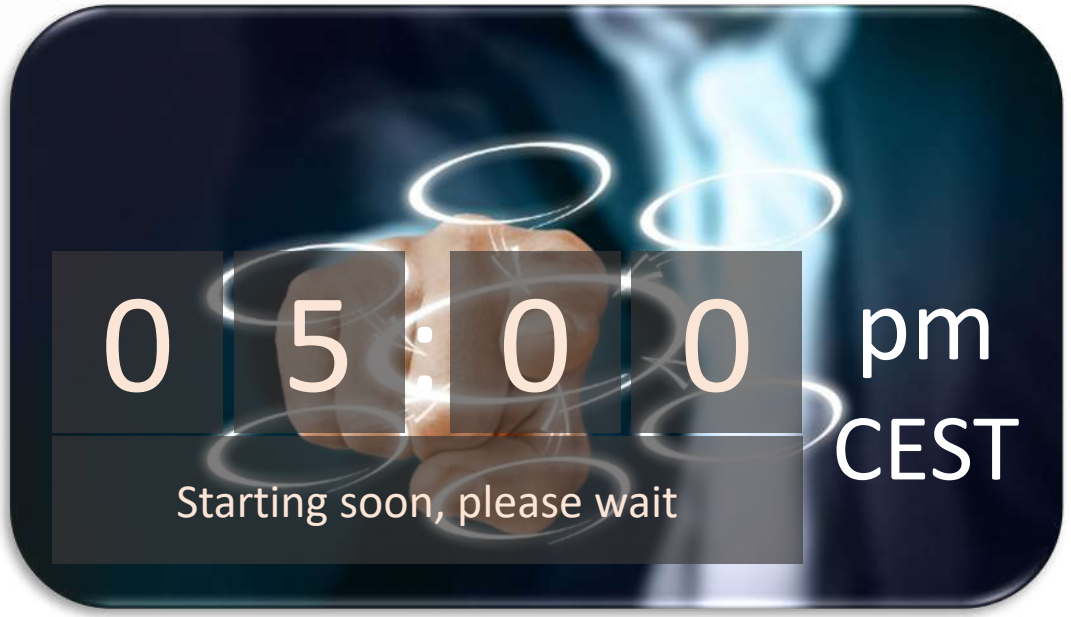




- Webinar rules:
  - You'll be muted all along the Webinar
  - There's a *Question* section to ask your questions or send your comments whenever you want
  - If you have any technical issue, please use the chat box (not the *Question*)
  - The Webinar will be recorded. A link to the recording will be sent to you in few days

ENSURING CONSISTENCY BETWEEN TEXTUAL REQUIREMENTS AND MODELS: KEY TO A SUCCESSFUL SYSTEMS ENGINEERING DISCIPLINE

José M. Fuentes
The REUSE Company
Chief Operating Officer
jose.fuentes@reusecompany.com

THE REUSE COMPANY

CONTENTS

- Introduction to The REUSE Company and the speaker
- The CCC Approach
- Requirements and Models
- Requirements consistency
- Live demo
- Q&A

ABOUT THE REUSE COMPANY (TRC)

01 The company was established in **1999**

As a spin-off of a University in Madrid

02 **System + Software Engineers**

Smart combination between Company staff and R&D from Academia

03 **Headquarters:**
Madrid (Spain)

International offices:
Miami (USA)
Stockholm (Sweden)
Tokyo (Japan) Delegation

04 To promote a **reusable**, **scalable** and global solution to a **smart** and **interoperable** Systems Engineering environment, by offering a **semantic knowledge centric** approach.

THE REUSE COMPANY

Is a tool vendor specialized in the application of **SEMANTIC TECHNOLOGIES** and **ARTIFICIAL INTELLIGENCE** to improve the digitalization of the Systems Engineering life cycle.

- **The Systems ENGINEERING Suite:**
  - RQA – QUALITY Studio
  - RAT – AUTHORING Tool
  - TRACEABILITY Studio
  - V&V Studio
  - KM – Knowledge Manager

  - SES ENGINEERING Studio:
    - TMx
    - HUBx
    - REx
    - KMx
    - SLCMx

THE PRESENTERS

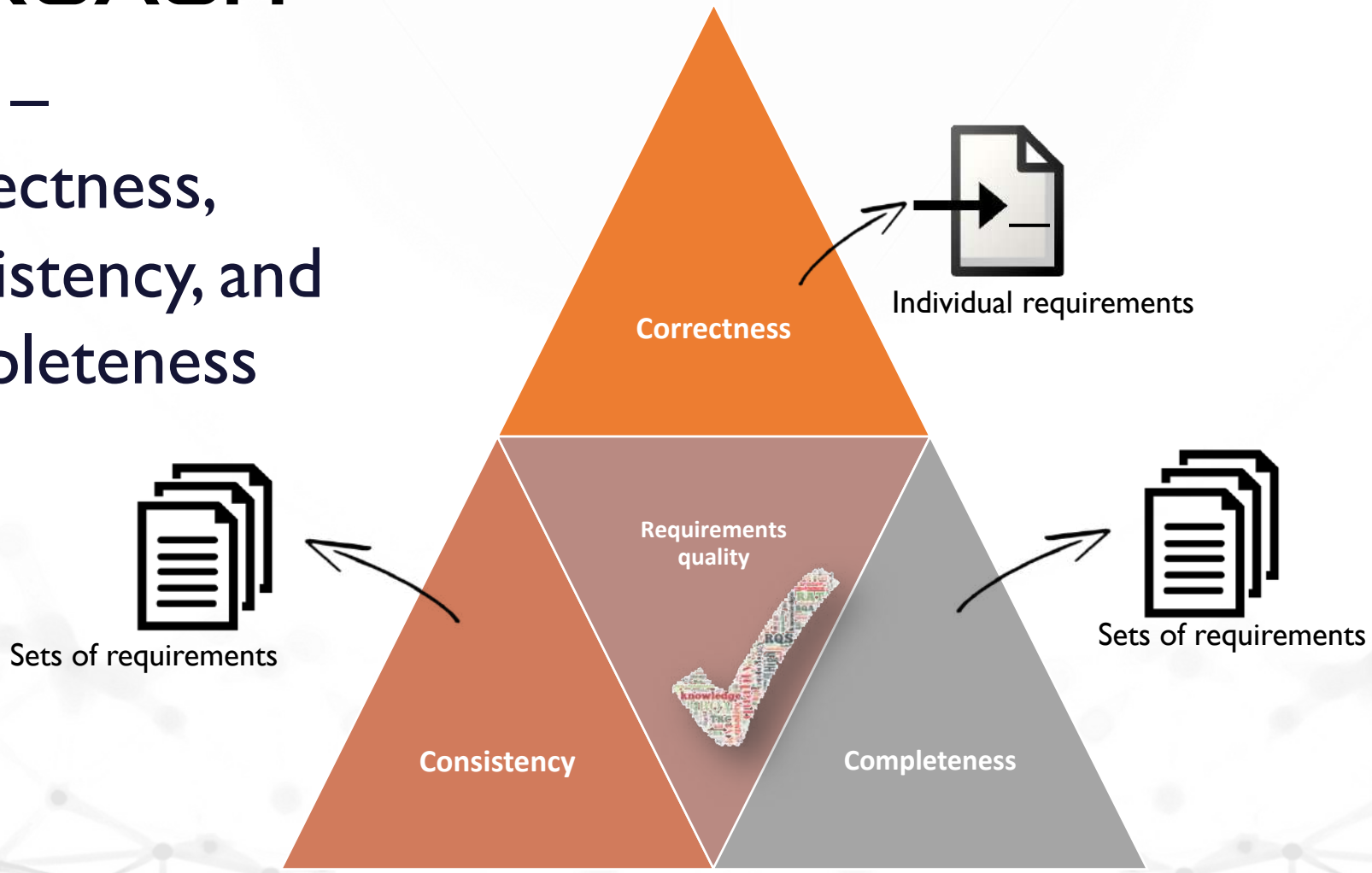
José Fuentes

- **Current Position:** Chief Sales Manager of The REUSE Company
- Former Product Manager of RQA and the Systems Engineering Suite
- INCOSE CSEP Certified
- Graduated in the INCOSE Institute for Technical Leadership
- Member of the board of AEIS – The Spanish chapter of INCOSE
- Active contributor to the INCOSE Guide to Writing Requirements
- Other certifications: ITIL
- Other interests: Project Management, Business Analysis, Risk Management

THE CCC APPROACH

OVERLAPPING METRIC: THE CCC APPROACH

- CCC – Correctness, Consistency, and Completeness



OVERLAPPING METRIC: THE CCC APPROACH

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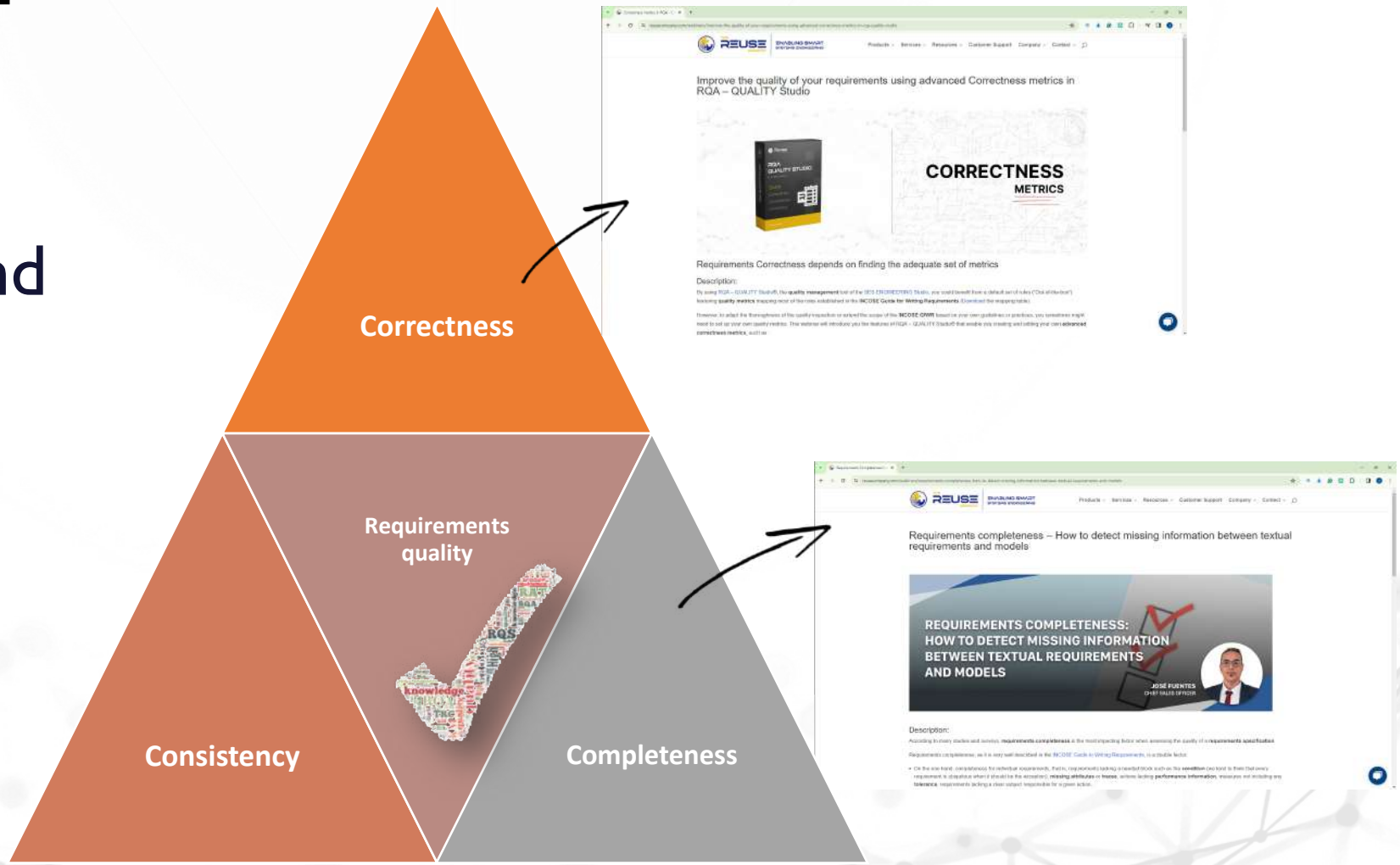

CONSISTENCY IN THE INCOSE GTWR

C11 - Consistent: A set of needs and a set of requirements is consistent if contains individual needs or requirements that are:

- unique;
- do not conflict with or overlap with others in the set;
- makes use of homogeneous units and measurement systems; and
- are developed using a consistent language (that is, the same words are used throughout the set to mean the same thing); and use terms that are consistent with the architectural model, project glossary, and project data dictionary.

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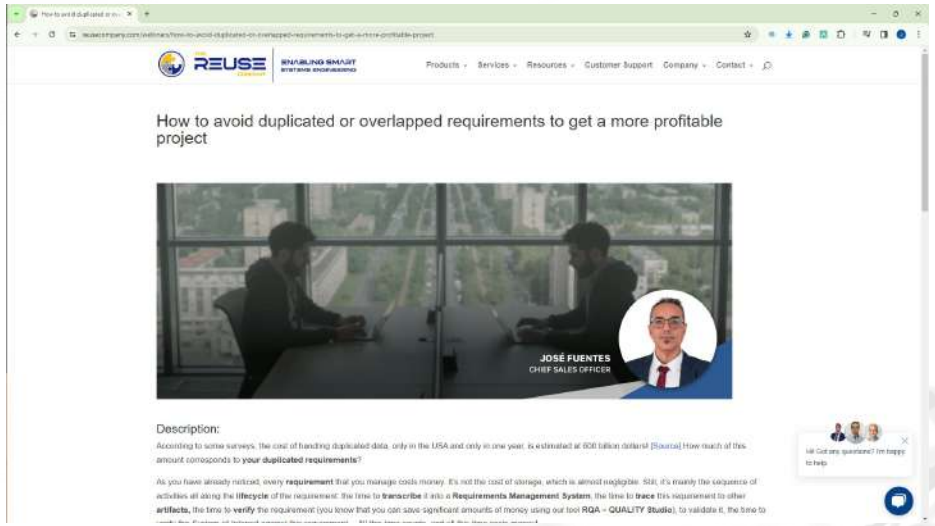

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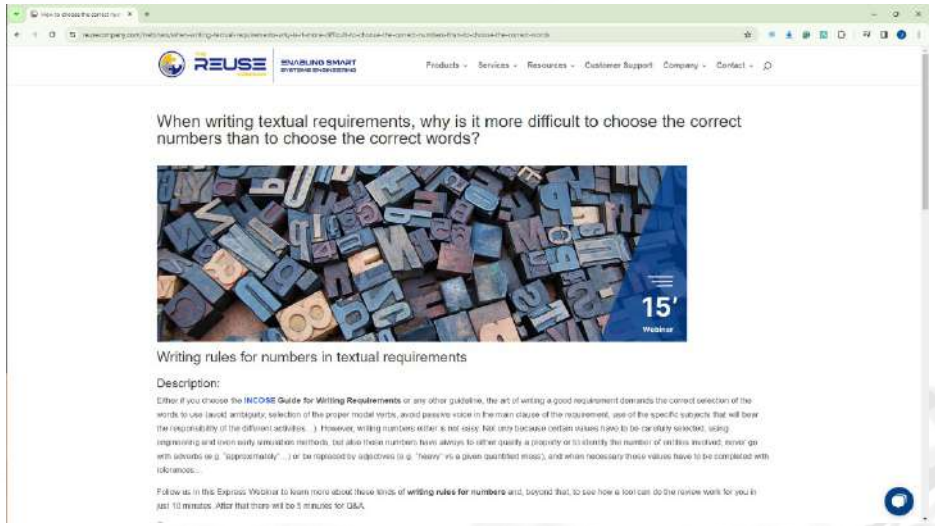

R6 - Common Units of Measure: When stating quantities, all numbers should have appropriate and consistent units of measure explicitly stated using a common measurement system in terms of the thing the number refers.

R40 - Decimal Format: Use a consistent format and number of signification digits for the specification of decimal numbers.

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CONSISTENCY IN THE INCOSE GTWR

R39 - Style Guide: Use a project-wide style guide for individual need statements and requirement statements.

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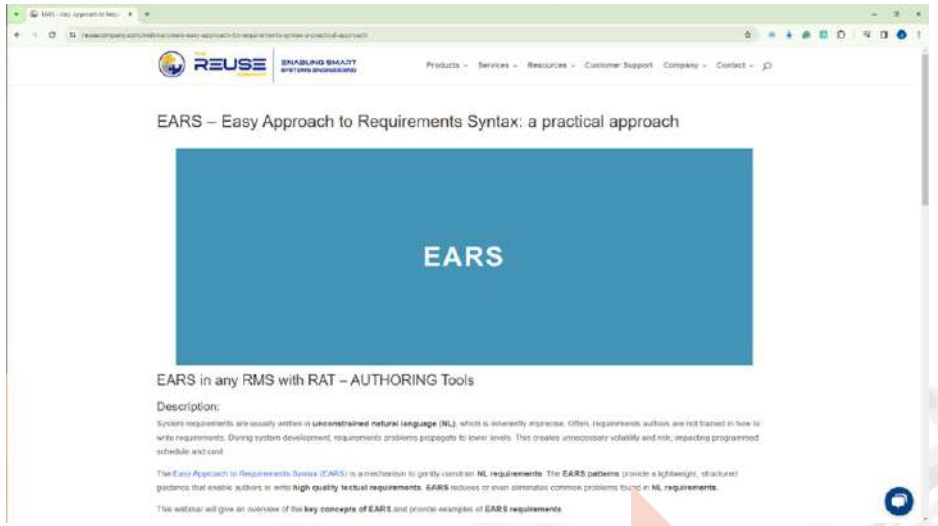

While | <pre-condition / context> | , | When | <trigger> | , | the | <System> | Shall | <System response>

CONSISTENCY BETWEEN REQUIREMENTS AND MODELS

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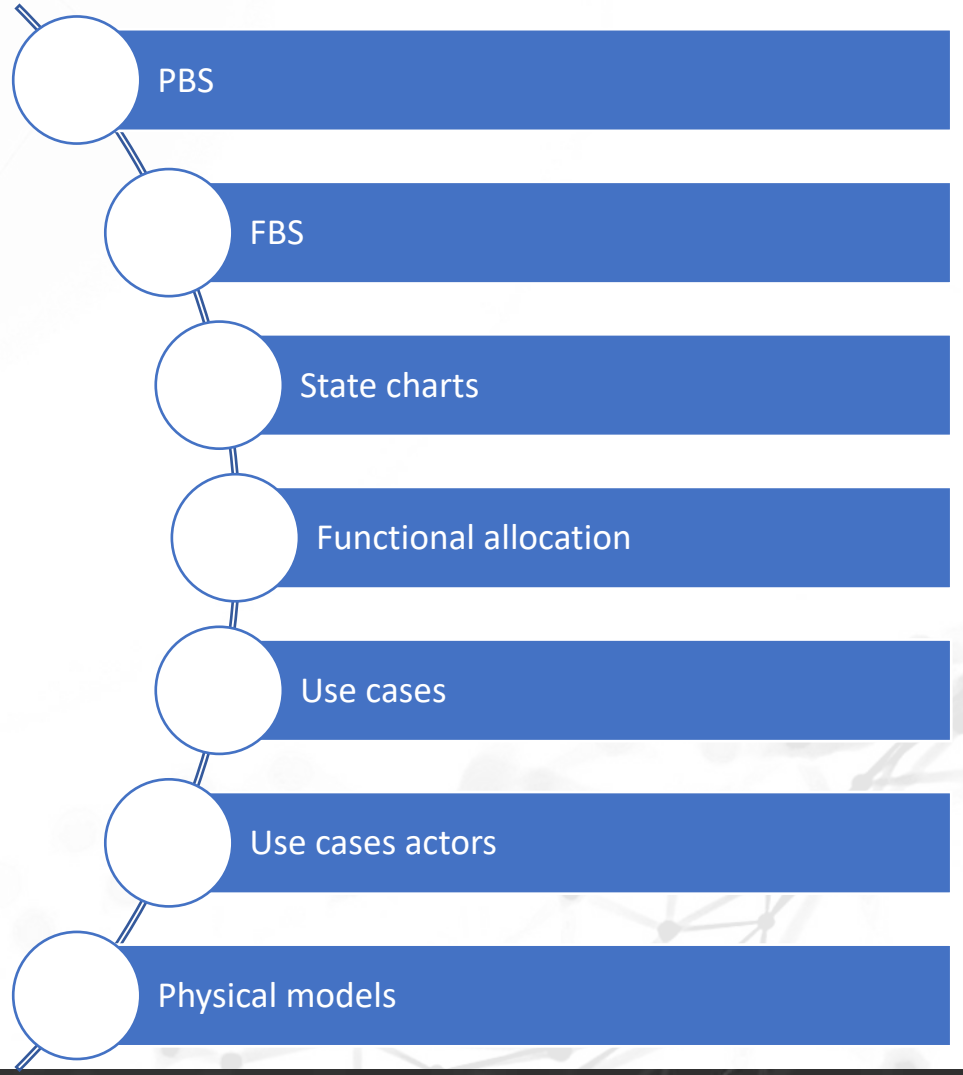
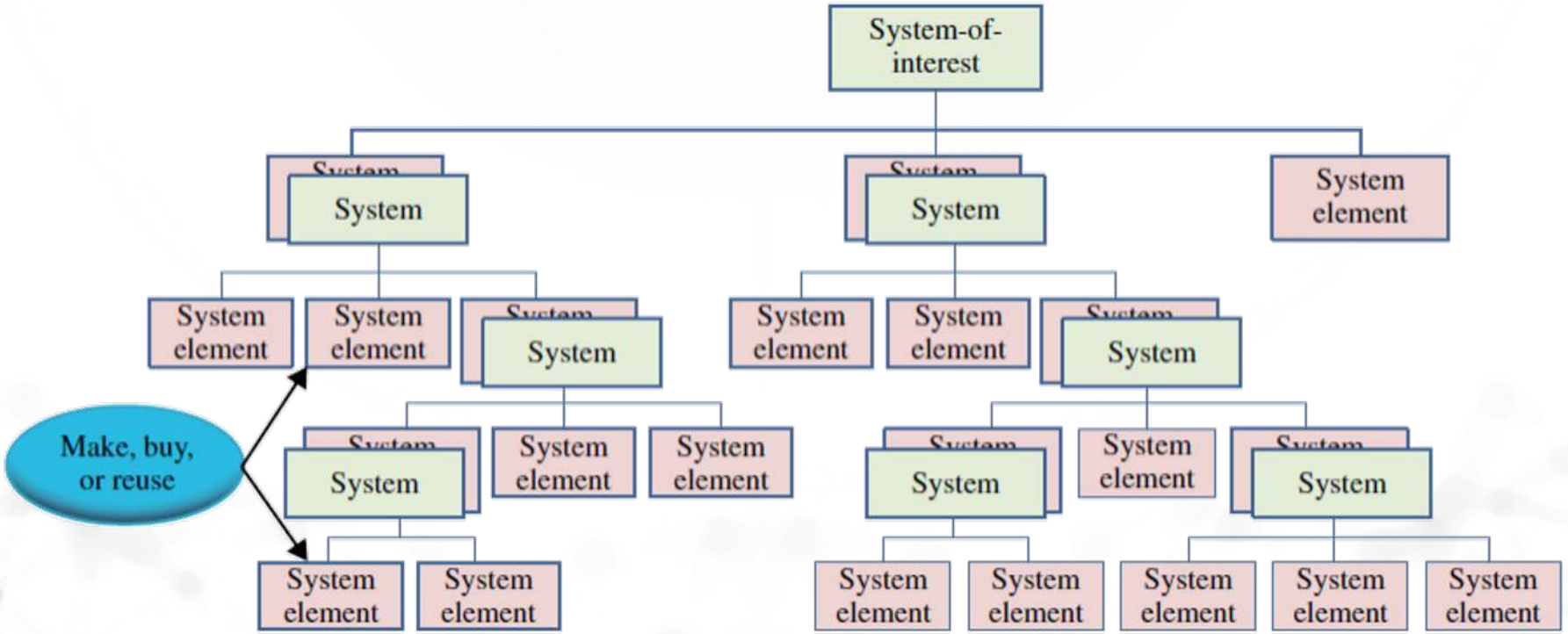


CONSISTENCY BETWEEN REQUIREMENTS AND MODELS



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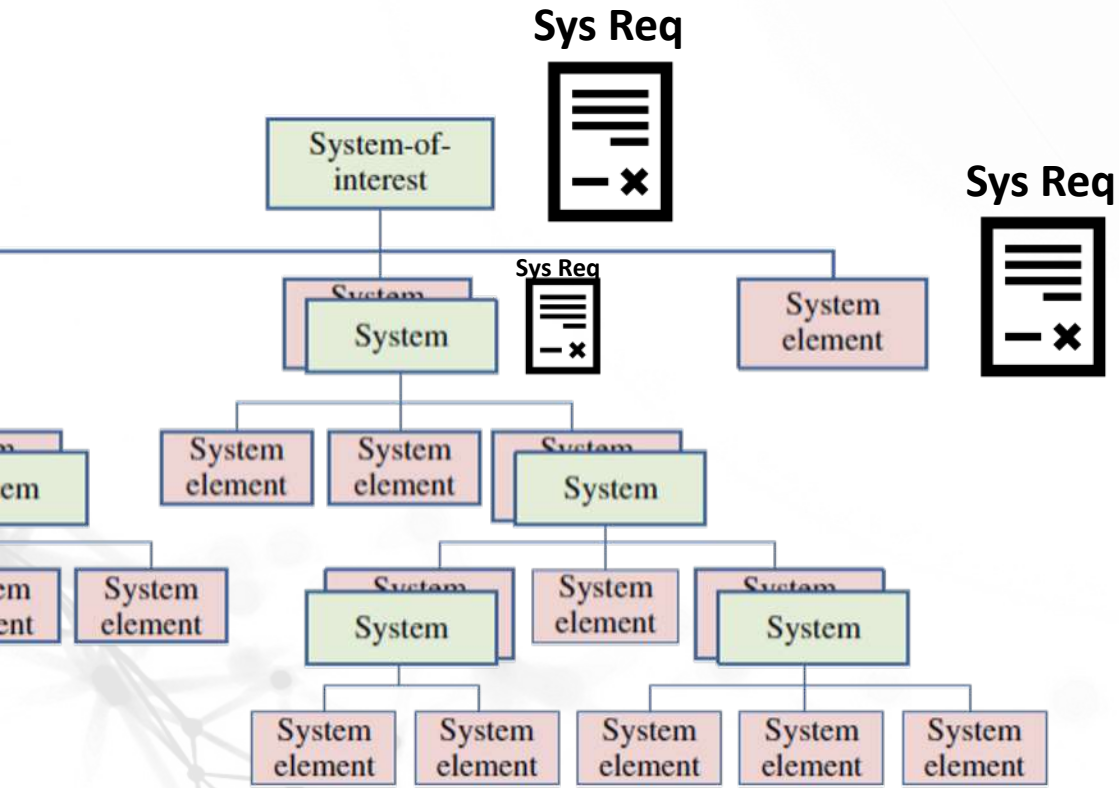
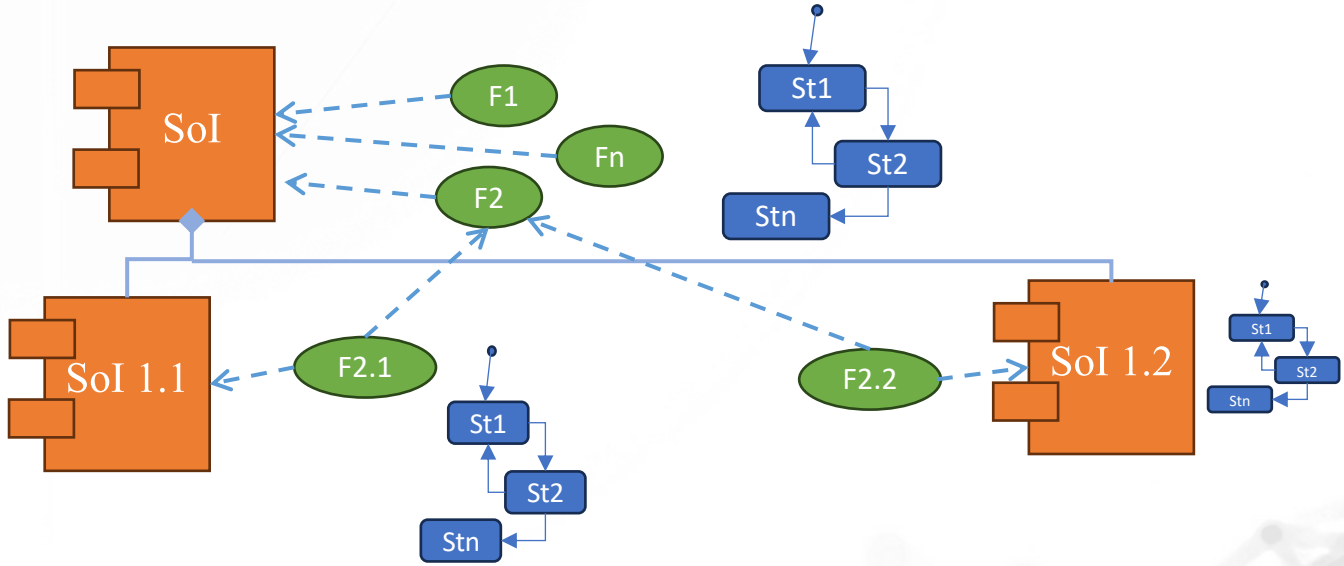
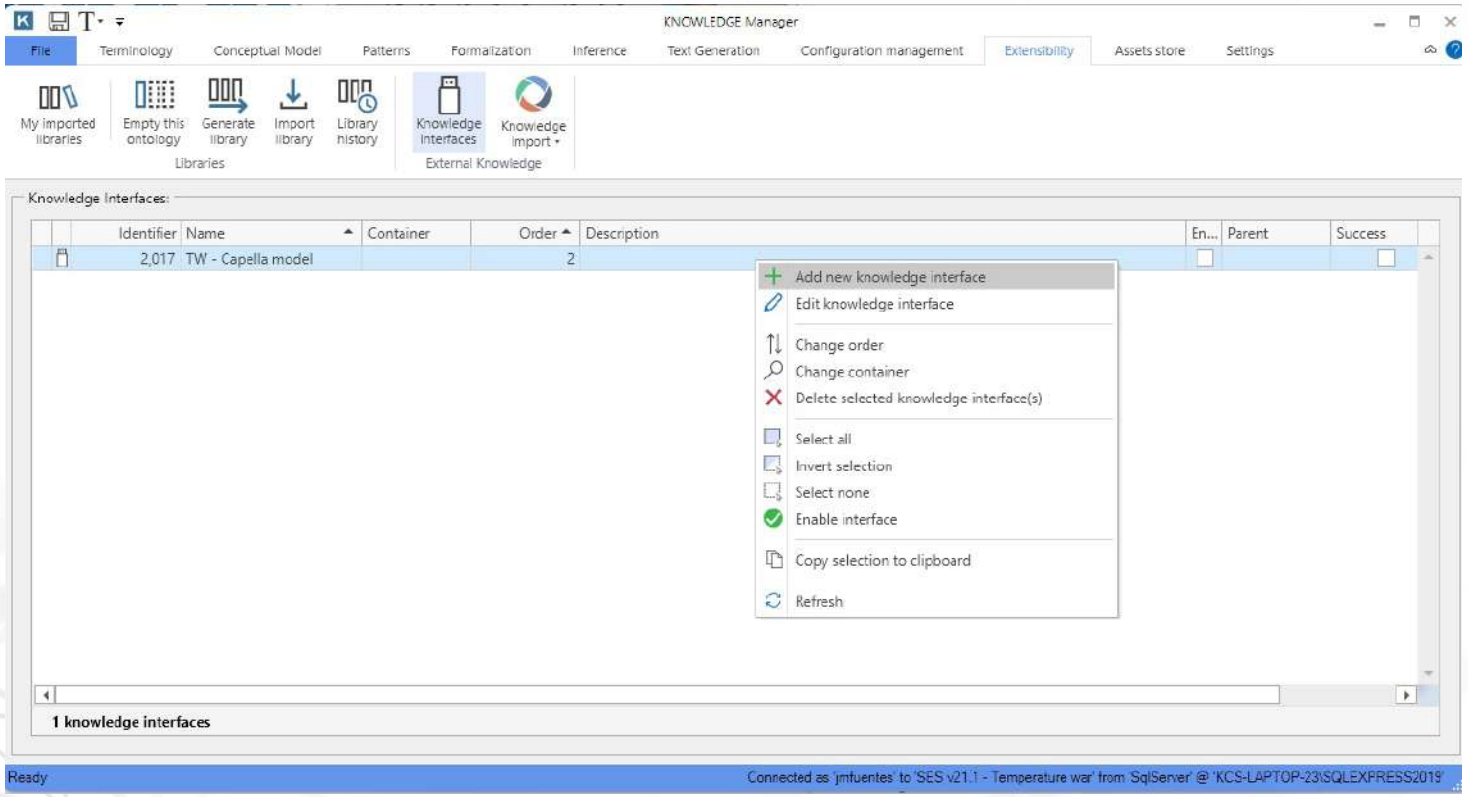




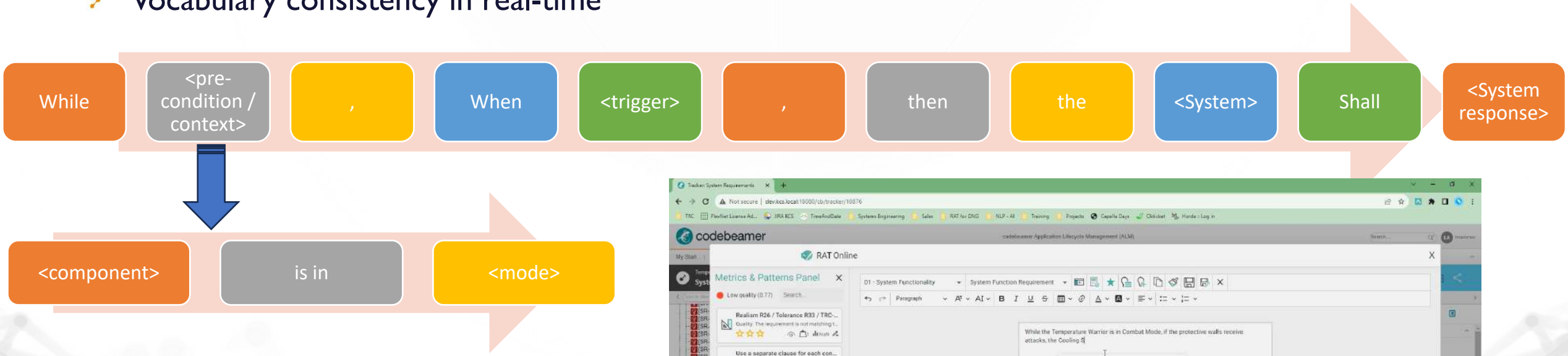
CONSISTENCY BETWEEN REQUIREMENTS AND MODELS

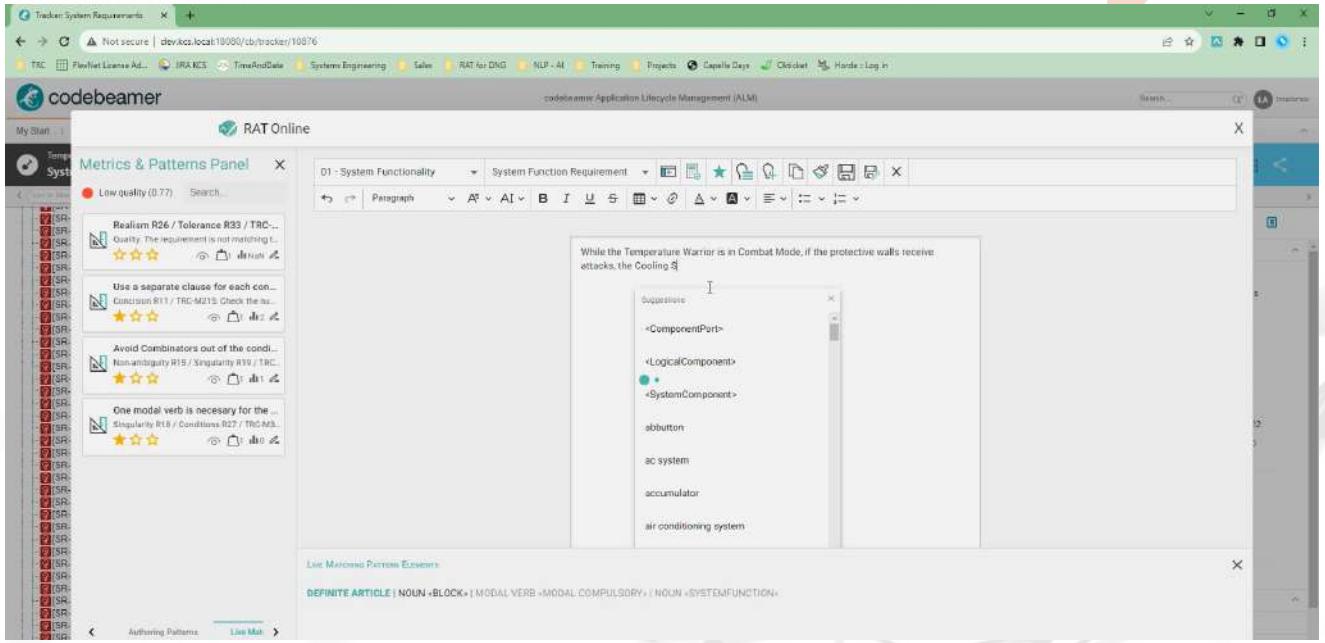
- Models merged with domain vocabularies



CONSISTENCY BETWEEN REQUIREMENTS AND MODELS

- Vocabulary consistency in real-time

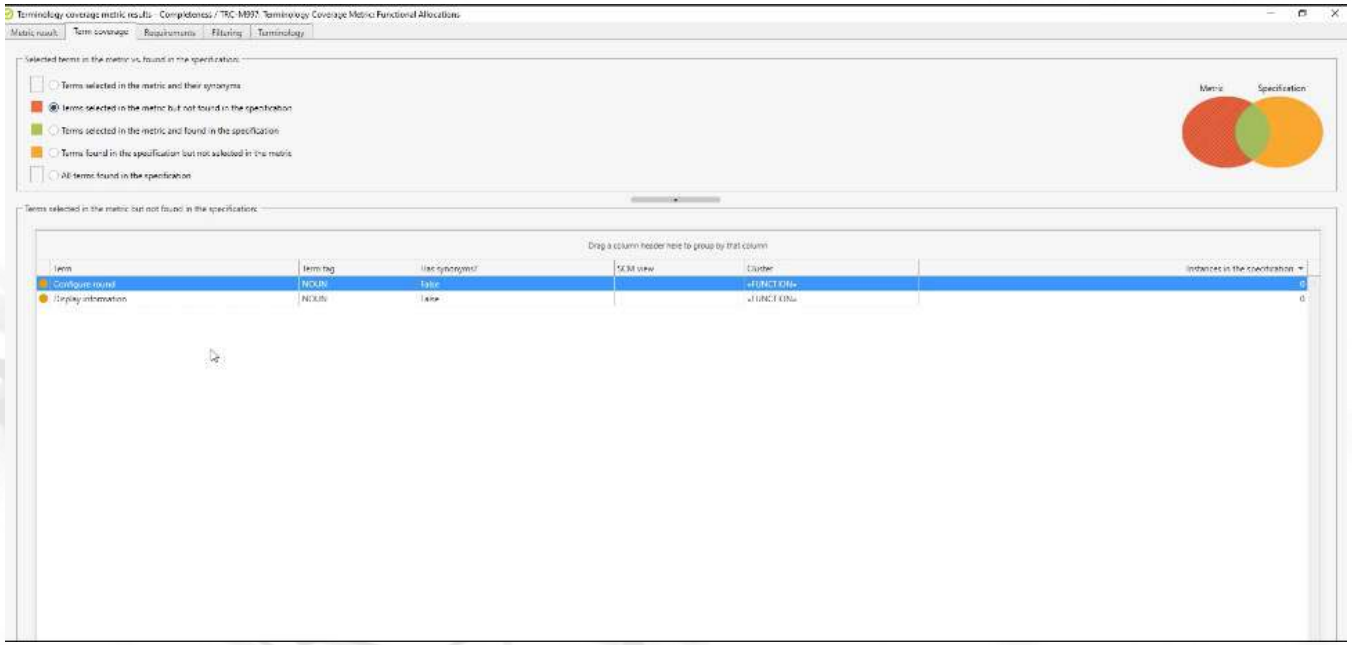




CONSISTENCY BETWEEN REQUIREMENTS AND MODELS

- Semantic consistency

While | <pre-condition / context> | , | When | <trigger> | , | then | the | <System> | Shall | <System response>



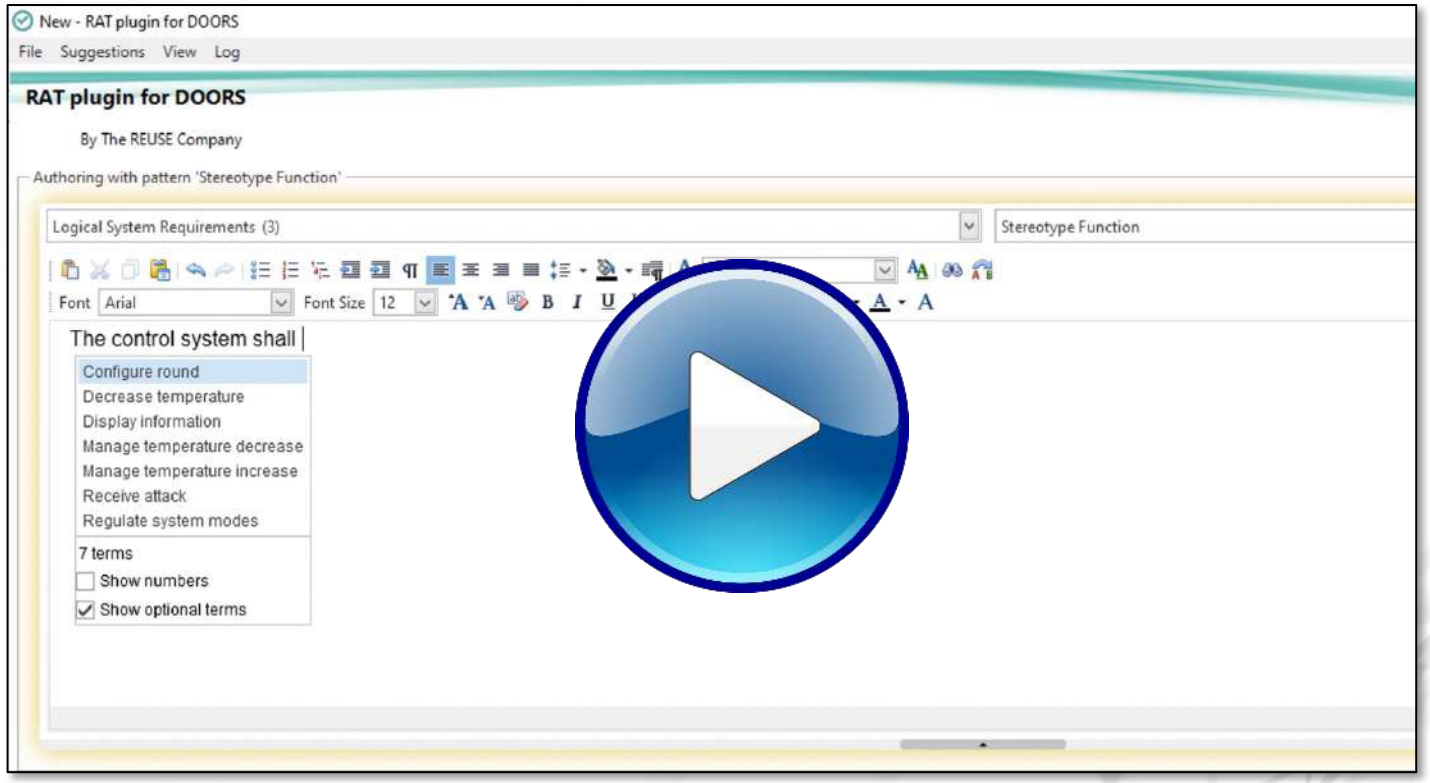
<component> | shall | enter into | <mode>

DEMO

DEMO

Steps:

1. Open a model in Cameo
2. Show the Cameo content in KNOWLEDGE Manager
3. Show the pattern and pattern formalization
4. Open a requirements document in IBM DOORS
5. Create a new requirement and check consistency in real-time



DEMO

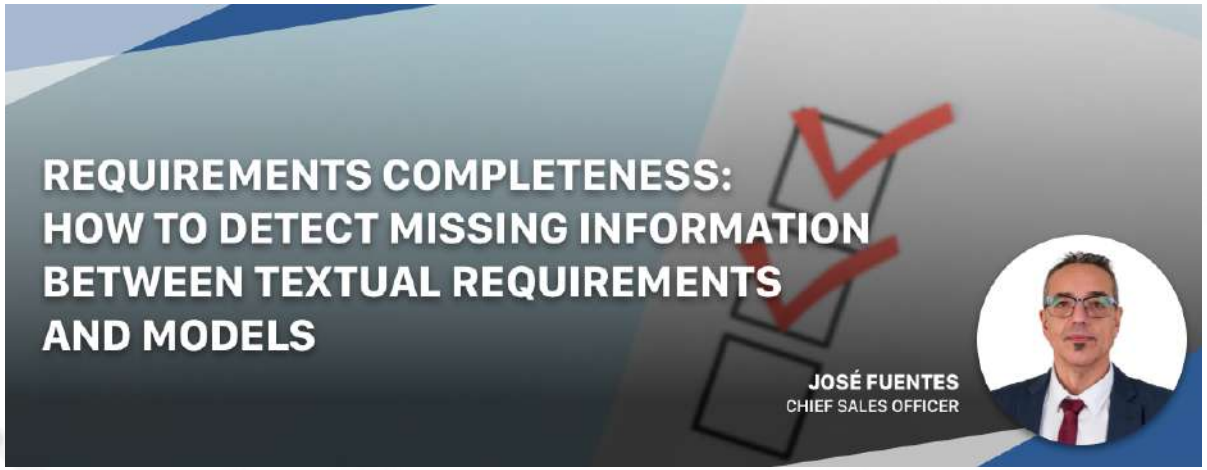
Steps:

1. Open the SES ENGINEERING Studio
2. Connect to a requirements document
3. Add a new overlapping metric
4. Execute CCC
5. Review overlapping results

NEXT WEBINAR

Requirements Completeness:

How to detect missing information between textual requirements and models



Dates:
Wednesday, April 17th 2024, 5:00 PM CET (Madrid)/ 5:00 PM JST (Tokyo)/ 7:00 PM AEDT (Sydney)

Thursday, April 18th 2024, 9:00 AM CET (Madrid)/ 8:00 AM PST (Los Angeles)/11:00 AM EST (Detroit)

According to many different studies and surveys, **requirements completeness** is the most impacting factor when it comes to assessing the quality of a requirements specification.
Requirements' completeness, as it's very well described in the INCOSE Guide to Writing Requirements, is a double factor:

- Completeness for individual requirements
- Completeness for sets of requirements

CONTACT INFORMATION

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https://www.linkedin.com/in/josemiguelfuentes/

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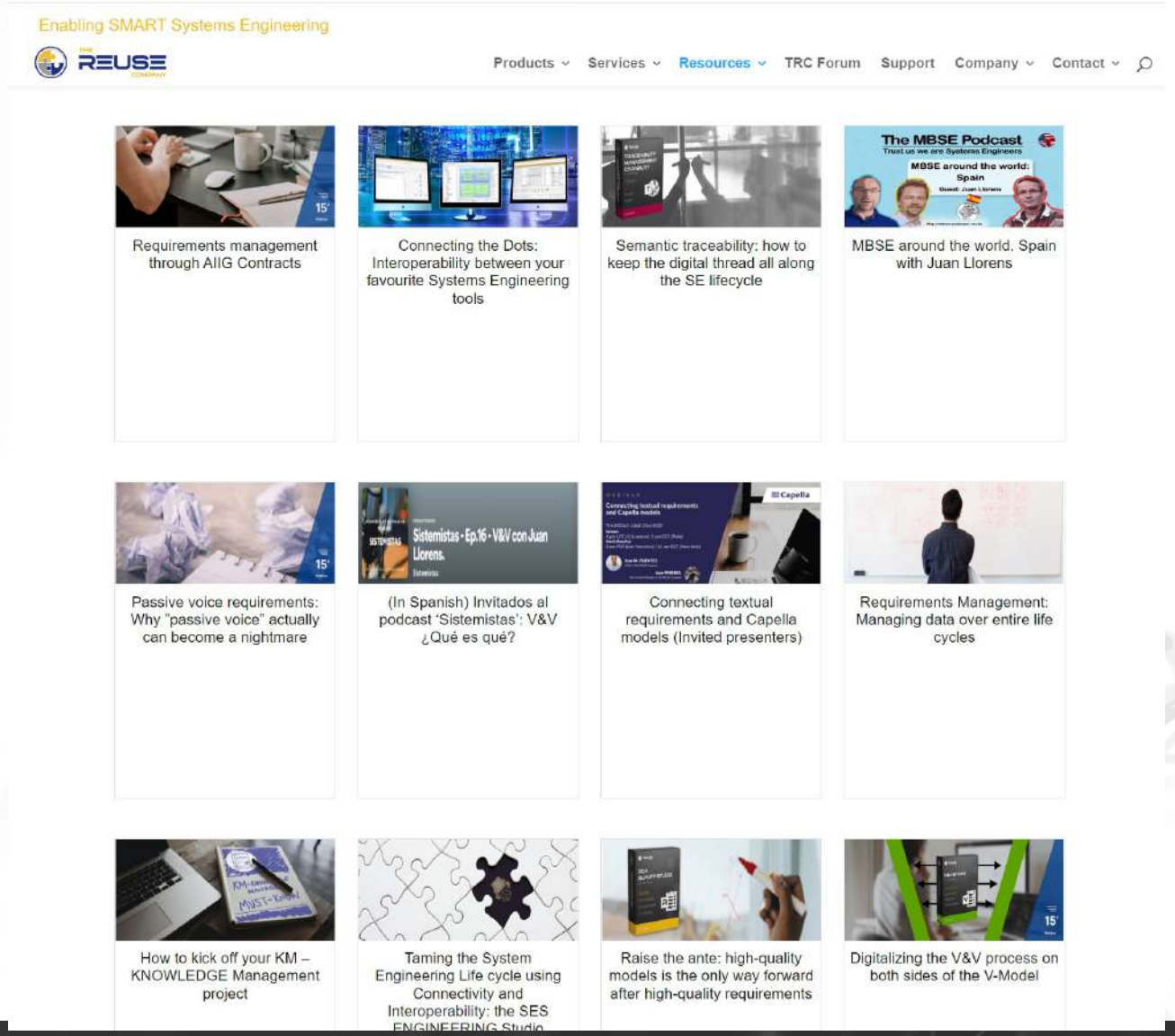
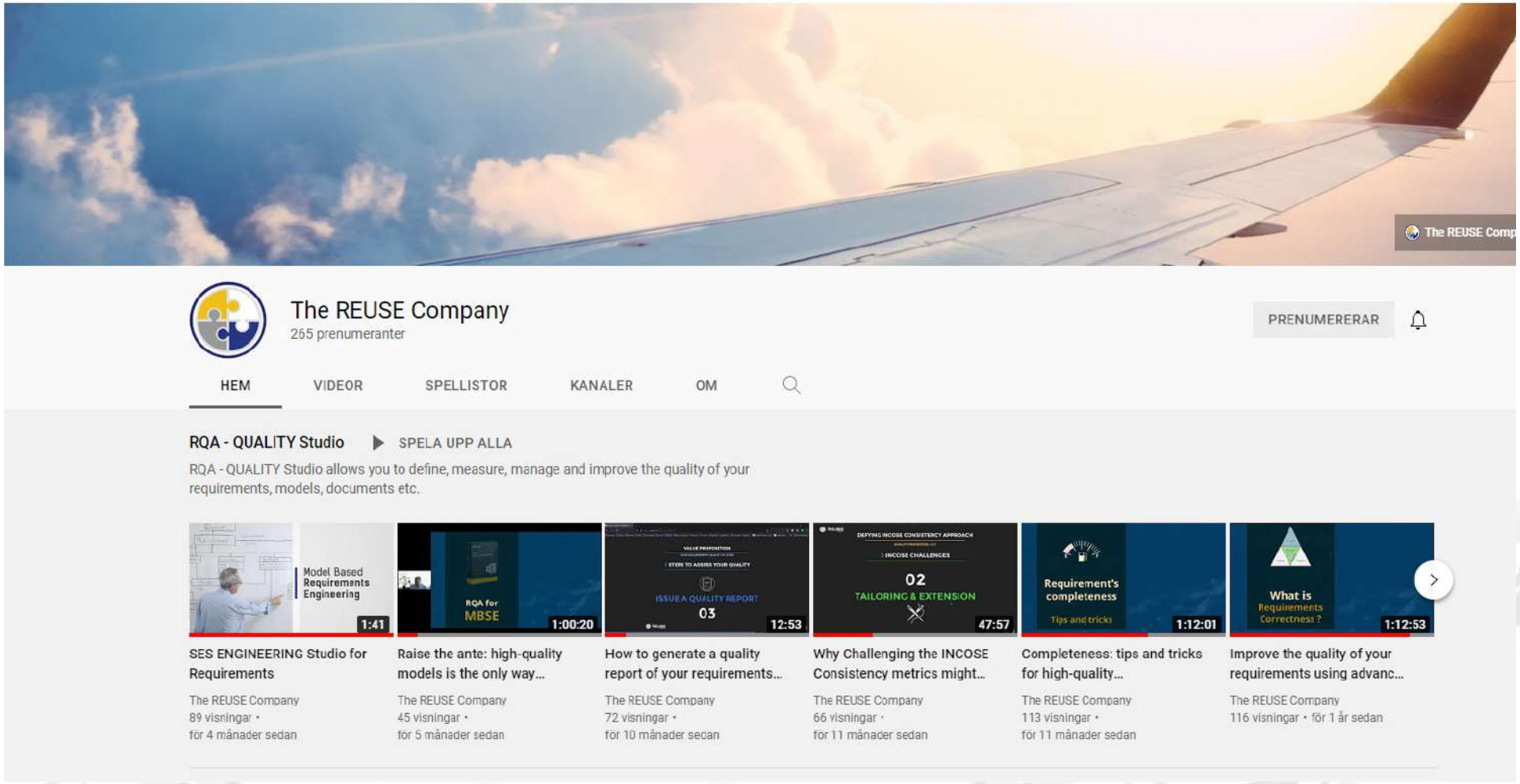
  - Services
  - Support Forum



THE REUSE COMPANY IN YOUTUBE: HTTPS://WWW.YOUTUBE.COM/USER/THEREUSECOMPANY



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