

## ➤ 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
- The Webinar will be recorded. A link to the recording will be sent to you in few days

# Boosting Requirements Management capabilities in MS Word: Parsing existing documents



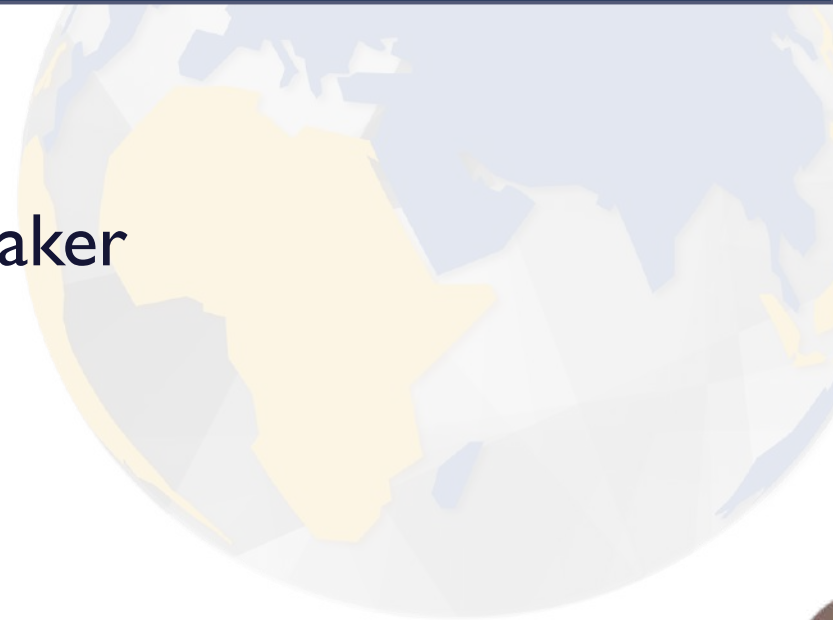
**José M. Fuentes**  
The REUSE Company  
Chief Operating Officer  
[jose.fuentes@reusecompany.com](mailto:jose.fuentes@reusecompany.com)

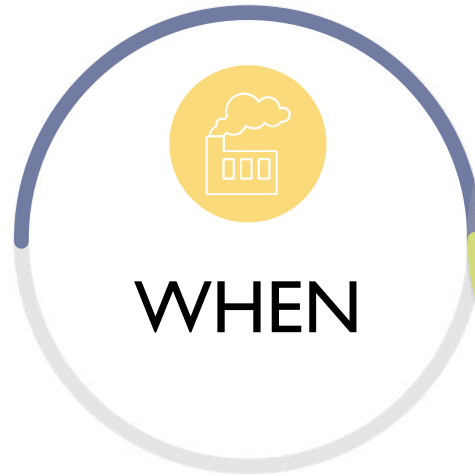


THE  
**REUSE**  
COMPANY



- Introduction to The REUSE Company and the speaker
- External sources of requirements
- Parsing mechanisms
- Live demo
- Q&A





**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:**  
Boston (USA)  
Stockholm (Sweden)  
Tokyo (Japan)  
Delegation



**04** Specialized in the application of **semantic technologies** and **artificial intelligence** to improve the **digitalization** of the **Systems Engineering life cycle (SysLCM)**.



- > **The Systems ENGINEERING Suite:**
  - > RQA – QUALITY Studio
  - > RAT – AUTHORIZING Tool
  - > TRACEABILITY Studio
  - > V&V Studio
  - > KM – Knowledge Manager
  
- > SES ENGINEERING Studio
- > SES ENGINEERING Studio add-in for MS Word

## José Fuentes

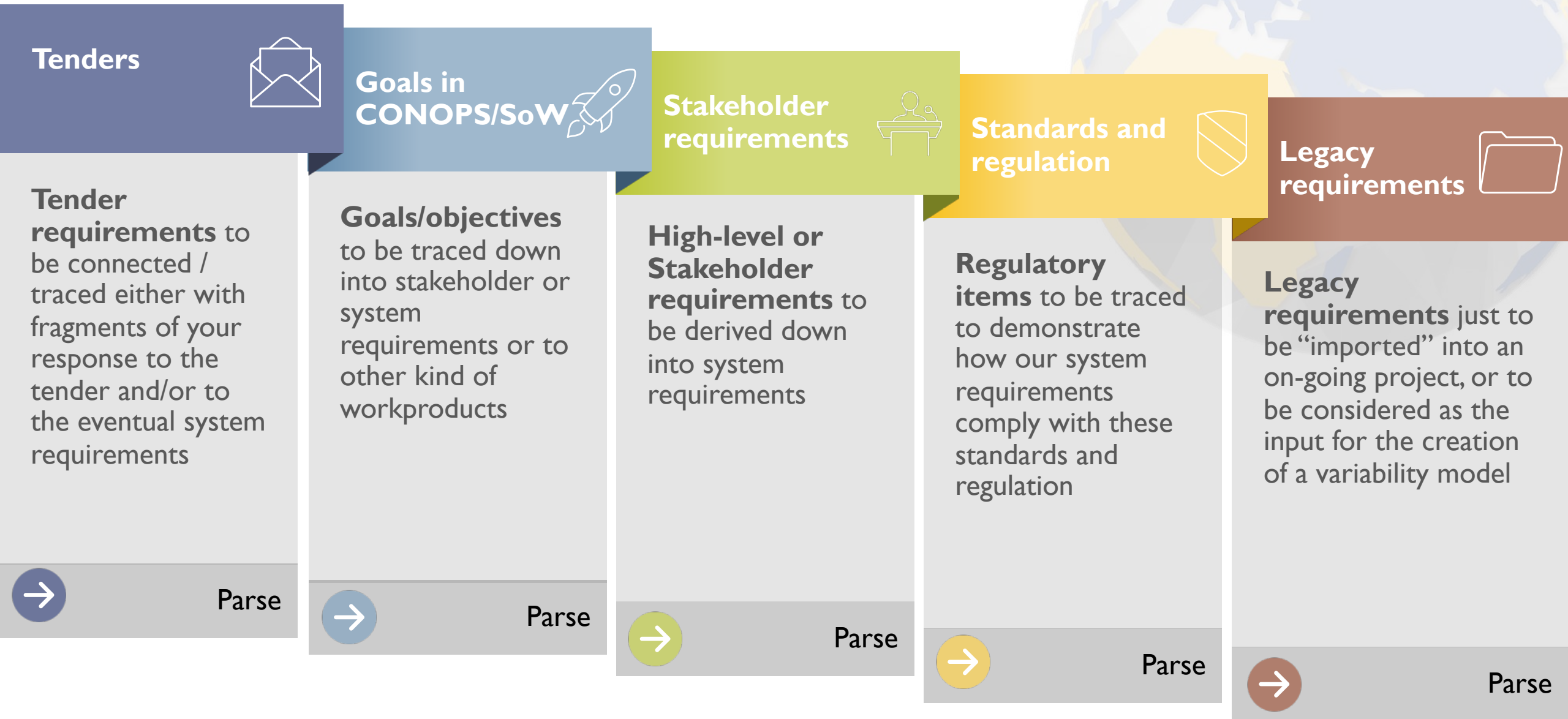


- **Current Position:** Chief Sales Manager of The REUSE Company
- Former Product Manager of RQA and the Systems Engineering Suite
- INCOSE CSEP Certified
- Graduated in the INCOSE Institute for Technical Leadership
- Member of the board of AEIS – The Spanish chapter of INCOSE
- Active contributor to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



# Sources of external requirements







☰ Active poll

0 👤



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**slido.com**  
**#3628 311**

### I found the need to parse/extract non-structured reqs. from MSWord/PDF:

During a tender process

0%

From a high-level document CONOPS/SoW...

0%

Requirements from a customer

0%

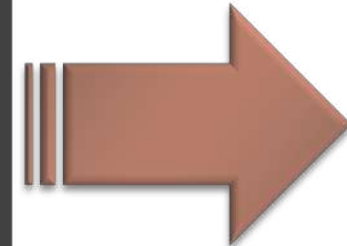
Standards or regulations

0%

My own legacy requirements

0%

Others



☰ Active poll

0 

## What did you do with the requirements you parsed?

I carried on with more reqs. to the document

0%

I analyzed the quality of the parsed reqs

0%

I verified my Sol vs the parsed reqs

0%

I traded them to other workproducts

0%

I derived my own requirements and traced them

0%

I transferred them to other systems

Join at

**slido.com**

**#3628 311**



# **Parsing algorithms**

Editing connection

Configuration Module Settings Security Information

1. Location:  Store in hard disk  Store in database *i*  
D:\TRC\DOCUMENTATION\WEBINARS\2022\20221213 - Controlling the values of Signals\NEWCar - System Requirements.docx

2. Reading Configuration:  
Granularity level:  By sentences  By paragraphs  
Search In:  EntireDocument  Specific Section/s  ✖

3. Has your document its workproduct identifiers? No  *i*  
Configure how to find identifiers:  ✖

4. Find workproducts automatically? Yes  *i*

4.1. Workproducts Identification Filters:

Textual Terms identification using clusters Inclusion Patterns Regular Expressions

Search...

+ New filter ✖ Remove filter

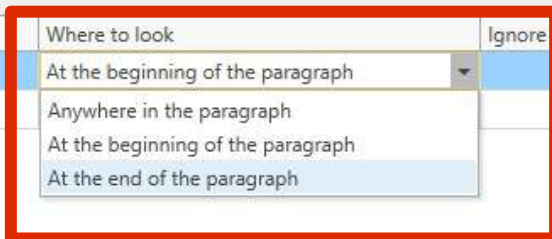
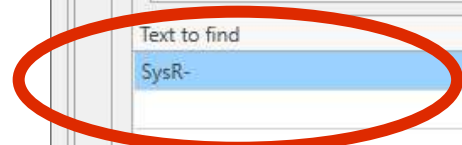
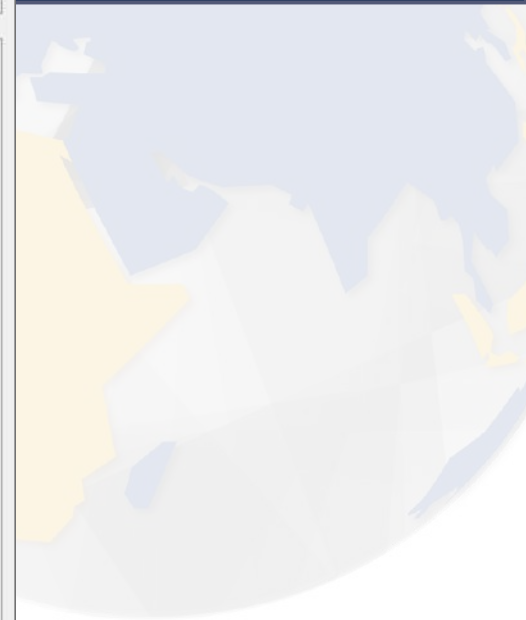
Text to find	Where to look	Ignore case
SysR-	At the beginning of the paragraph	<input checked="" type="checkbox"/>
	Anywhere in the paragraph	<input type="checkbox"/>
	At the beginning of the paragraph	
	At the end of the paragraph	

Number of filters: 1

4.2. Patterns for excluding Workproducts: *i*

4.3. Custom Identification Algorithm: *i*

OK Cancel





1. Location:   
 Store in hard disk  Store in cloud   
 D:\TRC\DOCUMENTATION\WEBINAR

2. Reading Configuration:   
 Granularity level:  By sentence  By paragraph   
 Search In  EntireDocument

3. Has your document its workproducts identified?   
 Configure how to find identifiers

4. Find workproducts automatically   
 4.1. Workproducts Identification

Selected clusters:

Search... Add cluster(s) Remove selected cluster(s)

Name	Type
Number of Cluster(s): 0	

Add cluster(s)

Clusters:

modal ✕

Cluster	
<input checked="" type="checkbox"/> «MODAL ASSIGNEMENT»	
<input checked="" type="checkbox"/> «MODAL BANNED»	
<input checked="" type="checkbox"/> «MODAL COMPULSORY»	
<input checked="" type="checkbox"/> «MODAL FUTURE»	
<input checked="" type="checkbox"/> «MODAL OPTIONAL»	
<input checked="" type="checkbox"/> «MODAL REGULATORY»	
<input checked="" type="checkbox"/> «MODAL»	

Number of clusters: 7

Only showing non-deleted clusters and non-deleted terms

OK Cancel

4.2. Patterns for excluding Workproducts: ⓘ

4.3. Custom Identification Algorithm: ⓘ

OK Cancel



Editing connection

Pattern groups selector

Search:  
Name:

Identifier	Name
928	01 - System Functionality
929	04 - Structural (System Structure Descrip
930	02 - System Properties
931	02.01 - System Physical Requirements
932	03.01 - Performance Requirements
933	03.02 - Safety Requirements
934	03.03 - Security Requirements
935	03.04 - Reliability Requirements

41 patterns group(s)

Identifier	Name
5154	[<Condition>, <System> <Action> <Object> to
5155	[<Condition>, <System> <Action> <Object> to
5158	[<Condition>, <User> <Action> <System> <Ti
5213	[<Condition>, <System> <Action> <Time_Con
5214	[<Condition>, <User> <Action> <Logical Funct

5 pattern(s)

OK Cancel

Textual Terms identification using clusters **Inclusion Patterns** Regular Expressions

Search... + Add pattern group(s) + Add pattern(s) X Remove selected

Type	Identifier	Name

Number of pattern groups and patterns: 0

4.2. Patterns for excluding Workproducts: ⓘ

4.3. Custom Identification Algorithm: ⓘ

OK Cancel



Editing connection

Configuration | Module Settings | Security | Information

1. Location:

Store in hard disk  Store in database ⓘ

D:\TRC\DOCUMENTATION\WEBINARS\2023\Boosting MS Word with RM Capabilities\Episode 3 - Parsing\Parsed documents\ECSS-E-ST-20-21C(15May2019).docx

2. Reading Configuration:

Granularity level:  By sentences  By paragraphs

Search In  Entire Document  Specific Section/s Select Sections X

3. Has your document its workproduct identifiers? No  ⓘ

Configure how to find identifiers: Configure X

4. Find workproducts automatically? Yes  ⓘ

4.1. Workproducts Identification Filters:

Textual | Terms identification using clusters | Inclusion Patterns | **Regular Expressions**

Search... + Add regular expression X Remove regular expression

Text

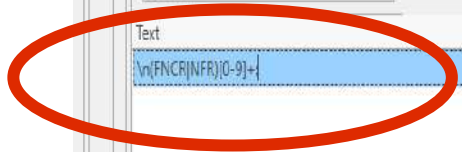
`\n(FNCF|NFR){0-9}+`

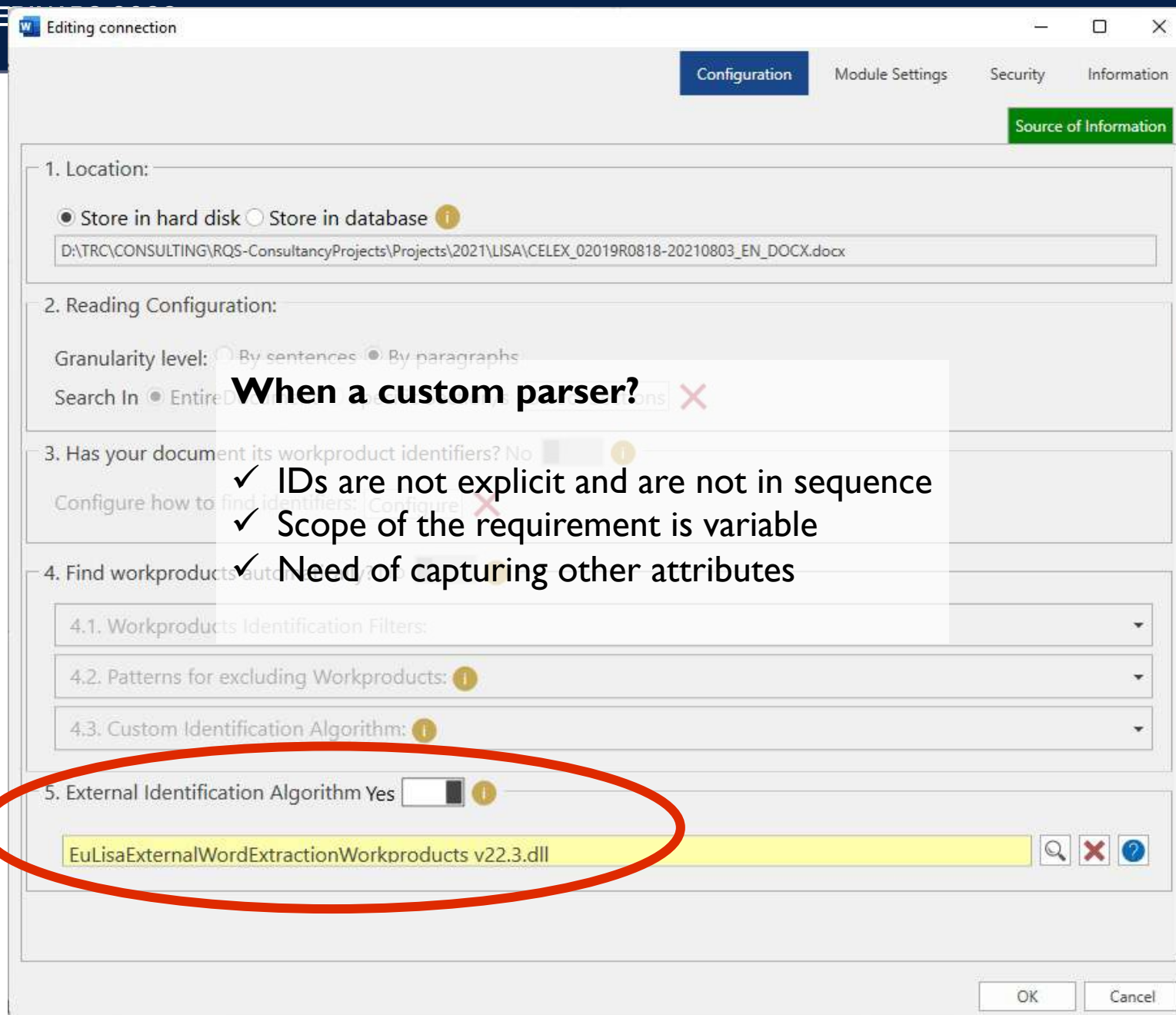
Number of regular expressions: 0

4.2. Patterns for excluding Workproducts: ⓘ

4.3. Custom Identification Algorithm: ⓘ

OK Cancel





**Editing connection**

Configuration | Module Settings | Security | Information

Source of Information

1. Location:

Store in hard disk  Store in database ⓘ

D:\TRC\CONSULTING\RQS-Consultancy\Projects\Projects\2021\LISA\CELEX\_02019R0818-20210803\_EN\_DOCX.docx

2. Reading Configuration:

Granularity level:  By sentences  By paragraphs

Search In:  Entire Document  Selections ⓘ

3. Has your document its workproduct identifiers? No ⓘ

Configure how to find identifiers:  Configure ⓘ

4. Find workproducts automatically:  ⓘ

4.1. Workproducts Identification Filters: ⓘ

4.2. Patterns for excluding Workproducts: ⓘ

4.3. Custom Identification Algorithm: ⓘ

5. External Identification Algorithm Yes  ⓘ

EuLisaExternalWordExtractionWorkproducts v22.3.dll ⓘ

OK Cancel

**When a custom parser?**

- ✓ IDs are not explicit and are not in sequence
- ✓ Scope of the requirement is variable
- ✓ Need of capturing other attributes

Navigation

Search document

Headings Pages Results

Subject matter Objectives Scope Definitions

▼ C1

- Non-discrimination and f...
- European search portal
- Use of the European sear...
- Profiles for the users of th...
- Queries
- Keeping of logs
- Fall-back procedures in c...
- Shared biometric matchi...
- Storing biometric templat...
- Searching biometric data...
- Data retention in the shar...
- Keeping of logs
- Common identity reposit...
- The common identity rep...

▼ M2

- Adding, amending and d...
- Access to the common id...

(17) → 'Interpol databases' means the Interpol Stolen and Lost Travel Document database (SLTD database) and the Interpol Travel Documents Associated with Notices database (TDAWN database);

(18) → 'match' means the existence of a correspondence as a result of an automated comparison between personal data recorded or being recorded in an information system or database;

(19) → 'police authority' means the competent authority as defined in point (7) of Article 3 of Directive (EU) 2016/680;

(20) → 'designated authorities' means the Member State designated authorities as defined in point (26) of Article 3(1) of Regulation (EU) 2017/2226 of the European Parliament and of the Council, point (e) of Article 2(1) of Council Decision 2008/633/JHA, and point (21) of Article 3(1) of Regulation (EU) 2018/1240 of the European Parliament and of the Council;

(21) → 'terrorist offence' means an offence under national law which corresponds or is equivalent to one of the offences referred to in Directive (EU) 2017/541 of the European Parliament and of the Council;

CELEX\_02019R0818-20210803\_EN\_TXT.docx

Views CONTENT Shared Save Refresh Close connection

State in the repository	Binding State	Visual Workproduct ID	Description
New		C1.A4.(13)	'travel document' means a passport or other ex
New		C1.A4.(14)	'travel document data' means the type, numbe
New		C1.A4.(15)	'EU information systems' means the EES, VIS
New		C1.A4.(16)	'Europol data' means personal data processed
New		C1.A4.(17)	'interpol databases' means the Interpol Stolen
New		C1.A4.(18)	'match' means the existence of a corresponde
New		C1.A4.(19)	'police authority' means the competent authori
New		C1.A4.(20)	'designated authorities' means the Member St
New		C1.A4.(21)	'terrorist offence' means an offence under nati
New		C1.A4.(22)	'serious criminal offence' means an offence wf
New		C1.A4.(23)	'Entry/Exit System' or 'EES' means the Entry/E
New		C1.A4.(24)	'Visa Information System' or 'VIS' means the v
New		C1.A4.(25)	'European Travel Information and Authorisatio
New		C1.A4.(26)	'Eurodac' means Eurodac established by Regu
New		C1.A4.(27)	'Schengen Information System' or 'SIS' means
New		C1.A4.(28)	'ECRIS-TCN' means the centralised system fo
New		C1.Article 5	Non-discrimination and fundamental rights
New		Chapter 2	European search portal
New		C2.A6.1.	A European search portal (ESP) is established
New		C2.A6.2.	The ESP shall be composed of:
New		C2.A6.2(a)	a central infrastructure, including a search por

Total Workproducts: 553

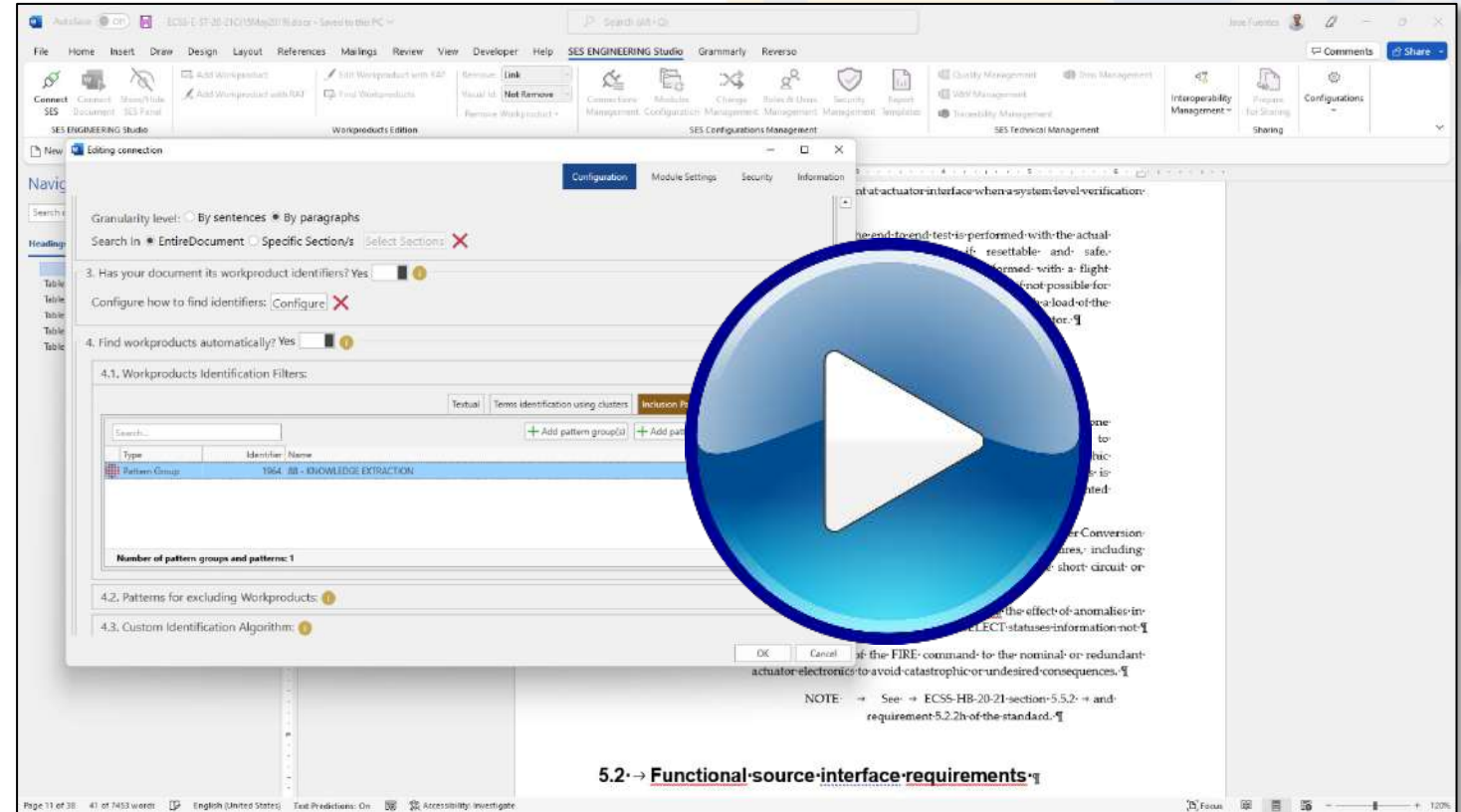


**Demonstration**



## Steps:

1. Open MS-Word
2. Transform a PDF document into a MS Word document
3. Connect to the repository
4. Configure the parser
5. Proceed with the parsing







# Don't miss our series of webinars!

## Boosting MS Word with Requirements Management Capabilities

1. Introduction to the MS Word Add-in of SES ENGINEERING Studio
2. Writing high-quality requirements in MS Word
3. Parsing existing MS Word documents using different techniques
4. Managing requirement attributes in MS Word
5. Managing requirement baselines and versions in MS Word
6. Managing traceability in MS Word
7. Transforming MS Word requirements
8. Propagating changes from traceability links
9. Collaboration
10. Reporting Systems Engineering artifacts through MS Word

Sign up and recordings

15 '  
webinar

## Episode 4. Managing requirements attributes in MS Word.

This episode will cover how the SES ENGINEERING Studio provides a core **Requirements Management capability** like the **allocation of attributes**. All while using **MS Word** and the SES ENGINEERING Studio Add-in to perform your requirements work.

### Date:

Tuesday, March 14<sup>th</sup>, 2023, 5:00 PM CET (Madrid)/ 5:00 PM JST (Tokyo)/ 7:00 PM AEDT (Sydney)

Thursday, March 16<sup>th</sup>, 2023, 9:00 PM CET (Madrid)/ 8:00 AM PST (Los Angeles)/ 11:00 AM EST (Detroit)







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> [www.reusecompany.com](http://www.reusecompany.com)

> Resources -> Webinars (15' and 1hr)













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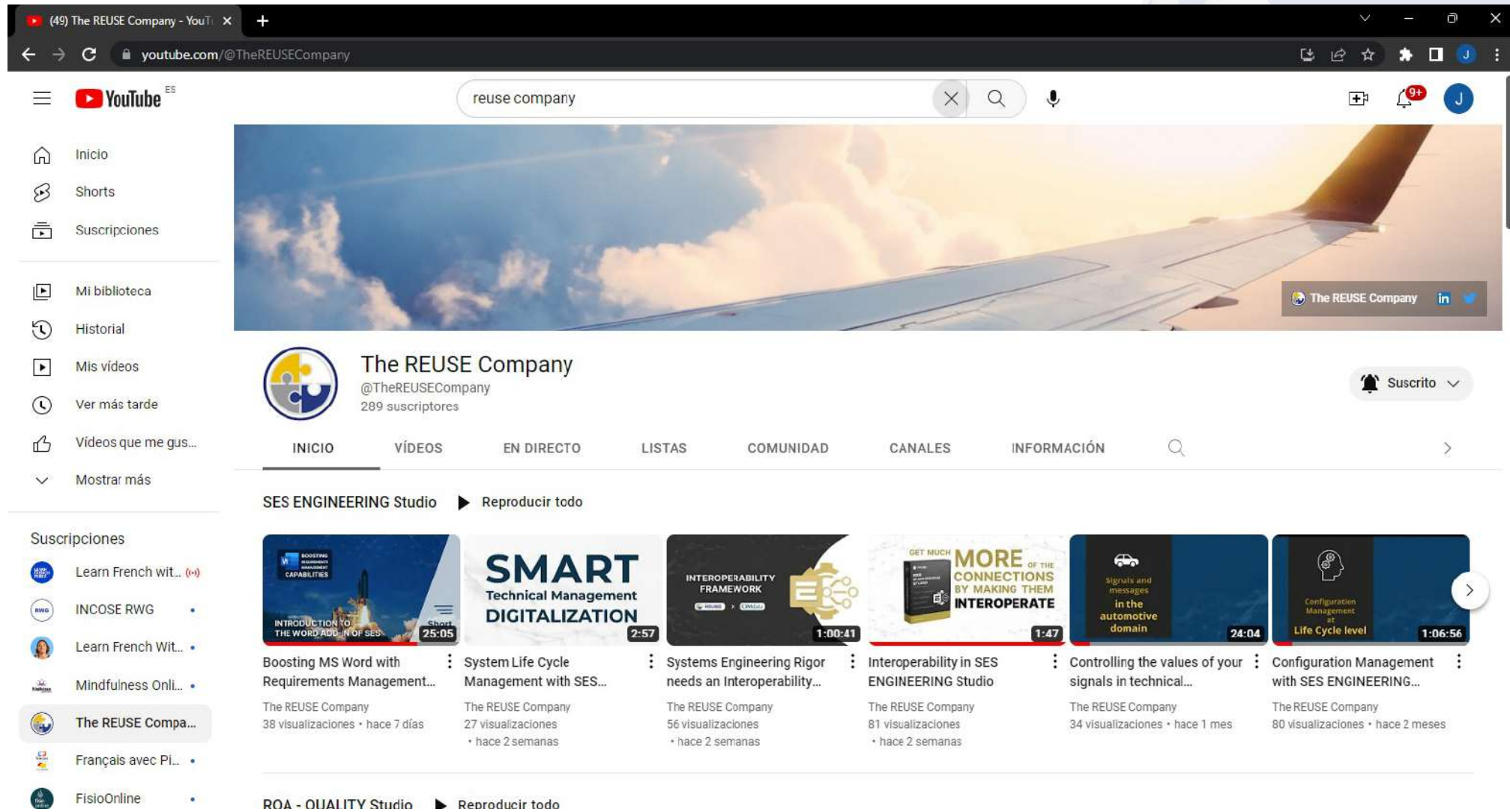
Enabling SMART Systems Engineering

THE REUSE COMPANY

Products Services Resources TRC Forum Support Company Contact

 <p>Requirements management through AIIG Contracts</p>	 <p>Connecting the Dots: Interoperability between your favourite Systems Engineering tools</p>	 <p>Semantic traceability: how to keep the digital thread all along the SE lifecycle</p>	 <p>The MBSE Podcast Trust us we are Systems Engineers MBSE around the world: Spain with Juan Llorens</p>
 <p>Passive voice requirements: Why "passive voice" actually can become a nightmare</p>	 <p>(In Spanish) Invitados al podcast 'Sistemistas': V&amp;V ¿Qué es qué?</p>	 <p>Connecting textual requirements and Capella models (Invited presenters)</p>	 <p>Requirements Management: Managing data over entire life cycles</p>
 <p>How to kick off your KM – KNOWLEDGE Management project</p>	 <p>Taming the System Engineering Life cycle using Connectivity and Interoperability: the SES ENGINEERING Studio</p>	 <p>Raise the ante: high-quality models is the only way forward after high-quality requirements</p>	 <p>Digitalizing the V&amp;V process on both sides of the V-Model</p>





The screenshot shows the YouTube channel page for 'The REUSE Company'. The channel name is 'The REUSE Company' with the handle '@TheREUSECompany' and 289 subscribers. The page features a navigation menu on the left with options like 'Inicio', 'Shorts', 'Suscripciones', 'Mi biblioteca', 'Historial', 'Mis vídeos', 'Ver más tarde', and 'Videos que me gus...'. Below the channel header, there are tabs for 'INICIO', 'VÍDEOS', 'EN DIRECTO', 'LISTAS', 'COMUNIDAD', 'CANALES', and 'INFORMACIÓN'. The main content area displays a video player for 'SES ENGINEERING Studio' and a grid of six video thumbnails:

- Boosting MS Word with Requirements Management...** (25:05)
- System Life Cycle Management with SES...** (2:57)
- Systems Engineering Rigor needs an Interoperability...** (1:00:41)
- Interoperability in SES ENGINEERING Studio** (1:47)
- Controlling the values of your signals in technical...** (24:04)
- Configuration Management at Life Cycle level** (1:06:56)

Each video thumbnail includes the title, duration, and view count. The channel also has a 'Suscrito' button and a search icon.

The REUSE Company in YouTube: <https://www.youtube.com/user/TheREUSECompany>



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