

# CONNECTING THE DOTS

- INTEROPERABILITY BETWEEN YOUR  
FAVORITE TOOLS -



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THE  
**REUSE**  
COMPANY



- ✦ **LIGHTNING ROUND OF TRC & THE PRESENTER**
- ✦ **THE INTEROPERABILITY HUB**
- ✦ **EXAMPLES OF INTEROPERABILITY**
- ✦ **YOUR EXPERIENCE!**

# 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.

## Introduction to Presenter >>



- **INCOSE ASEP**
- **MAIN CONTRIBUTOR TO THE INCOSE GUIDE TO WRITING REQUIREMENTS**
- **SALES & CONSULTING REPRESENTATIVE UNDER CSEP & ESEP**
- **FIRST AUTHOR OF THE “APPLYING THE KNOWLEDGE CENTRIC SYSTEMS ENGINEERING METHODOLOGY TO A PRACTICAL CASE”**



What we do

Tools and platforms

International Standards

Handbooks

# WHAT INTRIGUES US

## INTEROPERABILITY HUB

- Semantic traceability.
- Agnostic NLP-powered data exchange between organizations & tools.

## ENHANCED TECHNICAL MANAGEMENT

- Traceability.
- Quality assessment.
- V&V.
- ...

## SMART REQUIREMENTS ENGINEERING

- NLP-based requirement elicitation.
- MS Word Add-in with all the RM features.

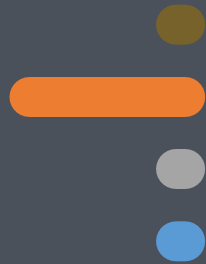
## LIFE CYCLE MANAGEMENT

- Definition and instantiation of life cycle templates.
- Gateways based on KPIs from the Tec. Management Processes.





02



# TOOLS AND PLATFORMS

All these capabilities are seamlessly integrated into a **wide variety of tools and platforms**:

- IBM, Siemens, PTC, Dassault, Capella, MagicDraw/Cameo, Simulink...
- And other Requirements, MBSE, ALM and PLM tools, including MS Office





03



IEEE 15288

IEEE 29148

IEEE 12207

IEEE 29110

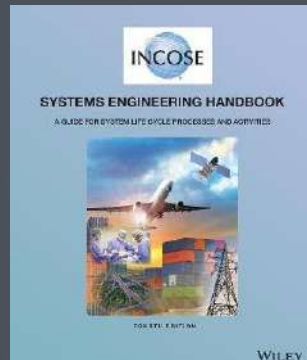
# INTERNATIONAL STANDARDS

Aligned with international standards:  
ISO/IEEE 15288, 29148, 12207, 29110

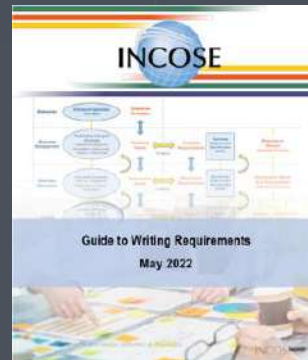




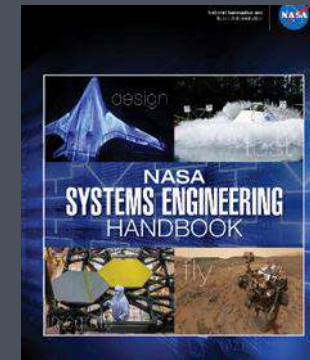
# HANDBOOKS AND GUIDELINES



INCOSE Handbook



INCOSE GfWR



NASA



ECSS

# WHO IS USING OUR TECHNOLOGY?

## Aerospace and defense



**AIRBUS**  
GROUP  
INNOVATIONS

**SAFRAN**  
AIRCRAFT ENGINES

**AIRBUS**  
DEFENCE & SPACE

**esa**  
European Space Agency

**THALES**



**aes** **AIRBUS**

**THALES**  
Communications & Security  
S.A.S.

**HENSOLDT**



**ariane**GROUP

## Energy



**FUSION  
FOR  
ENERGY**



**edf**



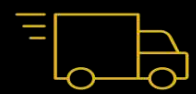
**REPSOL**

## Healthcare



**STORZ**  
KARL STORZ — ENDOSKOPE

## Automotive



**RENAULT**



**TOYOTA**

**FCA**

FIAT CHRYSLER AUTOMOBILES

## Other industries



**SIEMENS**



**ELRA**  
European Land Registry Association

**rtve**



**tirant  
lo blanch**  
GRUPO EDITORIAL

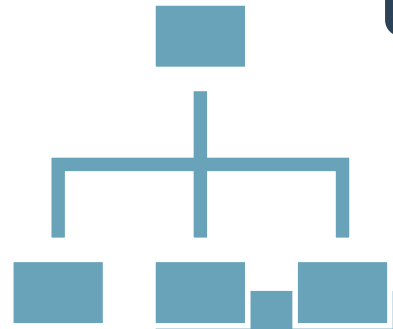


**THE  
INTEROPERABILITY  
HUB**



## TEXTUAL REQUIREMENTS

Are the HEART of the current system engineering practices



## CONCEPTUAL MODELS

Helps FORMALIZE and consolidate customer and system requirements

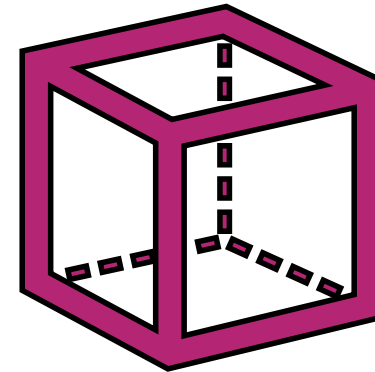
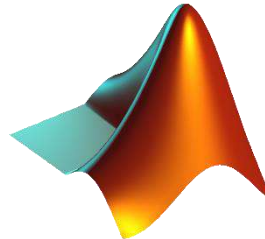
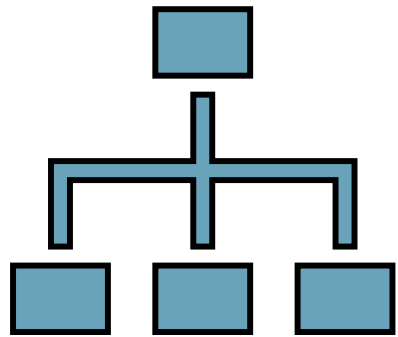


## PHYSICAL MODELS

Helps validate FEASIBILITY, elicit/justify NEW REQUIREMENTS for the system/subsystems



fmi AUTHORITY SOURCES OF TRUTH



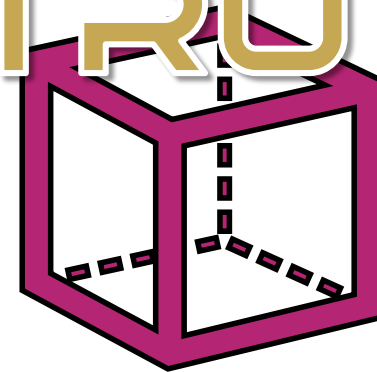
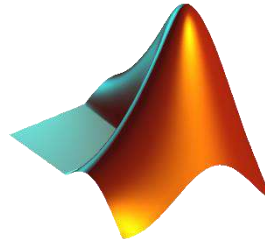
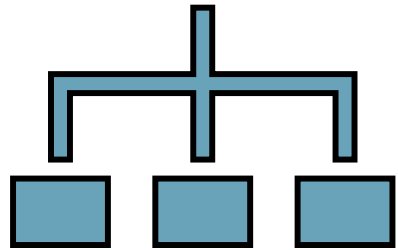
ALTUM DESIGNER



SYNCHRONIZED

SOLIDWORKS

SOURCE OF TRUTH



PLM



ALTIUM DESIGNER



# NO INDIVIDUAL ONE-TO-ONE CONNECTIONS

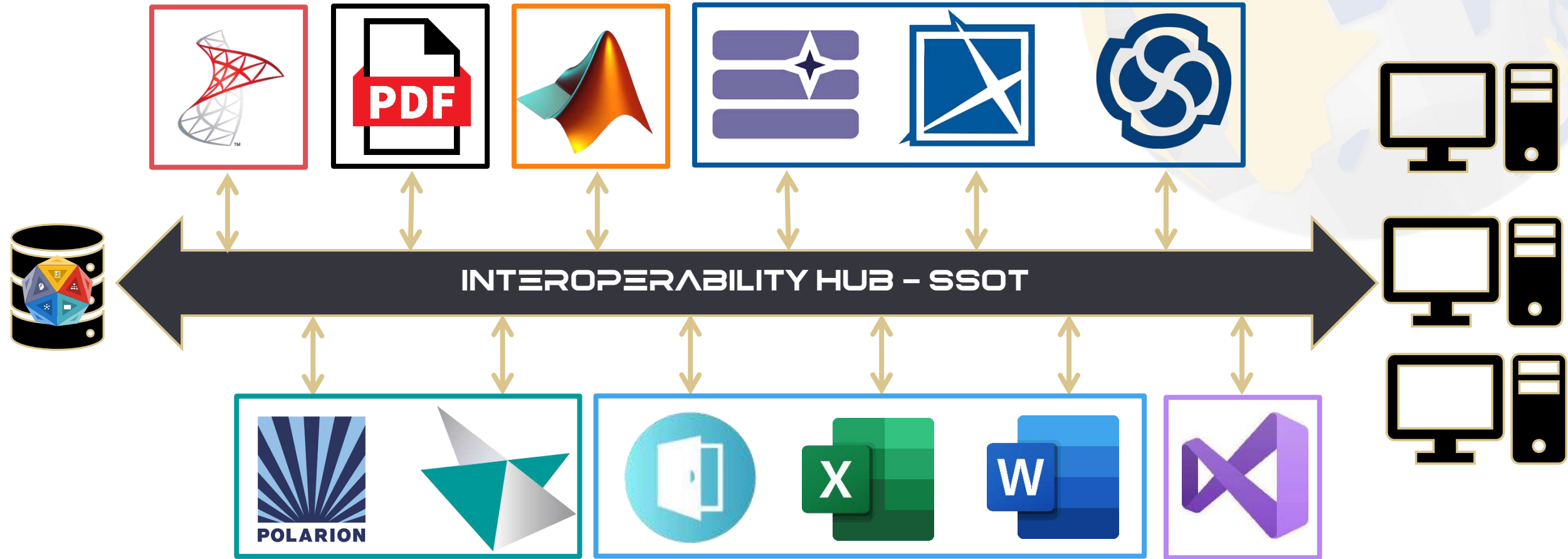
✿ Avoid data loss, outdated versions, unauthorized changes, disconnected life cycle, etc.





# DIFFERENT PURPOSES COMBINED

✿ Each phase involves different tasks & thus, different tools to complete them.





# SE TOOLS ARE DEDICATED (& NOT CHEAP)

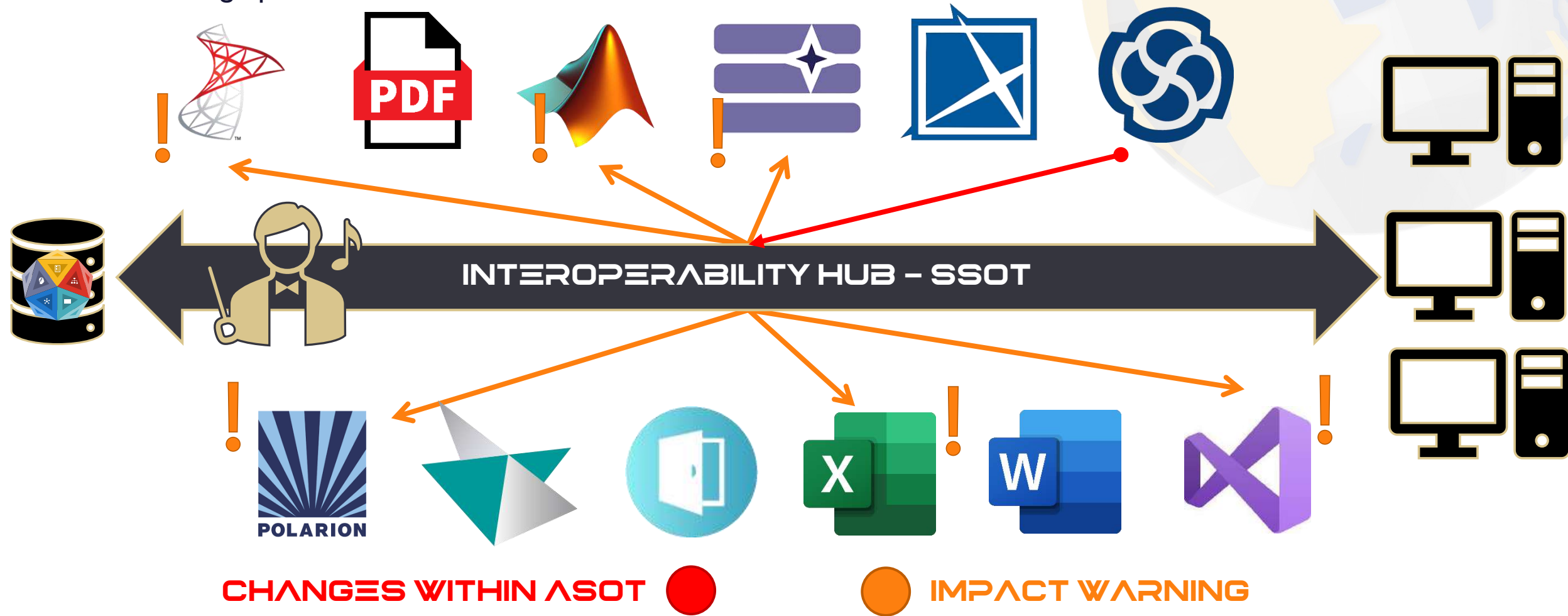
✿ No tool does everything, but they are wonderful at what they do. Need to coordinate them, not replace them.





# IMPACT & VERSION MANAGEMENT

✦ Changes inside the ASoT will trigger impact warnings & generate versions tracked within the Hub, with the reverting option.





# SUSPECT TRACES

✦ Deletions & modifications inside the ASoT will trigger suspect traces within the Hub.





# WORKING INSIDE THE HUB

✿ Make modifications (content, attributes, etc.) within the Hub & propagate changes back to ASoT.



1

## **MOVING/COPYING WORKPRODUCTS**

*No change of metamodel between source and target  
Just moving among different tools*

2

## **TRANSFORMING WORKPRODUCTS**

*Change of metamodel between source and target workproducts  
Textual requirements to models, SysML to Capella ...*

3

## **BINDING WORKPRODUCTS**

*Changes in one workproduct triggering changes to target workproducts*



# DEMO



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# DEMO





***DO YOU AGREE?***

***DID YOU FIND IT USEFUL?***

***OTHER ALTERNATIVES?***

**YOUR EXPERIENCE?**

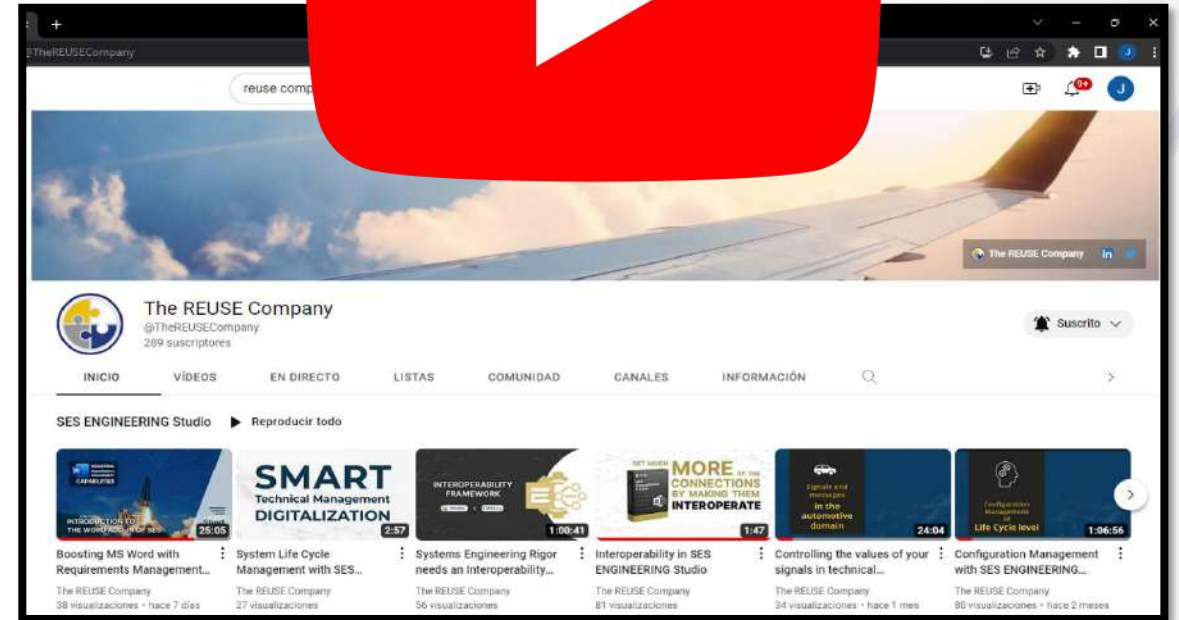
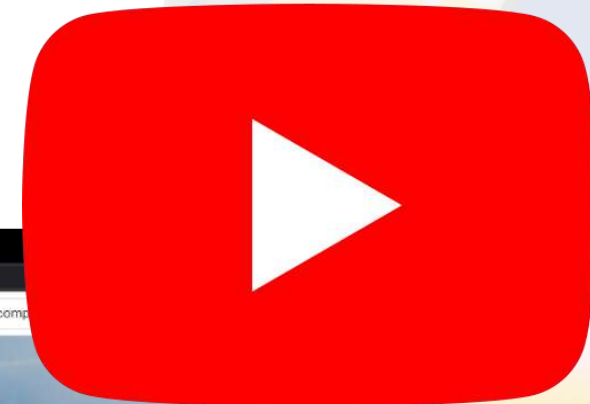


Software Tools for Digital Systems Life Cycle Management

Inter-connecting the complete Tools Ecosystem of your organization  
Enabling digital support to all the Technical Management processes (ISO 15288) for the engineering items of your tools ecosystem  
Integrating document centric (Documentation), knowledge driven (Reuse) and model-based (MBSE) approaches in one Hub

Systems Engineering Tools and Solutions for System Life cycle Management based on Connectivity, Interoperability and Reuse

[WWW.REUSECOMPANY.COM](http://WWW.REUSECOMPANY.COM)



The REUSE Company

289 suscriptores

INICIO VIDEOS EN DIRECTO LISTAS COMUNIDAD CANALES INFORMACIÓN

SES ENGINEERING Studio ▶ Reproducir todo

- Boosting MS Word with Requirements Management... 28:05
- 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 with SES ENGINEERING... 1:06:56

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