

Effective Security Engineering for the Ground Segment

GSAW 2017
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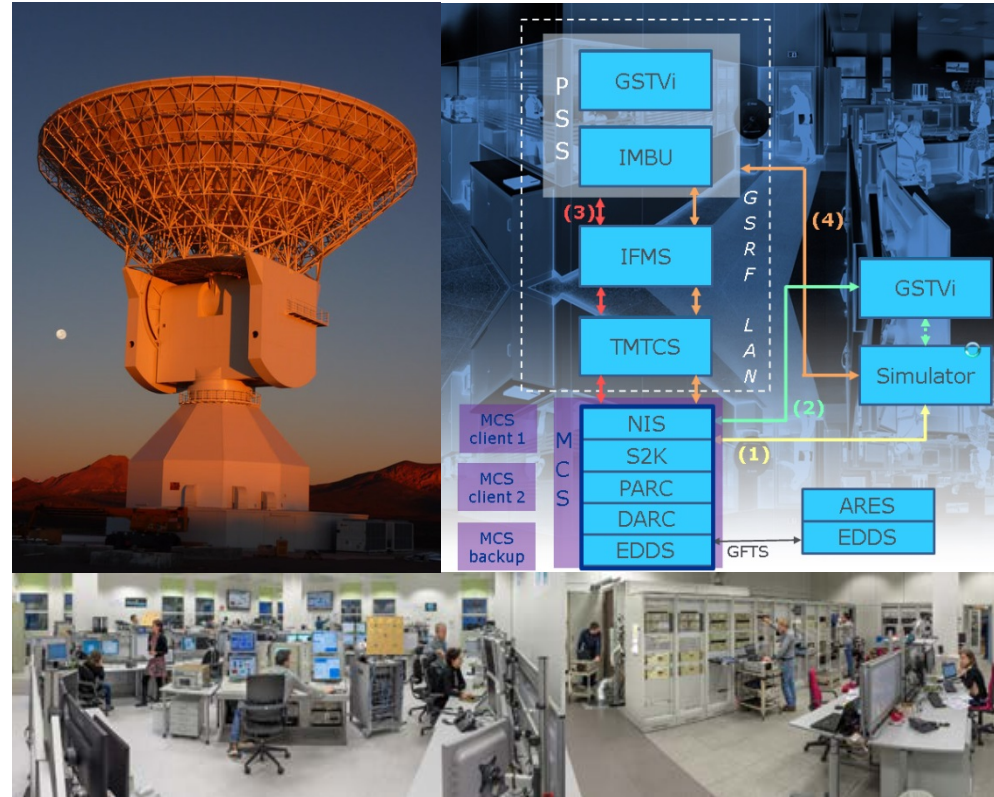
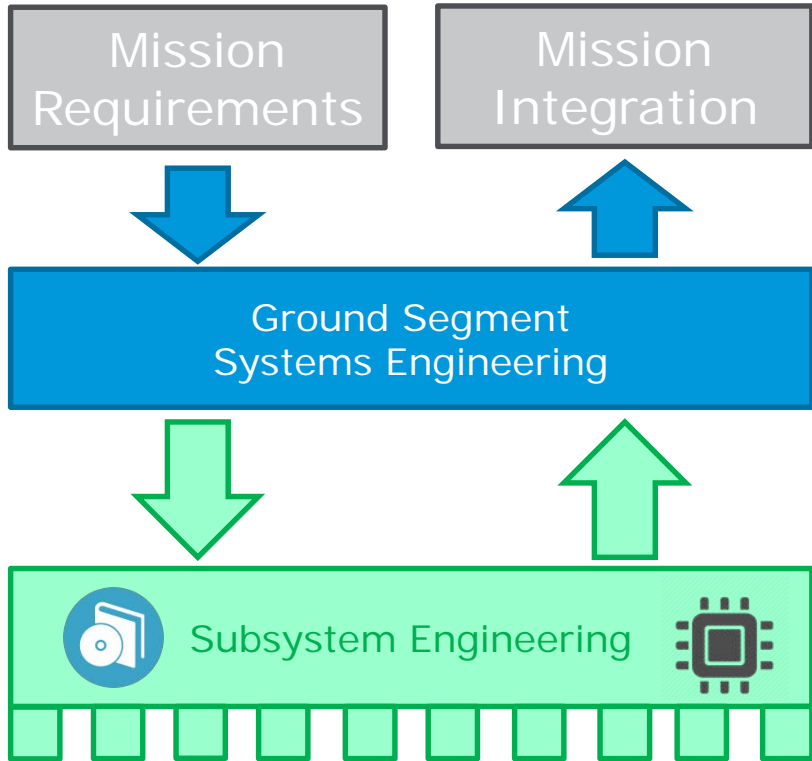
Information Security: A Strategic Objective

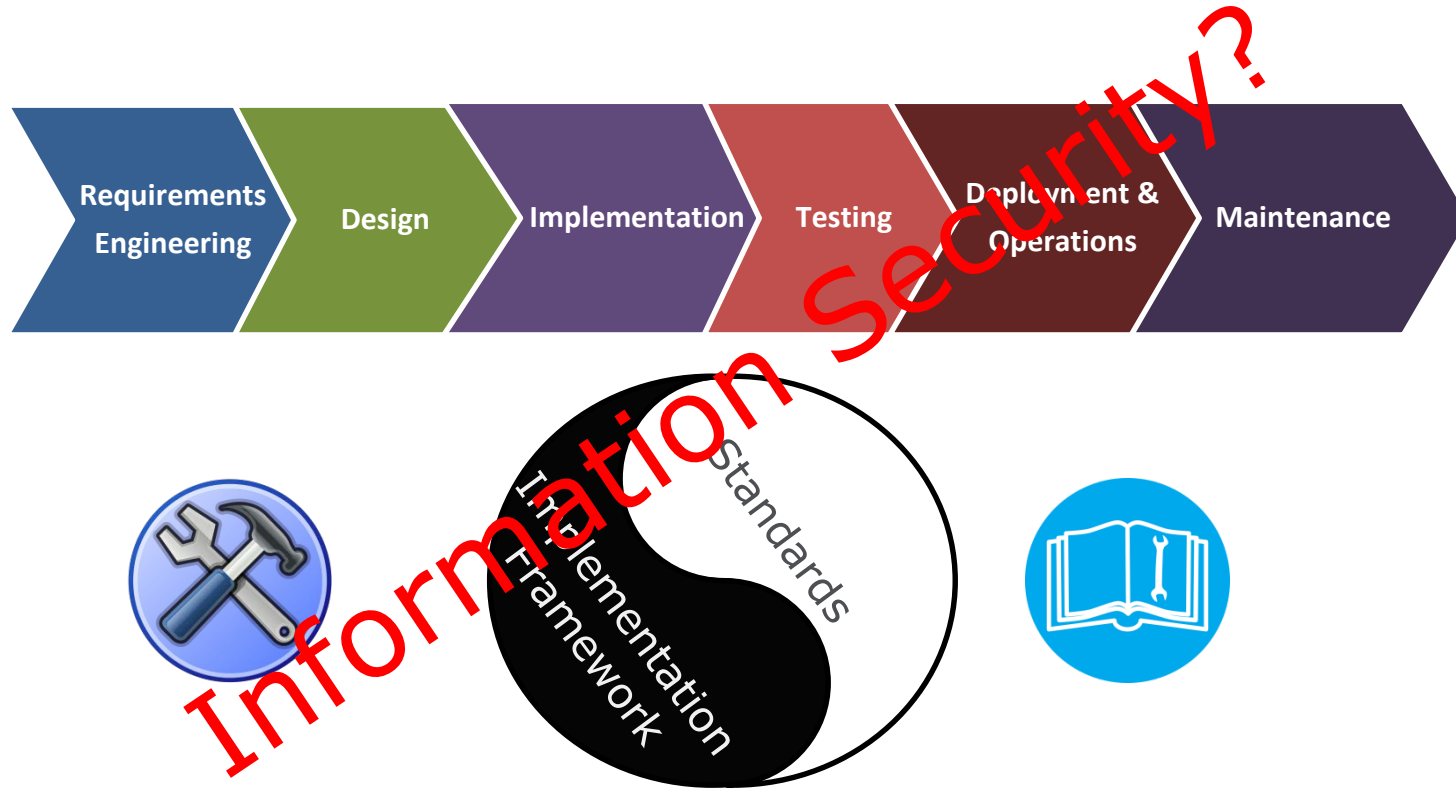


- ESA is responsible for assets of very high tangible and intangible value
- Information security has emerged as a strategic objective for ESA
 - Stringent security requirements, mainly due to safety and/or dual aspects (Galileo, Copernicus, SSA..)
 - Changing Security Environment
- Strong executive commitment by ESA towards information security
- Agency level endorsement of security engineering practices
 - ✓ Enforced top level security policies in the form of regulations and directives
 - ✓ Management commitment to improving security practice throughout the Agency at all levels
 - ✓ Moving towards security certification

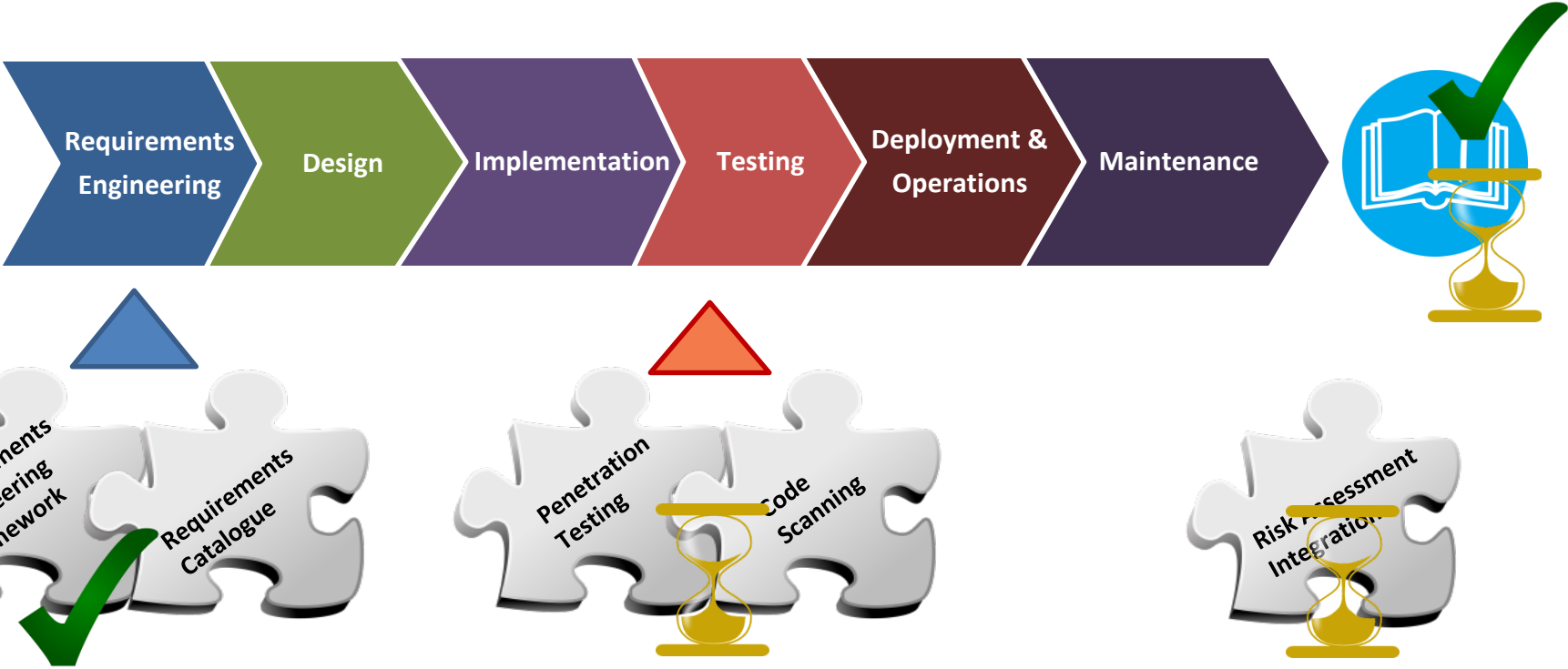


Ground Segment Systems Engineering

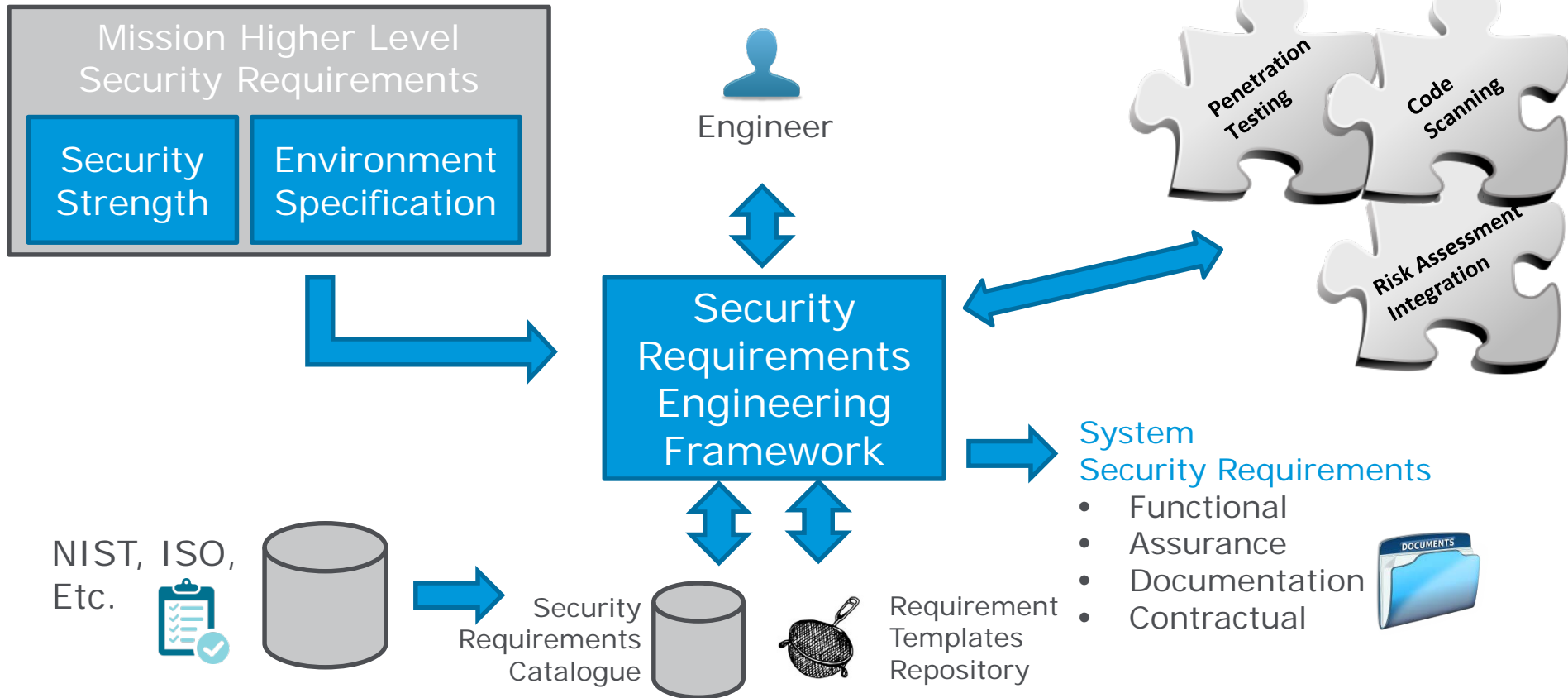




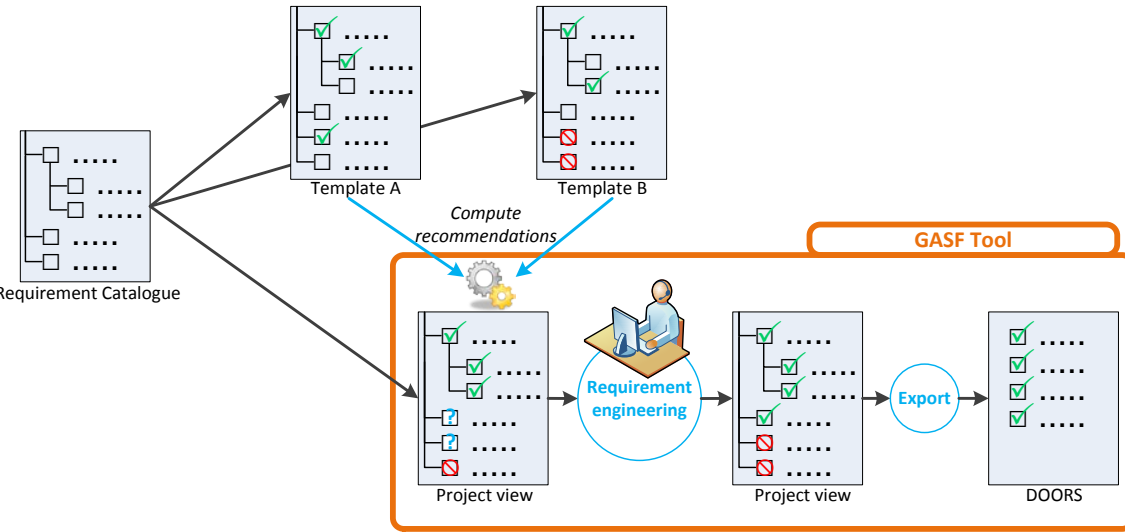
Secure System Engineering Focus



Security Requirements Engineering



Security Requirements Engineering Framework

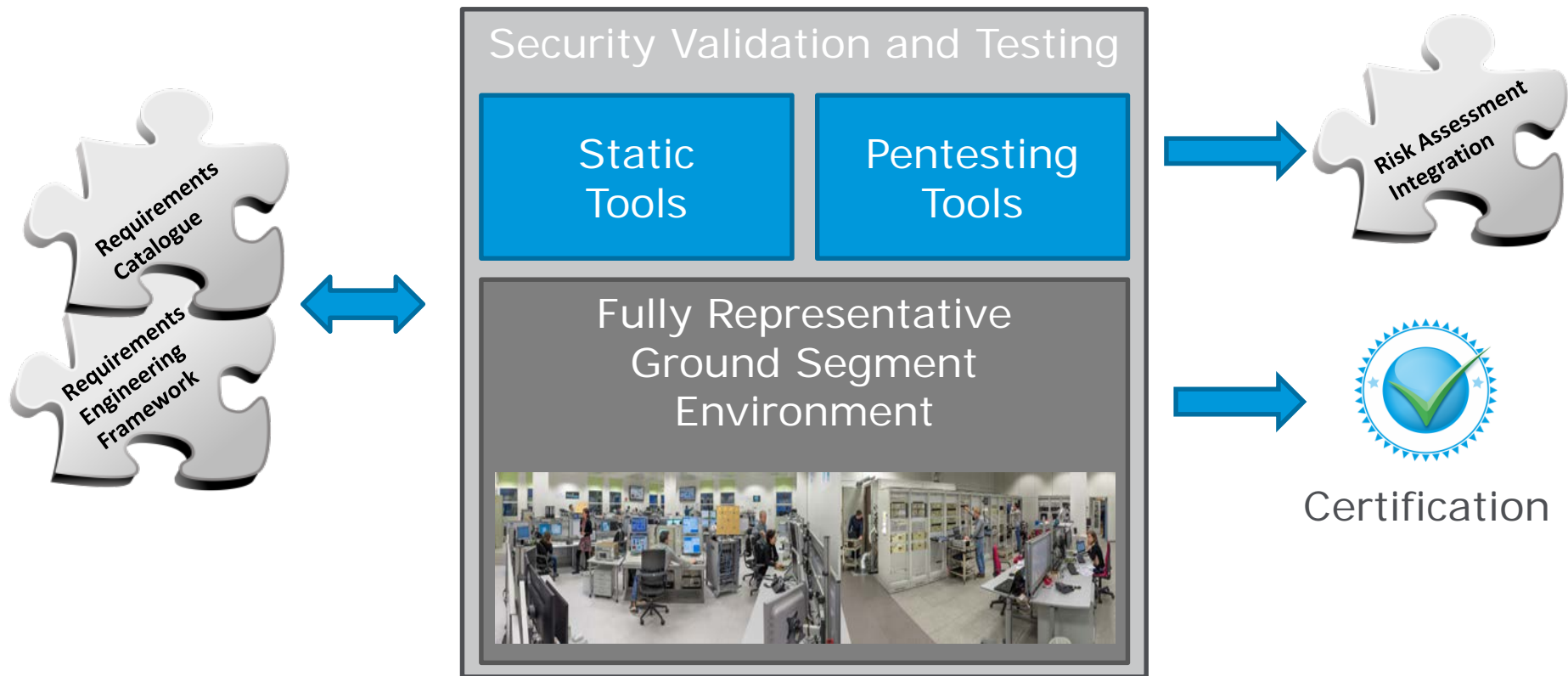


Requirement	
ID: GASF_0066	Version: 0.10
Title: Source code security	
Text: [THIS IS NOT A REQUIREMENT AND IS ONLY PRESENT FOR STRUCTURAL REASONS] The following requirements concern the integrity of the source code.	
Comment: Detection and protection of malicious code and unauthorized mobile code unauthorized code can lead to the introduction of various kind of issues horses or logic bombs). Avoiding the introduction of such issues requires performing users aware and removal processes.	
TO:	
Mark status: ● Included	
Mark comment:	Mark source:
More information: View associated Technology Specific Recommendations - GASF_TS_00831	
View associated CW - 504 - 505	

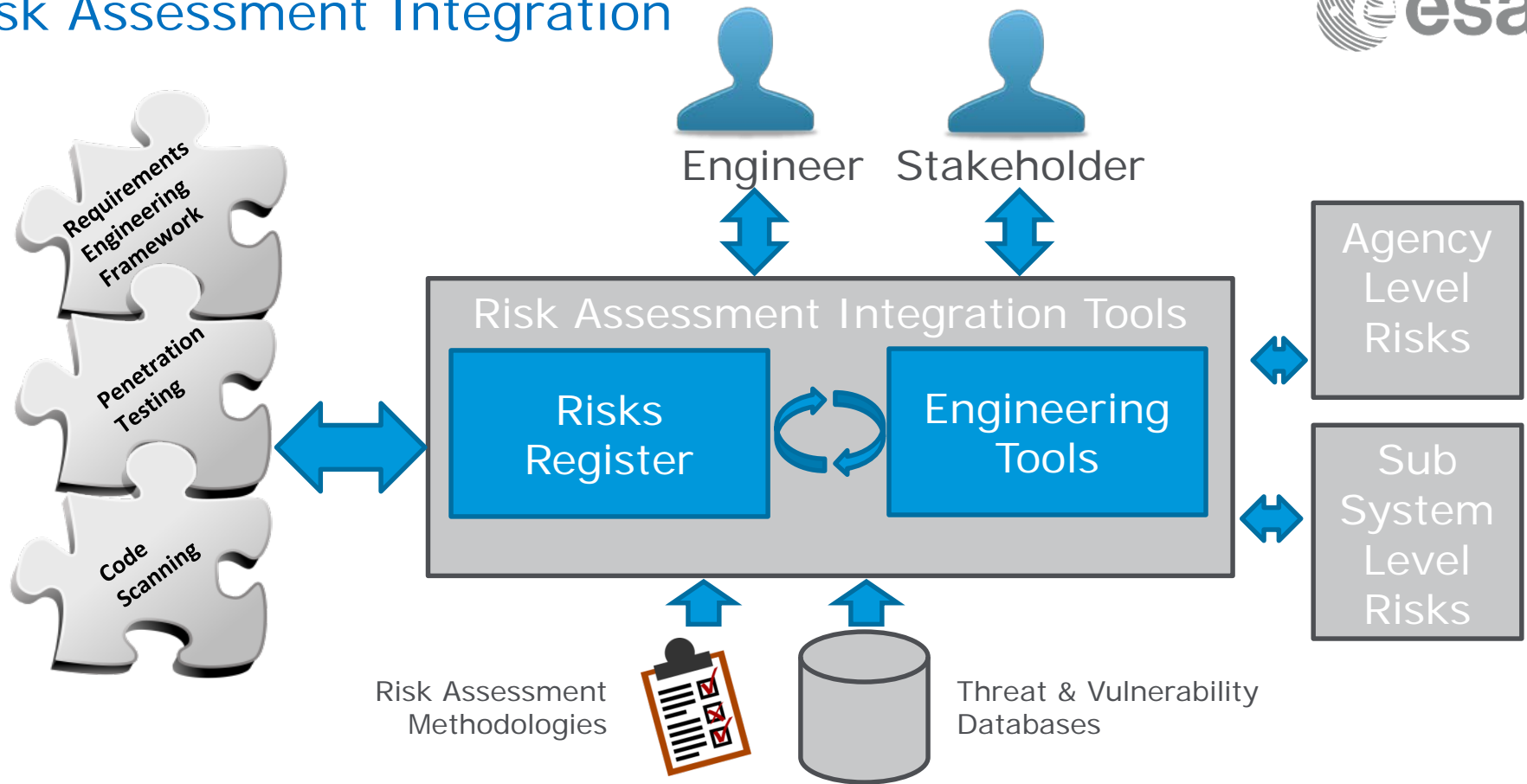
Selection Set	
Add item(s) to set Remove item(s) from set	
Enter a name for the set... Save set As	
Req Title	Req ID

Search			
Enter a search keyword...			
Search fields		Predefined search filters	
Active	ID	Text	Select

Security Validation and Testing



Risk Assessment Integration



The Future of Ground Segment Security Engineering

- Development of an overall security system engineering framework
 - Complete integration of the individual elements into one framework
 - Provision of engineering and exploitation interfaces with the system models
- Modular design of security engineering processes
 - Objective: Integration into the model-centric ground segment engineering approach
 - Data to be integrated into the engineering model
 - Security Requirements
 - Risk Assessment Information
 - Security validation and testing information



Thank You very much for your attention!



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Any questions?