



End to end certification Thales view point

Cracow 8-9 of November

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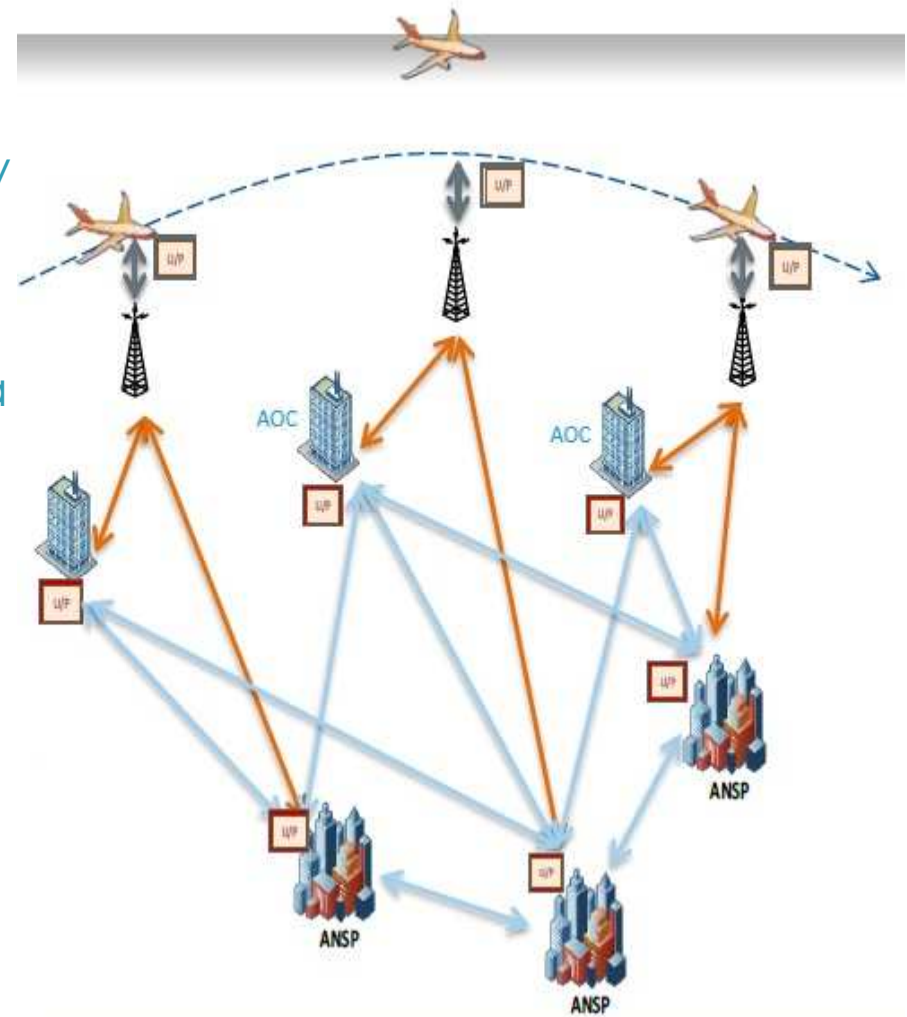
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Which benefits from an « horizontal » cyber certification standardization

- ...should help in managing complexity and reduce costs
- ...must insure the risk coverage with unified security evaluation criteria
- ...make work easier with uniform security measures
- ...must fulfill different legal regulations
 - (e.g. USA, China, ...)
- ...support a holistic security risk management for air transport**

The chain of Trust



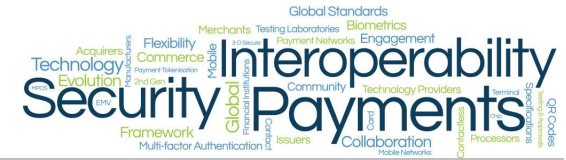
(extract from ICAO ATB and ANB

Progress being achieved in relation to developing the strategy on cyber security and cybersecurity 25 of September 2017)

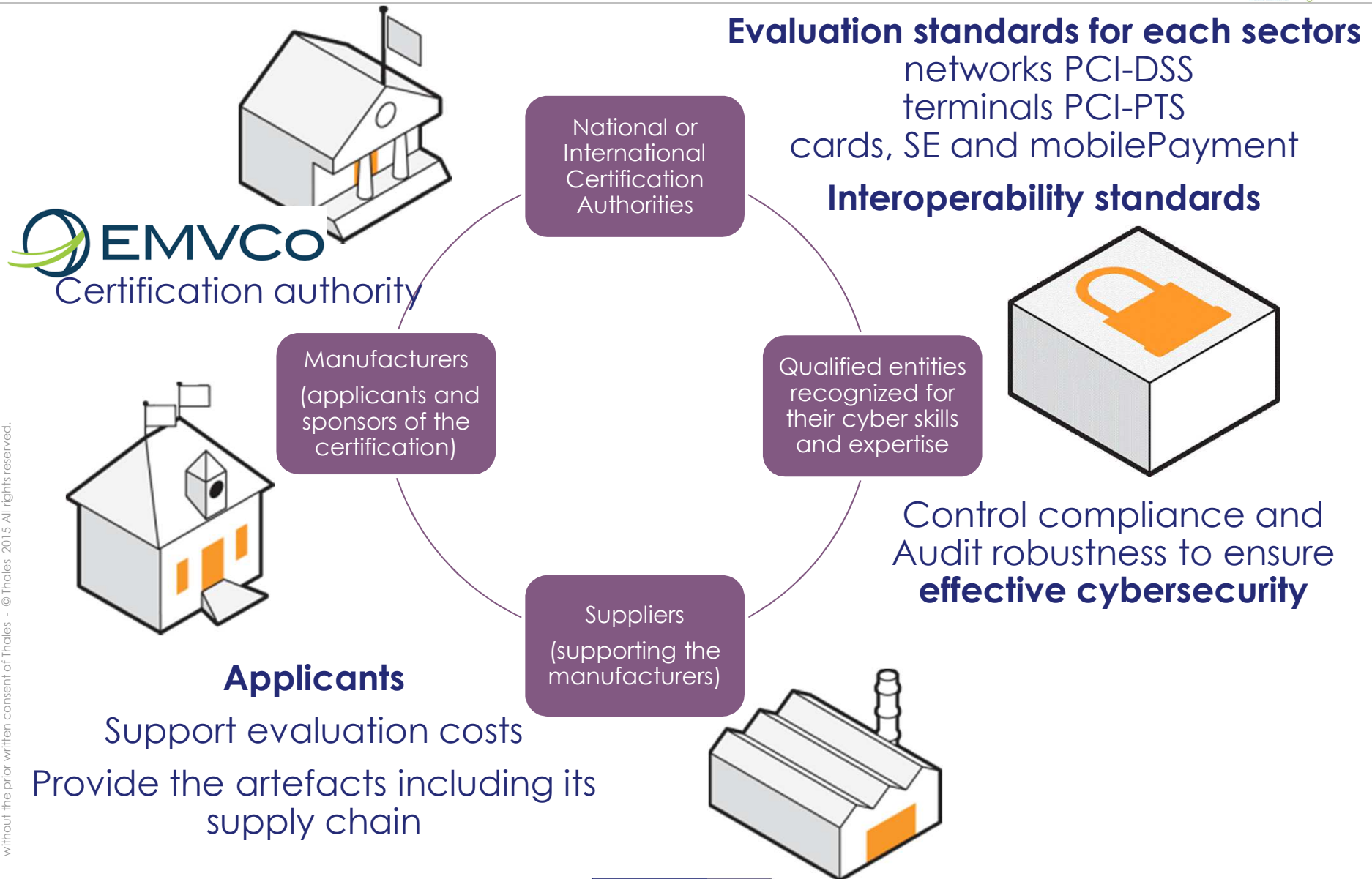
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What is a certification framework in cybersecurity?

Example of Banking Certification by EMVCO



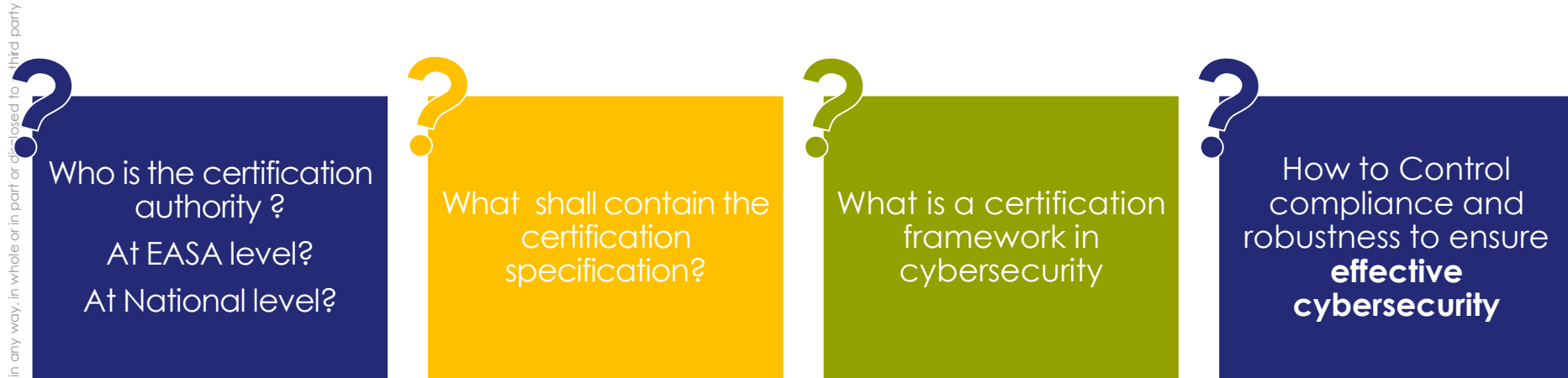
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An “horizontal” Cybersecurity certification applicable to different air transport sectors & stakeholders



Key questions for building such an horizontal certification specification?



To be answered to build this chain of Trust

Reduction of efforts and costs
Better management of complexity
Higher cyber risk assurance completeness
Continuous improvement and extension of security measures

Who is the certification authority ?

For efficiency, benefiting from existing (if any) safety framework

- To organize delegation from EASA as certification authority to existing aviation sector authorities
- And to leverage audit capacity of national cyber-security agencies
- Certification standard shall define the criteria of authority delegation

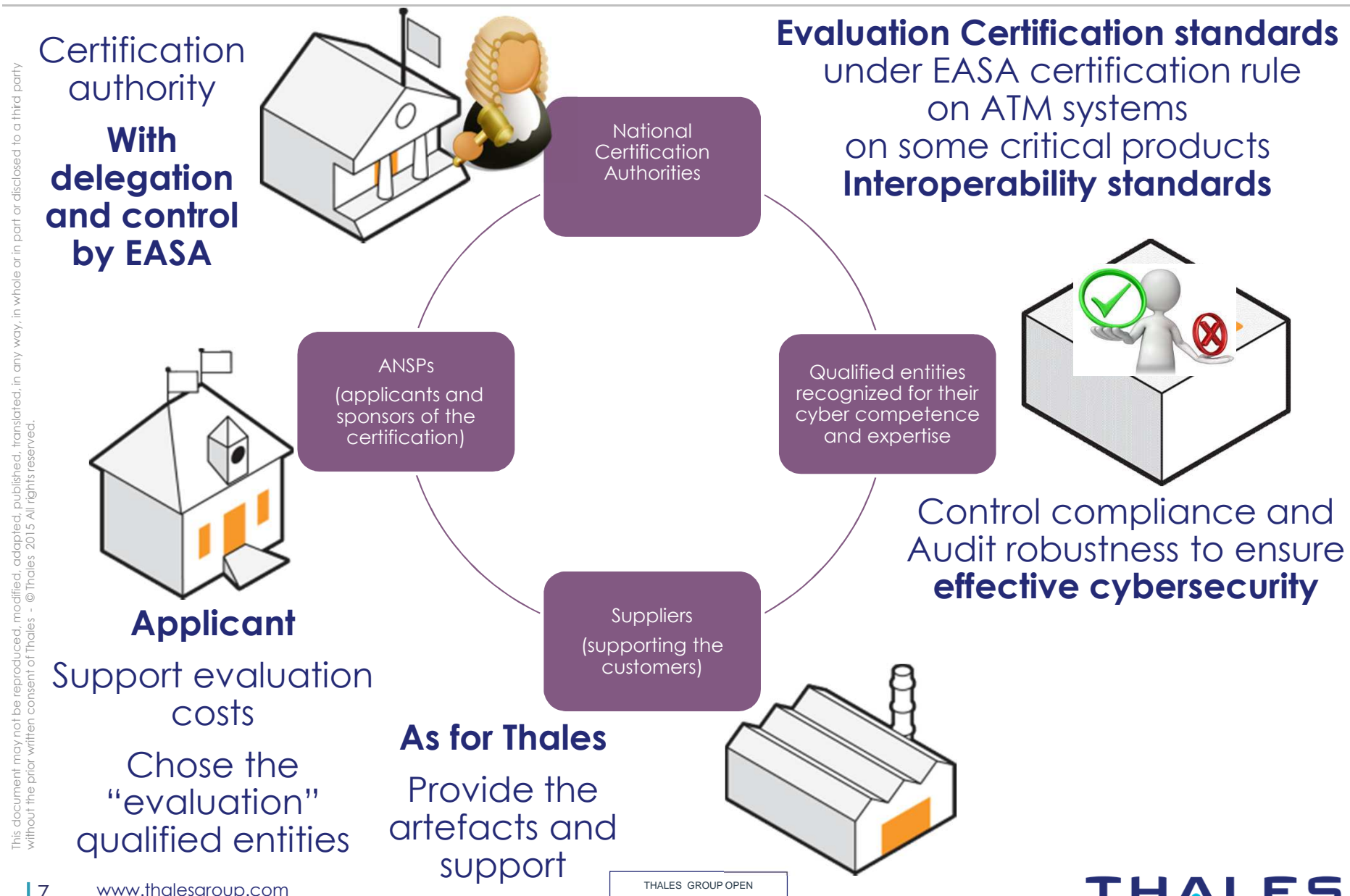


What content for such a certification standard?

- Each air transport sector/field need to have defined its certification referential
 - Applicable cybersecurity existing standards
 - Differentiating products from systems certifications requirements
 - + Sector specific rules
 - + Artefacts to be delivered to certification authority
- The "certification applicant" / the "auditor qualified entity" / the "certification authority" "shall" to be defined

The consequences of "failed" certification shall be clear and applicable by the certification authority

In the case of ATM, What could be our certification framework?

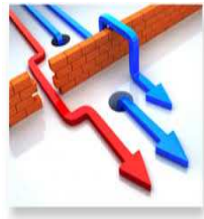


Our cybersecurity harmonisation expectations for Air Transport

Framework and guide for assessment, labeling and certification of cybersecurity for stakeholders

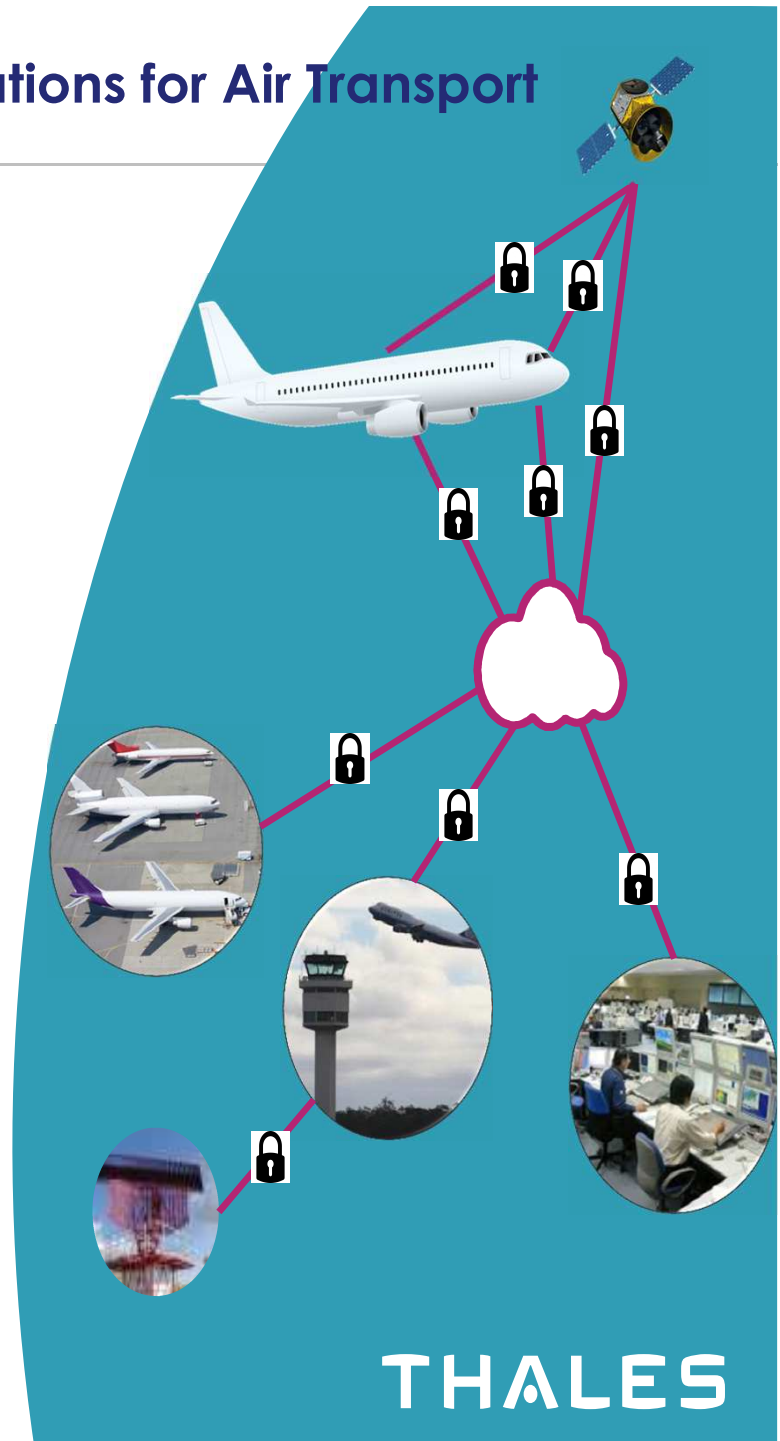
- Sectors/field
- System
- Product
- Component
- Services

! Product certification # System certification !



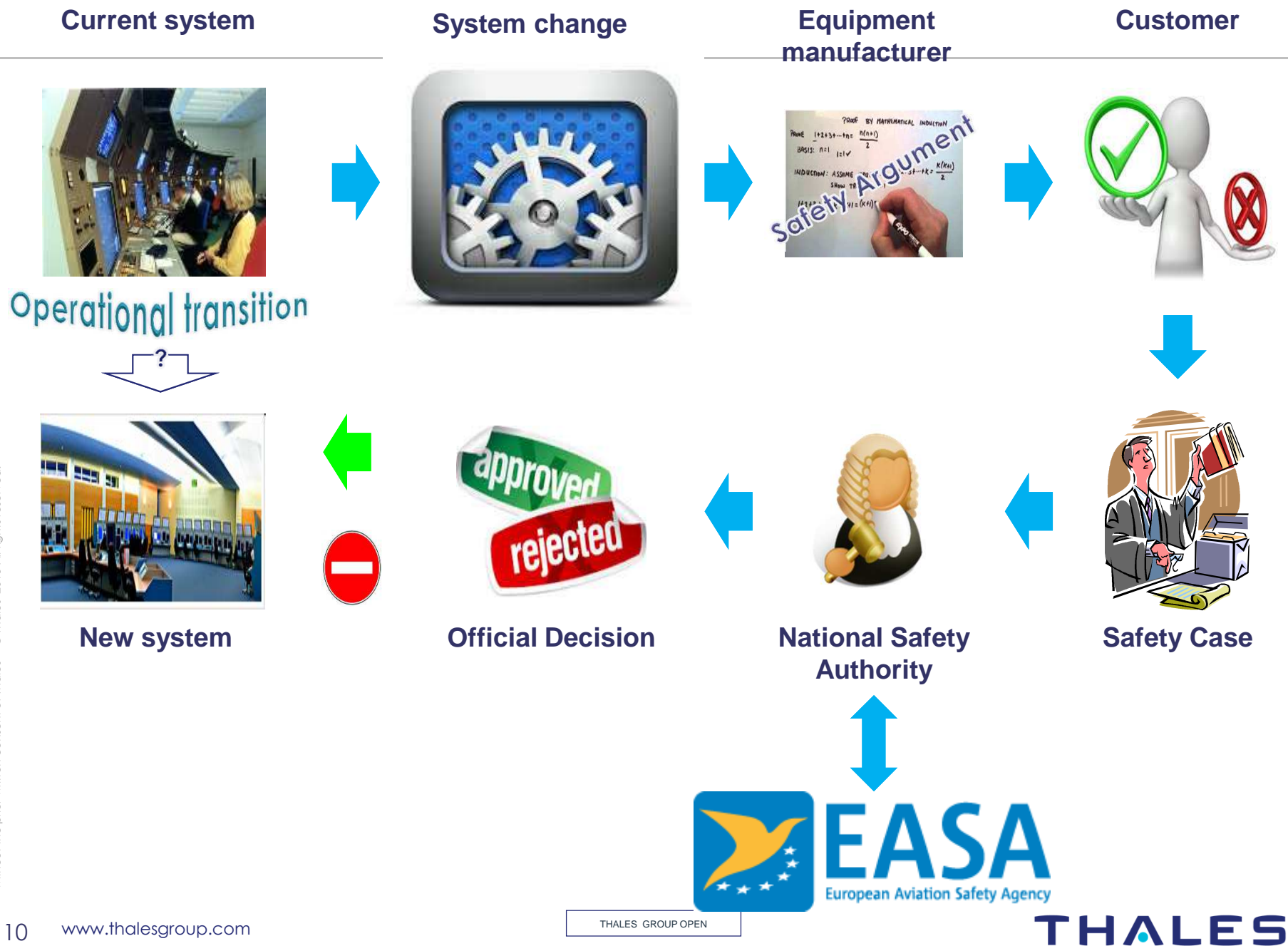
Articulation and delegation to actual Safety & Cyber Management Framework

- Benefit from existing safety framework
- National Agencies of air transport
- Develop the framework of “qualified entities” with cybersecurity competencies



Back up slide

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Lead by EASA, this single “horizontal” cyber-security rule is set-up...

(extract from ESCP- TAC 1st meeting 10 of October 2017) Juan ANTON

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A single “horizontal” Cyber-Security Rule (RMT.0720)

Includes only high-level, performance-based requirements

(details in AMC/GM, Certification Specifications and Industry Standards)

Common requirements to all fields

(design, production, maintenance, operations, aircrew, ATM/ANS, aerodromes,)

Specific requirements for each field

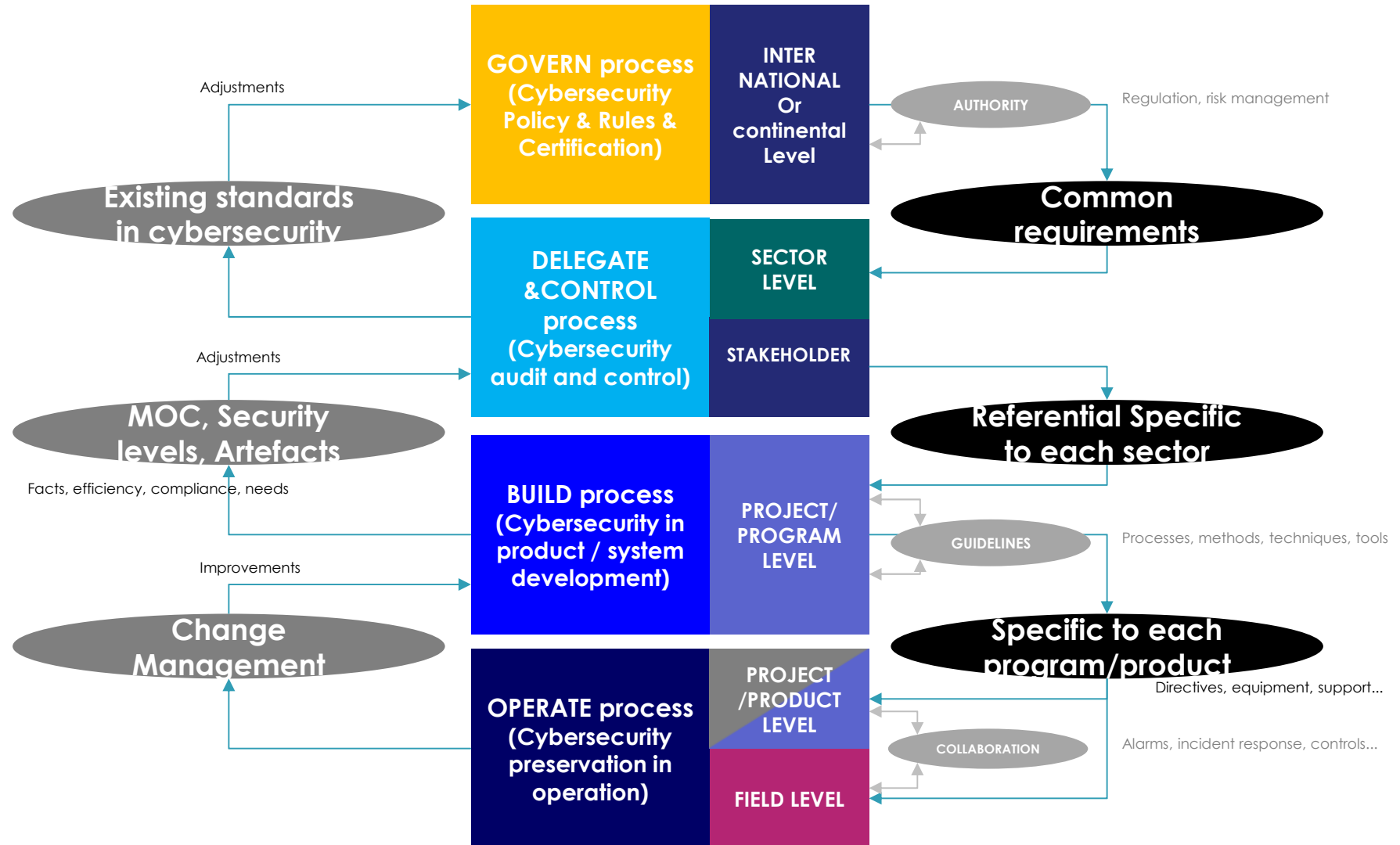
(could follow a phased approach)

Content to be coordinated with:

- Rulemaking activities linked to the SMS in the airworthiness domain (RMT.0252)
- Existing SMS in the other domains

A single “horizontal” Cyber-Security Certification Specification (CS-CS) (incorporating the material from RMT.0648)

What shall contain the cybersecurity certification standardization?



What could be our certification framework?

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