Bundesamt für Zivilluftfahrt BAZL
Office fédéral de l'aviation civile OFAC
Ufficio federale dell'aviazione civile UFAC
Federal Office of Civil Aviation FOCA

EASA Part-IS Information event

for technical aviation organisations POA, MOA, CAMO

(EU)2022/1645 (EU)2023/203

Management of information security risks in regard to aviation safety

Emmen/LU 15. November 2024



Objectives of the event

The event's objectives are to...



become aware of the rule regarding the management of information security

profit from experiences of early Part-IS adopters

engage organisations in starting the implementation journey

foster networking in information security among aviation stakeholders

...make the aviation landscape more resilient against information security risks

Practical arrangements



In view of Switzerland's linguistic diversity, everyone is invited to speak in their own language (D / F / I) or E.



Participants are invited and encouraged to ask questions after each presentation and in the dedicated Q & A session.



FOCA will take pictures of the event by respecting your privacy. Please come to us, in case you have any objections.



Information about the event, including some images may be published on FOCA's website, and/or social media channels (e.g. LinkedIn)



The presentations will be sent to all participants as a PDF file among with a short survey in the aftermath of the event.

Agenda

Time	Title	Presenting Organisation
09:00 - 09:30	Check-In / Registration	
09:30 - 09:45	Opening – Introduction to the event	FOCA
09:45 – 10:30	Introduction and objectives of Part-IS	EASA
10:30 – 11:00	Information security risk management from a regulator's perspective	FOCA
11:00 – 11:30	Coffee break	
	ISMS / Part-IS implementation	
11:30 – 12:15	from an airport perspective	FZAG
12:15 – 13:00	from a multiple approval holder perspective	Pilatus
13:00 – 14:00	Lunch break	
14:00 – 14:30	Panel discussion	EASA FOCA, FZAG and Pilatus
14:30 – 14:50	Q & A	all
14:50 – 15:00	Conclusion & Closing	FOCA

Speakers – Representatives of regulators





Davide Martini
Senior Expert –
Cybersecurity in Aviation

Davide Martini has been a Senior Cybersecurity Expert at EASA since 2016.

He leads efforts in developing aviation cybersecurity regulations and the implementation of the European cybersecurity strategy for aviation. Previously, he spent over 15 years in the aviation industry. He holds a Master degree in Aerospace Engineering from Politecnico di Milano.

Speakers – Representatives of regulators





Vasileios Papageorgiou
Junior Expert –
Cybersecurity

Vasileios Papageorgiou is a Junior Expert for Cybersecurity in Aviation. He is mainly involved in the Part-IS Implementation support activities as well as Cyber Threat Intelligence.

Prior to joining EASA, he worked as a Researcher in Cybersecurity & Counter Terrorism Research. He has completed his military service in the Hellenic Army Aviation and he has also served a 1-year traineeship at the Certification Directorate of EASA supporting the implementation activities on the UAS operations (Open & Specific).

He holds a Master's degree in Crisis & Security Management from Leiden University and a Bachelor's degree (Ptychion) in International Relations & European Studies from the University of Piraeus.



Introduction and objectives of Part-IS

Vasileios Papageorgiou Junior Expert – Cybersecurity in Aviation

15th November 2024



Making EU aviation cyber resilient









Products (Aircrafts, Engines, ...)

- Transition from case by case approach to mandatory on all products now done.
- Positive change of mind set in industry: From defiance to full engagement.

Organisations (People, Processes)

- Part-IS Regulations published in October 2022 and February 2023
- •AMC/GM published on 12 July 2023

Information Sharing

- Create a community to
- •Share knowledge
- Perform Analysis
- Collaborate
- •Reinforce the system

Capacity building & Research

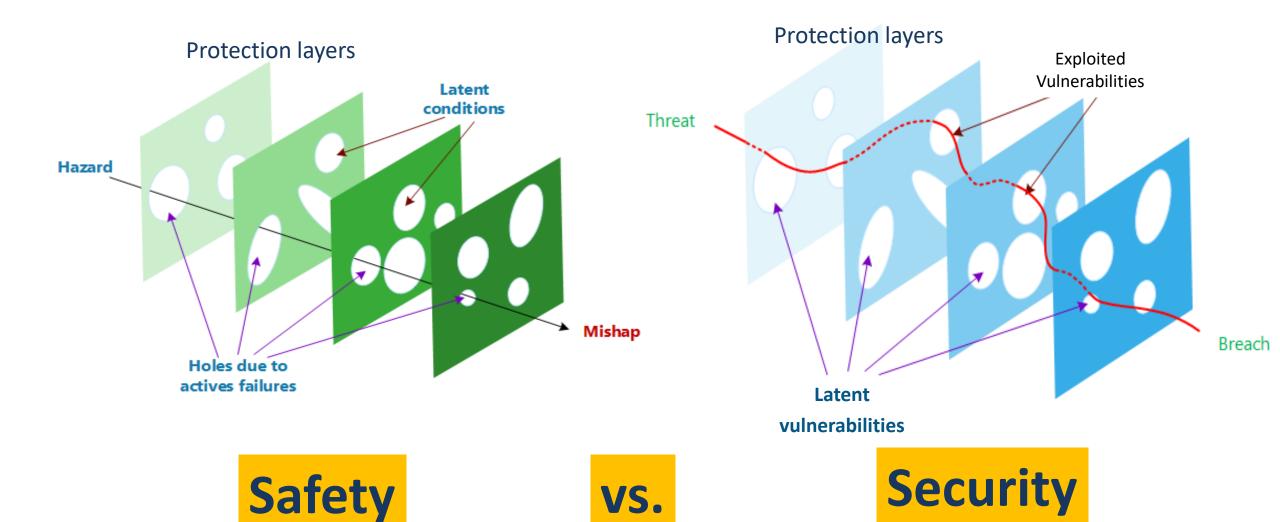
- To have competent and well aware workforce
- •To monitor the current Threat Landscape
- To understand the future Threat Landscape







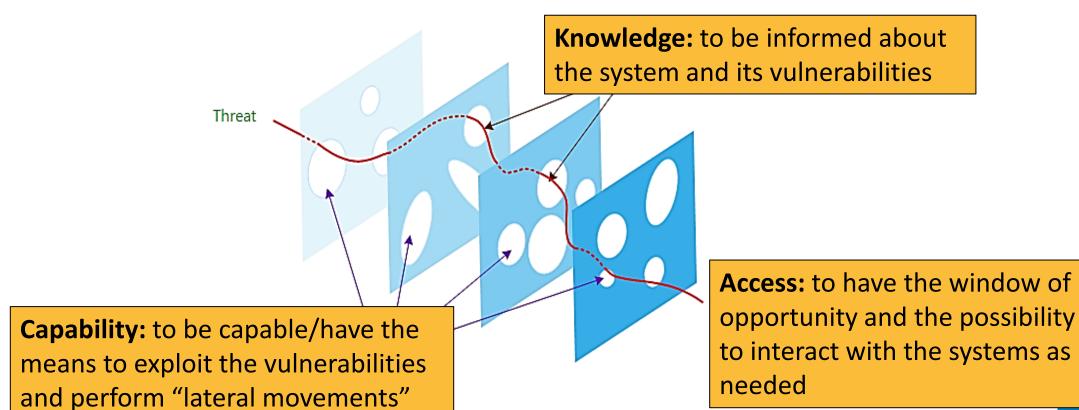
The cultural bias in aviation





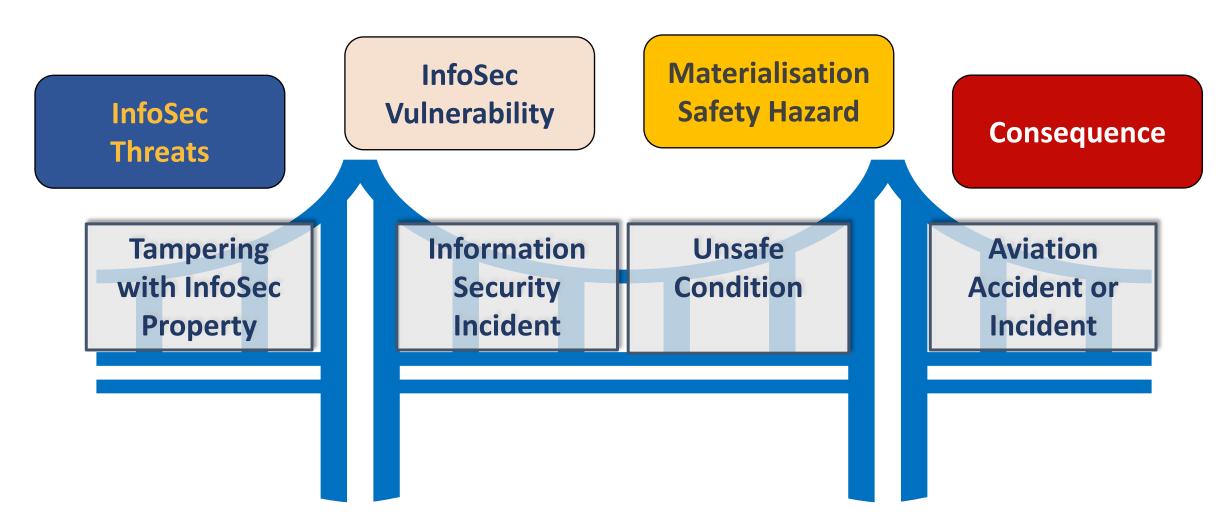
A different approach to risk assessment

Risk assessment in cybersecurity is based on capability, knowledge and access





Bridging between Information Security and Safety





What we want to achieve with Part-IS

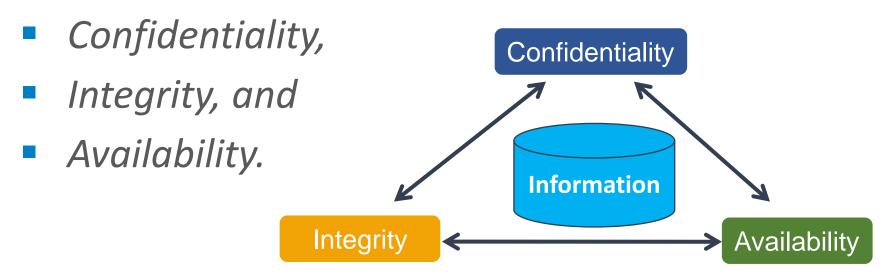
Objective	Protect the aviation system from information security risks with potential impact on aviation safety
Scope	Information and communication technology systems and data used by Approved Organisations and Authorities for civil aviation purposes
Activity	 - identify and manage information security risks related to information and communication technology systems and data used for civil aviation purposes; - detect information security events, identifying those which are considered information security incidents; and - respond to, and recover from, those information security incidents



What is an ISMS?

What is Information Security Management?

➤ ISO 27000 states that *Information Security Management* is a top-down, business driven approach to the management of an organization's physical and electronic information assets in order to preserve their





What is an ISMS?

ISO 27001

An ISMS is the means by which management monitors and controls information security, minimizing the residual **business risk** and ensuring that information security continues to fulfill corporate, customer and legal requirements.

business risk

Part-IS

An ISMS is the means by which management monitors and controls information security, minimizing the residual business safety risk and ensuring that information security continues to fulfill corporate, customer and legal requirements and societal expectations.

safety

risk



What are the Key Ingredients for Part-IS?

Basic Regulation

- Acceptable Safety Risks
- Record-keeping
- Personnel Requirements

ISO 2700x

- Information Security Management System (ISMS)
- Information Security Risk Assessment
- Continuous Improvement

NIST Cyber Security Framework

- Information Security Risk Treatment
- Information Security
 Incidents Detection,
 Response, and Recovery

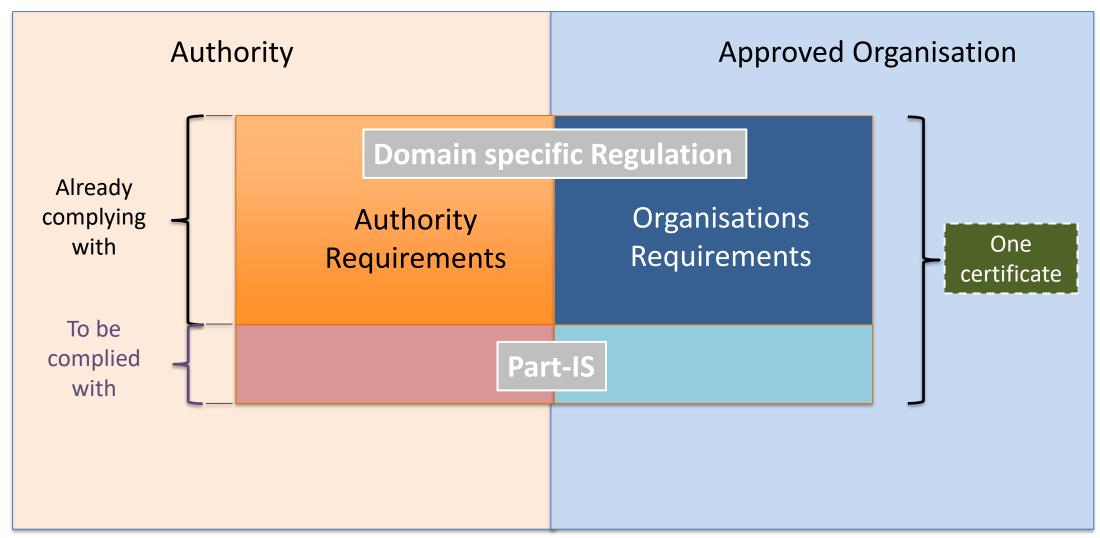


Reporting Regulation

 Information Security External Reporting Scheme



Part-IS and existing approvals/regulations



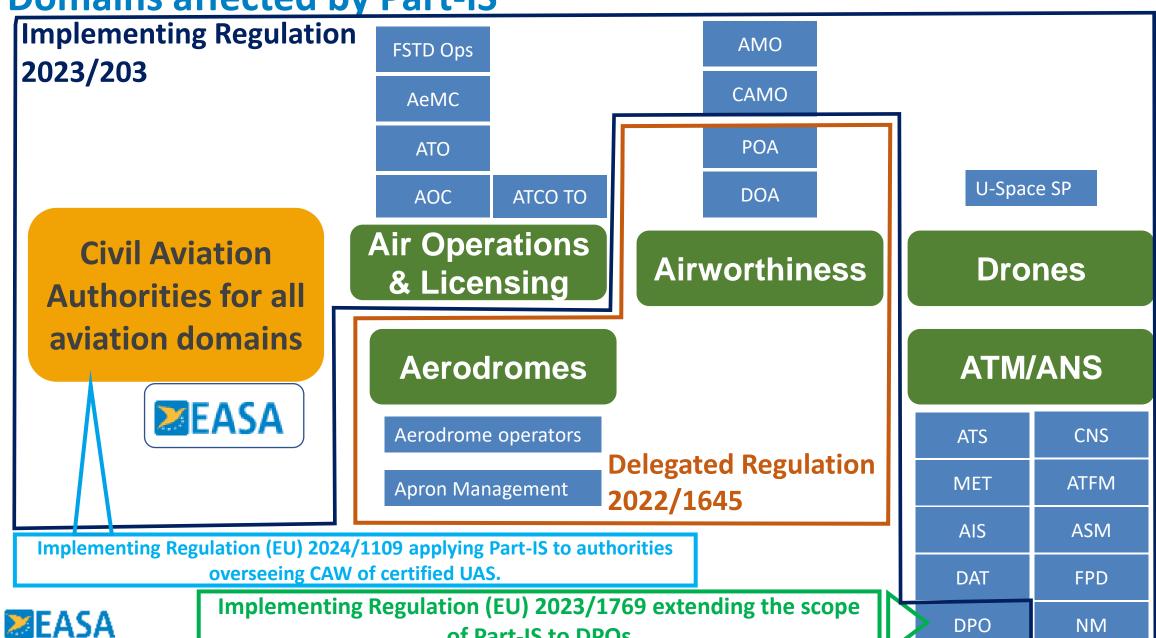


3 ED Decisions



Easy Access Rules available here

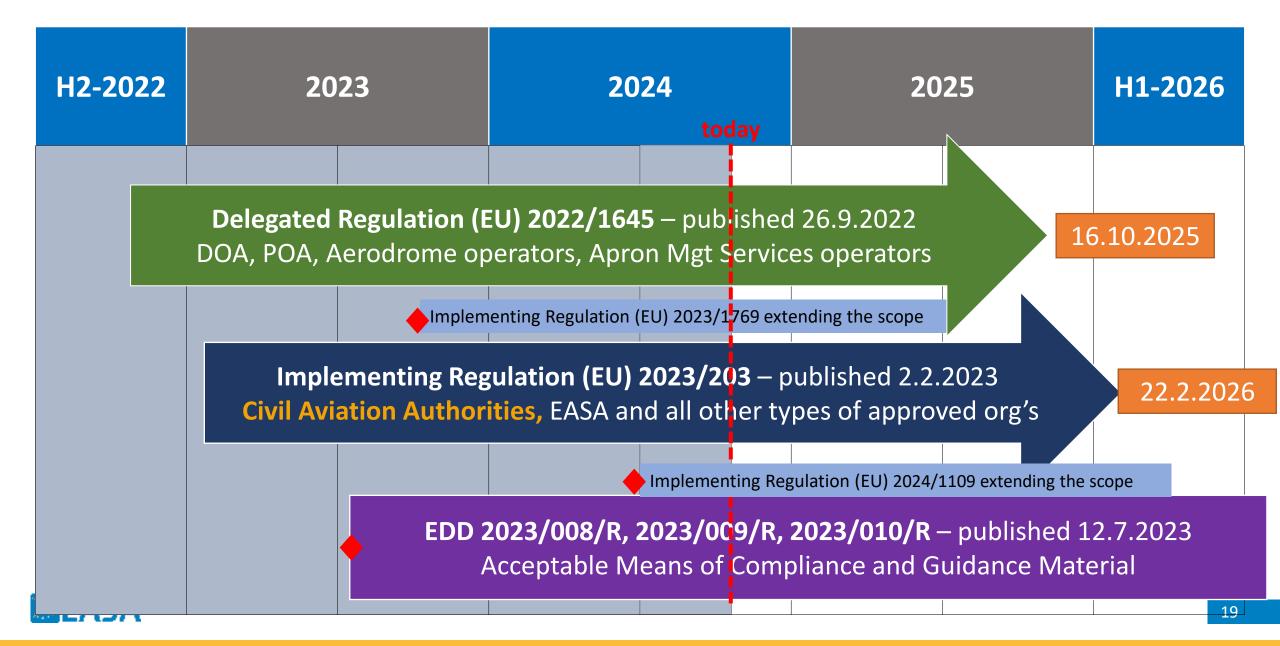
Domains affected by Part-IS



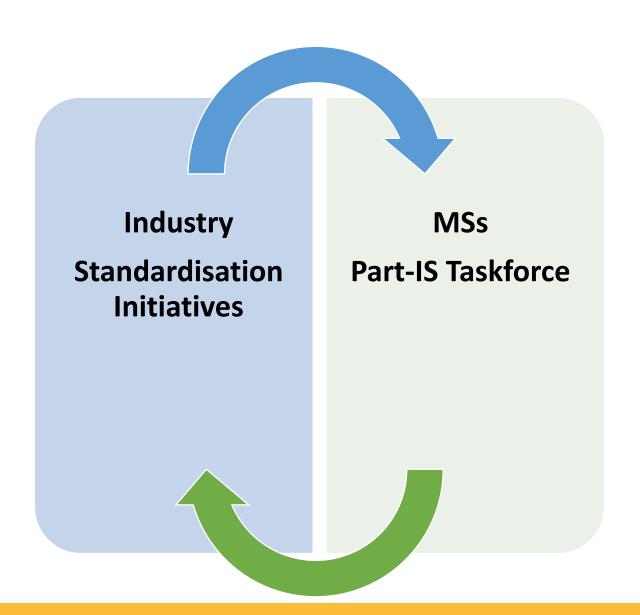


of Part-IS to DPOs

Part-IS implementation journey



Other initiatives supporting Part-IS implementation





AMC & GM update before Part-IS applicability

→ New guidance material has been/is being developed since the

publication of AMC & GM

→ Some examples: From the TF

From EASA

From Eurocae

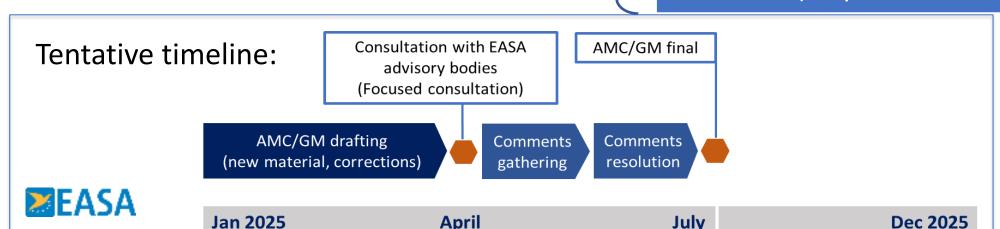
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• Add avi

• Up

- Part-IS compliance guideline for ISO/IEC
 27001 certified organisations
- Assessment of requests for derogation
- Adaptation of ENISA ECSF to Part-IS and the aviation domain
- Updated ED-206 -> ED-206A
- ED-ISMS (maybe more likely in Q1 2025)



Overview of Part IS requirements: Organisation vs Authority

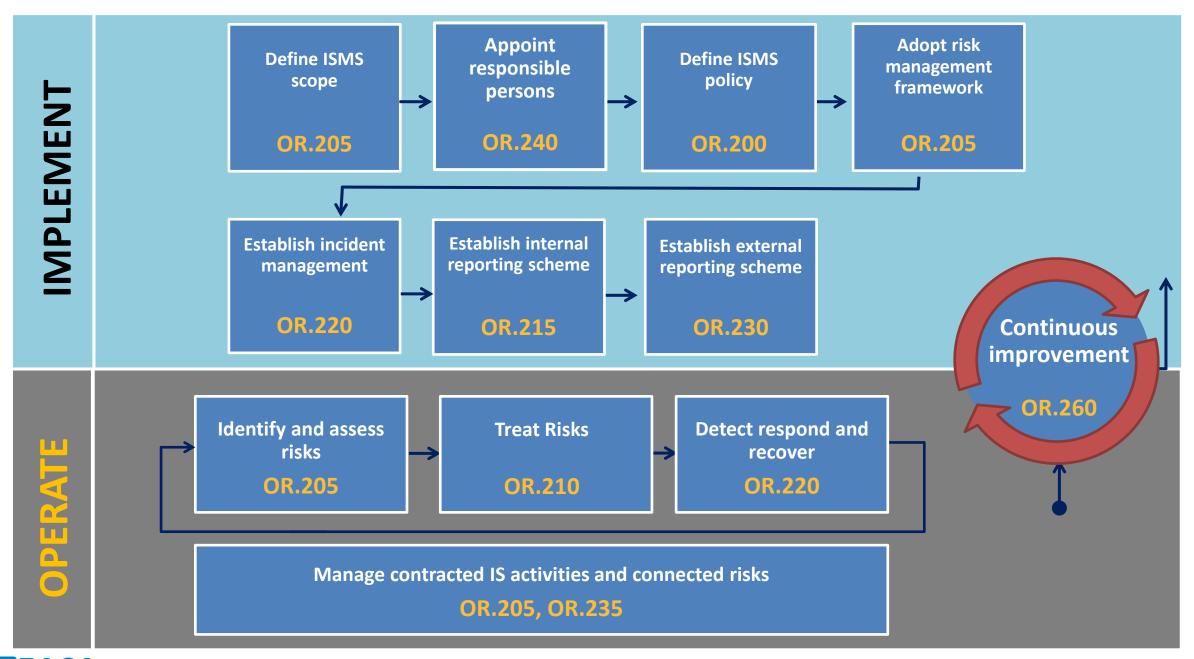
ORGANISATION	Description	AUTHORITY
IS.I.OR.100	Scope	IS.AR.100
IS.I.OR.200	Information security management system (ISMS)	IS.AR.200
IS.I.OR.205	Information security risk assessment	IS.AR.205
IS.I.OR.210	Information security risk treatment	IS.AR.210
IS.I.OR.215		
IS.I.OR.220	Information security incidents — detection, response, and recovery	IS.AR.215
IS.I.OR.225		
IS.I.OR.230	Information security external reporting scheme	✓
IS.I.OR.235	Contracting of information security management activities	IS.AR.220
IS.I.OR.240	Personnel requirements	IS.AR.225
IS.I.OR.245	Record-keeping	IS.AR.230
IS.I.OR.250		
IS.I.OR.255		
IS.I.OR.260	Continuous improvement	IS.AR.235



Overview of Part IS requirements: Organisation vs Authority

ORGANISATION	Description	AUTHORITY
IS.I.OR.100	Scope	IS.AR.100
IS.I.OR.200	Information security management system (ISMS)	IS.AR.200
IS.I.OR.205	Information security risk assessment	IS.AR.205
IS.I.OR.210	Information security risk treatment	IS.AR.210
IS.I.OR.215	Information security internal reporting scheme	
IS.I.OR.220	Information security incidents — detection, response, and recovery	IS.AR.215
IS.I.OR.225	Response to findings notified by the competent authority	
IS.I.OR.230	Information security external reporting scheme	✓
IS.I.OR.235	Contracting of information security management activities	IS.AR.220
IS.I.OR.240	Personnel requirements	IS.AR.225
IS.I.OR.245	Record-keeping	IS.AR.230
IS.I.OR.250	Information security management manual (ISMM)	
IS.I.OR.255	Changes to the information security management system	
IS.I.OR.260	Continuous improvement	IS.AR.235









Thank you for your attention!

Join our Community:



easa.europa.eu/connect















cybersec@easa.europa.eu

Your safety is our mission.

An Agency of the European Union



Speakers – Representatives of regulators



Federal Office Of Civil Aviation, FOCA



Camille Kunzi
Inspector Information
Security

Camille Kunzi has been working in the aviation industry for 10+ years in various positions as a innovation and project manager and recently joined FOCA.

At Airbus Defence & Space she worked as a program manager for industrial cyber security and led a multi-functional team to improve cyber resilience in aircraft & spacecraft production environment.

She holds a Master's degree in material engineering.

Speakers – Representatives of regulators



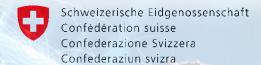
Federal Office Of Civil Aviation, FOCA



Christoph Schnyder's role Cyber Security Coordinator, responsible for implementing EASA Part-IS at FOCA. He represents the office in various national and international bodies in regard to information security.

He has 20+ years professional experience and has held various roles as a software and security engineer and as an expert in product cyber security.

Christoph Schnyder
Cyber Security Coordinator / Program Lead



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Federal Office of Civil Aviation FOCA

Information Security Management from a regulator perspective

EASA Part-IS Information event for technical organisations (POA, CAMO, Part-145)

Emmen 15. November 2024

FOCA - Camille Kunzi & Christoph Schnyder



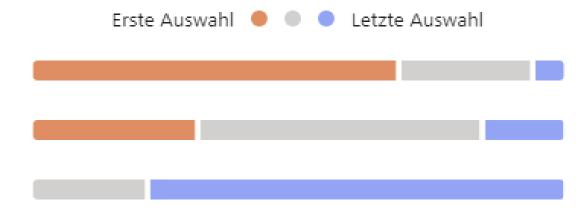




Number of responses as per 14.11.2024 17:30: 55

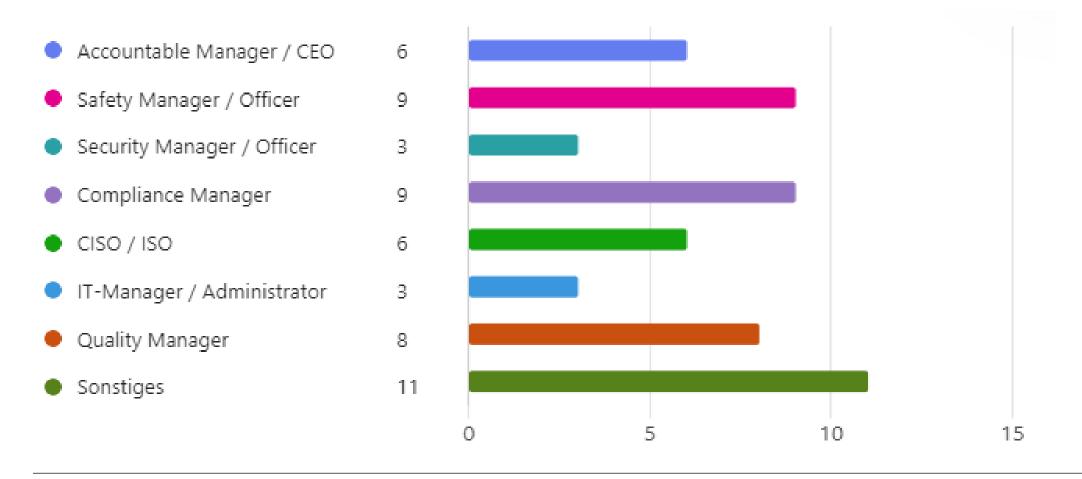
Motivation to attend this event

- To get guidance and ideas on how to implement the regulation
- To better understand the concept and objectives of the regulation
- To network with other organisations facing similar challenges





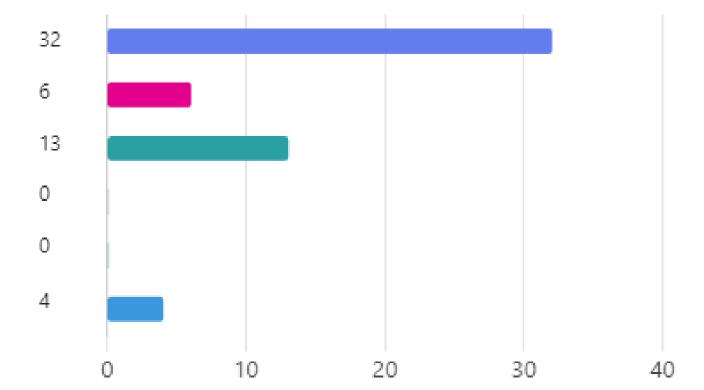
Position of participants





Implementation progress

- We have not started yet
- We have identified some gaps
- Implementation is in progress
- We are almost done
- Implementation is complete
- Our organisation is considering to obtain an approval for derogation as per IS.OR.200(e)

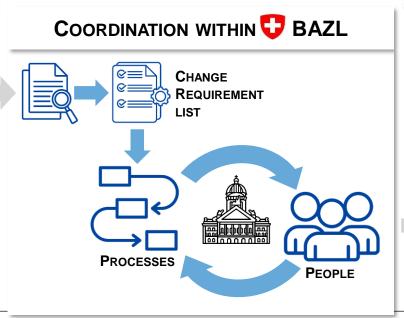


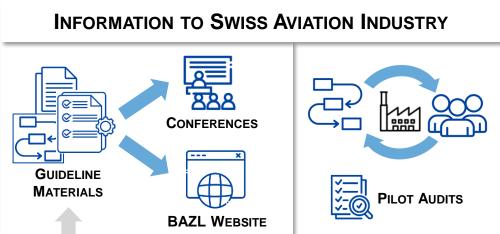


Part IS Project - Mission

COORDINATION WITH REGULATORS ELASA (EU) 2022/1645 (EU) 2023/203 BAZL

& other CAAs







Implementation objectives

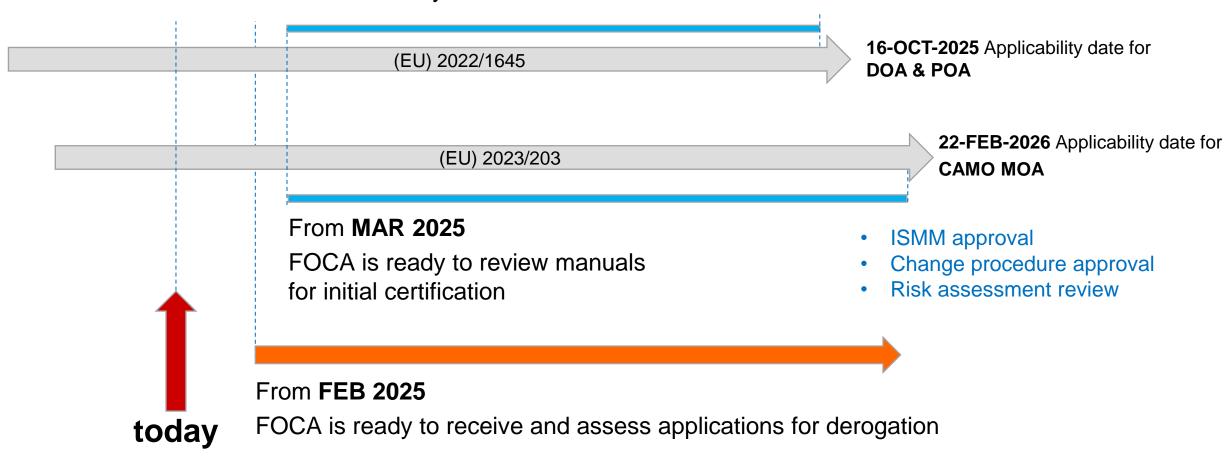
- FOCA aims to integrate Part-IS into joint oversight activities of safety management systems where applicable.
- FOCA internally coordinates oversight activities for organisations holding multiple approvals to avoid redundant audits.
- FOCA will acquire dedicated resources with specific information security know-how which serve all safety departements and sections.
- FOCA will perform risk- and performance based oversight (RBO/PBO) with adequate application of the aspect of proportionality (IS.I/D.OR.200 (d))
- FOCA aims to create a standardised and easy process to handle derogation requests from eligible organisations (IS.I/D.OR.200 (e))

O

Part-IS Timeline

From **MAR 2025**

FOCA is ready to review manuals for initial certification





Expectation at applicability date

- The organisation should be able to demonstrate a consistent and comprehensible approach in the management of information security.
- FOCA does not expect perfection at inital compliance stage
- An integration of the ISMS into existing MS is possible and beneficial



Expectation at applicability date

PRESENT – SUITABLE – OPERATING - EFFECTIVE

Appoint responsible persons

Define ISMS scope

OR.205





Organisational structure

Non conclusive

- Has the structure been updated to account for ISMS? (e.g., appointment of an information security manager, reporting structure).
- Are roles and responsibilities defined and assigned?



Security policy

- Is the purpose and scope defined?
- Are the information security objectives defined?
- Is aviation safety an integral part and reflected in the policy?
- Are there references to a data classification scheme of the organisation?



Expectation at applicability date

PRESENT - SUITABLE - OPERATING - EFFECTIVE

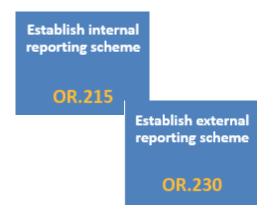




Risk management

Non conclusive

- Has the organisation established an asset inventory?
- Is there a formal process established?
 - Risk identification
 - Risk assessment
 - Risk treatment





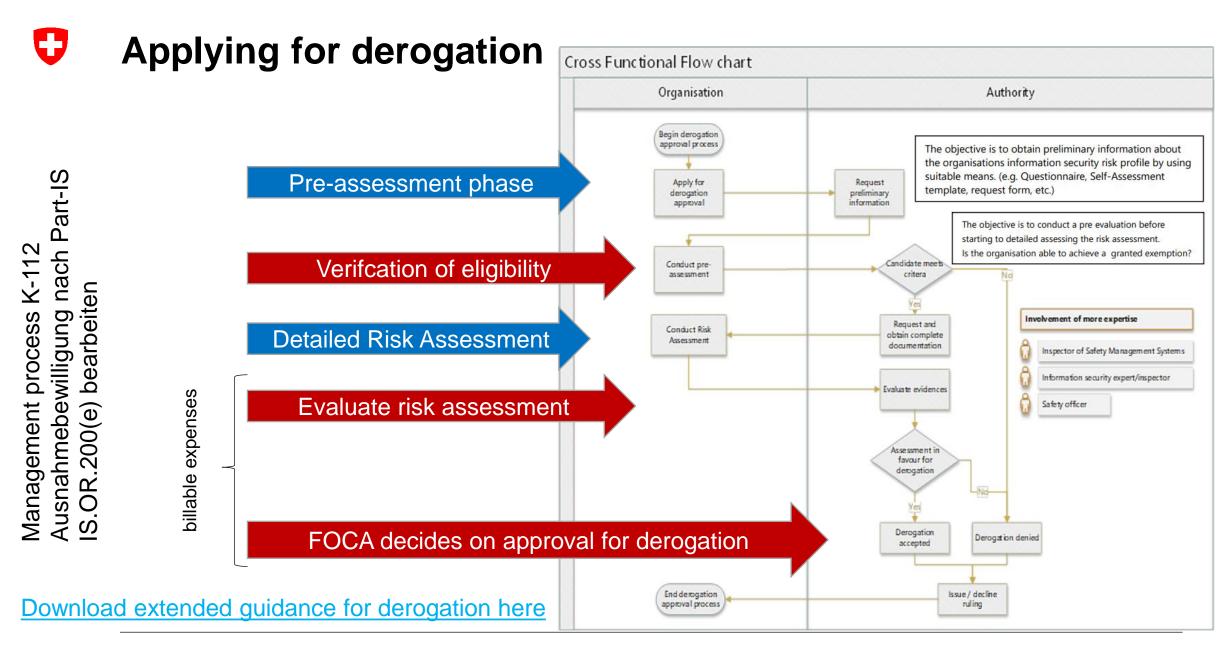
- Is there a scheme or process defined to internally and externally report security events and incidents?
- Identification of events and incidents which may have an impact on aviation safety



Applying for derogation

An organisation which does not pose any information security risks with a potential impact on aviation safety may be approved to not implement the requirements IS.OR.205 ... IS.OR.260

- No safety impact to the organisation itself and
- No safety impact to other oragnisations
- An approved derogation will be assessed upon changes in the scope of work and during the regula oversight cycle.
- There is no implementation «light»





Staff competencies



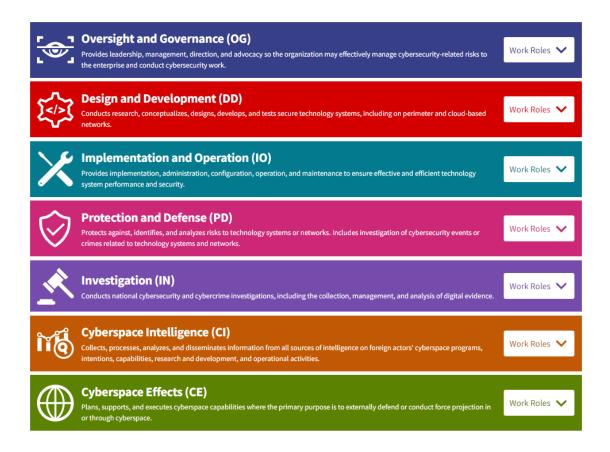
EUROPEAN
CYBERSECURITY SKILLS FRAMEWORK TO
AVIATION

Application of the European

Cybersecurity Skills Framework to

Aviation

European Cybersecurity Skills
Framework Role Profiles Manual



Workforce Framework for Cybersecurity (NICE Framework)



Upskilling of people



Processes



People

Tasks

- Certification & oversight regarding information security
- Collection & processing of reported cyber incidents

New tasks & roles

Roles

- ISMS Inspector
- Cyber security expert

Needed competencies

- Auditor
- IT & cyber security
- Safety / security management
- Risk management
- Technical organization knowledge
- Quality assurance

Workload estimation

 First estimation based on experience with audits of NASP chap. 19 and extrapolation

Upskilling strategy

- ISO-27001 Lead Auditor
- ISO-27001 Manager
- CISA (ISACA)
- Basics on cybersecurity

Upskilling/training of new and actual employees

start in 2025

Recruiting needs

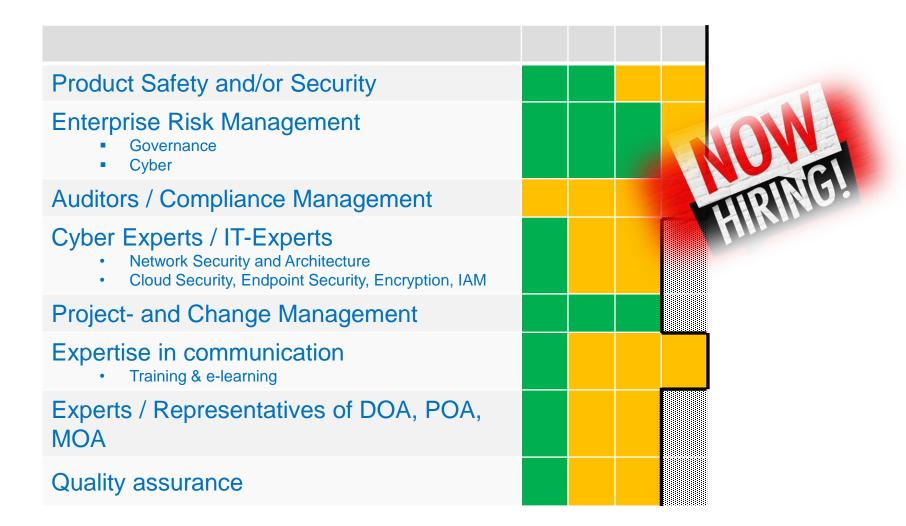
- 5 FTEe approved until 2026
- Multi lingual (GE / F/ I) and E
- Team player
- Communication

42



Qualifications of SME Group «Information Security»

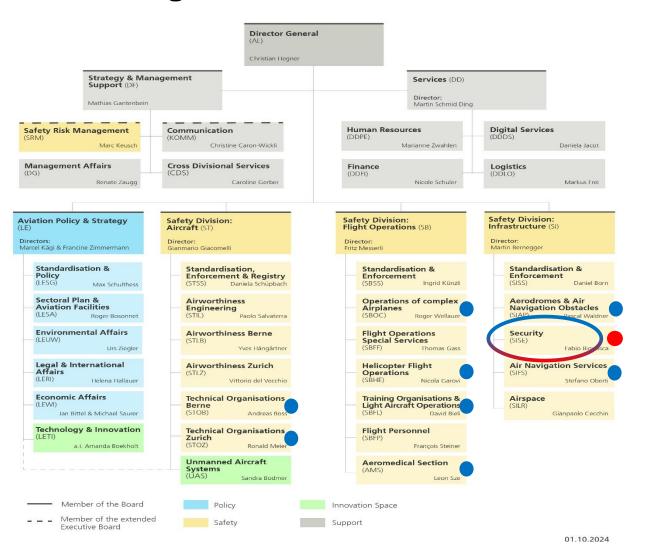




availablerequired



Organisation of Information Security at FOCA



Dedicated Information Security SME Group within AVSEC section.

Gradual step-by step build up to 5 FTE from 2024 ... 2026

Providing information security expertise in certification and oversight activities to safety sections in regard to Part-IS, as members of SMS audit teams.

Performing AVSEC audits and inspections in regard to (EU) 2019/1583 and NASP chap. 19

- Aviation Security (EU) 2019/1583
- Aviation Safety (EU) 2022/1645, (EU) 2023/203

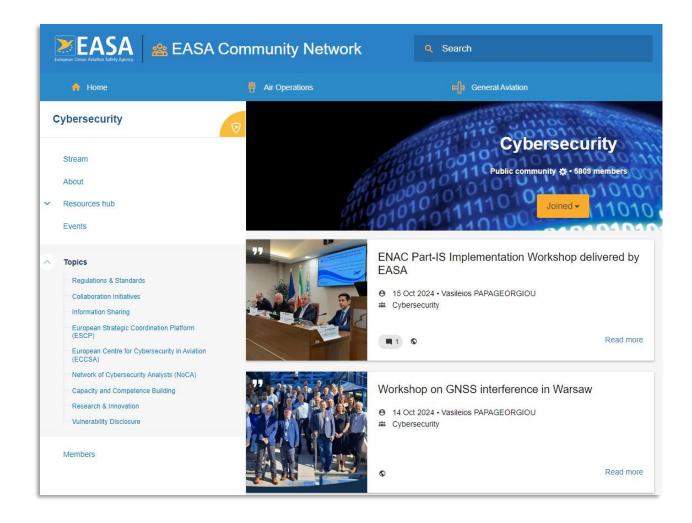


Where to find more guidance?



EASA Cyber Security Community

- FAQ
- Resource hub with guidance
- Events and more





For those of you who missed...





- Part IS Implementation Workshop 2024 Day 1
- Part IS Implementation Workshop 2024 Day 2



Take aways



Do not implement Part-IS for compliance reasons. Do it to protect the aviation sector



Don't wait until application date. Start now!



Do not aim for perfection at initial stage. Maturity will gradually increase over time



Consult third party providers if necessary, which can assist you with expert knowledge in information security

Coffee Break



11:00 - 11:30

Speakers – Representatives of the industry

Flughafen Zürich



Fabio Morandi Information Security Officer Head ICT Security Services

Fabio Morandi has a background in business informatics and has been working as an IT executive in various industries for more than two decades.

He has been working for Flughafen Zürich AG since March 2012. He took over as Head of ICT Security in May 2021. After the successful implementation and certification of an ISMS according to ISO/IEC 27001, he is responsible for the development, advancement and implementation of the new cyber and information security strategy.

He is leading this in a programme of 11 strategic projects. At the same time, he is setting up and expanding the ICT security organisation of Flughafen Zürich AG.

Speakers – Representatives of the industry

Flughafen Zürich



Simon Maurer SQS Lead Auditor ICT Security Services

Simon Maurer is a recognised expert in the field of cyber security with a decades-long management career in computer science and telecommunications. He has successfully supported numerous companies in the implementation of information security standards such as ISO/IEC 27001 as an independent auditor and consultant for over 10 years.

As a managing director and former CEO in the software and IT outsourcing industry, he has gained extensive experience in managing large projects and providing strategic advice. His consulting mandates range from Switzerland's critical infrastructure to the healthcare sector and public administration.

He has been working at Zurich Airport since 2021, where he supports Fabio Morandi in particular in the strategic development of cyber and information security.

EASA Part-IS Implementation @ Flughafen Zürich

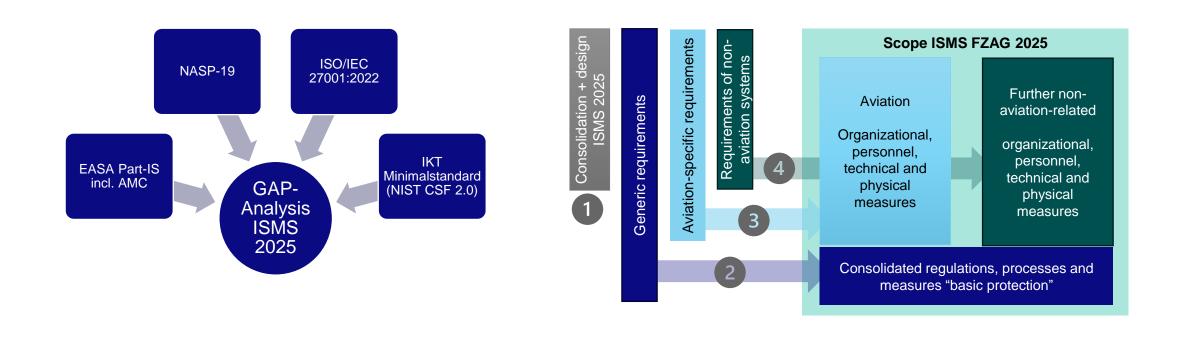


Where do we come from?

Year	Situation
2020	1 internal FTE ICT security and 3.5 FTE external consulting → Decision to build up internal competency and resources
2021	+2 internal resources → Reorganisation ICT security and ICT architecture
2022	ISO/IEC 27001:2013 certification of ISMS for ICT infrastructure → Start of »Cyber- and Information Security Strategy»
2023	Release of CIS23 Strategy in the board of Flughafen Zürich AG Start of implementation of the project portfolio
2024	 Final organisation: 15 internal FTE Cyber defence centre ICT security architecture ISMS & risk management Identity & access management IT service continuity management 2 FTE longterm external consultants



GAP-Analysis: The checklist consolidates 4 different frameworks



Sept. – Dec. 2024

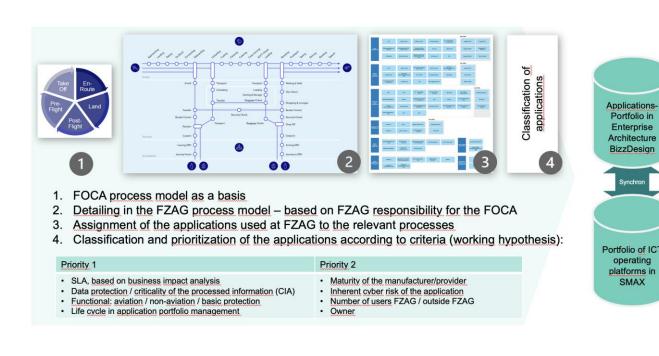
Oct. 2024 - Oct. 2025



The asset scoping process has been set up and operationalized

Portfolio in Enterprise

BizzDesign



- The application portfolio is to be continuously inventoried All applications are prioritized:
 - According to ICT SLA (mission-, business-critical, standard)
 - Data protection-relevant data
 - Life cycle of the application
 - Further criteria
- The operation of the process has been defined
 - Resource allocation
 - Iterative, annual implementation
 - Change management

Proof of rectification of the non-conformity 1 / November 2023: The document of the asset scoping process and a list of the 200 identified applications including prioritization criteria were submitted by Fabio Morandi to FOCA on July 26th, 2024.



Systems chosen for GAP-Analysis ISMS 2025

System	Rationale	Interfaces	Stakeholder
Nova Alert NBK	Clear defined system-boundaries	Few	ICT
Netzleitsystem EVS_NLS	System in context OT	Few	OM and ICT
AOS	Large legacy system with a large number of business processes involved	Large number	ICT, large number of internal and external stakeholders

The aim of the GAP analysis:

- 1. Recognizing and addressing systemic deviations in relation to the consolidated requirements of:
 - EASA Part-IS (incl. AMC)
 - NASP-19
 - ISO/IEC 27001:2022
 - NIST CSF 2.0 (ICT minimum standard)
- 2. Definition of the design for the ISMS 2025



GAP-Analysis: Lessons learned

The working hypothesis was: We are looking for similarities between the applications so that we can define generic application-specific policies and fix the deviations step by step. Lessons learned:

- 1. Public procurement law security is only one aspect of all evaluation criteria. Not every security requirement can be a deal breaker.
- 2. The technical heterogeneity of the applications and the OT is so great that individual security solutions must be found.

The ISMS Policy Framework will cover the generic ISMS requirements (in particular those of ICT operations) and thus the basic protection («Grundschutz»).

The information security of applications will follow the information security approach of the federal government.

Analogous to Hermes, we will define the security classification with a protection needs analysis («Schuban») and then the individual security solution with an ISDS concept. In doing so, "exceptions to policy" will have to be documented and approved.



Nächste Schritte und Zeitplanung der Umsetzung

Development of a consolidated GAP checklist	Aug. 2024
Conducting GAP analyses (systems: Nova Alert NBK, EVS_NLS network control system, AOS)	SepDec. 2024
End of ISMS 2025 Design	Dec. 2024
Implementation and certification of ISMS 2025 (Stage One Audit: July 2025)	Oct. 2025
FOCA execution notice for NASP-19 and EASA Part-IS	Oct. 16, 2025
Project end	Dec. 2025





Kontakt



Fabio Morandi

Head ICT Security Services
Information, Communication and Technology
fabio.morandi@zurich-airport.com

+41 43 816 75 08

Speakers – Representatives of the industry

EPILATUS



Veselin MonevInformation Security
Officer

Dr. Veselin Monev is a published author in information security, contributing several articles and co-authoring a textbook in the field.

He holds a Doctorate in Security Strategies and Policies and a Master's degree in Cybersecurity, along with professional certifications as a Certified Information Systems Auditor (CISA), CompTIA Security+, and ISO 27001 Lead Auditor.

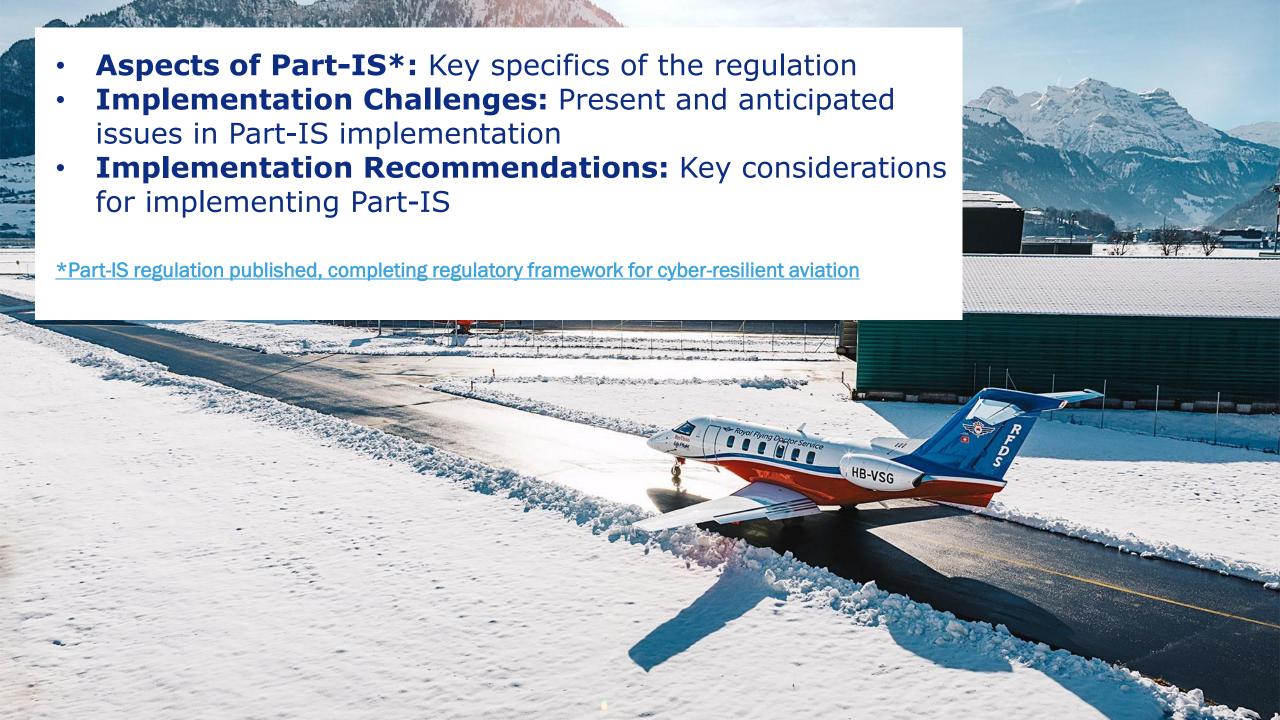
In his current role as Information Security Officer at Pilatus Aircraft, he drives key security initiatives and provides advisement on security strategies across all organizational levels.

His responsibilities include implementing rigorous controls based on frameworks such as ISO 27001, ISO 27002, CIS Critical Security Controls, and NIST, and now leading the implementation of Part-IS.



Aspects of Implementing Part-IS Speaker: Dr. Veselin Monev







Aspects of Part-IS Regulation and Guidance Publications

- InfoSec dominant: Mostly conventional InfoSec controls; InfoSec terminology.
- **EASA-style**: Some controls adjusted to EASA compliance practices (e.g. ISMM, reporting requirements).
- **Small:** Significantly fewer number of security controls compared to generic InfoSec frameworks (e.g. ISO 27001 and NIST SCF).
- Complicated: A heavy reading for the regulation(s) and guidance.
- Target readers: Interpretation primary by InfoSec specialists necessary.
- Focal controls: Risk Management, Security Incident Management, Vulnerability Management, Human Resource Security, Reporting.
- Abstraction: A mix of very abstract controls and some specific requirements.

Implementation Challenges (1)



- Competences and team: Teamwork of diverse specialists with ISMS, InfoSec, IT, OT, and aviation expertise.
- **Risk assessment and planning:** Initial ISMS-level of risk assessment to define specific security measures and an implementation plan.
- **Asset-oriented risk assessment**: Possible redesigning an existing risk management process.
- **Regulatory clarity:** Risk of potentially misaligned interpretation of requirements by EASA due to the lack of or different interpretation.
- Collaboration: Discovery and alignment with organizational entities.
- Cultural change: Potentially a significant cultural change.
- Increased costs: Ongoing operation resources for ISMS operation.

Implementation Challenges (2)



- Revision of enterprise strategies and processes: Adjustment or complete revision of InfoSec and non-InfoSec strategies and processes may be necessary.
- Language: Finding a common working and document language in a multinational setting.
- Part-IS guidance limitations:
 - Suitable for medium to large organizations only
 - No guidance for transforming/updating an existing ISMS
 - No guidance on supporting technical tools, e.g., a GRC tool
 - No methods, templates, and tools
 - InfoSec-expert level of interpretation necessary
 - High-abstraction degree of many guidelines

Implementation Recommendations (1)



- Securing management buy-in and continuous leadership support.
- Preliminary requirements analysis and ISMS implementation concept.
- RFP and an evaluation scheme to select the right consultancy partner.
- A thorough project management plan with streams and work packages.
- Stakeholder management.
- Roles and responsibilities.
- · Project schedule, issues, risks, and task management.
- SPOCs from all major organizational entities, and specific departments.
- Resource availability planning.

Implementation Recommendations (2)



- A decision-making matrix, approved by the CEO / accountable manager.
- GRC tool stream.
- Regular working, core team and steering meetings.
- · Initial risk assessment with asset discovery phase.
- Project escalation processes.
- Document discovery and review.
- Subject-matter specialists and interviews.
- Review of existing tools.
- Definition of implemented security controls/requirements.

Implementation Recommendations (3) Implementation milestones



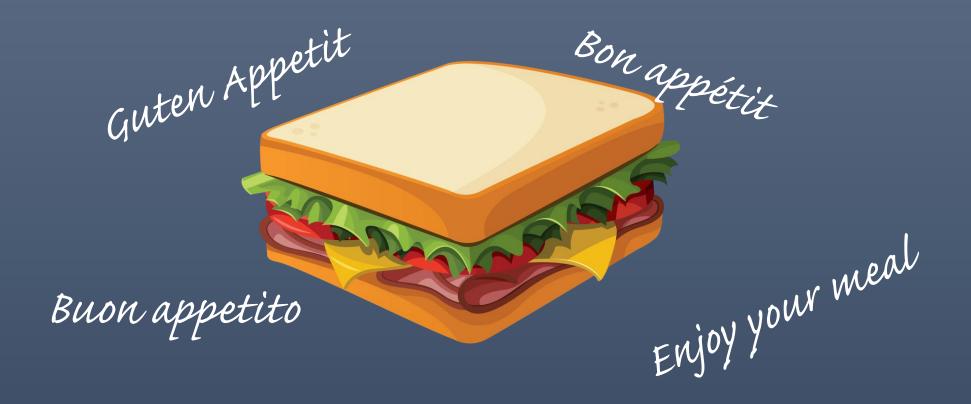
S		_		_	
tive	Part-IS review by	RFP; Partner selection;	Project planning		
Objectiv	InfoSec and aviation	Team creation;	of concept and	Execution of	Transition project
	specialists	Management buy-in	project request	project plan phases	to operations
tputs	ISMS	Project request;	A detailed	Various: analyses,	ISMS core processes
	implementation	Business case approval	project plan	documents,	executions
no	concept			approvals, tools,	
		•	'	decisions, risk	
				assessment, action	
				plans, hirings, etc.	

Questions and answers



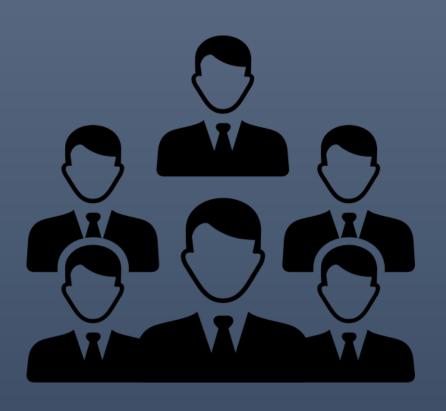


Lunch Break



13:00 – 14:00

Panel Discussion



- 1. What are the threat scenarios to get protected from?
- 2. ISMS vs. SMS What is the difference?

Participants choice:

 What competencies does our organisation need in order to meet the required criteria?

Questions & Answers



..because we care industry is the Swiss aware!



Conclusion

Implementing EASA Part-IS may not be as difficult as it seems for several reasons:





Clear Guidelines and Standards: The Easy Access Rules of Part-IS provides well-defined guidelines specifically tailored for the aviation industry, simplifying compliance efforts.



Integration with Existing Compliance Frameworks: Many aviation organisations already adhere to similar standards like ISO 27001 or other cybersecurity frameworks. These existing frameworks share foundational principles with Part-IS, allowing companies to adapt and build on current processes rather than start from scratch.



Availability of Support and Resources: There is a lot of resources available on the internet which support organisations on an ISMS implementation. This, combined with the availability of consultants and third-party experts, can ease the transition by providing practical solutions and best practices.



Scalability: An ISMS is scalable and suitable also for small organisations due to its adaptable, risk-based approach that can be tailored to the organisation's specific potential safety impact.



FOCA would like to thank all of you for your participation, contribution and attention to this event and wishes you a safe journey back home and a relaxing weekend.