

CANSO

Supporting ATM industry in its transformation towards cyber-resilience

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About CANSO

Purpose

To create value for its Members by being the global and regional voice of ATM and by facilitating and supporting improvements in global and regional ATM performance

Membership

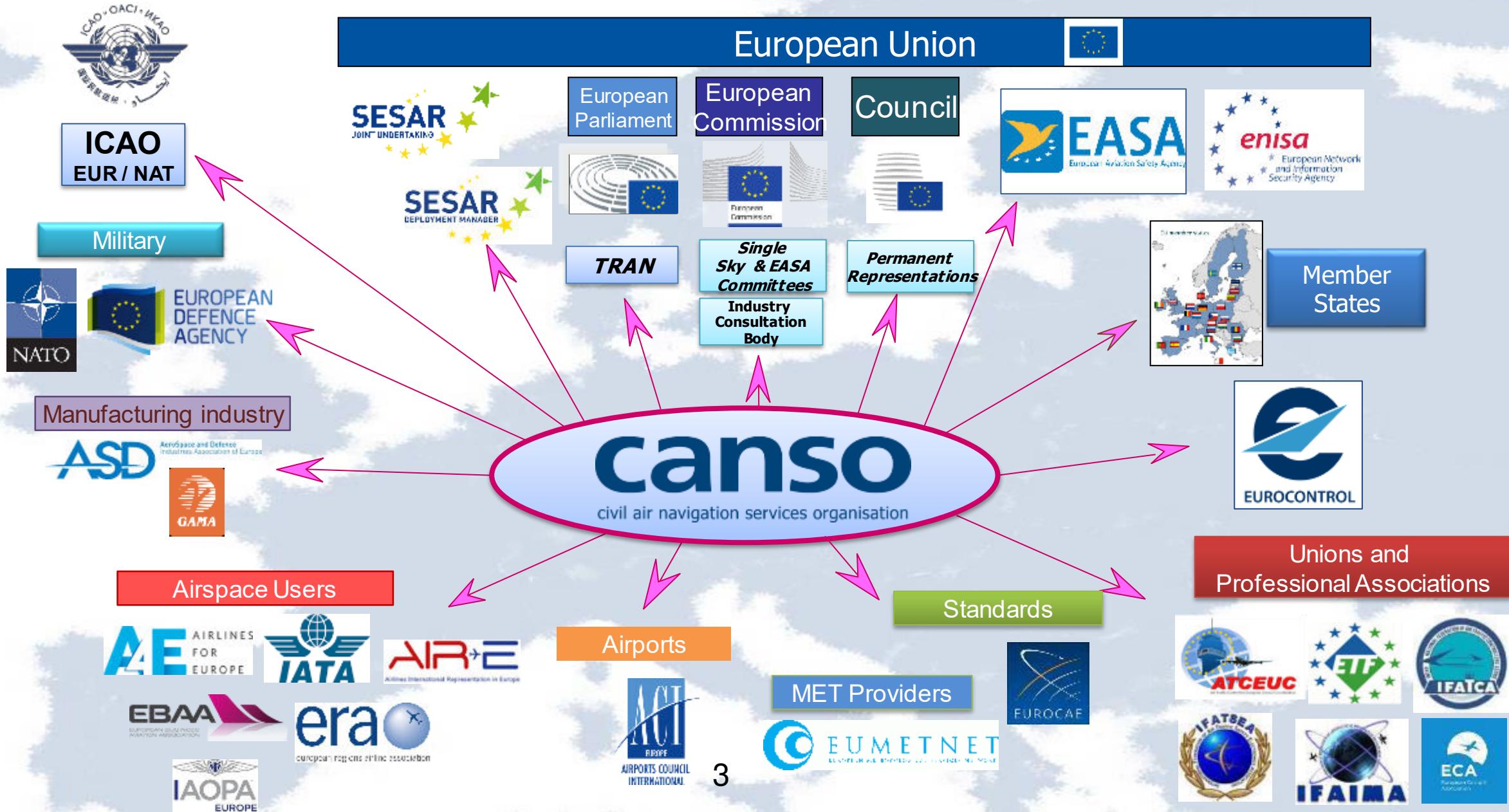
90 Full Members (ANSPs) representing 90% of the world traffic

90 Associated Members (Organisations that supply goods and services to the air traffic management industry, as well as academic institutions and aircraft operators)

Global Membership and Regional Membership

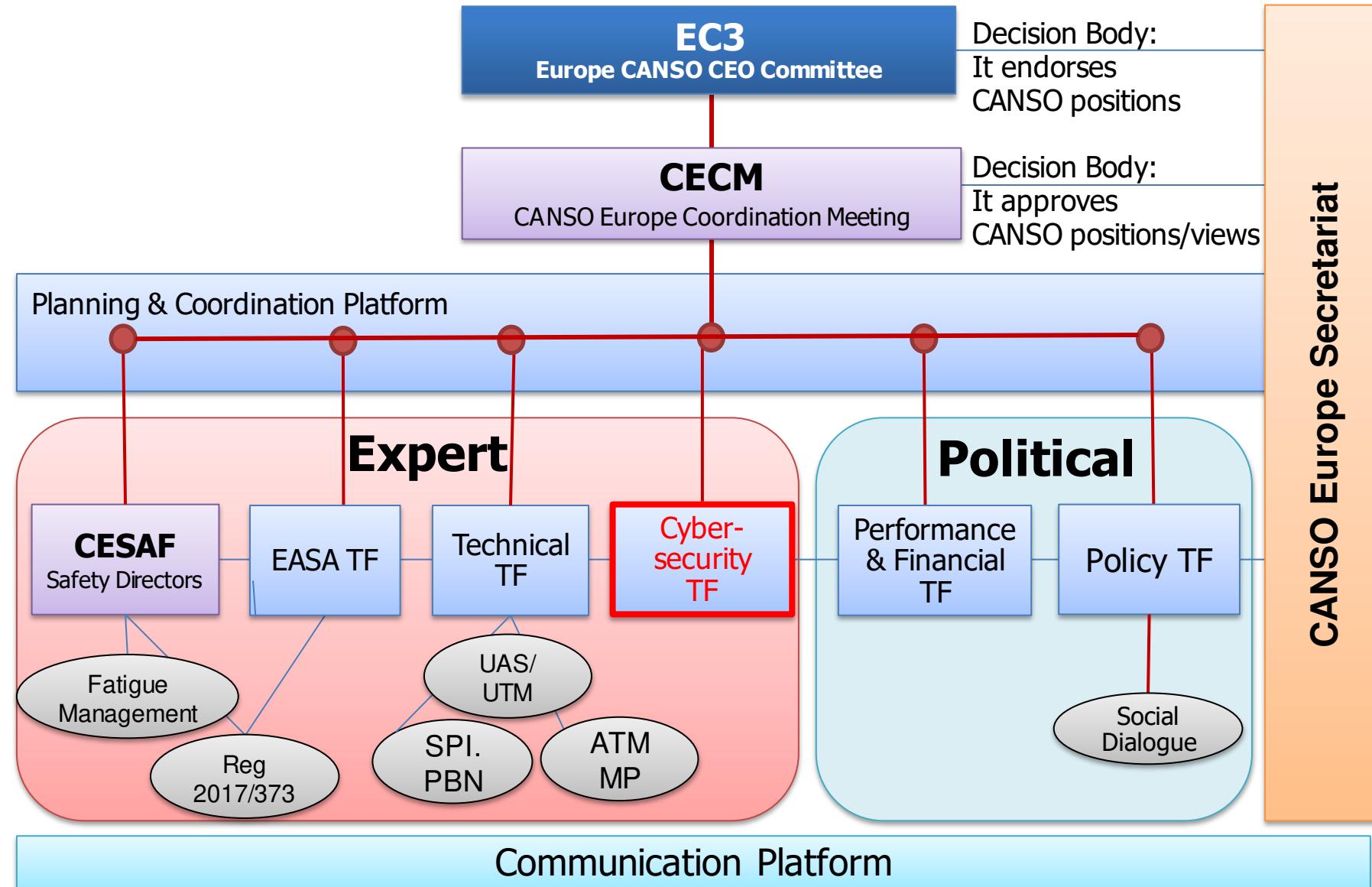


The European Landscape





CANSO Europe Structure 2019





CANSO EUR Work Programme 2019

Develop a CANSO wider vision on Cybersecurity outlining what is the role of CANSO on this subject and what is the role of ANSPs

Exchange best practices (e.g. support the implementation of NIS Directive)

Monitor the work of the European Centre for Cyber Security in Aviation (ECCSA)

Prepare meetings of the European Strategic Coordination Platform (ESCP)

Influence the European regulatory/oversight framework in the field of information security

Monitor and contribute to EUROCAE activities





Landscape in Cyber security

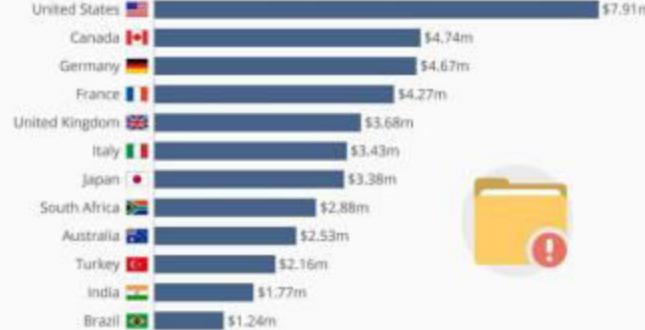
This you already know



and this also

Average Cost Of A Data Breach Highest In The U.S.

Average total cost of a data breach by country in 2018:



©HenneCharts Source: IBM



Forbes statista

NIS Directive ? Your Member State's implementation status ?

Existing standards (ISO, EUROCAE, EN CEN, NIST...) ? Already in use in your ANSP ?



CANSO view on EU Cybersecurity Strategy

Fruitful discussions with EASA, and other stakeholders

CANSO supports a focused, concise European Cybersecurity Strategy

Discussions to follow dealing with the associated Implementation Plan and updating process

CANSO will support working groups in ESCP and work streams when clear objectives and deliverables are agreed

CANSO offered a dedicated proactive measurement of Cyber maturity for ANSPs, which could be extended to other stakeholders

- Developed jointly with Eurocontrol, participation of a sample of ANSPs
- Similar to the Effectiveness of Safety Management evaluation (SES – Performance Regulation)
- Provides a clear view of compliance to various existing standards/frameworks





Network Manager
nominated by
the European Commission

ATM Cybersecurity

Maturity Model – Level 1



Business objectives
Threat environment & cyber-risks
Requirements and controls

High-level model

Function	Category	Description (from NIST)	Maturity levels				
			Level 0 - Non-existent	Level 1 - Partial	Level 2 - Defined	Level 3 - Assured	Level 4 - Adaptive
LEAD and GOVERN (LG)	Top management demonstrate leadership and commitment to	LG.GV-3: Legal and regulatory requirements regarding cybersecurity, including privacy and civil liberties obligations, are understood and managed					
			<ul style="list-style-type: none">COBIT 5 MEA03.01, MEA03.04ISA 62443-2-1:2009 4.4.3.7ISO/IEC 27001:2013 A.18.1NIST SP 800-53 Rev. 4 -1 controls from all families (except PM-1)COBIT 5 DSS04.02ISA 62443-2-1:2009 4.2.3.1, 4.2.3.3, 4.2.3.8, 4.2.3.9, 4.2.3.11, 4.3.2.4.3, 4.3.2.6.3NIST SP 800-53 Rev. 4 PM-9, PM-11				
			LG.GV-4: Governance and risk management processes address cybersecurity risks				
Security Management System (LG.SM)	The organization has a set of interacting elements that	LG.SM-1: A Security Management System is established for information / cyber security purposes.	Primarily ISO 27001				
			None	Low	Medium	High	Very High



CANSO welcomes the articulation with NIS Directive implementation for Operators of Essential Services

- Refer to CANSO members' feedback on implementation of NIS Directive in their respective Member State – to be progressed and monitored, with a view to sharing best practices among ANSP members

CANSO supports a stepped-approach towards introducing requirements in Cyber for Aviation, based on established standards/frameworks, recognized/demonstrated best practices and trust among aviation stakeholders

- CANSO will provide comments to the NPA when published



Standardization and support activities (ECSCG, EUROCAE, CEN, ECAC, ECTRL...)

European Cyber security for aviation Standards Coordination Group (ECSCG)

CANSO has been invited by EUROCAE and the European Commission to join the European Coordination Group for aviation cybersecurity-related standardisation matters (covering among others EC, ENISA and EASA regulations)

ICAO

SSGC - Draft ICAO "Civil aviation cybersecurity strategy" and INNOVA - "Trust Network" for aviation

Note:

The number of working groups dealing and producing Cybersecurity related information is overwhelming

In contrast with Expert resources which are rare

EUROCONTROL cybersecurity services

- Document/information leaks
- Cyber Threat Intelligence (CTI)

CANSO welcomes the support offered which complements existing efforts by ANSPs



Thank You!

Let's not forget that...

Safety is – and will remain – aviation's number one priority