

Speaker Bio

- Predrag is an experienced **senior aviation expert** with a demonstrated history of working across the aviation industry, in both private and public international sectors.
- Skilled in air traffic management (ATM) policy planning and development, ATM innovation and deployment, international relations and negotiation, Predrag has held various roles since **joining EUROCONTROL in 2009**.
- This also includes the secondments to **the European Commission's DG MOVE** where he worked on the Single European Sky 2+ file, to the **SESAR Deployment Manager**, where he led ATM implementation programmes, and more recently, leading the establishment of the **CNS Programme Manager** in EUROCONTROL.
- **Currently, Predrag leads the Strategy, Engagement and Institutional Relations team and serves as a senior advisor to the EUROCONTROL Director General.**



Predrag VRANJKOVIC
Head of Strategy, Engagement
and Institutional Relations
EUROCONTROL

ICAO EUR/NAT/MID GNSS RFI Workshop (Doha, Qatar, 18-20 November 2025)



SUPPORTING
EUROPEAN
AVIATION

Doha, Qatar, 18-20 November 2025

BUILDING THE EUROPEAN RESILIENT OPERATIONAL NETWORKS (RON)

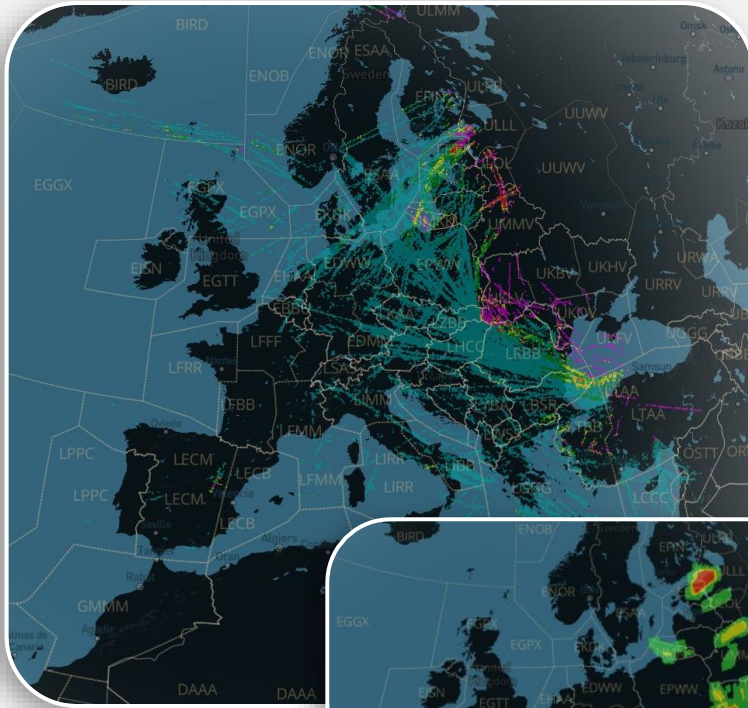
JOINT ICAO EUROPE AND NORTH ATLANTIC (EUR/NAT)
AND MIDDLE EAST (MID) WORKSHOP ON THE GLOBAL
NAVIGATION SATELLITE SYSTEM (GNSS) RADIO
FREQUENCY INTERFERENCE (RFI)

Predrag VRANJKOVIC

Head of Strategy, Engagement and Institutional Relations

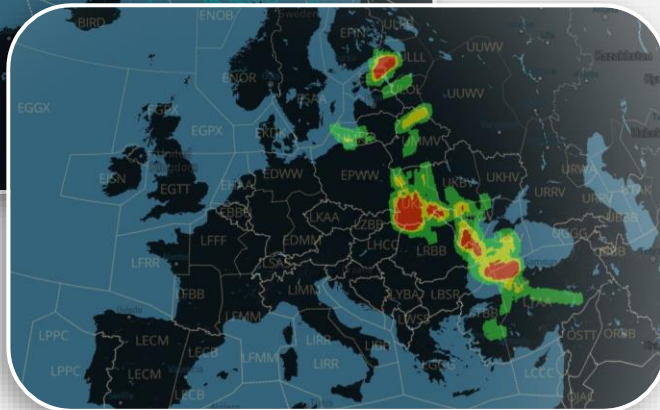


EUROCONTROL GNSS RFI MONITORING TOOL



2018 – 2022: GNSS RFI becoming part of daily OPS in some regions, no longer just a “contingency” – it is “normal” operation.

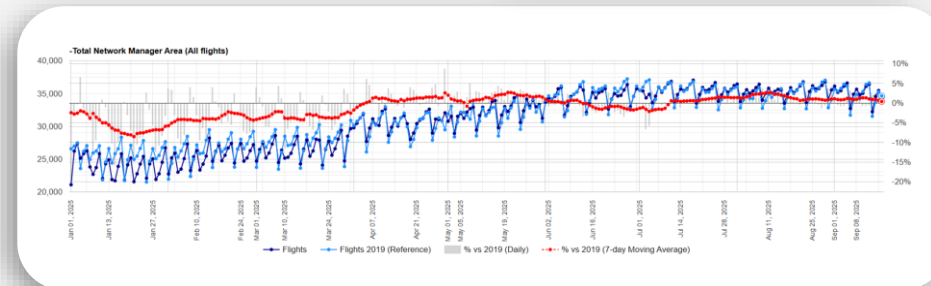
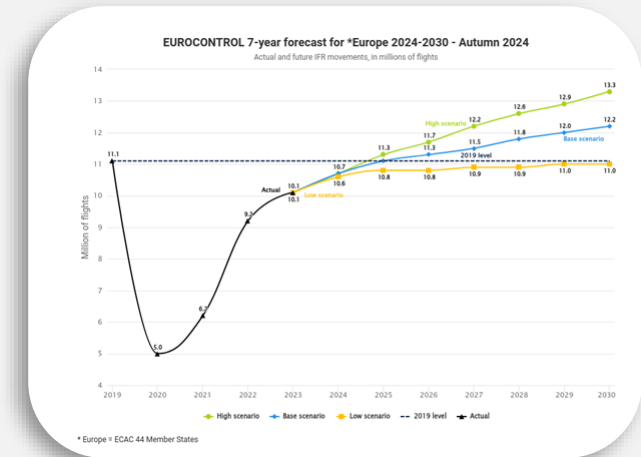
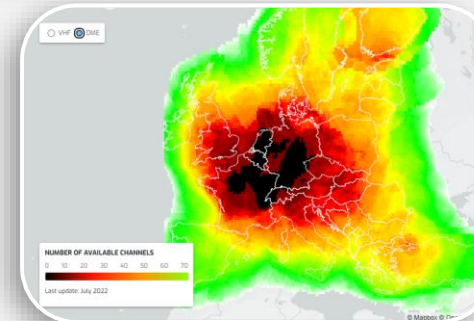
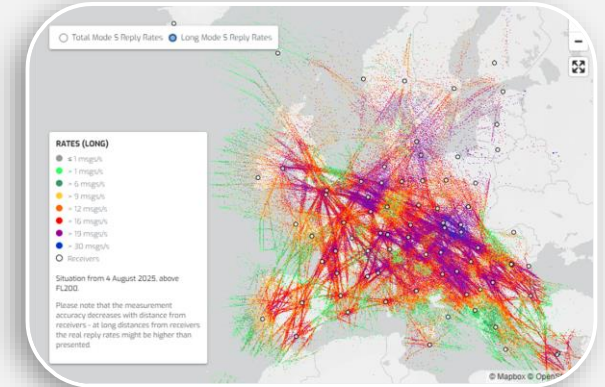
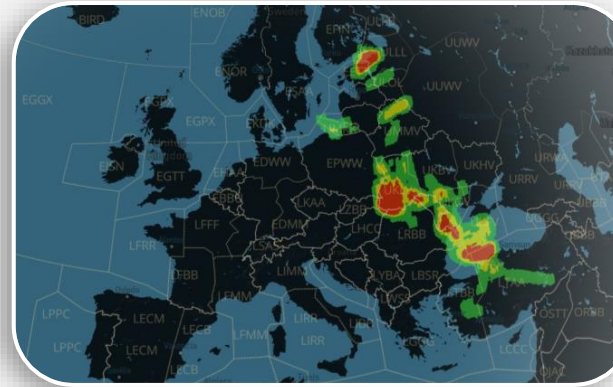
2023 – 2024: Escalation to collateral spoofing, impact can get significant including no recovery of GPS until arrival destination. Some diversions!



- ICAO 42nd Assembly, Outcome of Technical Commission, WP696, section 24.70ff
 - “The Commission supported the multi-faceted approach for mitigating GNSS RFI, including the development of **real-time GNSS monitoring and analysis systems**.”
 - Assembly Resolution (41-8C update) *Encourages* standardization bodies and industry to develop appropriate **interference detection**, mitigation and reporting capabilities

BUILDING THE EUROPEAN MON/RON

- Strong need for efficiency and resilience:
 - Traffic growth
 - Shortage of frequencies
 - 1030/1090 MHz congestion
 - GNSS RFI (EASA – EUROCONTROL Joint Action Plan)
 - New threats (drone incursions, cyber, etc.) - require expanded approach to ensure strong resilience
- CNS Programme Manager



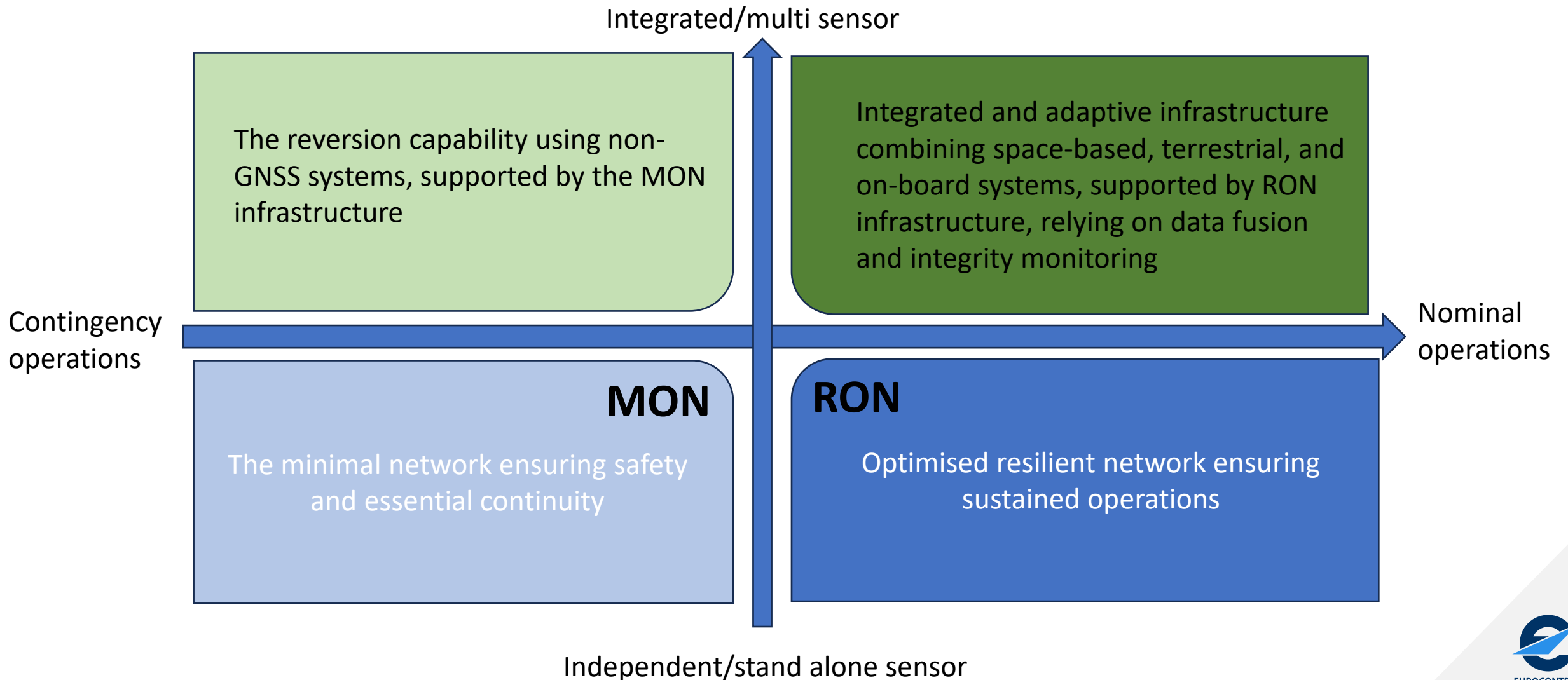
THE ESSENCE OF THE EUROPEAN MON/RON CONCEPT AND DESIGN CRITERIA:

MARRIAGE OF THE NETWORK AND NATIONAL APPROACH

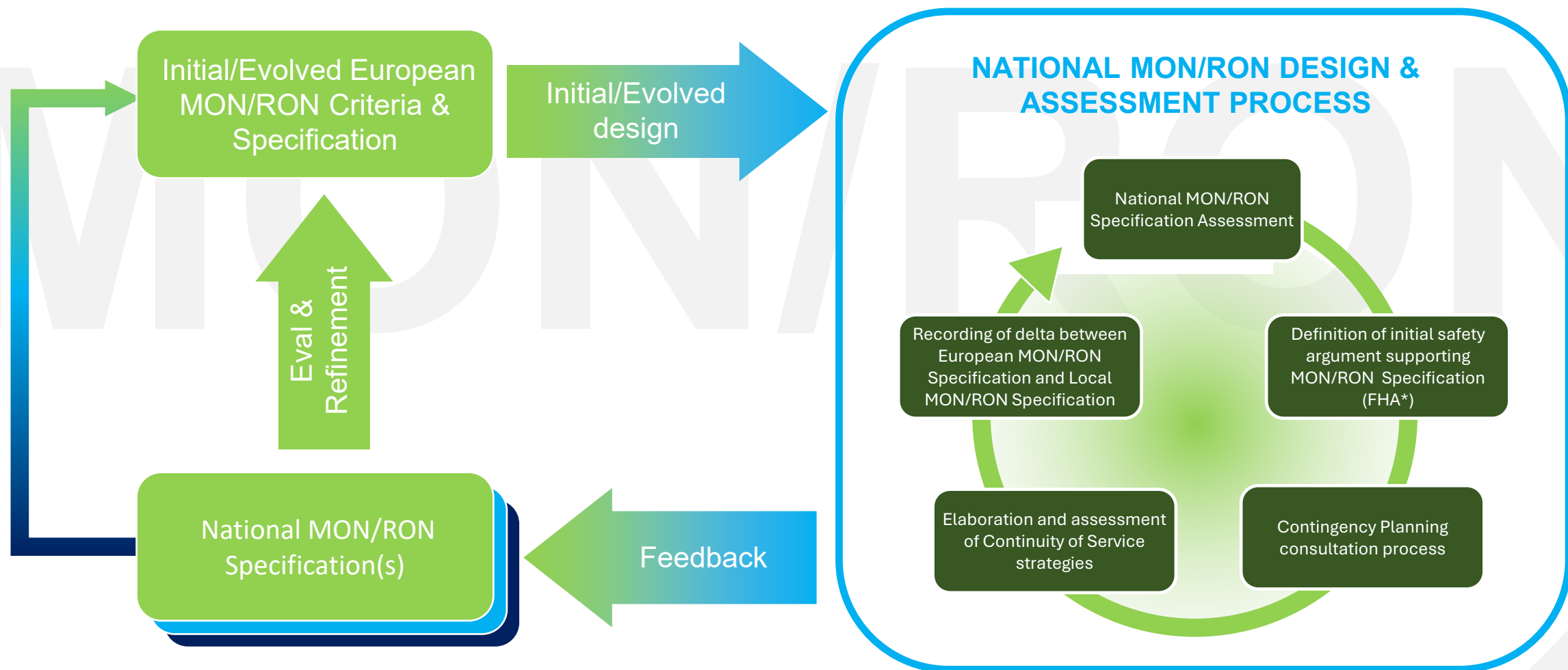


Working **together** to achieve the **most optimal** and harmonised approach to CNS in the network.

TRANSITION TO RON APPROACH



SYNC BETWEEN EUROPEAN-NATIONAL MON/RON



EUROPEAN MON/RON DESIGN

DATALINK AND COM
TEAM



COMMUNICATION

*Voice
(en-route and TMA)*

NAV TEAM (PBN,
TOOLS – DEMETER)



NAVIGATION

*RNAV 5 en-route
RNAV 1 TMA
(using DME)*

SUR TEAM (e.g.
SASS-C)



SURVEILLANCE

*Independent layer of
cooperative surveillance
(en-route and TMA)*



TIME

TRANSVERSAL



SECURITY AND **CYBERSECURITY** IN GEOPOLITICAL CONTEXT
CIVIL-MILITARY SYNERGIES, REGIONAL ASPECTS,
SUSTAINABILITY ASPECTS, HUMAN ASPECTS, ETC



STATE OF THE DEFENITION OF NATIONAL MON/RONs AS OF JUNE 2005

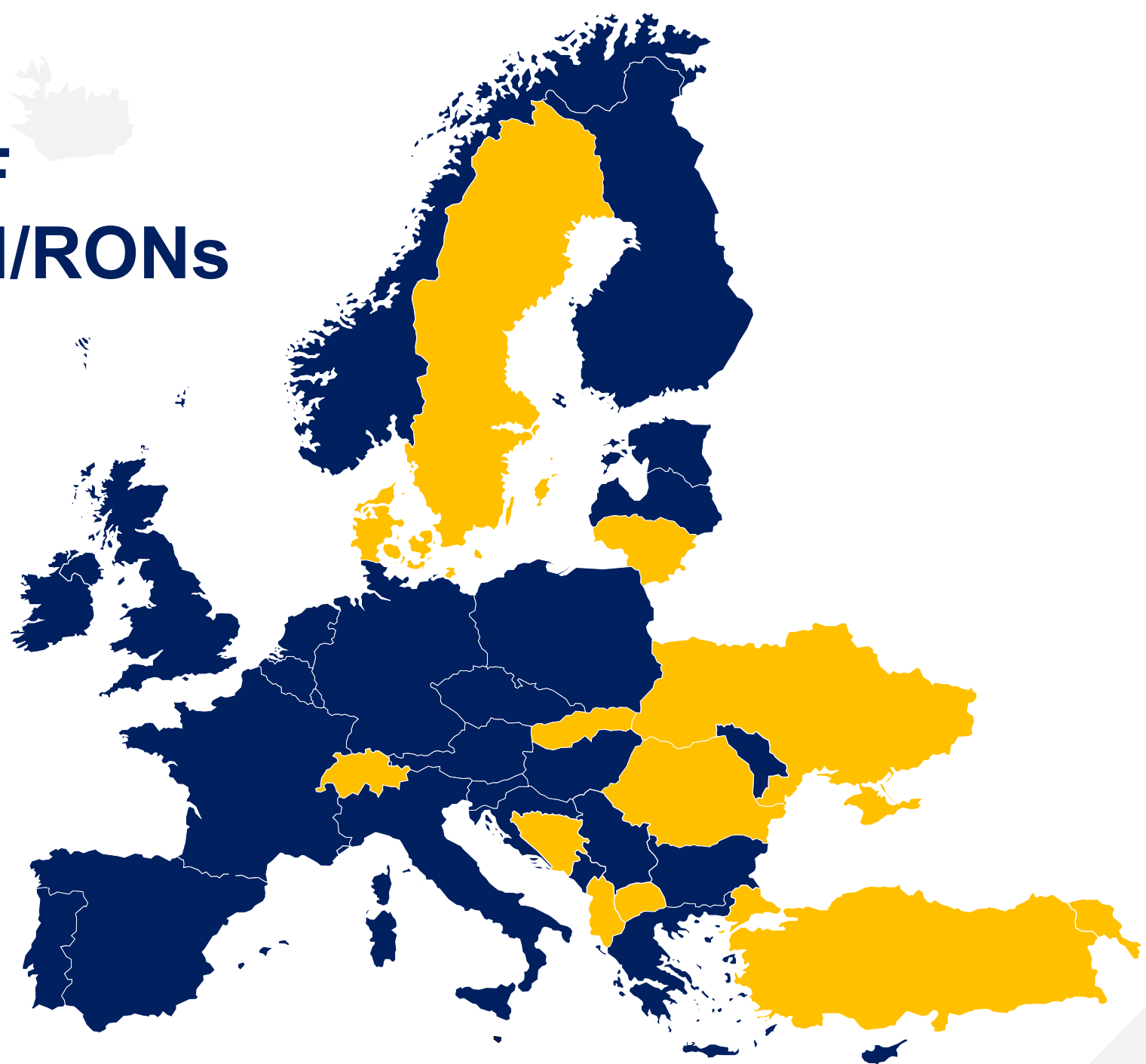
Data source:

2024 LSSIP+ Cycle, Bilateral CNS
Optimisation Workshops (14 in 2025)

LEGEND

Work in progress

Not started



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NEXT STEPS? REALITY CHECK

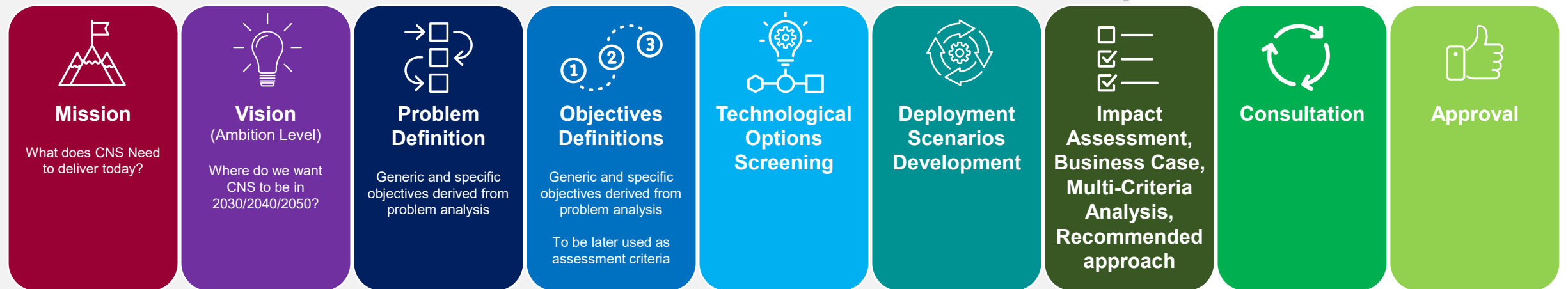
BASED ON THE EXPERIENCE GAINED FROM 14 NATIONAL VISITS AND CHANGING OPERATIONAL AND GEOPOLITICAL LANDSCAPE IN THE NETWORK:

1. Revisit the European MON/RON approach to appropriately address the resilience aspects (new threats, especially at Eastern borders and South-Eastern borders of the network).
2. Implement the new ICAO approach (Assembly 42) to move towards the European RON concept, ensuring the overall resilience of the CNS infrastructure to support operations.
3. Complete the European RON (initial target 2030-2035) and maintain it together with Member States and the operational stakeholders.

WHAT ABOUT LONGER-TERM EVOLUTION FOR THE PAN- EUROPEAN NETWORK?

2026 CNS EVOLUTION PLAN

WE ARE HERE



IN CNS PM WORKSTREAMS

2025

2026

COLLABORATION IS ESSENTIAL





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THANK YOU!

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