

Supporting
European
Aviation



Flagship programs for ATM transformation

Transversal view and potential flagships

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NETWORK
MANAGER



Aviation / ATM in Europe : where are we ?

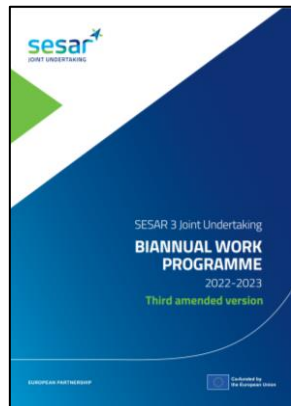
ATM performance in 2022

- 9,3 M flights in 2022 (11,1 M in 2019 / **-17%**)
- Delays 2,17 mn/ flight in 2022 (2,18 in 2019 / **-0,4%**)
 - Total 20,2 M mn delays -> **~2 G€ additional costs**
- 5 % Excess fuel burn -> **~ 2,5 MT additional fuel**
 - -> **~2,5 G€ additional costs** to airlines
 - -> **~7,9 MT additional CO2** emitted
- European ATM close to congestion again
- Preparation of Summer 2023 already a challenge

New challenges

- Decarbonisation : green trajectory
- Higher priority for military (Ukraine)
- Integration of drones
- Higher altitude operations
- Resilience / scalability against new crisis

We know what we need to do : CONOPS 2029



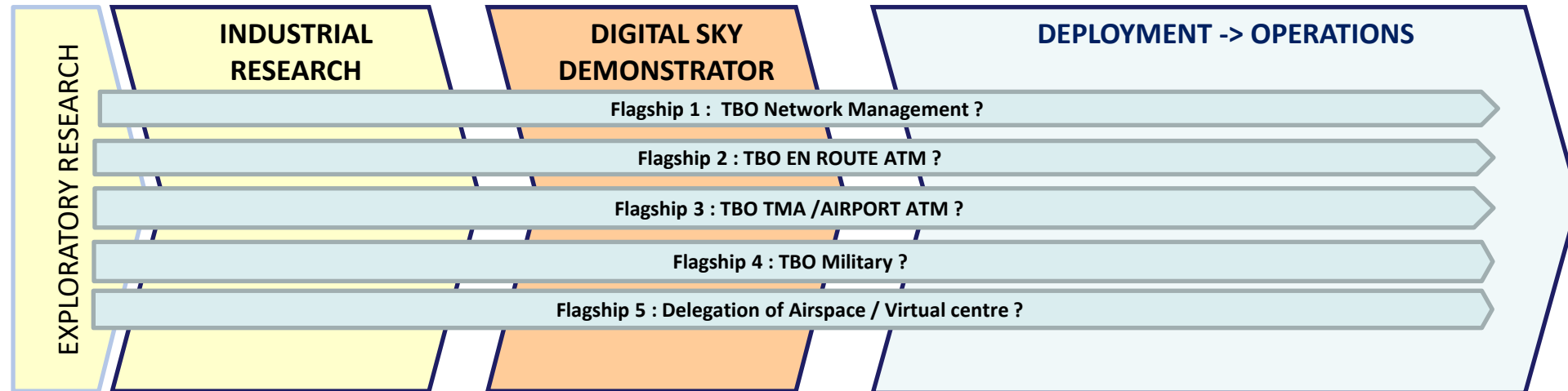
Integrates Airspace & SESAR

Approved by NMB July 2021

2029 not achievable with present working ways

Time to gear up to meet 2029 objective !

Proposal : Switch to program management & Refocus on (5 ?) Flagship programs



TBO Network Management

Trajectory prediction/update
Dynamic airspace
DCB
STAM
Traffic complexity tools
Target time contract

TBO En route

IOP coordinations
Complex 4D clearances
UDPP/ multislots swapping

TBO TMA / Airport

Airport Ops Plan
Local DCB
Total Airport Mgt
Regional airport CDM
Extended AMAN
Integrated AMAN / DMAN
CDO /CCO
Time Based Separation

TBO Military

Mission trajectory
Dynamic mobile areas

Typical timeline for rolling out a Flagship program



2023

Total 6 years

2029

Real program management & single value chain are key

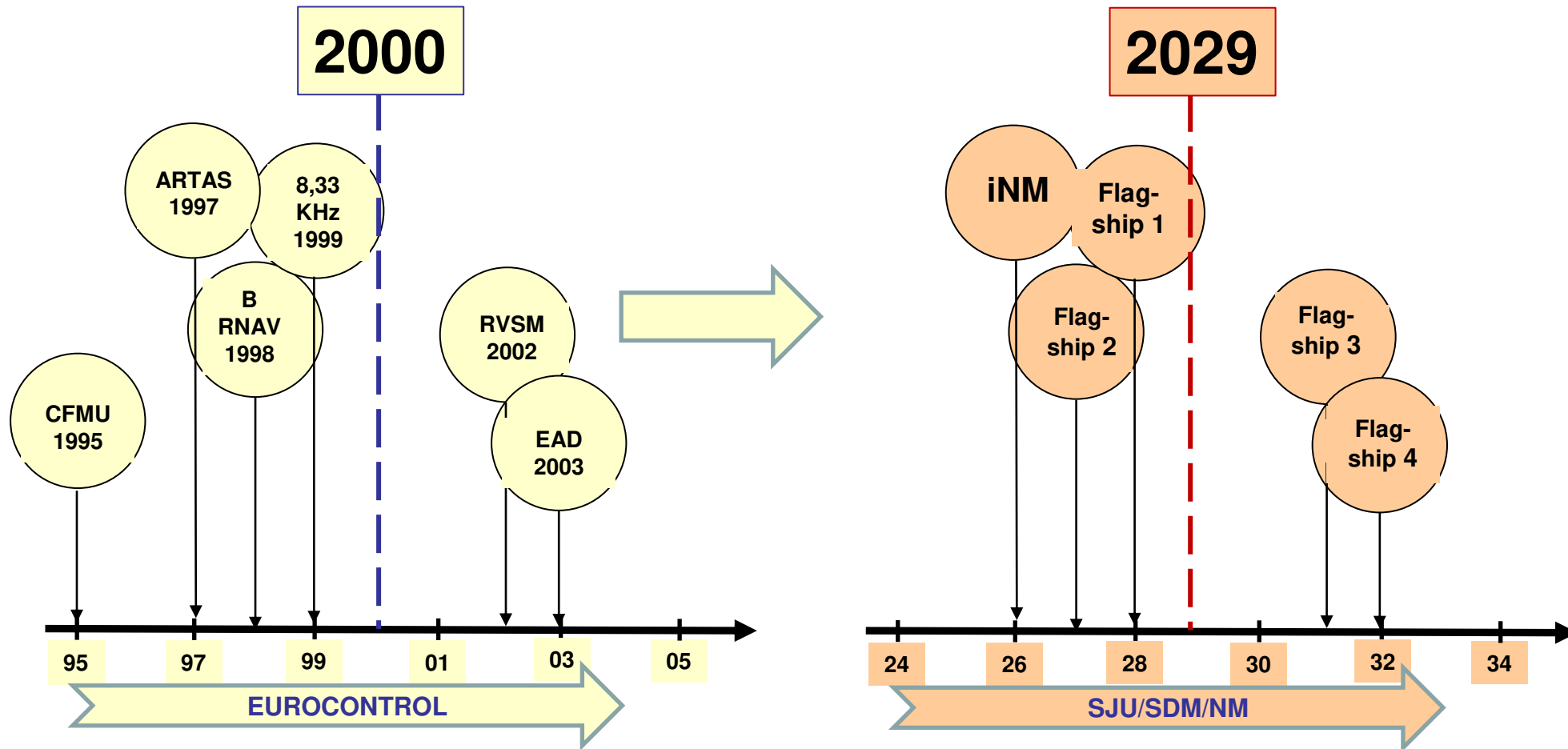
Implement real programme management

- Move in one go from innovation to Deployment & Operations
- Robust operational concept & validation process
- Agile feedback from operational people
- Bridge the industrialisation gap
- Early preparation of safety case and standards
- Early involvement of EASA and Eurocae

- **Program management relying on:**

- Ops / Tech Expertise
- Pan-European
- Test & Validation tools
- Neutrality

We need big Pan-European flagship programs again



We did it once : Let's just do it again !

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Thank you – Questions ?

