ATFM Update - EUROCONTROL

Day 1 - 16h45

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A Historical perspective

From CFMU to Network Manager

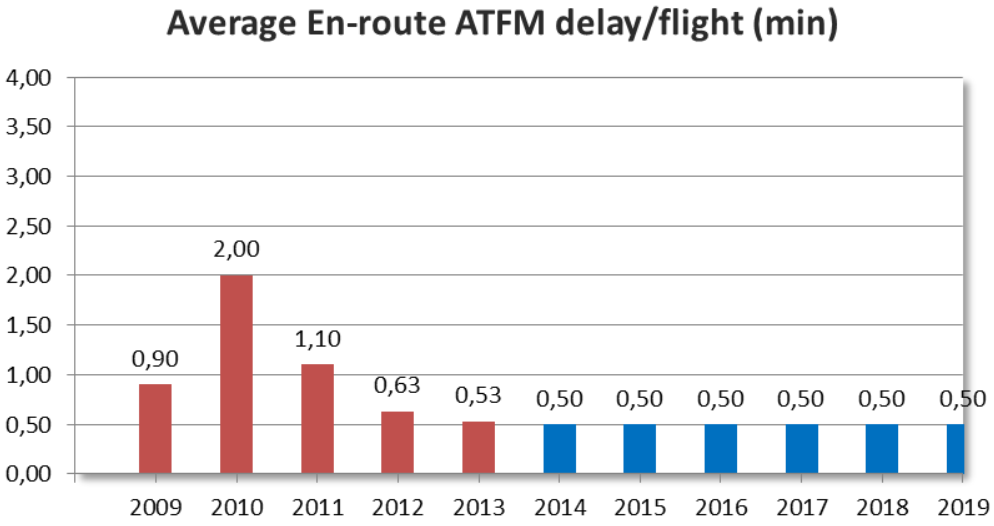
- Initial database of schedules and other pre-flight information, basic airspace structure (FIR, ACC, sectors, routes, points, aerodromes)
- PRETACT: Pre-tactical planning function identifying potential congestion problems 6 days before real time ops
- Centralised flight planning service – IFPS Centralising flight plan management regionally contributes substantially to improving both the consistency and predictability of flight demand information
- Strategic, pre-tactical and tactical ATFM operations The ATFCM activities are divided into three phases where actions ranging from strategic planning (capacity, routing schemes) to real time operations monitoring are performed

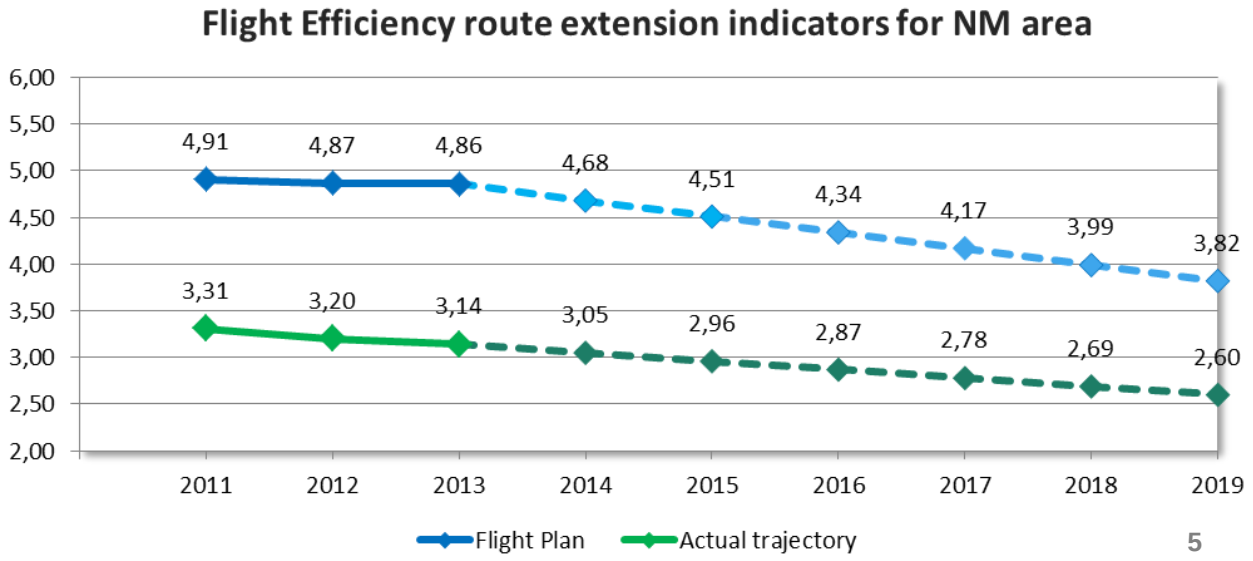
- Airspace management – FUA, CDR Flexible Use Airspace Airspace is no longer purely "civil" or "military", but allocated according to user requirements. Any necessary segregation is temporary. Conditional Route is an ATS route that is available for flight planning and use under specified conditions, that may change at specified times.
- ATFM to ATFCM protecting ATC from overloads > balancing and optimising capacity and demand.
- Receipt and distribution of real-time surveillance information
- Integrating airports and network – reduce delays and manage any conditions or events that may have an impact upon the network. Develop cooperative action plans with airports
- Network Operations linked core operational services across several domains flight plan, flow management, information management, crisis & contingency management, post-operations
- Disruption and crisis management - aims at implementing ATFCM/contingency measures to deal with any network disruptions and ensure the continuity of the operational services.

Current Focus

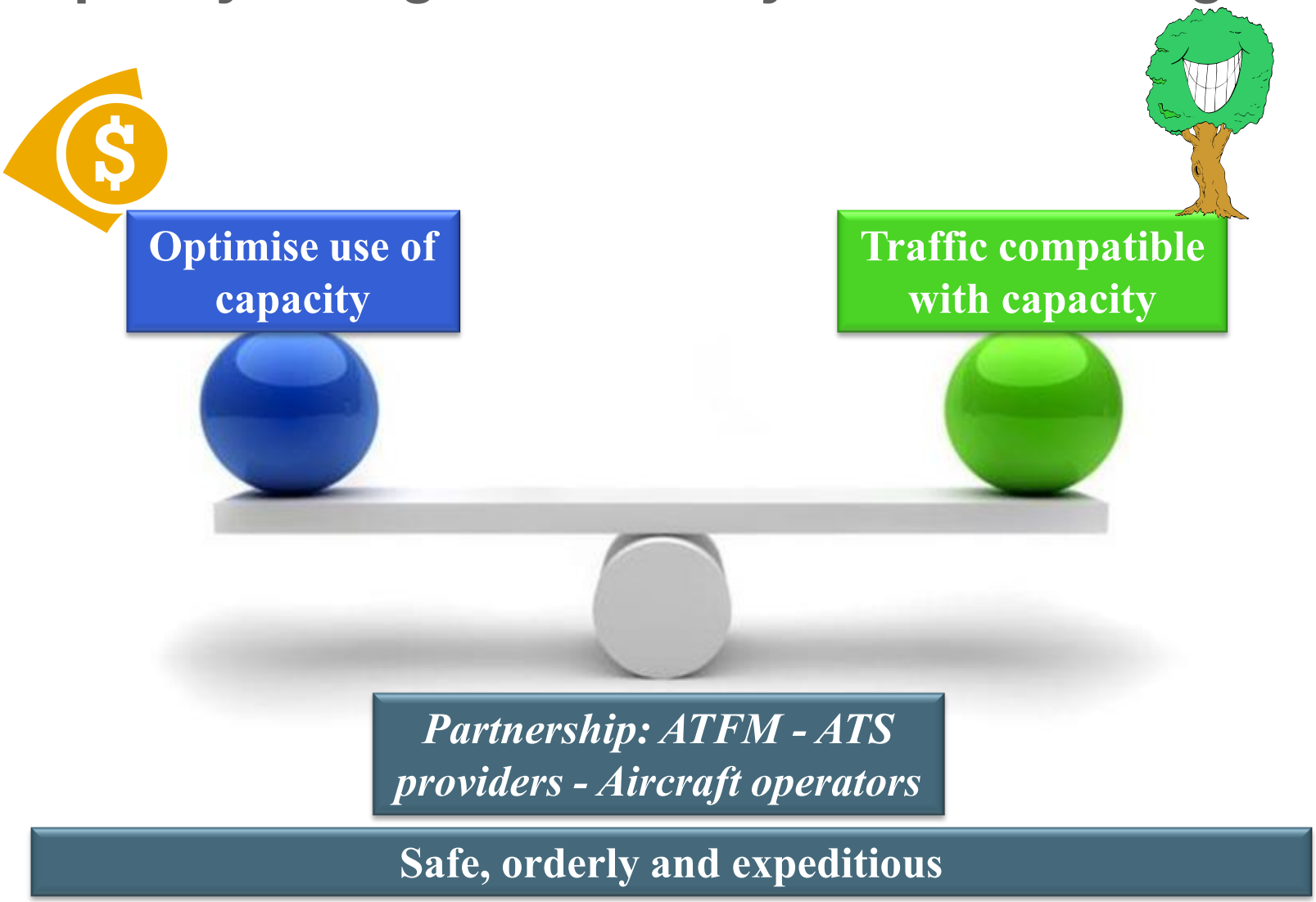
- Performance targets
- Capacity and Flight Efficiency
- The playbook
- Weather / risk assessment
- Disruption and crisis management

European delay and Flight efficiency targets





Capacity & Flight efficiency: the balancing act



The Playbook – En-Route

DELAY	PLAYBOOK	WEDNESDAY	22/10/2014				
NETWORK DELAY	2009	2010	2011	2012	2013	ER ACTUAL	NW ACTUAL
LAST 5 YEARS	31772	50464	25643	25950	15118	10033	30131
	W-4	W-3	W-2	W-1			
LAST 4 WEEKS	19956	36855	10592	15624			

ACC DELAYS CAPACITY & STAFFING

ACC	RISK INDEX	W-4	W-3	W-2	W-1	TARGET	ACTUAL	
LPPCACC	210	0	559	0	89	382	643	Plus 175 radar Mx
EDGGALL	3059	2537	215	0	3140	1107	75	
LCCCACC	761	0	145	674	572	1615	0	
EDUUUAC	759	885	1902	13	400	870	0	
LFEEACC	383	316	178	222	0	422	0	
LGGG/MD	87	0	609	86	0	0	0	
LSAZACC	82	262	56	62	27	95	0	
						TOTAL	TOTAL	
						7060	1505	
POP UP								CAUSE:
EHAAACC	195	0	135	0	0	137	573	Evening ARTIP
EDWWACC	182	247	0	0	0	168	214	Evening Berlin Approach South
SPECIAL EVENT								
LFBBALL	0	0	0	0	0	0	7577	CANATO

The Playbook – Airports

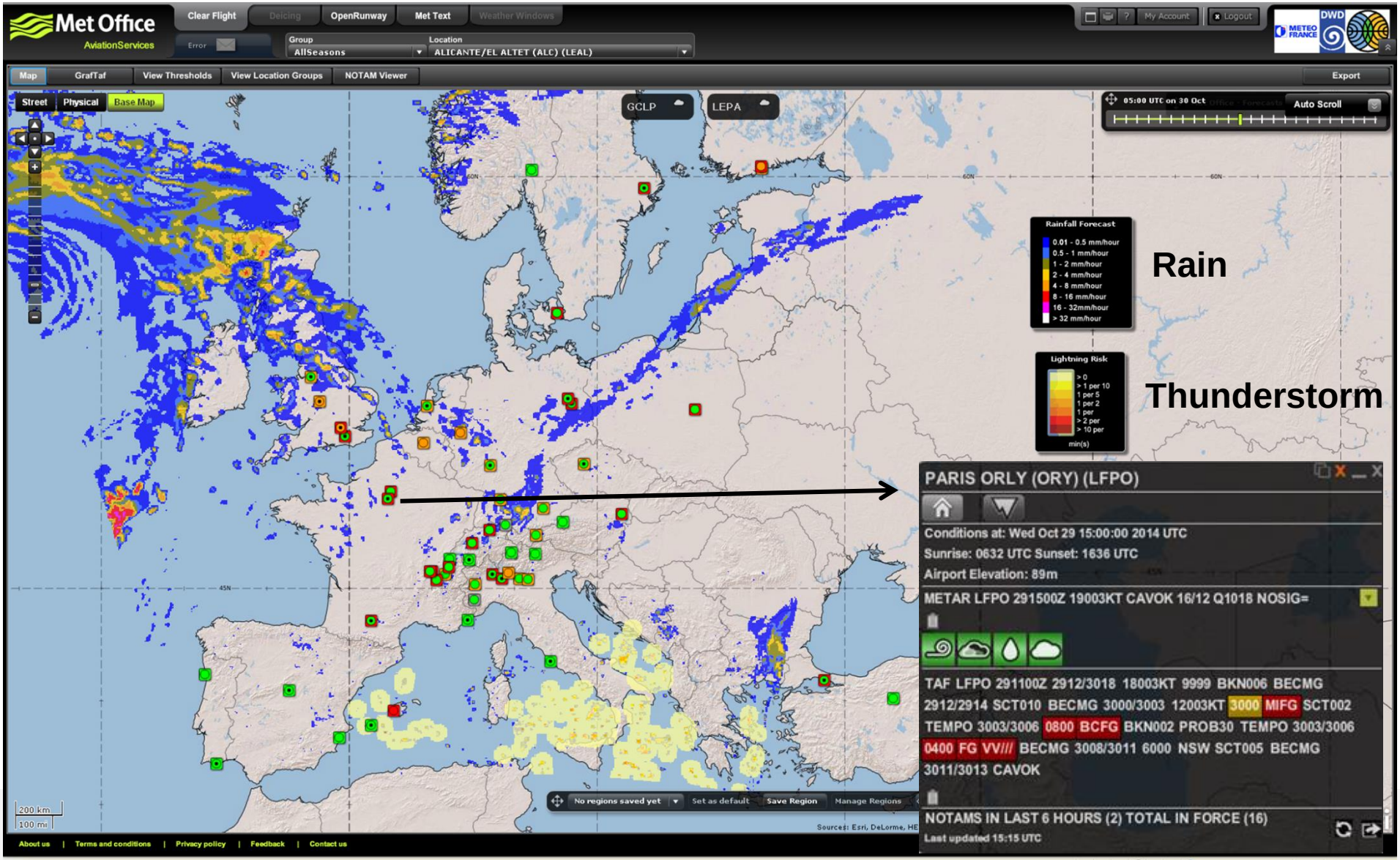
PLAYBOOK	WEDNESDAY	22/10/2014					
NETWORK DELAY	2009	2010	2011	2012	2013	AD TARGET	AD ACTUAL
LAST 5 YEARS	31772	50464	25643	25950	15118	10592	19482
	W-4	W-3	W-2	W-1			
LAST 4 WEEKS	19956	36855	10592	15624			

ADES CAPACITY DELAYS

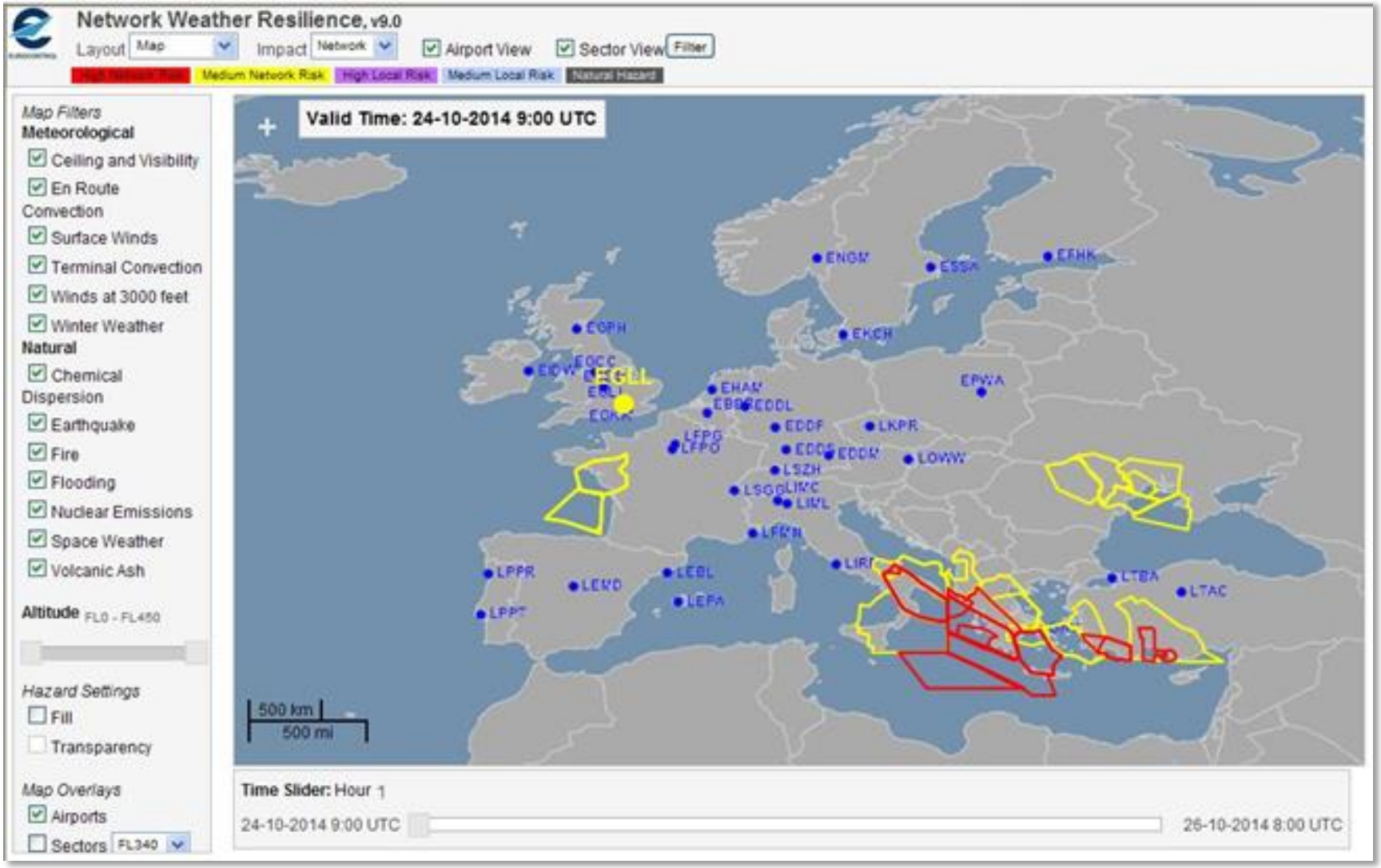
ADES	RISK INDEX	W-4	W-3	W-2	W-1	TARGET	ACTUAL	
EGLL	133	709	124	109	122	1	3345	Security incident
LTBA	189	160	988	0	0	35	2696	Runway 23
LPFR	45	0	0	0	0	0	616	Staffing
EDDL	267	576	157	631	772	62	298	Lunchtime env issues (single runway)
LPPT	1	0	0	0	0	0	271	Radar and capacity
LTFJ	282	240	723	176	136	0	243	Morning traffic peak
LFPO	132	10	329	467	245	18	232	Morning single runway (WIP???)
LSZH	914	956	996	610	850	155	0	
EHAM	335	563	0	999	1117	285	0	
LGIR	107	216	349	120	168	0	0	
LPMA	0	0	0	0	0	0	0	Measure on TMA
						TOTAL	TOTAL	
						984	9931	
POP UP								CAUSE:
LCPH	107	0	0	0	4	0	257	Midday traffic peak.
LIRF	0	0	0	0	0	0	1225	Evening WIP on taxiway

DEMOTED REASON

Weather and risk assessment – forecast



Weather and risk assessment – impact on ATFM



Robust disruption & crisis management processes

ATM Operational Processes

- Anticipate required measures
- Maintain normal operations
- Use ATFM CDM processes
- Coordinate with other regions
- Implement policy decisions
- Ensure operational information
- Manage recovery
- Conduct lessons learnt exercise

Supporting Policy Decision Processes

- Establish crisis mitigation policies
- Ensure international consistency
- Provide information to appropriate national and international decision forums
- Communicate decisions to operational stakeholders
- Conduct lessons learnt exercise

Press and public communications

Short term developments

- Traffic Load to Occupancy
- Mandatory Cherry pick
- STAM
- X AMAN
- Network A CDM
- Inter regional Flight Data Updates

STAM – Short Term ATFM Measures

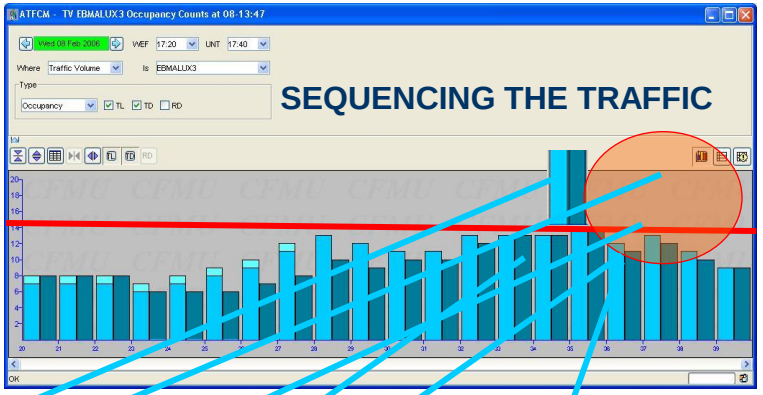
- Bridging the gap ATC ATFM
- Short Term ATFCM Measures (STAM) consist in smoothing the sector workload by reducing traffic peaks using short term measures such as small ground delay, flight level capping or small re-routings applied to a limited number of flights making the traffic less complex for ATC.
- Its main objectives are to **reduce traffic complexity** and to **streamline air traffic controller workload**, thus **improving capacity and safety**.
- Based on accurate occupancy counts

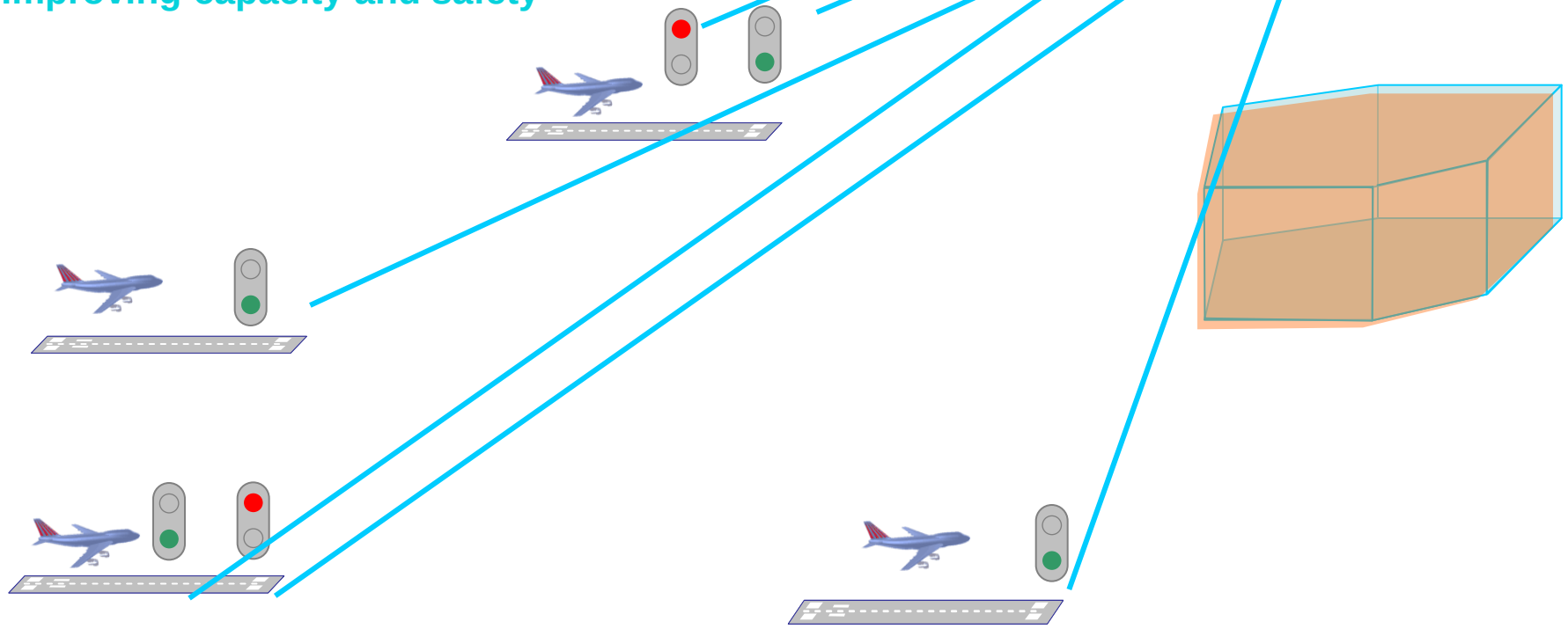
STAM PRINCIPLE

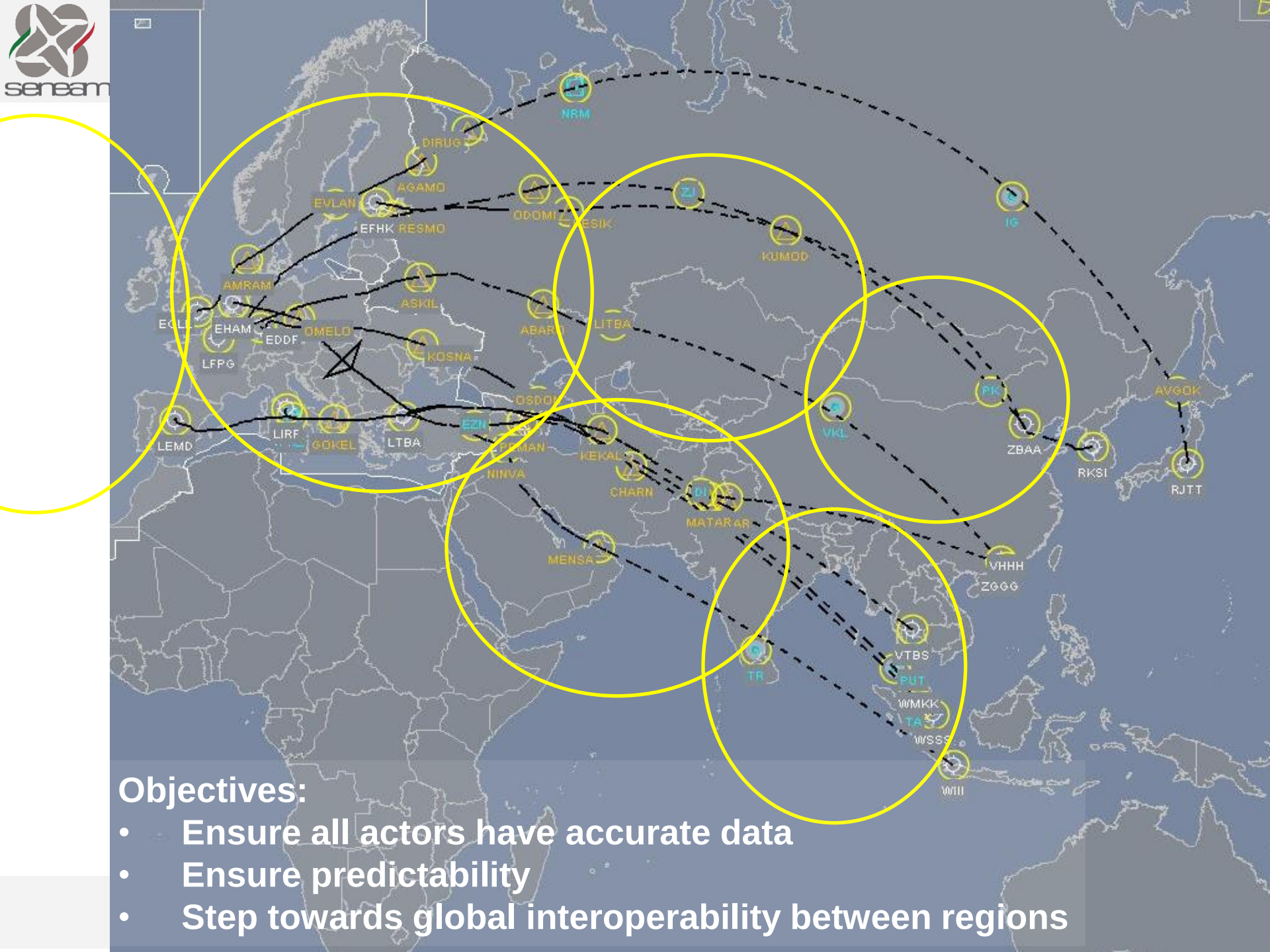
Based on accurate occupancy counts

BENEFITS:

- Less traffic complexity
- Less ATCO workload
- Improving capacity and safety





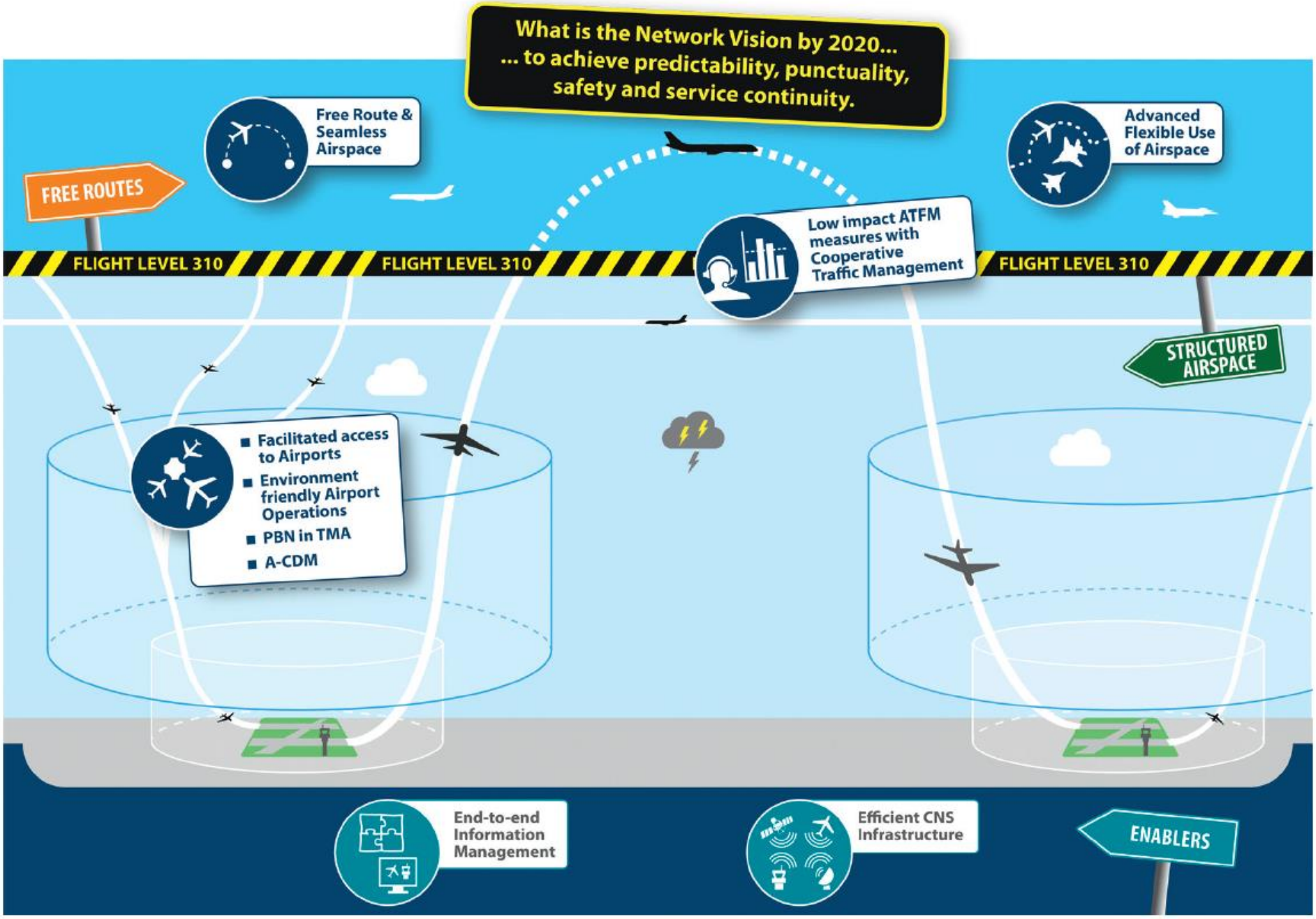


Objectives:

- **Ensure all actors have accurate data**
- **Ensure predictability**
- **Step towards global interoperability between regions**

Medium term developments

- CTM
- TTO
- 4DT
- UDPP


What is the Network Vision by 2020...
... to achieve predictability, punctuality, safety and service continuity.
Free Route & Seamless Airspace
FREE ROUTES
Advanced Flexible Use of Airspace
FLIGHT LEVEL 310
FLIGHT LEVEL 310
Low impact ATFM measures with Cooperative Traffic Management
FLIGHT LEVEL 310
STRUCTURED AIRSPACE
Facilitated access to Airports
Environment friendly Airport Operations
PBN in TMA
A-CDM
End-to-end Information Management
Efficient CNS Infrastructure
ENABLERS