

TAM – Total Airport Management

an evolutionary approach to managing an airport

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META-CDM workshop
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Knowledge for Tomorrow



Member of  **AT-One**



Content

TAM why?

TAM - What is needed? & Working with TAM

DLR - Recent Work & Outlook



Airport Processes

Airside

Landside

Hamburg
Airport

Taxiing

ARR/DEP

ATC/Airport

ATC

D

E

Terminal

objective:

processes on landside and airside should be better coordinated, optimised and operated on the basis of performance indicators, which are mandatory for all the stakeholders involved in the processes

→ Total Airport Management

Water
More than one provider

Waste
More than one provider

Jetway
More than one provider

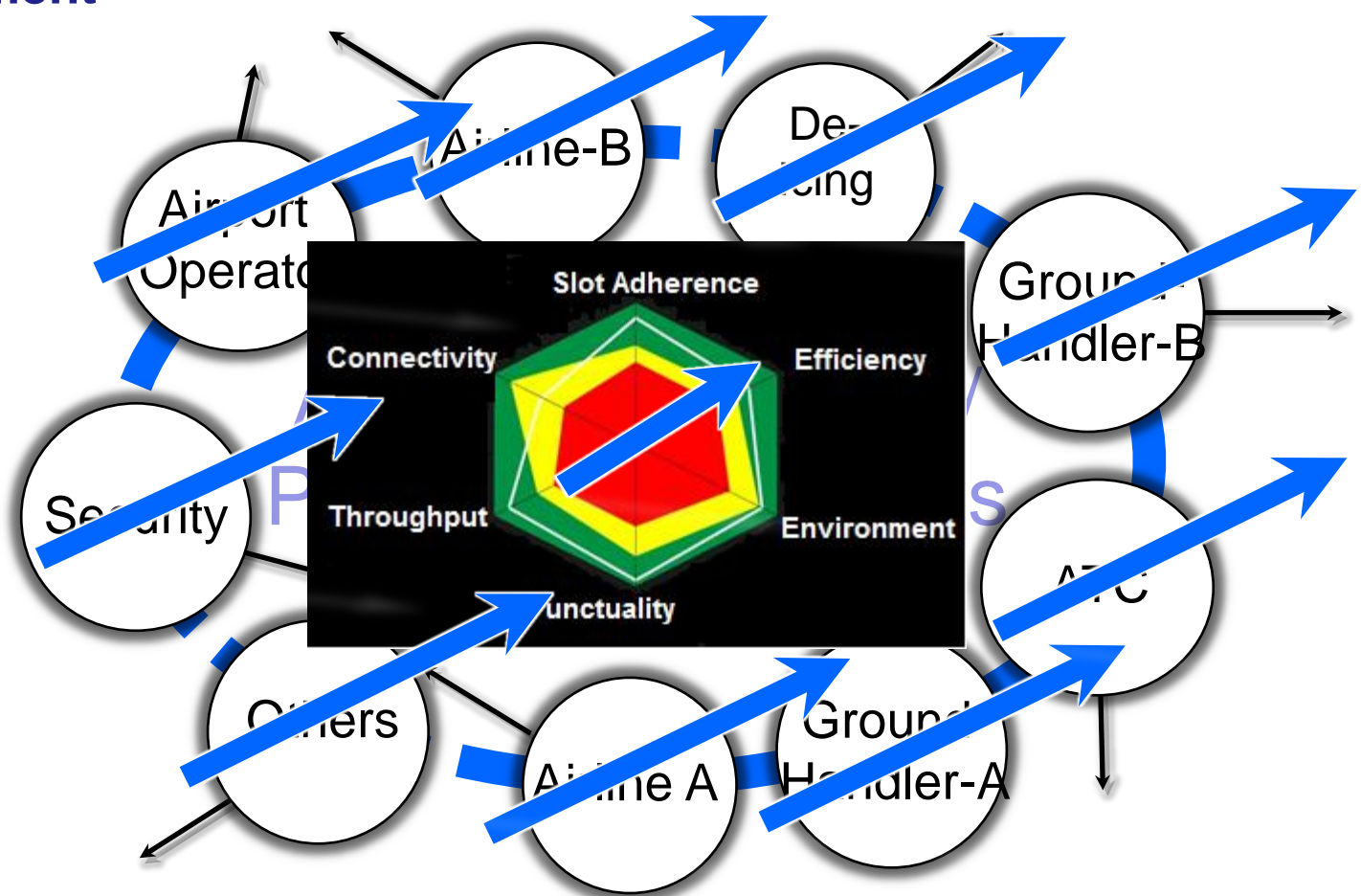
De-icing
More than one provider

S



Airport Processes

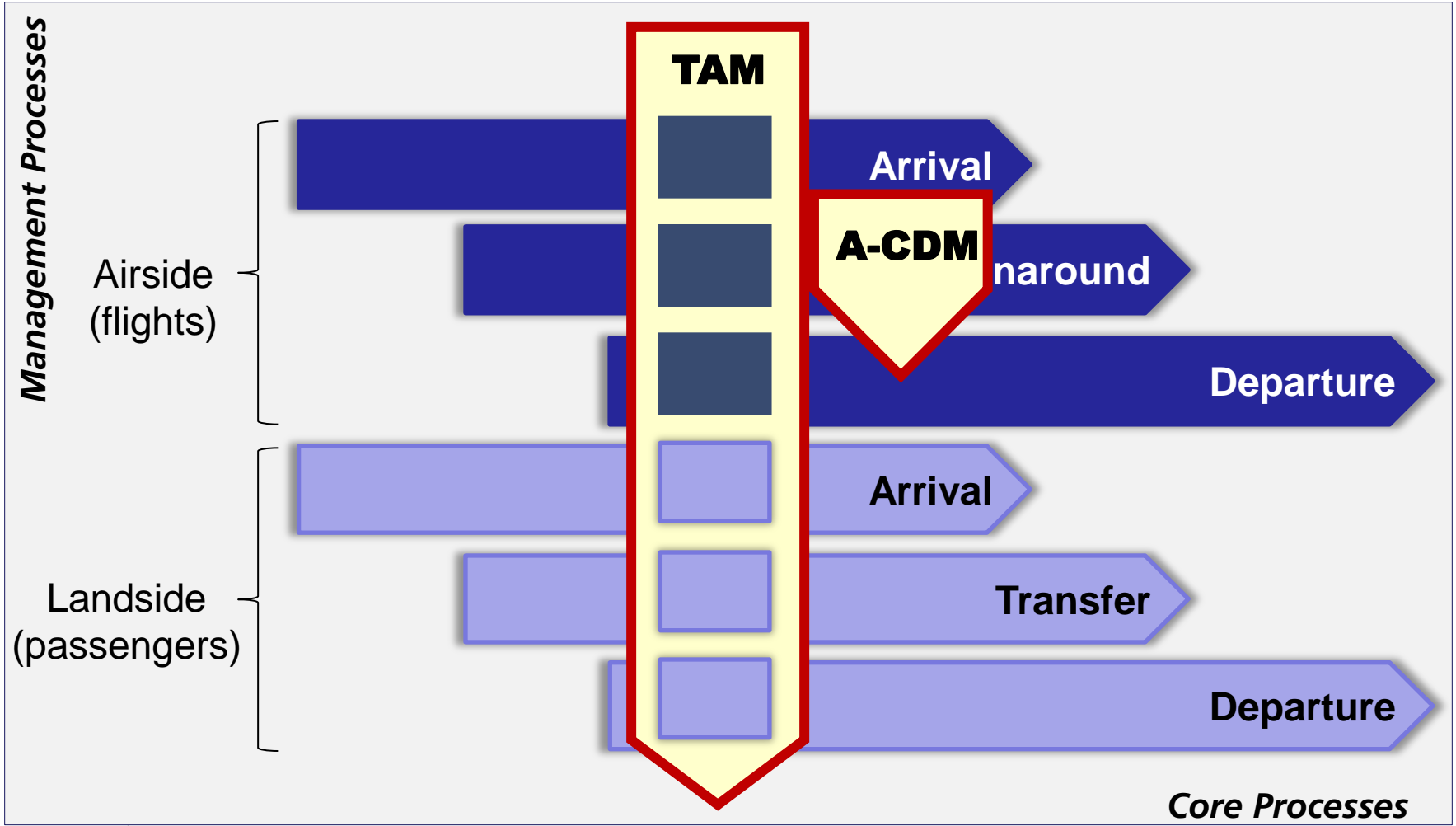
Management by KPI



KPI- Key Performance Indicator



TAM – Expanding the Scope of A-CDM



TAM – What is needed?

**open view for airport operations
(situation awareness,
land- and airside)**

What is happening at the airport?

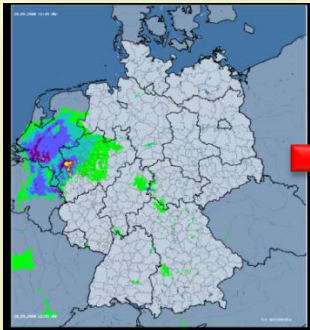
Who is doing what?

What is the capacity utilization?



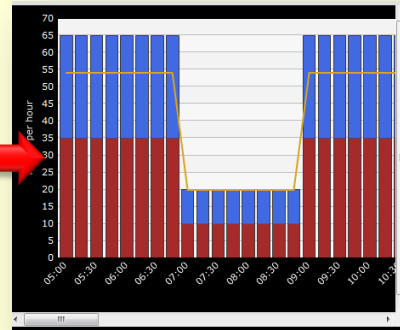
**recognizing and understanding any upcoming disruptions to
operations in advance (t0 → end of day of ops)**

example



reduced capacity

e.g. due to the
weather



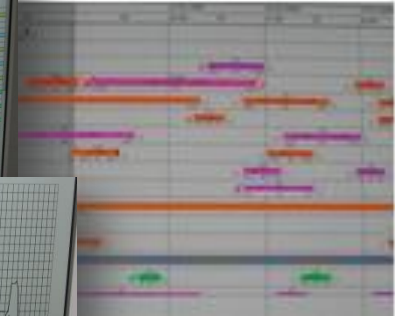
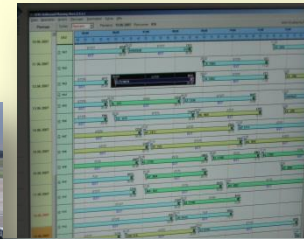
delays expected

e.g. due to the
reduced capacity

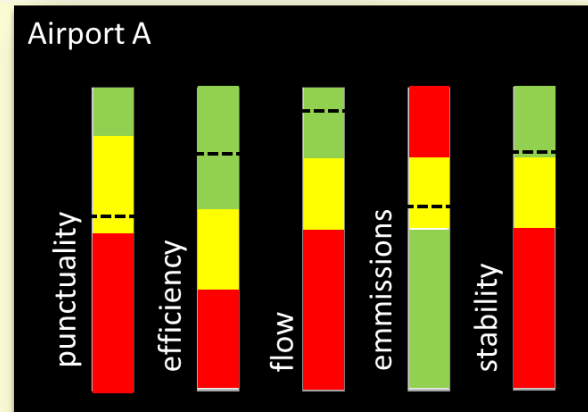
F	I	flight	typ	to/from	p	ched	est
							operational
-	i	A AF 2511	DEP	CDG		06:00	
	i	A LH 0037	DEP	MUC		06:00	
	i	A LH 0090	DEP	CGN		06:00	
	i	A LH 4260	DEP	CDG		06:00	
	i	A LH 4620	DEP	BRU		06:00	
	i	A LH 4660	DEP	AMS		06:00	
	i	A LH 4870	DEP	MAN		06:00	
-	i	A MA 0549	DEP	BUD		06:00	
-	i	A OK 0547	DEP	PRG		06:00	
-	i	A OL 0887	DEP	BRS		06:00	

TAM – What is needed?

coordinated planning of airport processes on landside and airside (resources, staff)



definition of valid KPIs in order to monitor and benchmark airport performance

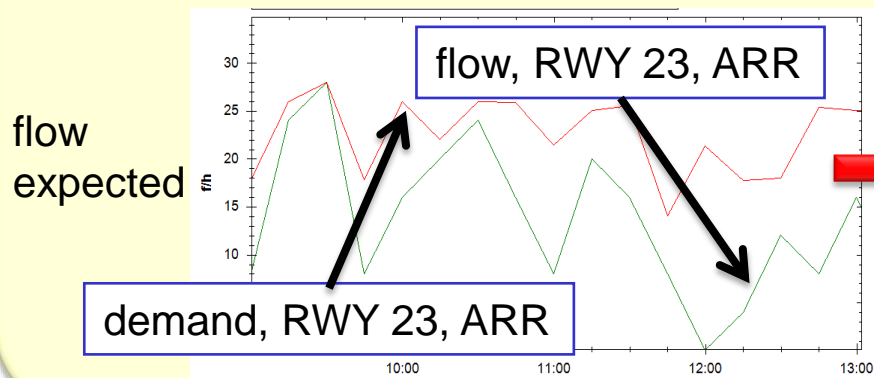


understanding of the consequences of the stakeholders' own actions on the operations of other stakeholders



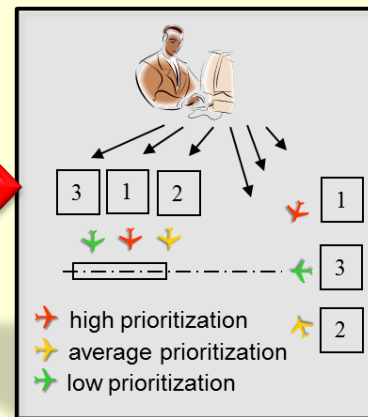
Working with TAM

pro-active reaction to disruptions



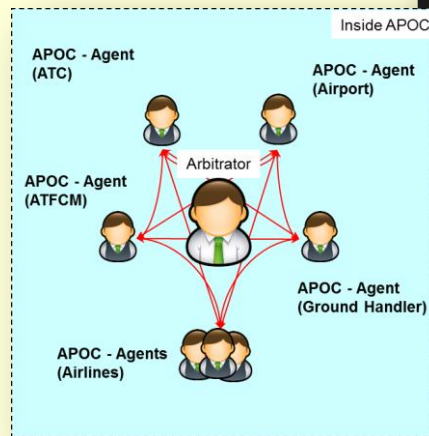
proposal of a flight sequence

Flight	Typ	Uniform	g	Class	es
i A AF 2511	DEP	CEO			06:00
i A LH 1037	DEP	MDC			06:00
i A LH 1090	DEP	CGN			06:00
i A LH 4260	DEP	CEO			06:00
i A LH 4620	DEP	BRU			06:00
i A LH 4660	DEP	AMS			06:00
i A LH 4870	DEP	MAN			06:00
i A MA 0549	DEP	BUD			06:00
i A OE 1047	DEP	PRG			06:00



manual adaptation of parameters

mutual acceptance of a mandatory set of KPIs, which influences the operations of all the stakeholders



14:00-22:00 stability of operations

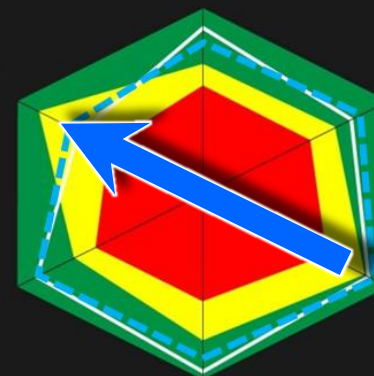
punctuality

efficiency

throughput

emissions

connectivity



DLR – recent work

development of concepts

operational concepts

technical concepts

simulation concepts

validation concepts

functionalities and tools

Total Operations Planner (TOP), traffic planning system

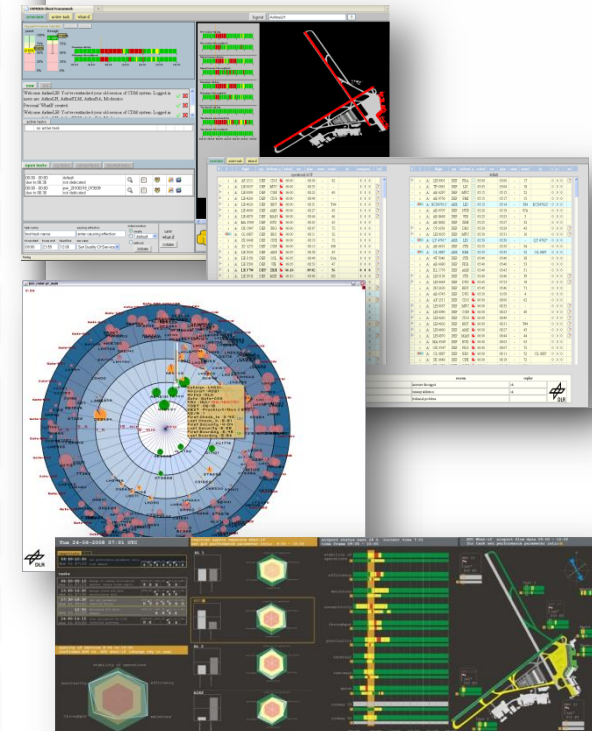
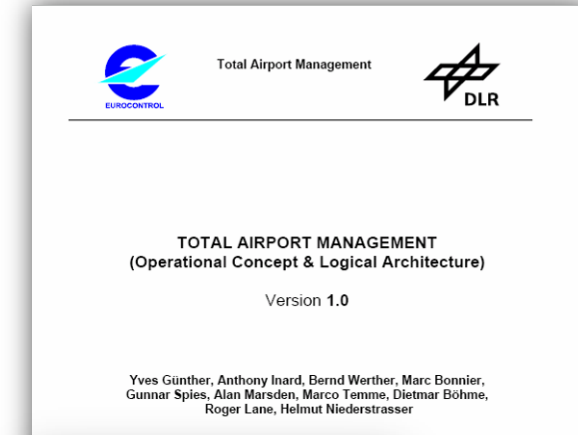
client working positions to interact with TOP

PaxMan, monitoring and assessment of passenger processes and prediction of passengers' readiness

video wall for situation awareness

simulation environment for test campaigns

systems for analysing, tactical systems etc.



DLR – outlook

evaluation of the planning system TOP – benefit assessment

development of advanced concepts

tests of functionalities and tools in real environment etc.

APOC light - DLR in Brunswick



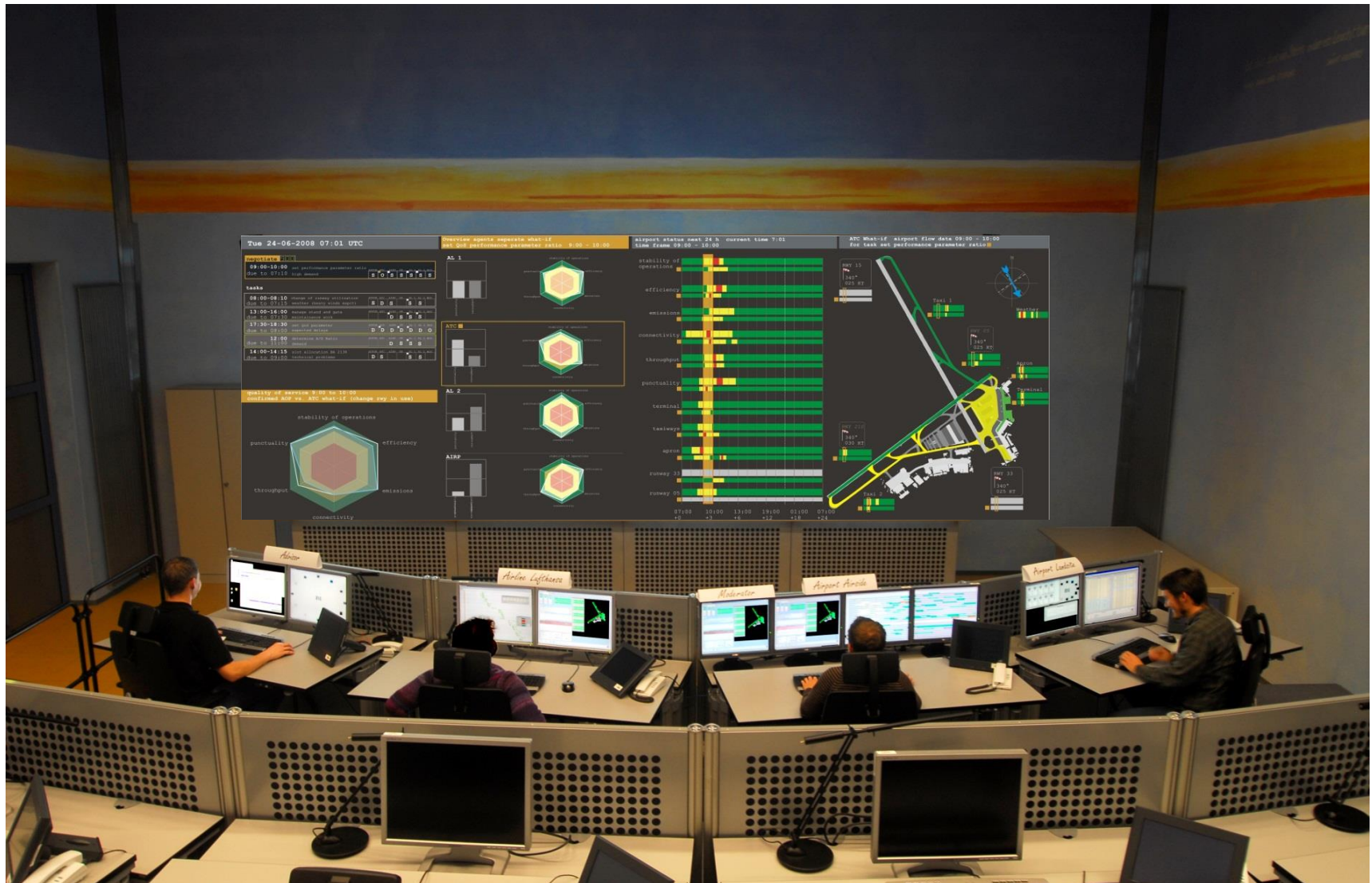
Hamburg Airport



APOC- Airport
Operation Center



DLR – APOC environment



Need more Information?

www.dlr.de

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