

# Slot Allocation at FRA

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**EU-CHINA**  
中欧民航合作项目 **APP**

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## Gunter Heinrich

- Fraport, Head of Airport Slot Management (Secretary of Coordination Committee FRA)
- ACI Europe, Chairman of Task Force Slot since 2002
- ACI World, Chairman of “Expert Group On Slots” since 2015
- Strategic Review of WSG, Chairman of Management Group (Jul. 2017 until Dec.2017)

## Definition and Requirements

### EU Council Regulation (EEC) No 95/93 (amended)

#### Article 6

#### Coordination parameters

- 1. At a coordinated airport, the Member State responsible shall ensure the determination of the parameters for slot allocation twice yearly, while taking account of all relevant technical, operational and environmental constraints, as well as any changes thereto. This exercise shall be based on an objective analysis of the possibilities of accommodating the air traffic, taking into account the different types of traffic at the airport, the airspace congestion likely to occur during the coordination period and the capacity situation. ....
- 2. ...
- 3. The determination of the parameters and the methodology used, as well as any changes thereto, shall be discussed in detail within the coordination committee with a focus on increasing the capacity and number of slots available for allocation, before a final decision on the parameters for slot allocation is taken. ...



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# “Frankfurt Method” of Capacity Analysis

## Simulations Tools:

-*AirTop*

(TMA, runways, Taxiways)

-*CAST-Vehicle*

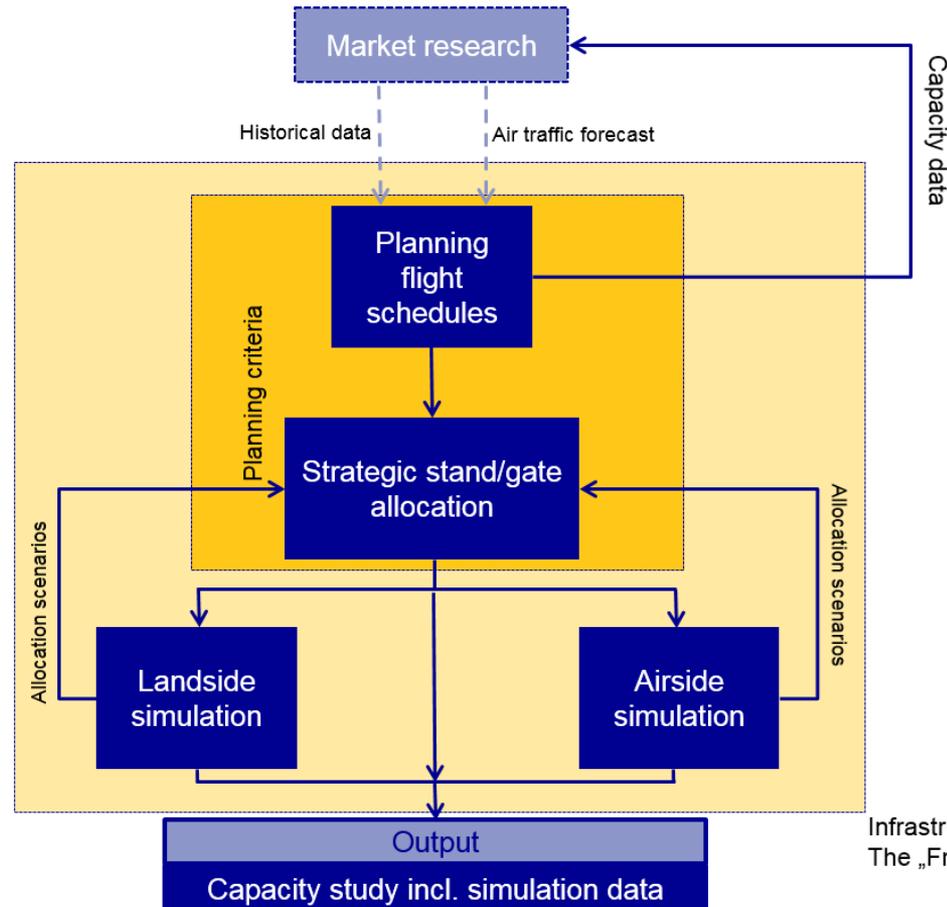
(airside non-aircraft movements)

-*CAST-Terminal*

(Terminal)

-*SALLY*

(Gates, Aircraft Stands)



Infrastructure planning:  
The „Frankfurt method“



# Outcome of Capacity Analysis

## Example :

coordination parameter summer 2015 / winter 2015/2016  
"100 mov./h"

Runways	(analysed by ATC)	
Taxiways	sufficient	
Aircraft Stands	sufficient	
Check-In Counter	sufficient	
Security checks	sufficient	risk, if regulation changes (liquids)
Immigrations	limit: 100 mov/h	risk: quality , if >100mov/h
Gates	sufficient	
Emigrations	sufficient	
"Bus Arrivals"	sufficient	
baggage Arrivals	sufficient	
baggage Departures	sufficient	

# FRA Coordination Parameters W2017/18



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	Arrival	Departure	Mixed
06:00 – 14:00			
10 Min. Intervall	13	13	20
30 Min. Intervall	33	31	57
60 Min. Intervall	58	57	104 (+2)
14:00 – 21:00			
10 Min. Intervall	13	13	20
30 Min. Intervall	33	33	57
60 Min. Intervall	60	60	104 (+2)
21:00 – 22:00			
10 Min. Intervall	13	12	20
30 Min. Intervall	32	30	57
60 Min. Intervall	57	53	104 (+2)



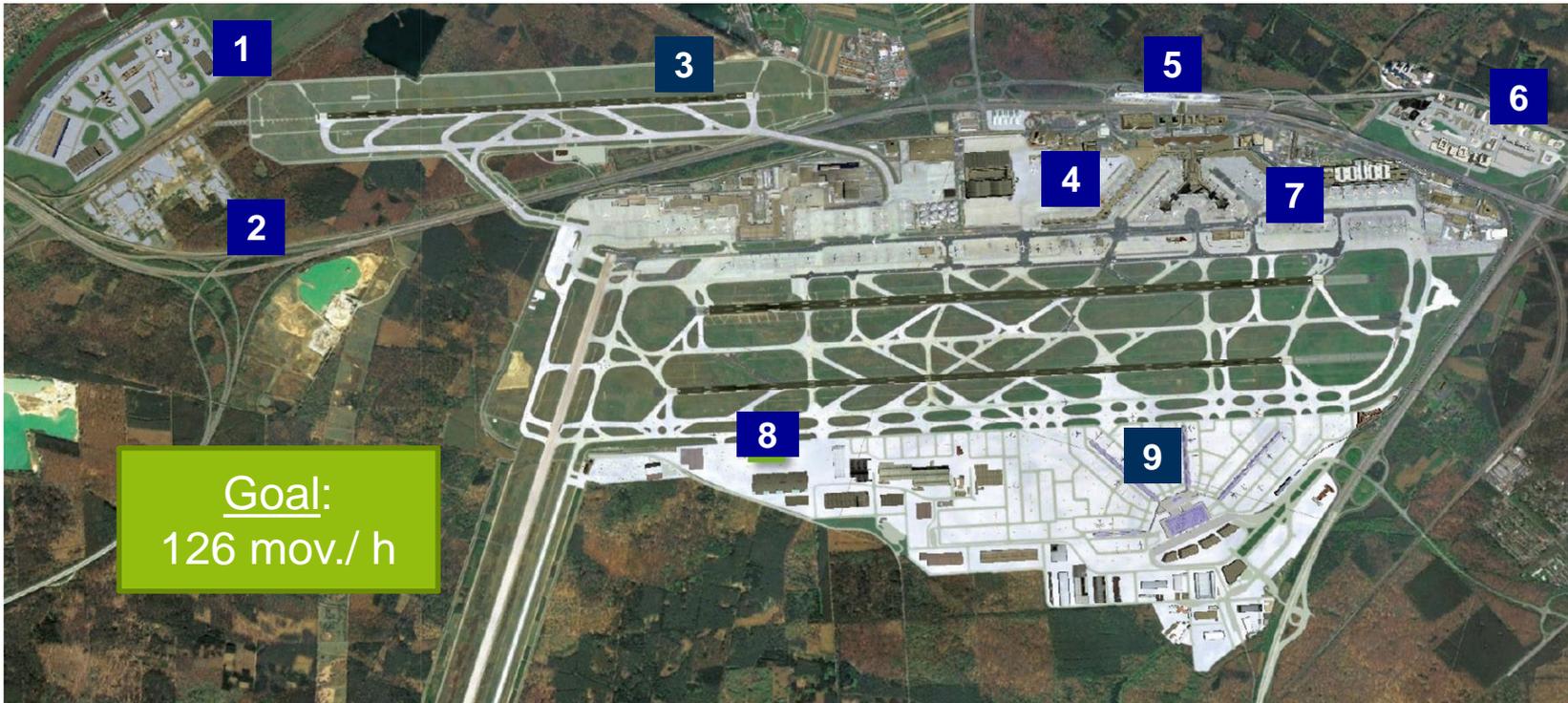
# Expansion Planning of FRA



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Goal:  
126 mov./ h

- |                            |                          |                               |                  |
|----------------------------|--------------------------|-------------------------------|------------------|
| <b>1</b> Mönchhof-Area     | <b>4</b> Pier A-Plus     | <b>7</b> Pier C               | work in progress |
| <b>2</b> Airport City West | <b>5</b> The Squire      | <b>8</b> A380 Maintenance     | work finished    |
| <b>3</b> New Runway        | <b>6</b> Gateway Gardens | <b>9</b> Terminal 3 (by 2023) |                  |

# Role of airports in the coordination process



Airports are **members** of the:

## **Coordination Committee**

- Recommendations for the coordination parameters
- Proposals for local rules

## **Slot Performance Monitoring Committees**

- Analysis and evaluation of airline performance
- Measures for improvement

## **Airports...**

...closely exchange information with the Airport Coordinator

...are always informed about allocated and available slots

...support the Airport Coordinator by matching the airline's flight plans with the allocated slots („Mismatch“ Fraport)

# Regulatory framework for airport coordination In Europe



## EU Regulation 95 /93

(first revision entered into force in 2004, second **revision** ongoing since Dec. 2011)



National amendments and implementing rules...



Worldwide Slot Guidelines of IATA



# Reflections on the **Basics** of WSG

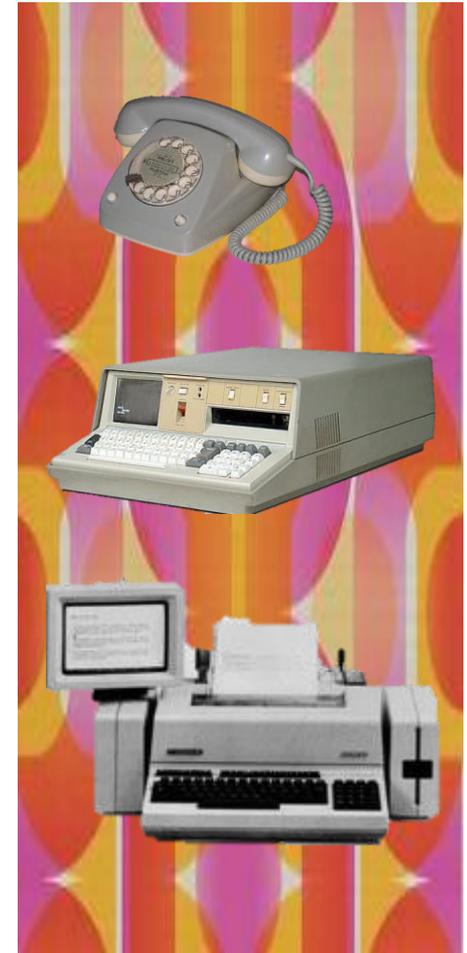


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## Basics developed in **the** mid-70s:

- International traffic dominated by „flag carriers“
- International airlines wholly or mostly state-owned
- Airports wholly state-owned without own interests
- Assumption, that airport capacity shortages would be solved within 10 -15 years
- Assumption, only an **interim** solution needed
- Sole goal: Prevention of operational overload



# Reflections on the Basics of WSG



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EASA  
European Aviation Safety Agency

## Today:

- privatized airlines and airports with own legitimate economic interests
- strong competition due to liberalized air transport market
- New business model due to low-cost philosophy; operators are not IATA members
- improved technical means ( internet; computing power, highly sophisticated optimisation algorithms )
- An end of the capacity crunch cannot be expected in the next two decades. It is very likely to become a permanent situation.



**The design of a solution from scratch for the capacity crunch at airports based on today's frame conditions would result in a different system !**

# What airports expect of a future slot allocation regime



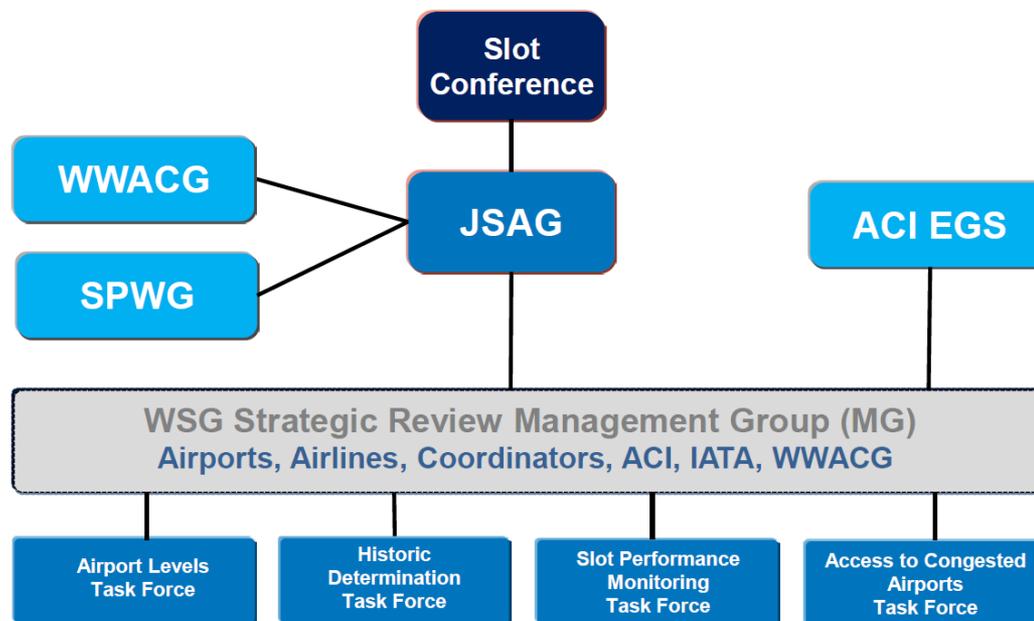
The future slot allocation should:

- take the changes in the air traffic industry of the last decades into account, and acknowledge airports as equal partners with their own legitimate interests.
- “slot” is defined not only as a permission to use the necessary infrastructure, but also as an obligation to do so.
- be collaboratively developed by the air traffic industry, and not only by the airline industry

# First step into the future slot allocation regime: Evolution – not Revolution



## Strategic Review of Worldwide Slot Guidelines



Source: IATA

# Summary



- Fraport's plans for expanding capacity to 126mov./ h are ongoing, and the analyses conducted for the stepwise increase are the basis for the discussions in the coordination committee meetings.
- Fraport shares the disappointment regarding the role of airports in the current slot regime with airports worldwide.
- ACI World agreed with IATA and WWACG on the collaborative strategic review of Worldwide Slot Guidelines. In the sector of airport slot, such a cooperation is the first of its kind. ACI World and IATA will report about the progress reached at the next ICAO assembly in 2019.



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