



## *Airline Review*

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# Agenda

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- > **Main Facts**
- > **Crew Management Process**
  - > **Update**
  - > **New IS solutions**
- > **Air France Crew IS Reengineering**

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## Main Facts

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- > **New union agreement and regulation**
  - Reduced work time agreement with cockpit and cabin crew
  - Update of the legality in the existing systems
  
- > **Crew communication**
  - Intranet project went live in September 2000
  - Brainstorming on dayops crew communication
  
- > **Day of Operations**
  - Project launched in May 2000
  
- > **Cabin crew assignment automation**
  - Important growth expected -> requires automation
    - *Air France commercial growth*
    - *Reduced work-time agreement*
  - Project launched in December 2000

# AF Fleet & Crew Update



## *Fleet*

B737	A319	A320	A321	A310	A340	B747	B747 freighters	B767	B777	Concorde	TOTAL
41	25	58	14	10	21	27	11	5	14	5	231

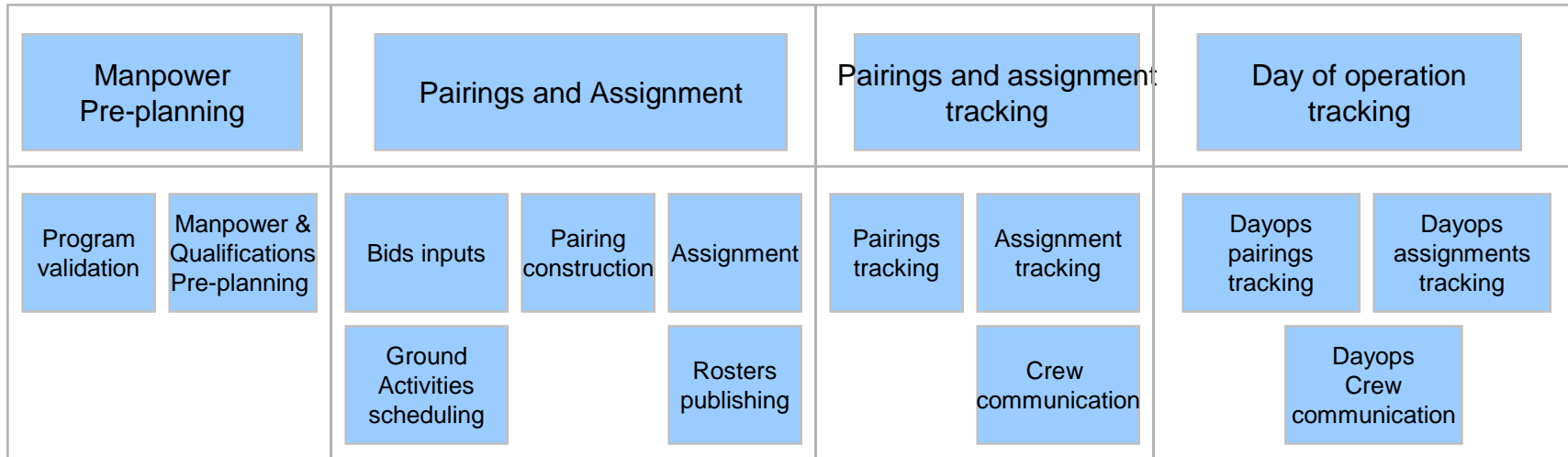
## *Crew Members*

Cockpit crew	3 800
medium haul	46%
long haul	54%
Cabin crew	10 300
medium haul	35%
long haul	65%

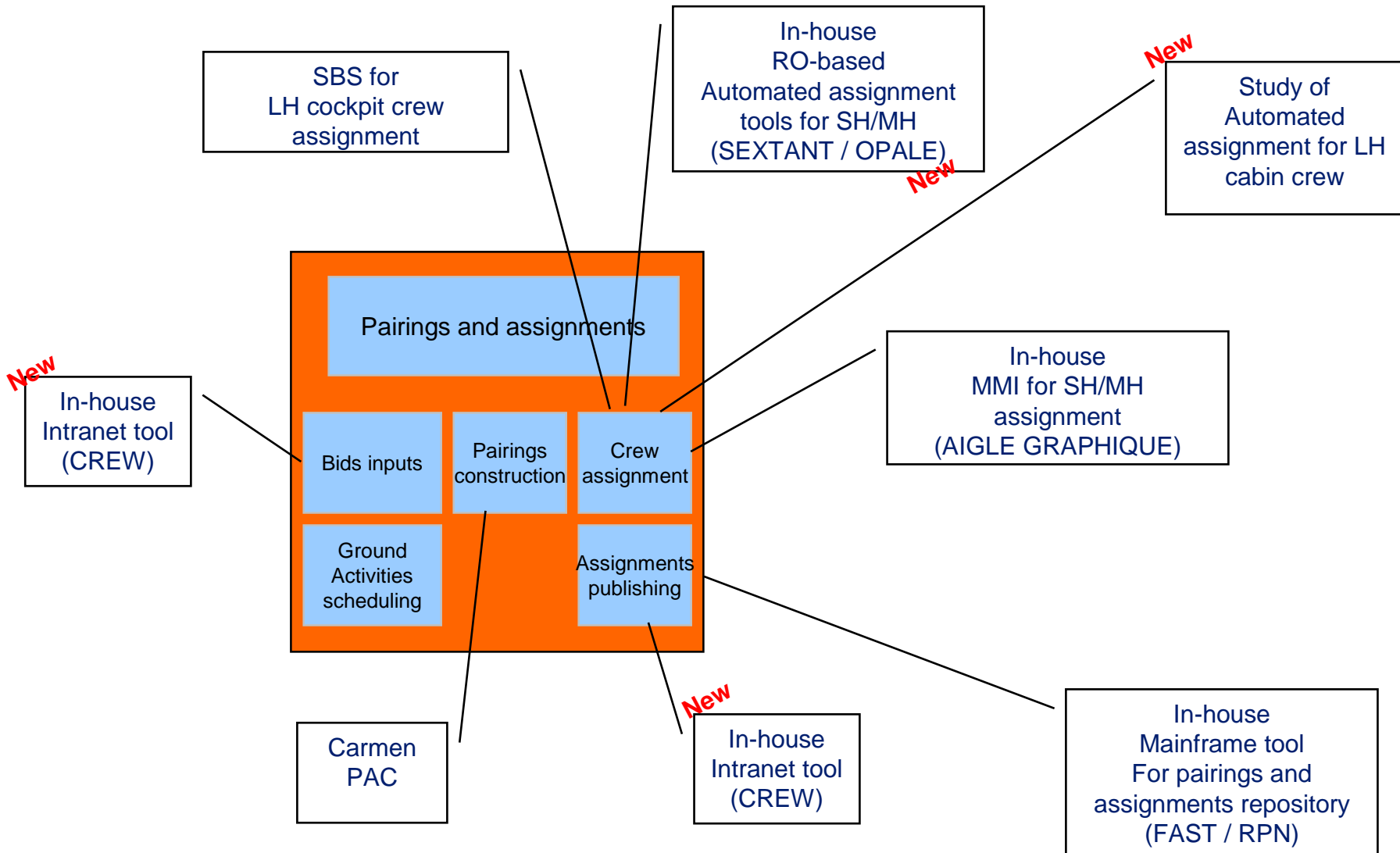
*Operations for 2001*

1300 daily flights  
27 million passengers  
223 destinations in 85 countries

# Crew Management Process at Air France



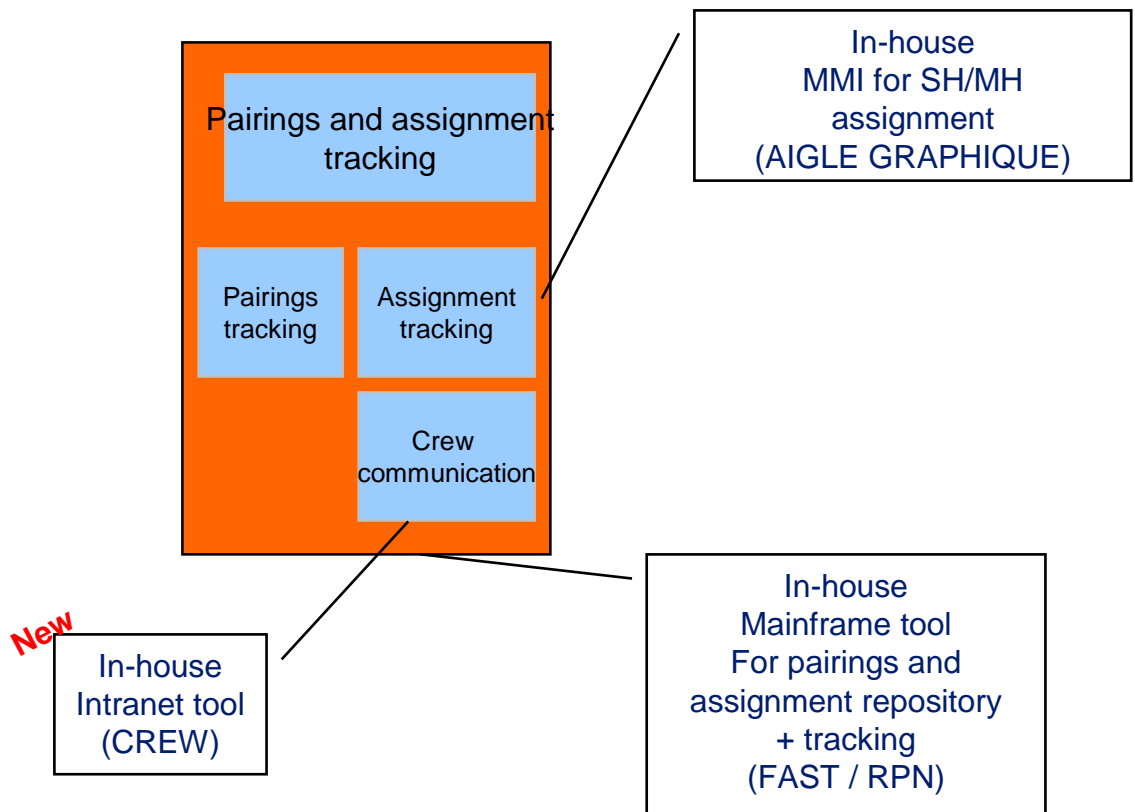
# Pairings and Assignments Construction



# Pairings and Assignment Construction : Main Facts

- > **In-house tools for SH/MH cabin & cockpit crew assignment**
  - Based on Operational Research techniques
  - Revamping of the SH/MH cabin crew assignment tool
    - *Delivered on January*
    - *Excellent results*
  
- > **Off-the-shelf solutions for Pairings construction and LH cockpit crew assignment**
  - CARMEN PAC for pairings construction
  - SBS for cockpit crew assignment (A340, B767, B777)
  
- > **New project for LH cabin crew assignment**
  - More automation required by the foregoing growth
  - Prototype of an in-house assignment system based on the experience of the SH/MH tool
  - Issues due to the important volume (12000 cabin crew)
  
- > **New union agreement and regulation**
  - Reduced work time agreement for cabin and cockpit crew

# Pairings and Assignments Tracking



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## Crew Communication : Main Facts

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### > **Access to schedules on the Intranet**

- Went live in September
  - *Good feedback*
- Real-time access to schedules and rosters via a standard browser
- Bids input
- 4500 cockpit crew and 12000 cabin crew concerned

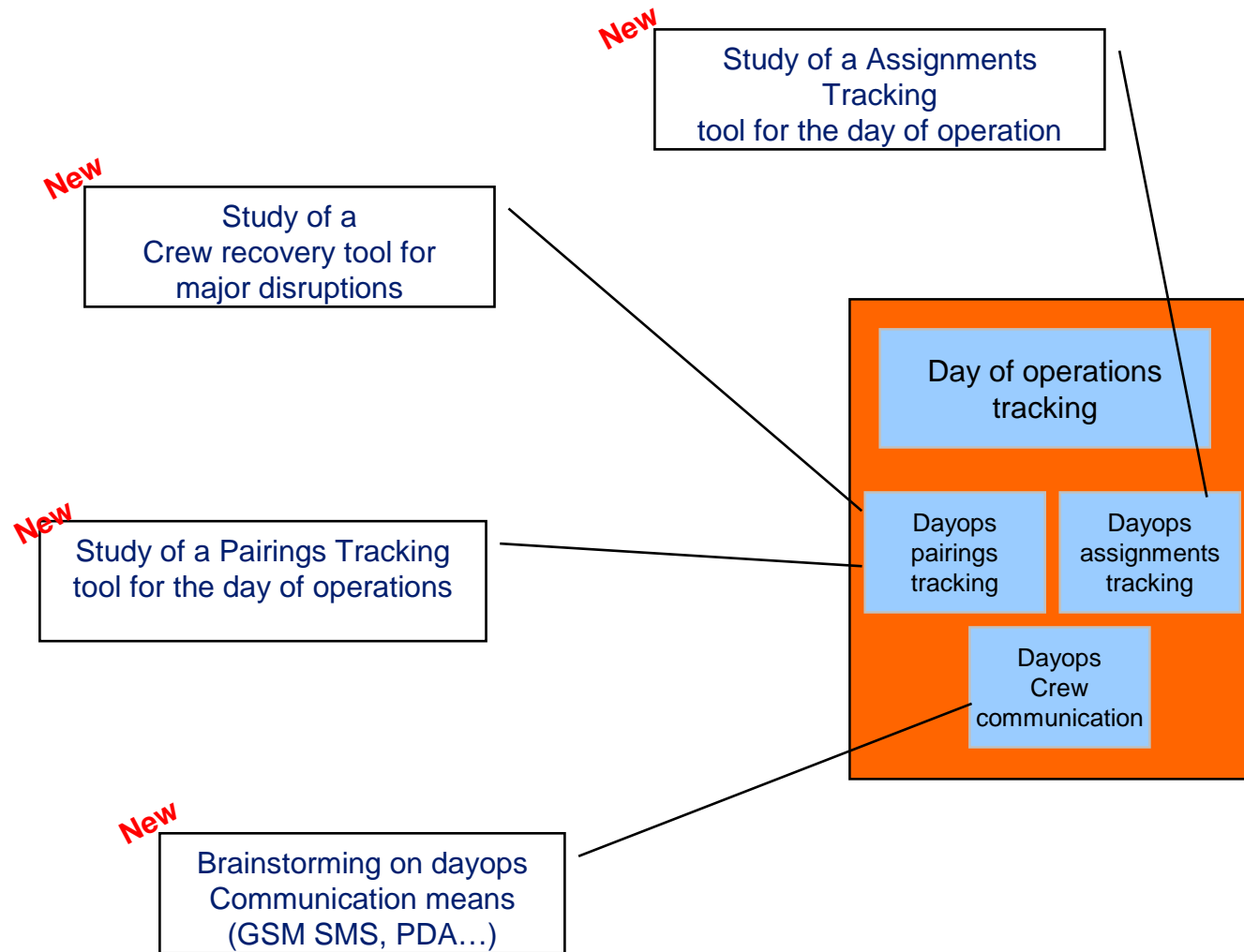
### > **Access from the Internet**

- Will open next summer

### > **Brainstorming on dayops communication**

- GSM SMS, WAP, PDA...

# Day of Operations Tracking



# Day of Operations Tracking : Main Facts

## > Crew follow-up to the new Operations Control Center

- Improve collaboration between controllers (flight / maintenance / commercial / crew controllers are gathered in the same room)
- Improve anticipation
  - *Through simulation and scenario exchanges*
- Find better and faster solutions by the use of Decision Support Systems

## > Study launched in May 2000

- Benchmark of different airlines and vendors
- Requirements specification
  - *Rerouting DSS for major disruptions (weather, airport closure, social movements)*
  - *Pairings Tracking Tool*
  - *Crew Assignments Tracking Tool*
  - *Better integration between flight/aircraft tracking and crew tracking*
  - *Better integration between Pairings and Assignments tracking*
- IT Architecture benchmarks

# Crew Information System Overhaul



## > An aging Information System

- Current repository is aging and based on old technologies (Cobol / IMS)
- Multiple implementations of the legality in the different Crew applications
  - *Inconsistencies between applications*
  - *Important maintenance costs*

## > Future system based on a Crew Business Framework

- Exhaustive business process modeling
  - *Propose improvements*
  - *OO modeling*
- N-tiers architecture with a distinction between :
  - *Business Components Foundation*
    - Contains shared components used by multiple processes
  - *Application Layer*
- A central legality checker shared by all applications
- Migration path from the current system to the future system is a challenge

# Future Crew Information System Architecture

