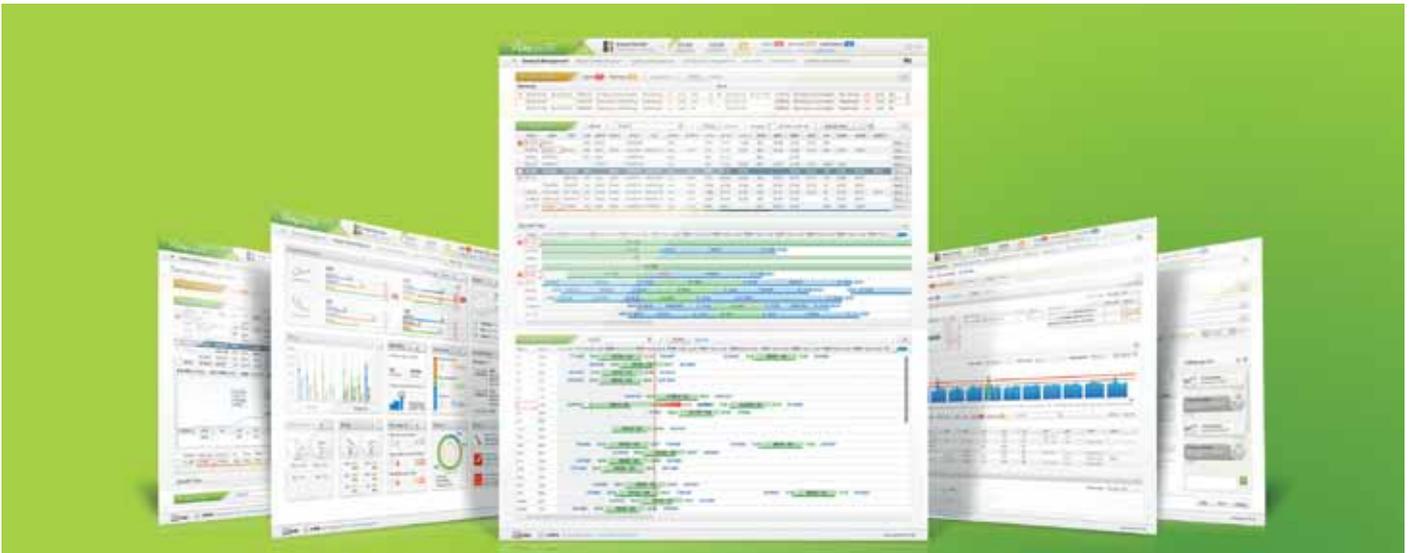


# InPLAN

AIRPORT OPERATIONS MANAGEMENT BEYOND A-CDM



## Airports

Indra is the leading IT Spanish company and one of the top five ATM systems suppliers all over the world. Indra knowledge and its products portfolio reach all different areas at both air and land processes supporting all stages at the air traffic management business.

This knowledge, consolidated with the experience acquired along the last 30 years, has enabled Indra to create a new paradigm, called Airport, about how IT supports the airport information needs.

Airport is a suite of products that compiles all the know-how in both operational and technical environments accumulated with the references in ATM and airports. Within airport, there is InPLAN product, which is focused in the turnaround process and the Airports integration in a network, according the Airport Collaborative Decision Making concept, originally defined by Eurocontrol.

State of the art technology is applied to InPLAN according to Indra's leadership in ACI ACRIS and SESAR (Single European ATM Research) programmes. Two main world initiatives involved in optimizing the airport processes and technology.

## What's InPLAN?

Airport paradigm includes new advanced ways for managing the aircraft process efficiently, as such process is crucial for the airport core business and profitability.

InPLAN implements diverse tools to support A-CDM concept deployment. Thus, InPLAN offers:

- Common Situation Awareness (CSA) of the airport turnaround processes

- Milestones approach
- Pre-departure sequence follow up
- Variable Taxi Time
- Adverse conditions facilities
- Network connection

InPLAN guarantees a common airport operation plan for the local stakeholders by gathering and supplying information about the current situation: Common situation awareness.

Therefore, CSA allows InPLAN to contribute to an early decision making and to build a pre-departure sequence that meets the airport operations plan.

InPLAN solution integrates the most advanced concepts and guidelines conceived at international standardization forums, including SESAR concepts and functionalities for the AOP and APOC.

## Benefits of INplan

- ☀ Improves Predictability
- 🕒 Increases Punctuality
- ✓ Enhances resources usage



## Benefits for main airport stakeholders



### Airlines/Aircraft operators

- Flight operations running to schedule
- Possibility to express preferences
- Increase capacity
- Reduce delays
- Fuel saving, by shorter taxi and holding times



### Ground handlers

- Improve predictability of turn-round operations
- Better use of resources



### ATC

- Optimise use of airport airside infrastructure
- Reduce ground congestion



### Network

- Optimised use of airspace capacity



### Airport operator

- Increase departure and arrival punctuality
- More efficient use of Airport resources: stands, gates, etc

## INplan main features

- **Demand Management:** Informs and allows to manage flights turn round



- 1 Operational alerts & warnings
- 2 Aircraft process info grid
- 3 Aircraft process detail
- 4 Resource allocation
- 5 Aircraft turnaround view

- **Airport Global Situation:** It is the main module in Inplan. Collects and processes information, displaying the following features:



- Airport Plan Monitoring
- Average delays
- Queue monitoring
- Airports events
- Operational inconsistencies
- Parking status
- Weather information

- **Collaborative Management:** INplan deploys a set of collaboration tools to achieve de Common Situation Awareness and solve incidences:



All decisions made during the resolution of each alarm are stored for post audit purposes

- **INPLAN** facilitates the pre-departure sequence agreement by synchronizing it with the ATC system
- **INPLAN** puts in place a tool for collaborative management of alerts and events, with responsibilities allocation on roles and persons, solutions proposal, impact assessment, etc.

## Experiences

Indra airports has been involved in A-CDM since its origins by developing an early A-CDM tool for Barcelona and Palma Airports in 2006.

Indra expertise has increased steadily according to its participation in main European initiatives related.

Indra Airports has a significant experience in A-CDM related systems such as AODB (deployed in Aena's main Airports) and all types of Airports Operations Centres systems and facilities deployments.

## Associated services

- Design and consulting services (Airport processes analysis, CBA for A-CDM, etc.)
- Implementation and configuration
- Testing & Commissioning
- On-site, Off-site Support and Maintenance



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