



NG-AERODROME

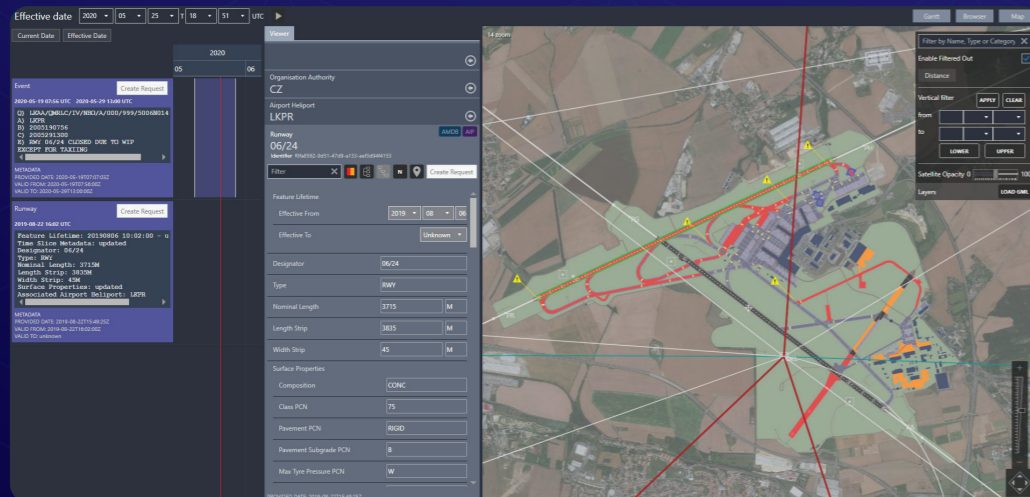
Next Generation
Digital Aerodrome
Data Management
Environment

| NG AVIATION |



NG-AERODROME Integrated environment

ENSURING EASY DATA MANAGEMENT &
SECURE DATA EXCHANGE BETWEEN
ALL AIRPORT STAKEHOLDERS



By introducing a unique environment for comprehensive aeronautical data digitization and management, the NG AVIATION aims to optimize the existing business and regulatory requirements for airport industry.

NG-AERODROME is an **integrated environment** consisting of multiple modules that handles much more than just the raw aerodrome data. The environment furthermore incorporates NG-WebViewer to enhance the data viewing capability for various airport stakeholders to ensure the desired level of data quality & traceability and compliance with international standards.

The fundamental principle is to **provide stakeholders with easily accessible data** and organizations with full transition from paper/analogue to a digital environment, delivering all the benefits of the digital transition.

The NG-AERODROME software platform consists of modules designed to comply with the newest ICAO (Annex 14 & 15) and **EU regulatory requirements ((EU) No 139/2014 and (EU) No 2020/2148)**, including Digital Data Sets.

System is fully capable to comply with the existing Commission Implementing regulation (EU) No 2021/116) with respect to the **digital aerodrome charts** and **digital NOTAM** implementation applicable from **December 31st, 2025**.

Web Portal

SIMPLE & SECURE ACCESS TO
ALL INFORMATION & TASKS
VIA ANY SMART DEVICE

Web portal acts as a one-stop-shop solution allowing users to simply browse between available applications based on their allocated rights. T

The benefit lies in **quick accessibility, single sign-on and integration of all available aeronautical data.**

Web portal includes the AIXM 5.1 Web Viewer, Workflow Management System, Data Originator Web Portal, and System Monitoring.

Thus establishing a cross-organizational **Single Source of Truth Data** of the airspace area.



AWV

NG Aime Web Viewer

[More info](#)

WFMS

Workflow Management System

[More info](#)

DOP

Data Originator Portal

[More info](#)

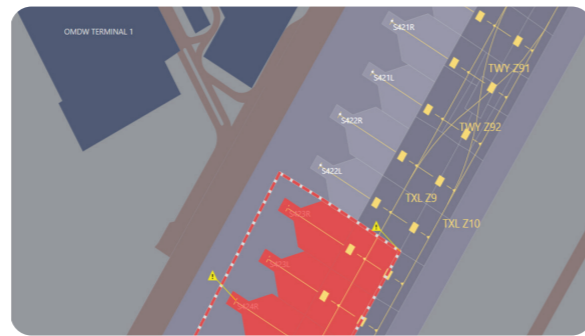
SMC

System Monitoring Control

[More info](#)

NG-AERODROME Desktop

COMPREHENSIVE DIGITAL
AERONAUTICAL INFORMATION
IN A CENTRALIZED AIXM 5.1
DATABASE

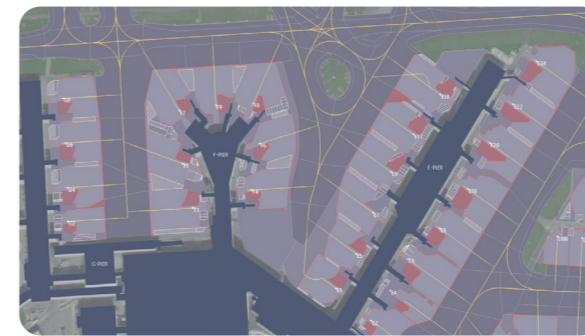


The NG-AERODROME desktop application is well-suited for the creation, management and distribution of digital aeronautical data in Aeronautical Information Exchange Model (AIXM). Thanks to intuitive and smart user interface, the system allows easy work of aeronautical data in digital form.

The application incorporated all vital elements of AIXM 5.1, including the Temporality model enabling the creation of dynamic database - data evolving in time.

System supports distribution & exchange of all digital data sets (AIP, AMDB, IFP & Obstacle) as described in the latest version

of ICAO Annex 15 and PANS-AIM doc 10066 can be produced, managed, and shared via SWIM, third party APIs and other file sharing methods.

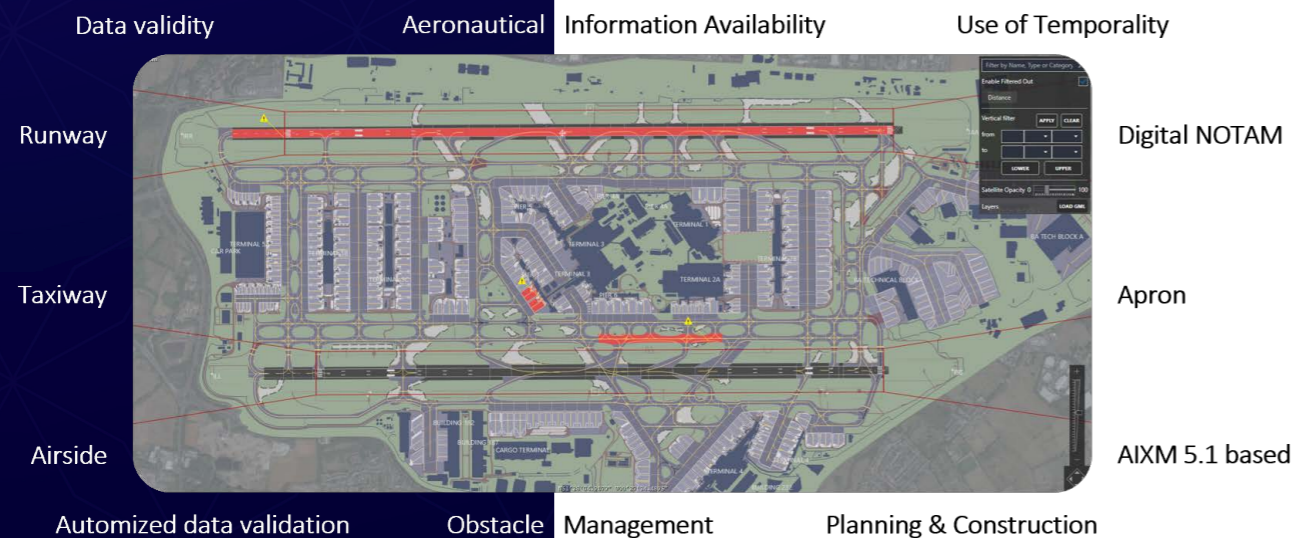


The system offers the automatic validation of digital data based on the EUROCONTROL's business rules and additional organization specific rules, during creating or updating aeronautical data to guarantee highest quality & interoperability of AIXM data.

NG-AERODROME supports the creation of Digital NOTAMs based on AIXM 5.1. Existing NOTAM Scenarios (including Runway Closure or (Partial) Taxiway Closure) support the fluent transition from classic to digital NOTAM taking into account multiple regulatory requirements.

DIGITAL NOTAM's LATEST CONCEPT FULLY SUPPORTED & OPERATIONAL

The system supports import and automated classification of existing Obstacles into the Obstacle Areas in AIXM 5.1 form, significantly reducing the time and costs and increasing safety and situational awareness.



Highlights:

- Desktop application
- Complete AIXM 5.1 data management
- Digital NOTAM management
- Automatic classification of Obstacles
- Automated data validation
- User friendly interface (HMI/GUI)

NG-WebViewer

Accessible by all smart devices, the NG-WebViewer makes all the essential data just a click away for each & every stakeholder, keeping them well informed and up to date.

NG-WebViewer allows users to browse AIXM 5.1 data through light web applications designed for maximum performance with undemanding hardware requirements.

The tool provides all the relevant parties with a complete Aerodrome situational overview and direct access to all aeronautical data, which is essential for smooth airside operations.

The user experience is enhanced by a minimalist graphical interface and supports both 2D & 3D models.

WEB VIEWER THAT HANDLES MULTIPLE EXTERNAL AND INTERNAL REPOSITORIES



Critical information available for all stakeholders in real-time from any smart device is what makes the Web Viewer a tool of choice for information sharing.

The tool is integrated with the Workflow Management System and the Data Originator Portal, allowing users with sufficient allocated user rights to trigger data creation requests via the Web Viewer directly.

It is important to note that the Web Viewer can access multiple internal and external repositories.

Highlights:

- Web application
- 2D/3D viewing modes
- Information Sharing
- Data Access
- Digital NOTAM

Workflow Management Systems

The purpose of workflow management or change control management is to **facilitate data quality and traceability** during aeronautical data management processes.

The tool allows administrators to create, edit and deploy workflows. However, WFMS is not administrator oriented only. It comes with functionalities such as **dashboard, overview, task management, task history, detailed workflow tracking and other functions** to form a robust tool with unlimited capabilities.

It is **fully integrated** with other NG-AERODROME solution components, increases the effectivity of which data management processes by reducing the time required to navigate between multiple applications and decreasing data duplication.

System enhances the communication and coordination between all aerodrome departments. Critical airport processes requiring actions from different users inside or outside organization can be managed and used.

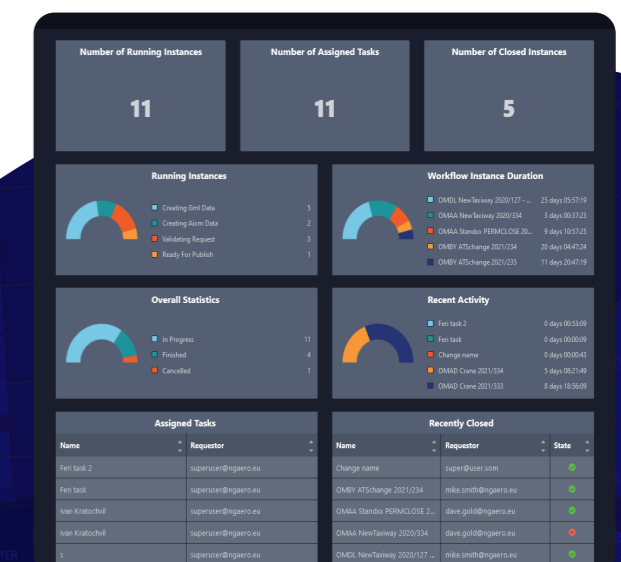
It allows a single sign-on (SSO) to all components of NG-AERODROME.

The solution is not limited to the tool provided but **also supports third party user management systems**.

Highlights:

- Web Application
- Full integration within NG Environment
- Internal and External Workflow
- Change-Request Management
- User-friendly HMI

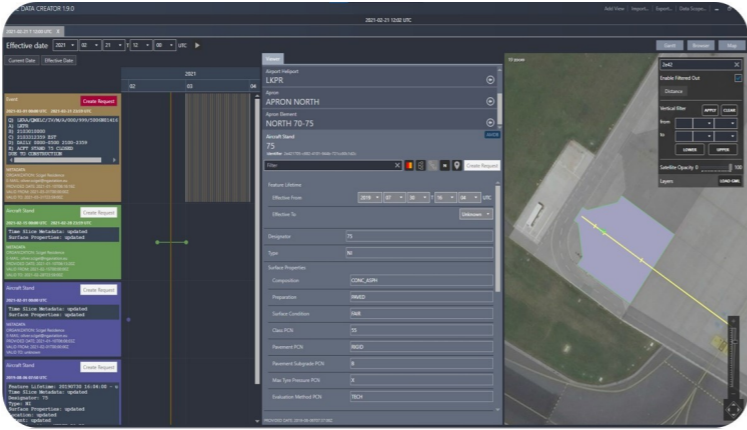
INTEGRATED IN-HOUSE-DEVELOPED WORKFLOW MANAGEMENT DESIGNED TO GUARANTEE DATA QUALITY & INTEGRITY



Temporality & Timelines

One of the major requirements for digital aeronautical data is timeliness. NG AERODROME has fully adopted the Temporality model created for the AIXM 5.x data exchange model. It enables the creation of a dynamic database – data evolving in time, using several well-defined time-slices, such as PERMDelta or BASELINE, making it an ideal tool for creating, updating, and distributing dynamic aeronautical data in AIXM 5.x.

NG-AERODROME system provides a comprehensive overview of the time & event structures within an entire data set, significantly helping the user gain an full understanding of the temporal events.



TEMPORALITY IS THE KEY ENABLER OF DIGITAL NOTAM, AS AN EVOLUTIONARY STEP IN THE INFORMATION SHARING WITH THE AVIATION INDUSTRY.

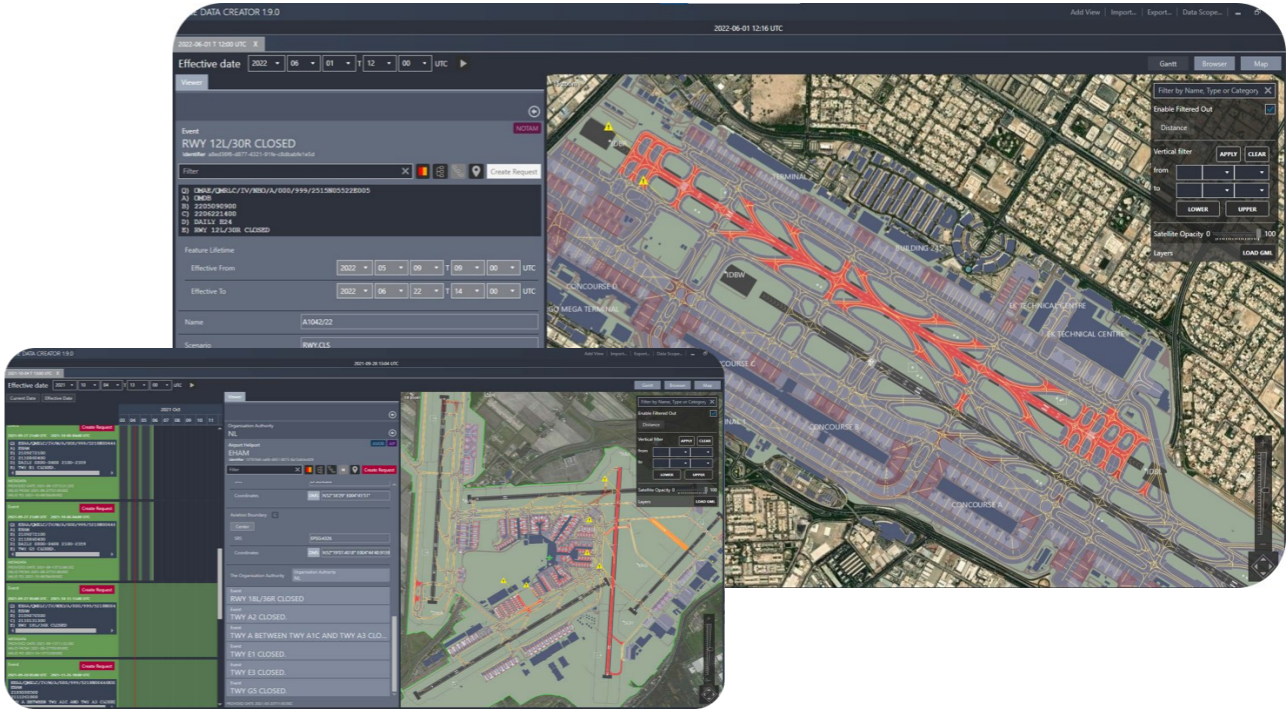


Highlights:

- Advanced planning of Airside Operations
- Historical, present, and future changes track record
- All crucial historical data in a single database
- Operations vs Construction coordination
- Airside limitations impact analysis

Digital NOTAM

Digital NOTAM tool reflects on the industry's need to cope with the continuous NOTAM proliferation and the lack of understandability of the text coded messages. Playing in harmony with the availability of digital aeronautical data and the temporality model, digital NOTAM is provided as a complete structured data set displayed over an accurate geo-referenced map. It provides a complete situational overview of the related information, whether in the air or at the airside.



The Digital NOTAM concept built on the AIXM 5.1 dynamic database is the future of the exchange of critical information. Digital NOTAM scenarios as defined by specifications published by the FAA and EUROCONTROL. It is displayed in the form of classic NOTAM as well as digital data, while being visualized on the digital map using the colour-coded information specifying its limitation.

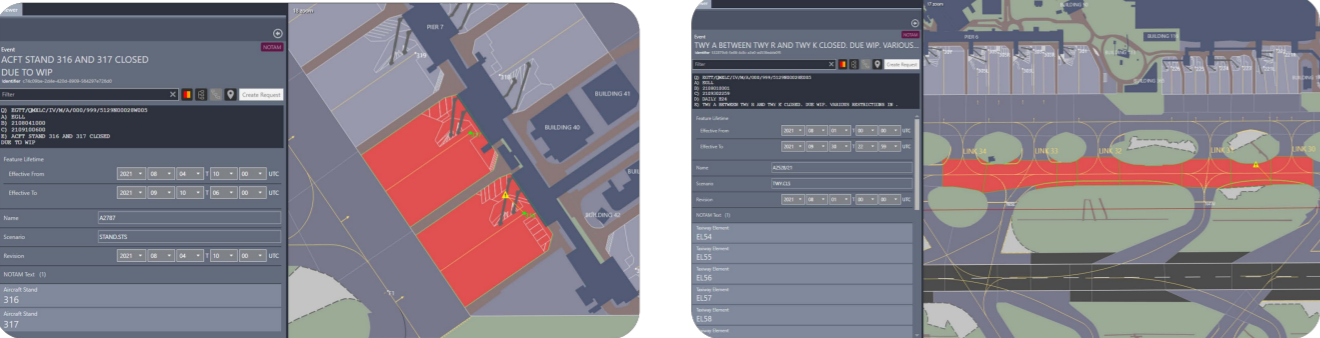
Highlights:

- Operational Digital NOTAM concept
- Complete overview of all NOTAMs
- Visualized Item B, C and D on Timeline
- Automized textual NOTAM creation
- Ready for NOTAM distribution

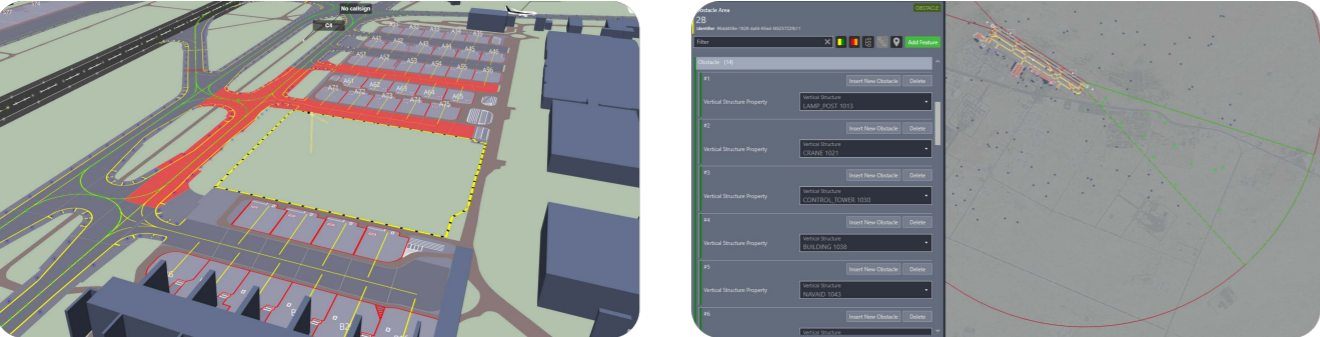
IMMEDIATE UNDERSTANDING OF THE AIRSIDE'S SITUATION IS POSSIBLE WITH VISUALIZED DIGITAL NOTAMS AT THE AERODROMES.

Key Benefits

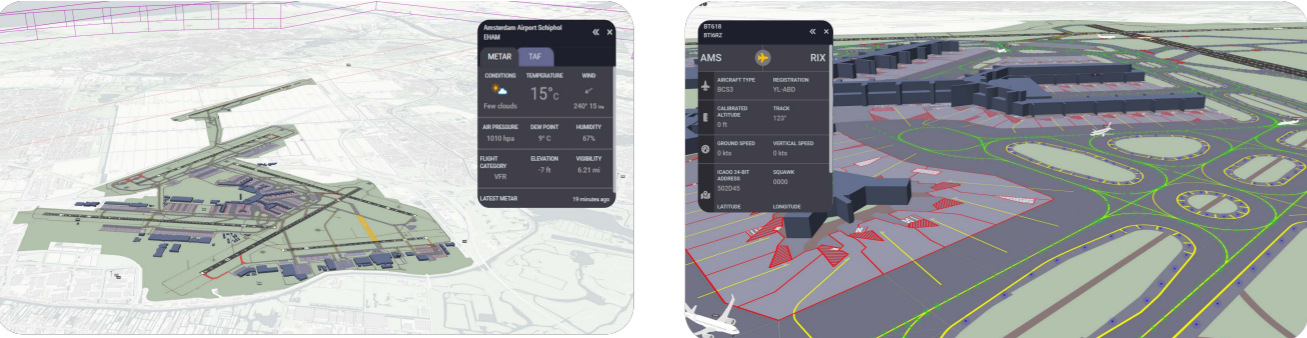
Visual representation of all airside changes (Temp. / Perm. / Digital NOTAM)



Comprehensive Obstacle Management and visualization of Obstacles



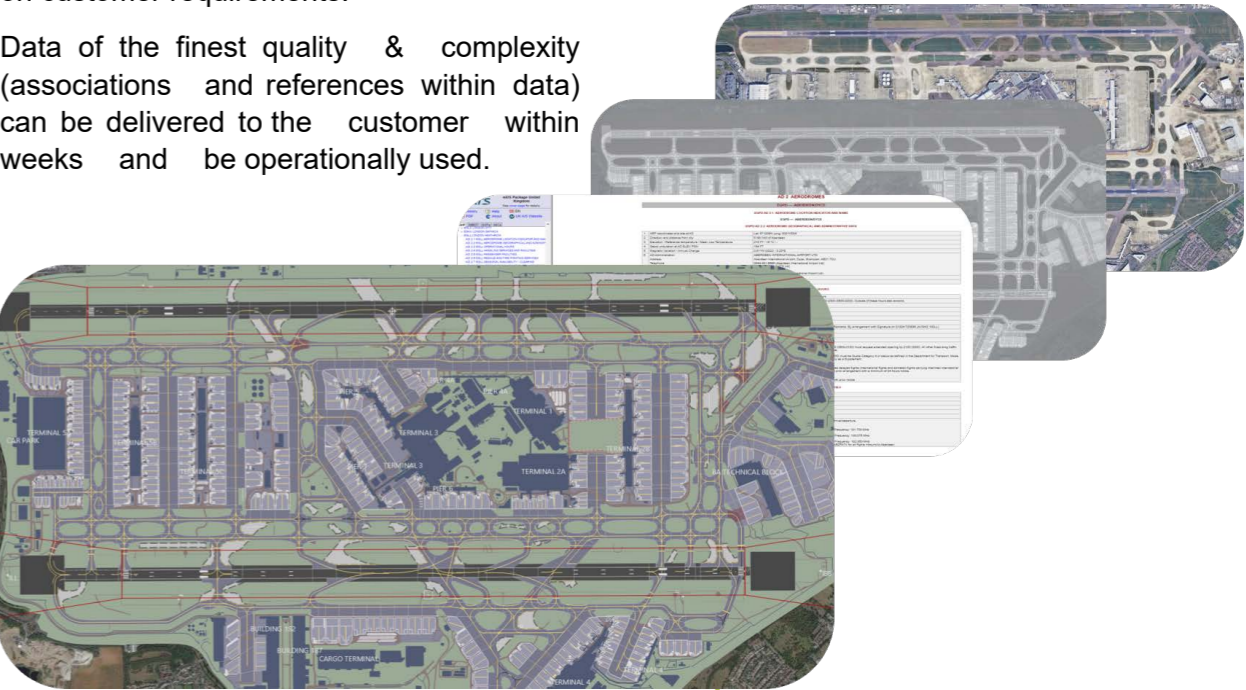
Data compatibility & data fusion (ADS-B, WEATHER, eAIP, etc.)



NG Data Center

NG Data Center offers creation of complete digital aeronautical data in AIXM 5.1 based on customer requirements.

Data of the finest quality & complexity (associations and references within data) can be delivered to the customer within weeks and be operationally used.



COMPLETE BASELINE DATA DELIVERED IN WEEKS



Highlights:

- Data on request
- Creation of AIXM 5.1 data
- Fulfilling regulatory requirements for data
- Fully operational after delivery
- Native AIXM 5.1

Data are created and provided in native AIXM 5.1 with no extensions, securing the best interoperability between systems reading and working with AIXM 5.1.

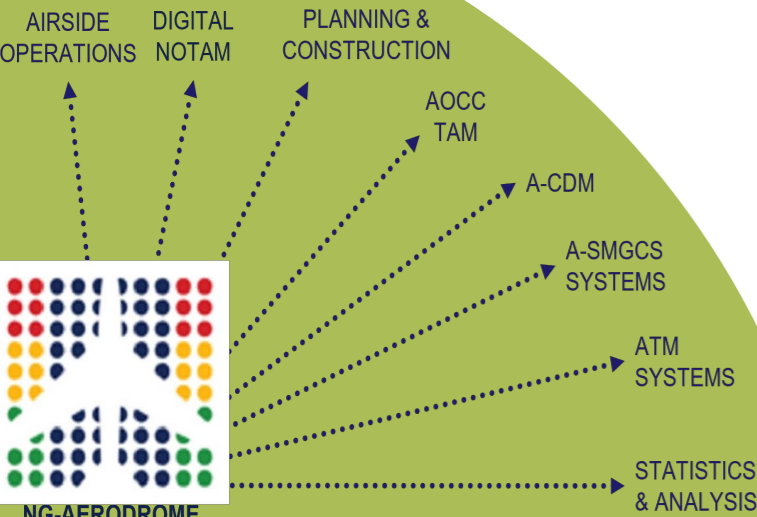
Multiple aerodrome systems, such as A-SMGCS, can operate based on AIXM data from one database, creating the Single Source of Truth concept significantly increasing the safety and efficiency.

Digital data can be provided in the scope of digital data sets as defined by ICAO (AIP, AMDB, IFP & Obstacle), or in the form of custom data set containing selected features and entities.



Digital Data Reasoning:

- **LEGAL COMPLIANCE**
- **DATA QUALITY**
- **TEMPORALITY**
- **DATA FUSION**
- **STATISTICS & ANALYSIS**
- **DATA INTEGRATION**



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NG AVIATION HELPS AIRPORT MAXIMIZE
THEIR POTENTIAL BY USING AVAILABLE DATA

“ Cooperating with key international partners,
NG Aviation offers a spectrum of services
and products that provide comprehensive
digital solutions, transforming the industry’s
information management and data
exchange while fulfilling international
regulatory compliance. ”



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