

ENAV GROUP OFFERING.





Innovating the sky

We innovate the sky by managing air traffic with a constant focus on safety, punctuality, and efficiency. Our operational excellence, combined with advanced technological capabilities, positions us among Europe's leading providers and a global benchmark in air traffic management.

As both an ANSP and a provider of systems and products, we bring together operational experience, engineering expertise, and proven solutions. We support clients worldwide in creating safer and more efficient airspace through a comprehensive 360° approach—from design and development to implementation and operations

ENAV GROUP

THE STRATEGIC PARTNER THAT TURNS COMPLEXITY INTO REAL VALUE

DESIGNED. BUILT. OPERATED. By those who fly the system.
A single End-to-End vision: We Design. We Develop. We Operate.

From Planning & Design to Operations and Beyond

Behind every solution is a team of highly specialized, qualified, and certified professionals. Each platform, process, and model is grounded in real operational experience—designed, tested, validated, and continuously refined before being delivered to our customers.

PLANNING & DESIGN

OPERATIONS

POST-OPERATIONS



SERVICES

DEFINITION

- Master Plan
- CONOPS
- Business Models

DEVELOPMENT

- Airspace Design
- Procedures Design
- Design Validation
- Certified Training
- Certification Support

DEPLOYMENT

- Aeronautical Publication
- Procurement Process
- Project Management
- Transition Management
- Engineering Services

OPERATIONS

- Air Traffic Services (ATS)
- UAVs Traffic Management (UTM)
- UAS Operations

POST-OPERATIONS

- Safety investigation
- Revenue Management
- Refresh Training
- Maintenance Services

ASSETS

- eTOD
- EMACS

- ENAV Academy
- FPDAM
- FPSAT
- Simulation Platforms

- ICE
- WePub
- SWIM Distribution Portal
- FIV Fleet

- ATC and Meteo Systems
- Technical Operation Center
- D-Flight UTM Platform
- Drone Control Center
- Air Traffic Flow Management
- CRONOS
- AMHS/UBIMEX

- Real Time Simulators
- ATC Investigation Suite
- Unmanned Vehicles Fleet
- Revenue Management System



Definition

Master Plan

We define the full roadmap for the evolution of the operational environment, considering stakeholders and context.

From airport master plans to airspace evolution, we deliver coherent roadmaps guiding investments, operational capacity and infrastructure transformation. Our traffic forecasts enable data-driven decision-making, ensuring that capacity, services and infrastructure are aligned with sustainable and realistic growth. A holistic approach that integrates planning, innovation and safety, providing our clients with a solid foundation to shape the future of aviation operations and advanced air mobility.

CONOPS

We define the operational framework for integrated and safe airspace management, covering ATM, UTM and civil-military environments.

Through structured risk analysis, obstacle and electromagnetic compatibility studies and flexible airspace use assessments, we develop robust operational models fully aligned with international standards. Our CONOPS support clients and stakeholders in defining processes, roles and future operational scenarios, ensuring full consistency between operational requirements and technological implementations. An end-to-end approach that enables informed decision-making, reduces operational uncertainty and facilitates the adoption of new capabilities within a complex and rapidly evolving aviation ecosystem.

Business Model

We transform operational data, traffic scenarios and infrastructure capacity into sustainable, growth-oriented business models for airports and airspace operators.

Through economic analysis, operational impact assessments and the development of sustainable solutions, we support clients in identifying effective growth strategies fully aligned with the evolution of the ATM/UTM ecosystem linking performance with return on investment.

We design configurations that maximize efficiency, enable targeted investments and support the introduction of new capabilities, from advanced air navigation services to innovative air mobility.

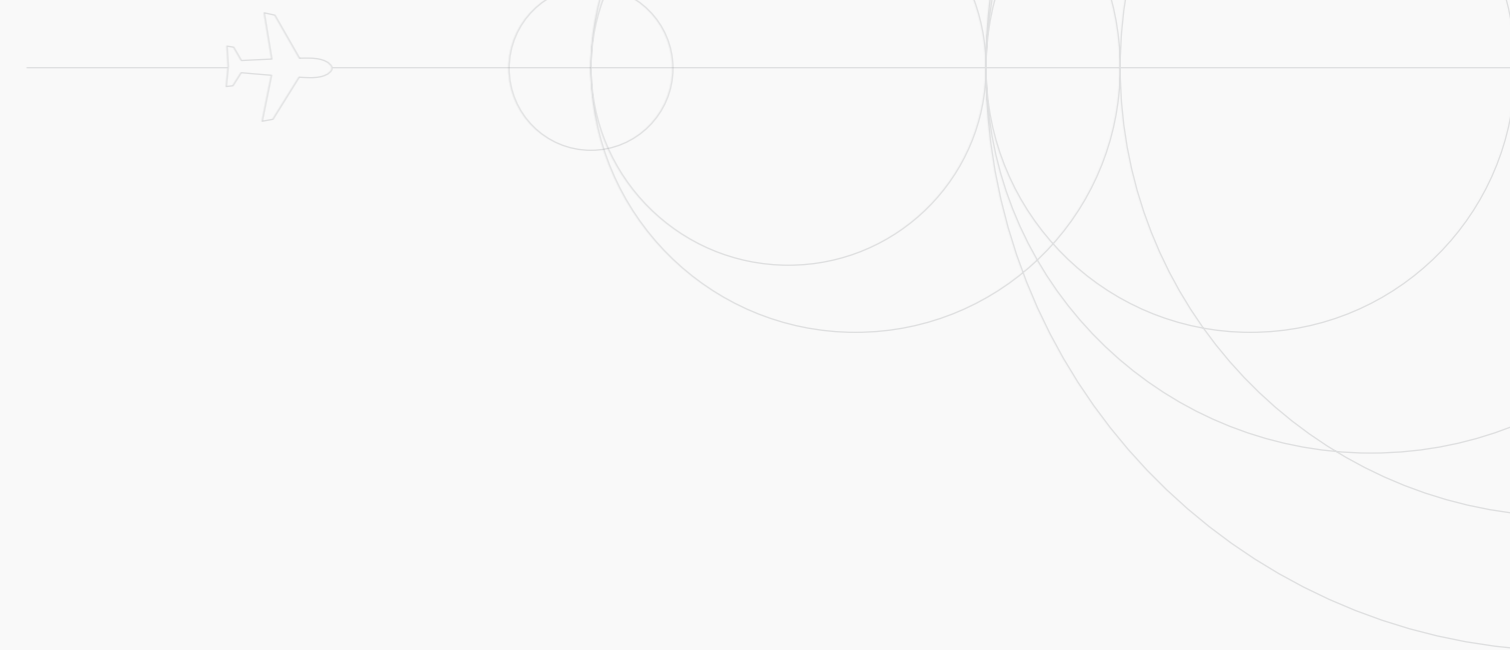
A holistic approach that combines sustainability, innovation and performance, providing a clear decision-making framework to guide the long-term evolution of the aviation business.

eTOD

Enables the integrated management of terrain, obstacle and airport mapping data throughout the entire lifecycle, from validation to publication. It supports the design of ICAO and PANS-AIM surfaces and the production of obstacle charts, ensuring regulatory compliance and high data quality.

EMACS

Enables 3D modeling of the airport electromagnetic environment and evaluation of CNS system performance, analyzing EMC/EMI effects caused by terrain, obstacles, infrastructure and external emitters. It supports ANSPs and airport operators in optimizing CNS system placement, mitigating interference risks and ensuring ICAO compliance within a single, integrated workflow.



Development

Design

We design airspace, flight procedures and ATC/CNS infrastructures to ensure safe and efficient operations. Through airspace design and flight procedure design activities, we develop operational architectures that optimize traffic flows, capacity and performance. Our approach combines regulatory requirements, advanced modeling and operational simulation, ensuring solutions that comply with international standards and local requirements. Our offering is complemented by ATC/CNS system design, integrating innovative technologies to ensure service continuity, interoperability and long-term scalability.

Operational Procedures

We define safe, consistent and optimized operational procedures, supporting air traffic control across all phases of flight. We design procedures that reduce complexity, improve predictability and maximize ATC operational capacity. Our approach combines international regulatory standards, advanced modeling and safety assessments, ensuring robust solutions that are easily implementable by operators.

A comprehensive framework that enhances safety and performance, supports the transition toward advanced air traffic management concepts and ensures operational continuity in complex environments.

Validation

We test and verify all solutions to ensure efficiency, safety and compliance, guaranteeing the reliability of implementations within the airspace. We assess capacity, efficiency and operational impacts of procedures, systems and new concepts, ensuring alignment with regulatory and operational requirements. Flight inspection and validation activities enable on-site verification of the correct implementation of flight procedures and CNS infrastructures, ensuring accuracy, integrity and full compliance with applicable standards. The framework is completed by safety assessments, which identify risks, mitigation measures and residual safety levels supporting sound operational decision-making and reducing uncertainty throughout the entire project lifecycle.

Certified Training

Training programs for technical and operational personnel, compliant with international standards and designed to ensure up-to-date, immediately applicable operational skills. We provide certified training pathways and instructors for ATC, technical and operational staff, combining theory, simulation and final assessment to ensure high levels of quality, compliance and performance.

Certification Support

We support clients and stakeholders throughout the certification process for systems and operational concepts, ensuring full compliance with regulatory requirements and international standards.

From defining the required evidence to supporting the preparation of technical and safety documentation, we guide clients through the entire process up to final approval reducing timeframes and complexity.

FPDAM

Enables the design, verification and maintenance of instrument flight procedures and airspace within an interactive 2D/3D environment compliant with international standards. It integrates, within a single design environment, tools for defining routes, MVAs, airspace structures and aerodrome-related aeronautical surfaces.

FPSAT

Enables ground validation of RNAV procedures through virtual flight inspections, assessing flyability, navigation performance and potential interference along coded trajectories. It simulates FMS behavior and analyzes GNSS and DME/DME performance to support efficient, ICAO-compliant validation of PBN operations.

ENAV Academy

Comprehensive training and certification programs for all professional profiles, from air traffic controllers to maintenance technicians and administrative staff.

Simulation Platforms

Real-time simulators for the validation of operational procedures and to support the certification of staff and systems.

Flight Inspection & Validation Fleet

Thanks to our certified pilots and a fleet of aircraft equipped with state-of-the-art technology, we provide Flight Inspection and Validation services in compliance with international regulations.

Deployment

Aeronautical Publication

We manage aeronautical documentation in compliance with international standards, ensuring up-to-date information that is easily accessible to operators and stakeholders.
 From AIP to supplements, from aeronautical charts to updates, we ensure structured editorial processes, data quality and full compliance with ICAO requirements and national regulations.

Procurement Process

We support the acquisition of systems, technologies and services.
 We assist clients in defining, preparing and managing the documentation required for an effective procurement process that is fully compliant with regulatory requirements.

Integrated Project Management

We manage the entire project lifecycle, ensuring effective coordination, control of timelines and costs and full alignment with the client's operational and technical objectives.
 At every stage of Planning & Design, our project management methodology ensures consistency, control, quality and risk management, delivering projects on time, on budget and on scope.

Transition Management

We support clients in the operational introduction of new procedures, systems and concepts, ensuring a smooth, seamless, safe and fully controlled transition to the new operational setup.
 Through operational validation activities, we verify on-site the alignment between requirements, performance and real-world usage, reducing risks and uncertainties. Our transition support ensures stakeholder coordination, effective change management and operational continuity throughout all implementation phases.

Engineering Services

We provide specialized technical support at every stage, from design to construction and installation of airport infrastructure and air traffic management systems.
 Thanks to multidisciplinary expertise and an end-to-end approach, we support all phases of the asset lifecycle, ensuring technical compliance, alignment with international standards and high operational performance.

ICE

Enables the creation and maintenance of ICAO Annex 4 aeronautical charts within a modern GIS environment. It automates chart production through templates, facilitating AIRAC update management and ensuring data consistency across all chart types.

WePub

Enables the creation, management and publication of standard aeronautical information (e.g. AIP) and non-standard content (e.g. Airport Manuals) within a fully web-based environment. It supports remote collaboration and structured content updates through an intuitive interface for text, images, tables and cross-references.

SWIM Services

DDP and DDS enable the distribution of aeronautical information through SWIM-compliant B2C and B2B digital services, supporting the digital transformation of AIM.

RMDM

A solution for the automated creation of interactive maps for ATC Controller Working Positions (CWP) based on geographic data in AIXM format, enabling the harmonization of data from different vendor technologies.

Operations

Air Traffic Services (ATS)

We provide air traffic control (ATC) and flight information services (FIS) to ensure safe, orderly and efficient operations in the airspace.

Our services support all phases of flight, ensuring separation, traffic continuity, correct operational information and support to pilots, in full compliance with international standards and safety requirements.

- Air Traffic Control (ATC) – We ensure safe, efficient and continuous management of air traffic flows, integrating advanced technology and ICAO standards.
- Flight Information Service (FIS) – We provide critical and up-to-date information for informed navigation, improving situational awareness and supporting safe operational decisions.

Meteo Services

Our team of meteorologists produces forecasts with a validity of 9, 24 and 30 hours, while airport meteorological stations issue observation bulletins on an hourly or half-hourly basis.

Weather observations and forecasts are disseminated in real time over international telecommunication networks, ensuring that pilots are continuously updated on meteorological conditions.

Unmanned Traffic Management (UTM)

We enable the intelligent and digital management of UAS operations, providing automated and integrated services for the safe use of drones in any operational scenario.

Our UTM solutions support flight planning, monitoring and management, ensuring the integration of drones into both manned and unmanned airspace, in compliance with regulatory and safety requirements.

A scalable ecosystem that supports the evolution of air mobility, enabling efficient operations even in complex and high-density traffic environments.

UAS Operations

We integrate advanced UAS operations into engineering and maintenance activities.

Through the use of drones for inspections, surveys and monitoring, we enable more efficient, safe and data-driven solutions, reducing time, costs and operational impacts.

A flexible and scalable approach that supports accurate decision-making processes and improves asset management in complex environments such as airports, infrastructures and real estate assets.

ATC Suite (TWR/ACC/APP)

An innovative solution supporting air traffic control and information services for En Route, Approach and Tower operations, designed to operate in any operational context. Developed in close collaboration with operational controllers, it has been fully designed, tested, validated and certified prior to its international deployment, ensuring reliability and full alignment with real ATC operational needs.

Digital Tower

A scalable and flexible solution for providing remote airport ATC services, both for single airports and for establishing regional or national centers for centralized multi-airport control.

Meteo System

Our e-AWOS suite consists of integrated software applications for the collection, management and distribution of meteorological data. Thanks to its AWOS-TWR, MET, MNT, ATIS and RVR components, along with the CLODES system, it provides all the meteorological information required to ensure safe operations, monitor weather conditions (both on the ground and in the air) and generate meteorological reports.

Technical Operation Center (TOC)

National center for the remote management, coordination and optimization of all maintenance activities related to ATC/CNS infrastructures.

Airport Collaborative Decision Making (A-CDM)

The Airport-CDM platform supports and enhances the Collaborative Decision Making paradigm, integrating advanced functionalities for airport operational management. Designed for use both at a single-airport level and centrally across airport networks, it includes a Pre-Departure Sequencing tool that provides operational planning directly integrated into the CDM process for all connected airports.

UTM Solutions

A comprehensive, scalable and customizable platform for both basic and advanced UTM services, designed for all drone users to manage any UAS operation (recreational or professional) in a safe, cost-effective and efficient manner, including within U-Space environments.

03/OPERATIONS

Operations

Drone Control Center

A command center for the full remote management of UAS operations, integrating advanced capabilities for mission planning and monitoring, fleet management and automated workflows, ensuring maximum operational flexibility and resource optimization.

AMHS/Ubimex

An infrastructure solution for the management of dynamic aeronautical messaging. SWIM-ready, it ensures seamless integration between legacy AFTN systems and modern AMHS systems, guaranteeing full interoperability and bidirectional compatibility in compliance with standards.

CRONOS

A modular web-based platform designed for the management of dynamic aeronautical data across AIS and MET domains. Its flexible architecture supports both traditional messaging and modern SWIM-enabled digital services, ensuring scalability and readiness for future developments.

Air Traffic Flow Management (ATFM)

Supports the strategic, tactical and operational management of airspace, providing automated recommendations for optimized sector configurations based on traffic demand. It enables rapid adaptation of configurations in complex or contingency scenarios, evaluation of alternative strategies through what-if simulations and supports decision-making processes, including post-operations optimization.



Post-Operations

Safety Investigation

We analyze events and operational anomalies to identify root causes, prevent future risks and ensure the highest level of safety.

A structured approach that supports the continuous improvement of systems and processes, strengthening safety culture and operational resilience within a continuous feedback loop.

Revenue Management

We manage revenues in compliance with applicable regulations and reinvest them to continuously improve the services we provide to our stakeholders.

A model focused on economic sustainability and transparency, ensuring efficiency, effectiveness and long-term value creation.

Refresh Training

We provide refresher training programs for technical and operational personnel to maintain high competency standards.

Training pathways are designed to ensure continuous alignment with regulatory, technological and operational developments, supporting performance, safety and long-term reliability.

Maintenance Services

We provide 24/7 maintenance of systems, technologies and infrastructures, ensuring operational availability, reliability and consistent performance.

A continuous and proactive service that reduces the risk of downtime, supports service continuity and preserves the long-term value of critical assets.

Demand/Capacity Continuous Flow Optimization

We continuously optimize the balance between demand and capacity, improving the management of air traffic flows within the airspace.

Through advanced analytics, real-time monitoring and forecasting tools, we support dynamic decision-making that reduces congestion, delays and inefficiencies.

An integrated approach that starts from the Planning & Design phase, enhancing operational predictability, improving resource utilization and contributing to sustainable and robust ATM system performance.

ARMS

ARMS – A fully configurable platform for managing any type of revenue in compliance with local regulations and the applicable Business Model.

ATC Investigation Suite

A complete solution to record, replay and export the entire set of data (video, audio, cameras, etc.) in support of legal investigations and technical troubleshooting activities

Unmanned Vehicles Fleet

Unmanned Vehicles Fleet – Thanks to our certified pilots and a fleet of over 180 next-generation drones equipped with specific payloads, we provide highly professional maintenance services.

Real-Time Simulators

Simulation and analysis platforms for En Route, Approach and 3D Airport services. Designed and developed to be used flexibly for training, operational investigations and validation of new functionalities within a continuous improvement framework.

ENAV Group



ENAV is a leading Air Navigation Service Provider, managing air traffic across Italian airspace and 45 airports with 4,500 people. It plays a key role in the global ATM system and in the development of the Single European Sky. Beyond its ANSP role, ENAV is a global provider of end-to-end ATM solutions covering the full lifecycle of air traffic systems and services, including but not limited to master planning, airspace and procedures design, operational models, safety and performance analysis, training. Through strong R&D activities, including SESAR participation, ENAV drives continuous innovation in ATM. The Group operates in more than 50 countries, delivering services worldwide with a strong focus on innovation and sustainability. ENAV is listed on the Italian Stock Exchange.



Techno Sky manages and maintains safety-critical ATC systems supporting air navigation services, ensuring reliability and operational continuity. It designs and develops ATC and meteorological systems for Italy and international markets, combining engineering and operational expertise. With over 70 drones and more than 200 certified operators, the company provides inspection and monitoring of airport infrastructure and essential flight operation systems.



IDS AirNav is a global leader in aeronautical information management systems, delivering advanced software solutions to more than 100 customers worldwide. Its platforms support the management of aeronautical data and related processes through applications for flight procedures, aeronautical publications, messaging, traffic flow management, and dynamic airspace configuration. The software continuously evolves to meet customer and regulatory requirements, ensuring compliance, adaptability, and operational continuity.



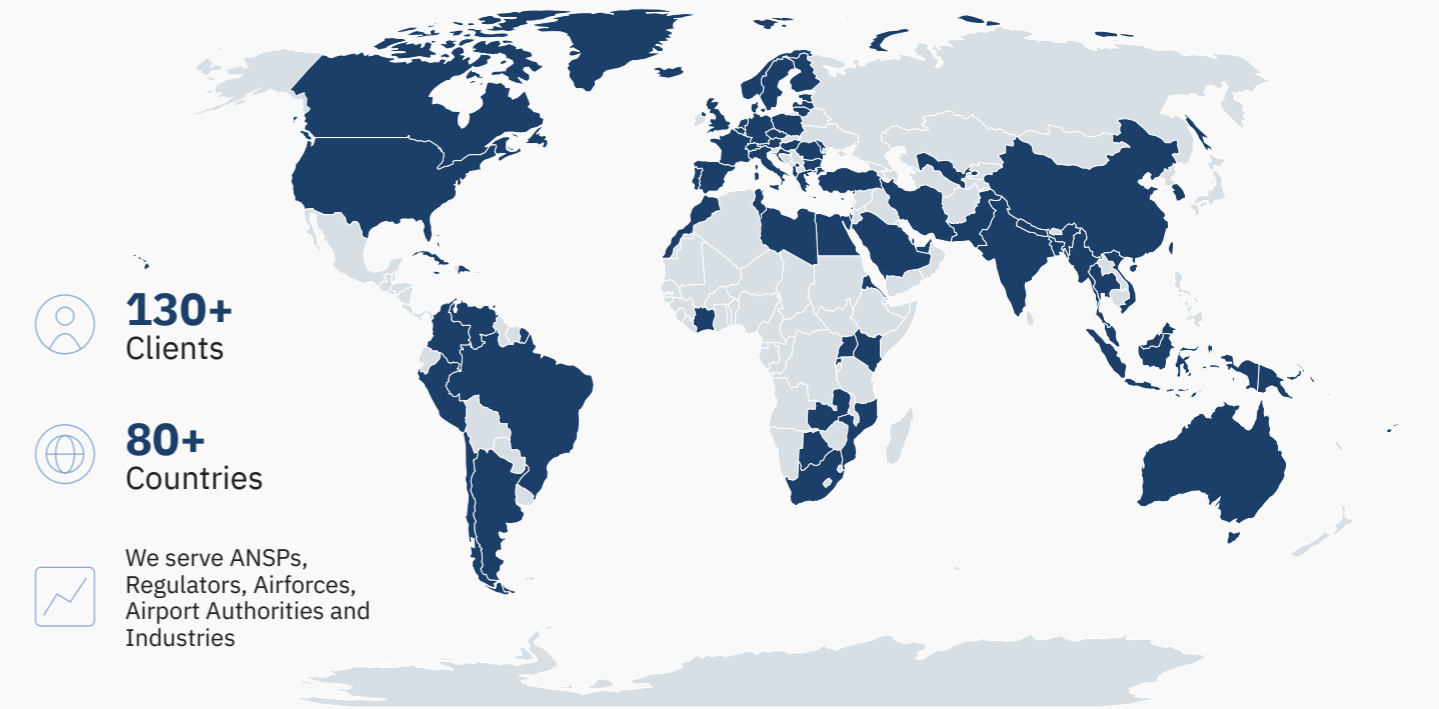
D-Flight is a pioneer in digital airspace services for unmanned aviation, providing certified platforms for the integration and management of drone operations in shared airspace. It enables essential information services for UAS operations, supporting safe and scalable drone integration in complex airspace environments. The company has contributed to the first operational implementations of structured drone corridors for applications such as delivery and advanced unmanned operations.



AI View Group is a technology company specializing in drone-based and unmanned solutions. By combining UAVs and artificial intelligence, it transforms data into actionable insights for faster and more effective decision-making. The company delivers end-to-end inspection and monitoring services for complex infrastructure, integrating commercial drones with proprietary software to optimize processes, reduce risk, and enhance operational performance.



Global Presence



Countries in Europe

Albania, Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Kosovo, Latvia, Lithuania, Luxembourg, Moldova, Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, Turkey, United Kingdom.

Countries in Asia and Middle East

Bangladesh, China, Dubai, Hong Kong, Indonesia, Iran, Malaysia, Maldives, Myanmar, Nepal, Pakistan, Qatar, Saudi Arabia, Singapore, South Korea, Taiwan, Thailand, United Arab Emirates, Uzbekistan, Vietnam.

Countries in America

Argentina, Bahamas, Brazil, Canada, Chile, Colombia, Cuba, Curaçao, Dominican Republic, Jamaica, Peru, Sint Maarten, Trinidad and Tobago, United States, Venezuela.

Countries in Africa

Botswana, Egypt, Eritrea, Ivory Coast, Kenya, Libya, Mauritius, Morocco, Mozambique, Rwanda, South Africa, Tunisia, Uganda, Zambia.

Countries in Oceania

Australia, Fiji, Papua New Guinea.

Why choosing ENAV

/LEADING ANSP FOR PERFORMANCE, EFFICIENCY AND SAFETY IN EUROPE AND WORLDWIDE

/END-TO-END CAPABILITY TO DESIGN, DEVELOP AND OPERATE THE ATM SOLUTION ACROSS THE FULL LIFECYCLE, FROM PLANNING & DESIGN TO OPERATIONS AND POST-OPERATIONS

/PROPRIETARY TECHNOLOGICAL ASSEST FULLY INTEGRATED WITH SERVICES

/INTERNATIONAL EXPERIENCE IN MORE THAN 80 COUNTRIES GAINED IN MULTICULTURAL ENVIRONMENT

/THE ONLY EASA-CERTIFIED OPERATOR FOR BVLOS AIRPORT OPERATIONS



Sustainable for you



Sustainability represents our commitment to a cleaner sky and to pursuing a model of development that is ever more inclusive and attentive to future generations. Aware of our role towards the Country System and the European civil aviation sector, we have long been committed to reducing the environmental impact of our activities and consider the protection of the planet an essential target.

The Group's climate commitment is based on two main directions:

- **Contributing to the decarbonisation of the aviation sector**
Free Route: since 2017 the figures show a saving in terms of kilometers traveled and fuel consumed for carriers which led to an emission reduction of over 1,3 billion kg of CO₂e.
- **Reducing environmental impact directly generated by the Group's activities**
We are the first Air Navigation Service Provider in the world to achieve Carbon Neutrality, reducing our Scope 1 and 2 emissions by more than 87% compared to 2019.

Certifications

/Air Navigation Services and Training

- Service Provider Certificate
- Instrument Flight Procedure Design Operation
- Air Traffic Controller Training Organisation (ATCO TOs)
- Flight Information Service Training Organisation
- Aviation Meteorologist/Meteorology Technician Training Organisation

/Integrated Management Systems

- ISO 9001
- ISO 45001
- ISO 27001
- ISO 37001
- UNI/PdR 125

/UAVs Traffic Management

- Single Common Information Service Provider
- U-Space Service Provider

/Technology

- CMMI Maturity Level 2
- CMMI Capability Level 2 - SAF&SEC
- CMMI Maturity Level 3
- Accreditation

/Sustainability

- EASI Certificate

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