CROATIA
CONTROL

ANNUAL REPORT
2024

Croatia Control Ltd.
Annual Report 2024

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Message from the Director General

Despite global challenges facing the aviation, 2024 was a successful year for Croatia Control across all areas. As in the previous year, traffic along the Southeast Axis continued to grow at a double-digit rate. Around 920 thousand flights were managed within our area of responsibility, representing an increase of approximately 13% compared to the previous year. Moreover, compared to 2019 – still the benchmark year for traffic growth in the EU – domestic traffic grew by an impressive 30%.

Strong Traffic Recovery

The significant recovery of air traffic in Europe – including in the Republic of Croatia – was accompanied by delays during the summer season, primarily due to unpredictable traffic growth and extreme weather conditions in the season. I would like to emphasize the high level of professionalism, coordination, and expertise demonstrated by our staff, who ensured the safe and smooth flow of air traffic even under high workload conditions.

Alongside the increase in traffic levels, the company delivered strong financial performance. Total revenue for 2024 amounted to EUR 135.8 million, representing a 6.5% increase, with pre-tax profit reaching EUR 21.5 million, an increase of nearly 2% compared to 2023.

Upgrade of ATM Systems

As part of our long-term business sustainability strategy, a major investment cycle was launched, resulting in the realization of 85% of planned investments in 2024. Alongside the continuous modernization of the core air traffic management system through annual upgrades, a comprehensive ATM system upgrade was contracted in mid-2024 with our COOPANS partners. This upgrade will include advanced functionalities and a modern technological platform.

The technological solutions of the upgraded system TopSky-ATC One are expected to meet the challenges of traffic growth, rising safety requirements, and compliance with the European Commission's development guidelines and regulatory requirements. Through this upgrade, COOPANS continues to implement the EU's ambitious SES initiative, aimed at harmonizing and optimizing ATM across Europe.

At the international level, the Company continued its active involvement in numerous organizations and alliances, as well as in innovation projects under the third European ATM research program – SESAR 3.

Environmental Commitment

We remain committed to environmental sustainability through improvements to our existing systems, investment in new technologies, and the use of electricity from renewable sources.

In early spring 2024, the project to expand cross-border free route airspace between Italy and Southeast Europe was completed, creating one of the largest FRA in Europe. This allowed airspace users to plan routes according to their preferred flight profiles, leading to a reduction in environmental impact through decreased fuel consumption and, consequently, lower greenhouse gas emissions.

Additionally, by designing efficient arrival and departure flight procedures and enabling continuous descent operations, CCL supports optimum aircraft performance while mitigating environmental impacts during arrival and departure phases of a flight.

Training of New ATCOs

Alongside technological development, the growth of the organization is grounded in human resources, which are the key guarantee of safe and high-quality services. Therefore, special emphasis is placed on the training and continuous competence maintenance of operational and administrative personnel.

We also continued our in-house training program for new air traffic controller candidates, addressing increased traffic demand. To meet regulatory requirements, a new tower simulator was installed in 2024, with exercises for all 10 tower units, supporting the training of aerodrome ATCOs.

Activities continued toward the launch of construction and equipping of a multipurpose centre in Zadar, which, among other things, would be the first in this part of Europe to introduce the concept of digitalization of certain services, and would serve as a training facility for ATCO candidates.

Support for Rafale Operations

As a service provider to military users, we were honoured to support the arrival of Rafale multirole combat aircraft, in cooperation with the Ministry of Defence and the Croatian Air Force.

One of the greatest challenges was meeting the Croatian Air Force's requirements for airspace use while maintaining safety and efficiency in air navigation services. Increased military activity demands closer coordination among civil and military stakeholders, including precise airspace planning and management.

We continue all necessary support activities for the training of Croatian Air Force flight crews, enabling these modern aircraft to reach full operational capability in safeguarding Croatian airspace.

Looking Ahead

The upcoming period will remain challenging for the aviation industry due to ongoing instability in Eastern Europe and the Middle East, as well as new dynamics in the global economic environment.

With traffic growth forecasts and the financial business framework for the 2025–2029 period approved by the European Commission, CCL is committed to the safe provision of services while actively working to reduce delays. This will be achieved through the recruitment and training of additional staff – primarily ATCOs – and through investments in new technologies and operational concepts as part of the planned investment cycle.

Director General

Mario Kunovec-Varga

Company Profile

History

Croatia Control Ltd. (CCL) is an air traffic service provider fully owned by the Republic of Croatia.

CCL's priority is to provide safe, efficient and ecologically acceptable ANS to civil and military users in airspace over Croatia, as well as in airspace above the eastern part of Adriatic and the northwestern part of Bosnia and Herzegovina.

CCL ensures a high level of air traffic safety according to the Single European Sky legal framework and develops and uses state-of-the-art technology to increase the efficiency of air traffic.

CCL was founded in 1998, a year after Croatia's accession to Eurocontrol. Before 1998, the Air Traffic Services Authority as a part of the Ministry of Transport was responsible for the provision of ANS in Croatia.

Mission & Vision

Our mission is to provide safe and quality air navigation services to the complete satisfaction of our users and owners. We will achieve our mission by cooperating with our partners in the European ATM network and fostering highly qualified employees and a motivating environment.

We strive to be among the leading air navigation service providers in Central Europe. We will achieve our vision through a flexible organization, adapting to the needs of our users.

Organizational Values

The values we nurture make our team successful and us an excellent employer:

✈ **Safety and Quality**
Safety always comes first.

✈ **Excellence**
We create added value for all stakeholders.

✈ **Adaptability**
We choose actions responsibly in different situations.

✈ **Cooperation and Teamwork**
We cherish cooperation and partnership with all stakeholders.

✈ **Boldness and Development**
We accept new challenges and strive for overcoming obstacles or achieving something of value.
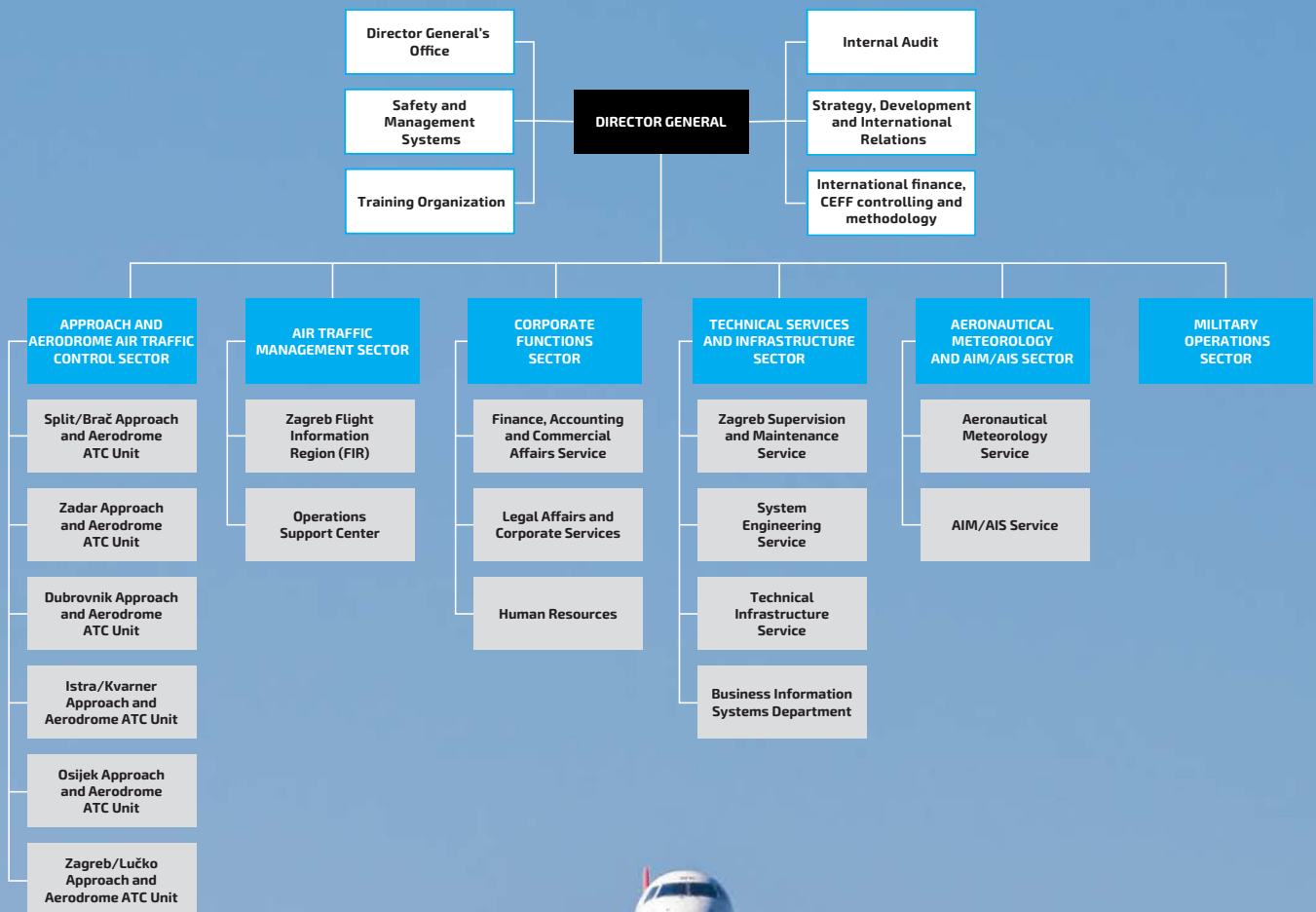
Core Business

CCL is certified for the provision of the following services and functions:

- ✈ Air Traffic Services (ATS)

- ✈ Communication, Navigation and Surveillance Services (CNS)

- ✈ Aeronautical Information Services (AIS)

- ✈ Aeronautical Meteorological Services (MET)

- ✈ Flight Procedure Design Services (FPD)

- ✈ Airspace Management (ASM)

- ✈ Air Traffic Flow Management (ATFM).

Zagreb ACC

Organizational Structure

The company is headquartered in Velika Gorica, and has six regional ATC units (Zagreb/Lučko, Istra/Kvarner, Zadar, Split/Brač, Dubrovnik and Osijek) responsible for the provision of approach and aerodrome ATC, technical support, MET and administrative services.

Director General's Office

Safety and Management Systems

Training Organization

DIRECTOR GENERAL

Internal Audit

Strategy, Development and International Relations

International finance, CEFF controlling and methodology

APPROACH AND AERODROME AIR TRAFFIC CONTROL SECTOR

- Split/Brač Approach and Aerodrome ATC Unit
- Zadar Approach and Aerodrome ATC Unit
- Dubrovnik Approach and Aerodrome ATC Unit
- Istra/Kvarner Approach and Aerodrome ATC Unit
- Osijek Approach and Aerodrome ATC Unit
- Zagreb/Lučko Approach and Aerodrome ATC Unit

AIR TRAFFIC MANAGEMENT SECTOR

- Zagreb Flight Information Region (FIR)
- Operations Support Center

CORPORATE FUNCTIONS SECTOR

- Finance, Accounting and Commercial Affairs Service
- Legal Affairs and Corporate Services
- Human Resources

TECHNICAL SERVICES AND INFRASTRUCTURE SECTOR

- Zagreb Supervision and Maintenance Service
- System Engineering Service
- Technical Infrastructure Service
- Business Information Systems Department

AERONAUTICAL METEOROLOGY AND AIM/AIS SECTOR

- Aeronautical Meteorology Service
- AIM/AIS Service

MILITARY OPERATIONS SECTOR

International Cooperation

CCL has been participating in the development of the European airspace by taking part in international projects and activities of various international organizations.

ICAO

Croatia has been the member of International Civil Aviation Organisation, the organization that sets global aviation standards and recommended practices, since 1992.

EUROCONTROL

Croatia has been the member of the European Organisation for the Safety of Air Navigation since 1997.

NATO

Since Croatia's accession to NATO in 2009, CCL has a good cooperation with NATO operational bodies in the field of ATC, especially in joint flexible airspace use within CCL's area of responsibility.

COOPANS

COOPANS is an international partnership between ANSPs of Austria (Austro Control), Croatia (Croatia Control), Denmark (Naviair), Ireland (Airnav Ireland), Portugal (NAV Portugal) and Sweden (LFV).

The COOPANS Alliance capitalizes on joint and harmonized system development between members and positively influences the European environment to operate a world-class, safe, sustainable and cost-effective system. COOPANS Alliance is considered as the leading example of such industrial partnership in Europe. COOPANS continuously performs the synchronized deployment of harmonized software at all 8 ACCs across 6 ANSPs.

The CEOs of the six COOPANS ANSPs presented a plan for implementing the COOPANS ATC system upgrade with Thales

During 2024 a new system upgrade was commissioned, introducing a new controller support tool – the Tactical Controller Tool (TCT) – which significantly enhances safety and capacity in the FRA environment.

Aforementioned upgrade also delivers a comprehensive system capacity increase to ensure adequate support for expected traffic growth until the major system upgrade to TopSky-ATC One planned for 2028.

Factory and on-site tests were completed for new upgrades, which aim to deliver further improvements in cybersecurity and upgrades of SWIM functionalities. These upgrades are scheduled for operational deployment in 2025.

A contract was also signed for the upgrade of ASM LARA to enable faster compliance of the ATM system with CP1 regulatory requirements.

In addition, together with COOPANS partners, a contract was concluded for a comprehensive ATM system upgrade featuring advanced functionalities and a modern technological platform. The technological solutions of the upgraded system, named TopSky-ATC One, are expected to meet the challenges of traffic growth, increased safety needs, and compliance with development directions and regulatory requirements set by the European Commission – particularly the CP1 regulation and selected Strategic Deployment Objectives (SDO) from the ATM Master Plan 2024.

Activities continued on innovation and development projects including ATC-TBO and ISLAND, as well as CEF-funded projects in cooperation with CINEA, such as EXODUS and Clean ATM (focused on CP1 implementation).

A6

Following the signing of a Memorandum of Cooperation in 2015, COOPANS joined the A6 Alliance, which brings together ANSPs from France, Spain, Italy, Germany, the United Kingdom, Poland, and the B4 consortium. The alliance contributes to the work of the SESAR Deployment Manager (SDM) and the SESAR 2020 programme.

Gate One

Gate One is a cooperation of 13 ANSPs grouped into 3 FABs (FAB CE, Baltic FAB, Danube FAB) and 2 non-EU FIRs (Belgrade and Skopje). Its purpose is promoting efficient European ATM, strengthening the cooperation of ANSPs and facilitating the stronger and better coordinated representation of the countries in European decision-making processes.

CANSO

CCL operates within CANSO Europe and actively participates in the work of various committees. Civil Air Navigation Service Organization is recognized as a global voice of the ATM industry and represents the views and interests of members at relevant European and international institutions and on a range of contemporary issues across the industry.

SESAR 3 JU

COOPANS became a full member of the SESAR Joint Undertaking in 2016, enabling its members, including CCL, to participate in SESAR 2020's industrial research and demonstration programme. At the end of 2021, the SESAR 3 Joint Undertaking (SESAR 3 JU) was established, succeeding its predecessor.

The SESAR 3 programme builds on the achievements of previous SESAR re-

Mariagrazia La Piscopia, Executive Director of the SESAR Deployment Manager, and Andreas Boschen, Executive Director of the SESAR 3 Joint Undertaking, visited CCL

search and aims to drive further development of the European ATM system, supporting the creation of the Digital European Sky. The programme consists of foundational research, industrial research and validation, as well as Digital Sky Demonstrators (DSDs) that will test solutions needed for the implementation of Digital European Sky in live operational environments.

CCL actively participates in SESAR 3 JU activities alongside other COOPANS members.

SESAR Deployment Manager

Since late 2014, through COOPANS, CCL has been part of the management consortium performing the role of SESAR Deployment Manager.

As of June 1, 2022, the SESAR Deployment & Infrastructure Partnership (SDIP) assumed the role of SDM and Framework Partnership Agreement Coordinator, following formal appointment by the European Commission. A key distinction

in this new structure is the inclusion of EUROCONTROL – Network Manager as the fourth consortium group. While its composition changed, SDM's tasks remain focused on fulfilling CP1 regulatory obligations and managing the implementation of the SESAR Deployment Programme.

In 2024, CCL contributed to SDIP governance through coordination with the COOPANS joint representative on the SDIP Steering Board.

MET Alliance

MET Alliance is a group of national aeronautical meteorological service providers from Austria, Belgium, Germany, Ireland, Switzerland, the Netherlands, France, Luxembourg and Croatia.

Sharing the knowledge and common resources is the way in which MET Alliance wants to improve and rationalize the provision of aeronautical meteorology services.

EUROCAE

CCL has been a member of the European Organisation for Civil Aviation Equipment since 2024. EUROCAE is the European leader in the development of worldwide recognised industry standards for aviation.

FAB CE

The Functional Airspace Block Central Europe is a joint initiative of Croatia, Austria, Bosnia and Herzegovina, Hungary, the Czech Republic, Slovakia, Slovenia and their ANSPs founded in 2011. The aim of this regional association is to increase air traffic safety, reduce delays and costs for airspace users and protect the environment.

In order to reduce costs of FAB CE programs implementation and to achieve better administrative and operational efficiency on the service providers level, six FAB CE members (excluding BHANSA) established a joint legal entity FAB CE Aviation Services Ltd in 2014. (FCE) with its head office in Ljubljana. FCE renders full and consistent support to its owners through its services of program management and project support.

Significant activities in 2024:

In the operational domain, activities focused on the planning and establishment of cross-border FRA between SECSI FRA and SEE FRA, as well as between Baltic FRA and SEE FRA. These two projects were successfully implemented on 28 November 2024.

The FAB CE Operational Performance Dashboard was launched – a digital tool providing insight into key airspace performance indicators, with real-time and historical data, as well as traffic visualization. Version 2.0 is planned for mid-2025.

In the field of U-space and drones, two projects were completed: a joint methodology for risk assessment in U-space airspace, and the Handbook of Standards for CISP Data Exchange.

In the technical domain, an analysis of radar coverage (PSR and SSR) within FAB CE was conducted, including radars not owned by FAB CE partners.

The FAB CE GNSS Vulnerability Report was updated, incorporating regulatory frameworks, examples of signal interference, mitigation strategies, and a new interference reporting form intended for ATCOs.

In the area of human resources, activities related to the evaluation of ATCO training were concluded, resulting in a compendium of best practices.

CCL hosted the InterFAB workshop in April 2024 on the topic of predictability and flexibility of the ATM system, which gathered around 130 participants from 23 countries. The workshop also served as a launch point for a study on fragmentation in the European ATM/CNS system, with FAB CE participating as a co-author

2024 Highlights

- 529 000 km² **of the Airspace**
- 63 **sectors**
- **Total number of flights** 2 600 584
- **Airport traffic** 721 747
- 27 % **of the European traffic**
- 1 658 **Air Traffic Controllers**

Wien

Zagreb

Budapest

Prague

Bratislava

Ljubljana

Sarajevo

EU Co-funded Projects

CCL partakes in numerous projects co-funded by the EU and has drawn significant funds from the Connecting Europe Facility (CEF) between 2014 and 2024 to support its development projects. This amounts to a total of 52 million euros, with co-funding of up to 34.5 million euros (an average of 66%).

CEF is a key EU financial instrument, the main objective of which is to provide financial assistance for projects that develop trans-European networks in the fields of transport, energy and digital services.

In most of the projects, CCL has participated in cooperation with its foreign partners through joint applications coordinated by the SDM or directly through applications to INEA (later CINEA). The aim of those projects is to follow and implement state-of-the-art technology, primarily referring to the continuous and intense modernization of the main ATM system.

Out of a total of 19 co-financed projects, 17 have been completed. The following projects are still active:

✈ **ASM SWIM** funded via the CEF 2022 call, with target implementation date December 2025.

  ASM (Airspace Management Service) SWIM (System-Wide Information Management) is a multi-stakeholder project, bringing together 20 organizations, 12 of which receive EU funding, working together to ensure the timely and synchronized implementation of Common Project 1 (CP1) in line with the assumptions defined in the SESAR Deployment Program (SDP).

  The main task of the project is to digitalize the exchange of information in the ASM Domain. The project will enable SWIM exchanges across ASM support systems and real-time exchanges of airspace status information between ASM Support System and ATC System, enhancing flight safety, improving civil-military ASM tactical coordination and facilitating Cross-Border Operations. This will translate into an increased airspace capacity by optimizing flown trajectories and a reduction of CO_2 emissions.

✈ **EXODUS** is a Digital Sky Demonstrator project under CEF 2022 call, to be implemented by the end of 2026.

  The project aims to make the first move towards a virtual ATM environment, shifting from location-based systems to service-oriented, location-independent set-ups. EXODUS participating organizations are Austro Control, Croatia Control, Naviair, AirNav Ireland, NAV Portugal, LFV, and Eurocontrol.

  EXODUS demonstrates the viability of a common system for members of the COOPANS Alliance based on a virtual centre (VC) model that geographically separates the ATM data service provider (ADSP) from the location of the air traffic service unit (ATSU). The goal is to prove the operational and business viability of a future common COOPANS operating model based on two SESAR Solutions on the ration-

alization of infrastructure and delegation of ATM services for test and training in-
cluding supervisory positions.

CCL also participates in two more research and development projects co-financed un-
der the Horizon Europe program, with CCL's share amounting to EUR 320,000 and a
co-financing rate of 70%. These projects are:

✈   ISLAND

The project involves industrial research aimed at the timely and efficient creation
and use of airspace capacity, combined with targeted and effective requirements
and/or measures.

The project team includes Eurocontrol, 10 ANSPs, 3 research establishments and
3 companies.

✈   ATC-TBO

The project aims to validate trajectory-based operations use cases for optimized
flight profiles, supporting sustainable air traffic growth.

Under the overall coordination of Eurocontrol, the project team includes 14 ANSPs,
1 airspace user, 5 research establishments, and 1 university.

**Co-funded by
the European Union**

Corporate Governance

CCL's governance structure comprises the Assembly, the Supervisory Board and the Management.

Assembly

The Assembly consists of:

✈ Oleg Butković, Vice President of the Croatian Government and Minister of the Sea, Transport and Infrastructure – President

✈ Marko Primorac, Vice President of the Croatian Government and Minister of Finance – Member

✈ Ivan Anušić, Vice President of the Croatian Government and Minister of Defence – Member

Supervisory Board

The Supervisory Board monitors the activities of the Company.

The Supervisory Board consists of five members, four of whom are appointed and may be recalled by the Assembly and one of whom is a company employee. Members can be re-appointed.

The members of the Supervisory Board are:

✈ Dora Matošić – President

✈ Davor Tretinjak – Member

✈ Mihovil Anđelinović – Member

✈ Željko Gojko – Member (elected by the employees) until July 7, 2024
Zlatko Bayer – Member (elected by the employees) from July 8, 2024

Management and Executive Directors

✈ Mario Kunovec-Varga, Director General

Pursuant to the Act on the Establishment of Croatia Control Ltd. and the Articles of Association, the Company management is one person - Director General, who is appointed by the Supervisory Board of the Company. The Director General is appointed for a term of five years on the basis of public competition, and the same person may be re-appointed as the Director of the Company. The Director General defines business policy, adopts plans, decisions and other acts in accordance with his power, organizes and manages the business of the Company.

CCL is organized in 6 sectors, the largest of which are Approach and Aerodrome Air Traffic Control Sector and Air Traffic Management Sector. These sectors are in charge of the implementation of operations and central operations of ANS, particularly of ATC, alerting service, flight information and preflight information service, all aimed at safe, orderly and smooth operating of air traffic.

All sectors are managed by executive directors, who are responsible for their operation. The special organizational units of the Director's Office are independent offices managed by the Heads of Offices. Executive Directors are appointed by Director General for the period of three years which may be extended.

| Sector	Executive Director
Air Traffic Management Sector (ATM Sector) Area Control Centre and Operations Support Centre are the organizational units of the ATM Sector.	Dubravko Meco
Approach and Aerodrome Air Traffic Control Sector Approach and Aerodrome ATC Units, i.e. regional ATC units Split/Brač, Zadar, Dubrovnik, Istra/Kvarner, Osijek and Zagreb/Lučko are the organizational units within the Sector.	Jakša Žižak
Aeronautical Meteorology (MET) and AIM/AIS Sector The sector is responsible for the provision of aeronautical meteorology and aeronautical information services.	Igor Kos
Technical Services and Infrastructure Sector The Sector's primary task is the continuous modernization of technical systems with the aim of increasing air traffic safety and improving the overall level of ATC and management services, as well as for the design, construction and supervision and investment maintenance of facilities and associated infrastructure.	Jurica Baričević
Corporate Functions Sector This Sector performs centralized functions of managing financial, legal and corporate services. It also has the central role in human resources management.	Teo Bratinčević
Military Operations Sector This Sector is responsible to coordinate the provision of services to military aircraft with the Ministry of Defence.	Nedeljko Zmajić

Operations and Infrastructure

Operational Units

CCL's main operational units are as follows:

→ Zagreb ATCC: Zagreb Air Traffic Control Centre provides area control services for both Zagreb Control Area (CTA) and a part of the Control Area (CTA) in Sarajevo FIR. It also provides approach control services in Zagreb TMA.

→ Zagreb/Lučko Aerodrome Control: provides tower control in Zagreb Control Zone and Lučko aerodrome Control Zone (CTR)

→ five regional ATC units providing approach and tower control: Osijek, Istra/Kvarner, Zadar, Split/Brač, Dubrovnik)
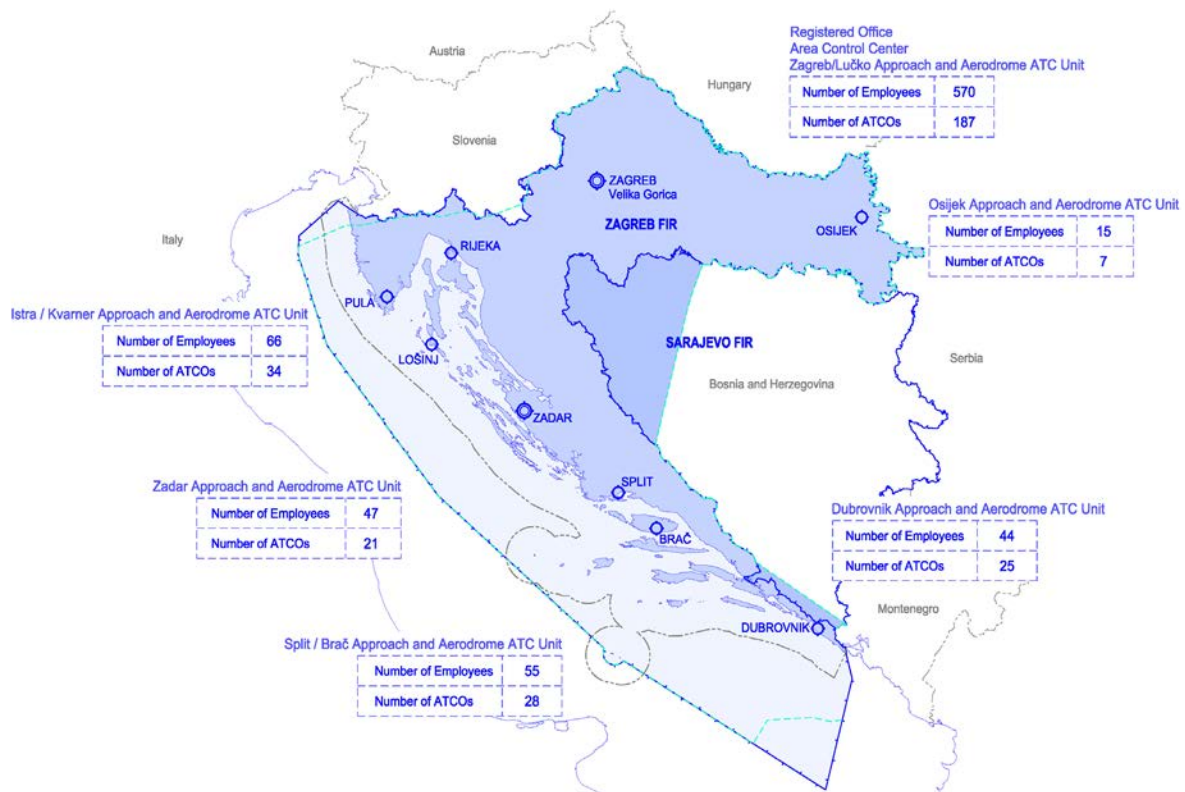
Area of responsibility for upper airspace (FL 285 - 660)

Traffic Flow

The year 2024 in Europe was marked by a strong traffic recovery, particularly during the summer, and significant delays caused by capacity shortages and adverse weather conditions. On the European network level, there were 10.7 million flights in 2024, which is 5% more compared to 2023, but still 4% less than in pre-pandemic 2019.

The upward trend in traffic continued in Croatian airspace as well. En-route flights accounted for the majority of total traffic, with an 86% share, while domestic flights made up 1%, and international arrivals and departures represented 13%. The dominant portion of en-route flights consisted of standard flows from Western European countries – primarily the United Kingdom and Germany – mostly toward Greece and Turkey (and back). The number of en route flights in 2024 increased by 13% compared to 2023.

When analysing traffic flows, the highest number of flights was again recorded on the route from Greece to the United Kingdom and back, followed by flights between Germany and Greece. Other frequent routes included Germany–Turkey, United Kingdom–Turkey, and France–Turkey. Significant increases were also observed on the Italy–Albania and Italy–Turkey routes.

As in the previous year, Ryanair remained the airline with the highest share of total traffic in 2024, followed by Turkish Airlines, easyJet, and Wizz Air.

The peak traffic day was again in the last weekend in July, on July 27, 2024 (Saturday), with 4025 flights (15% more than on the peak traffic day in 2023).
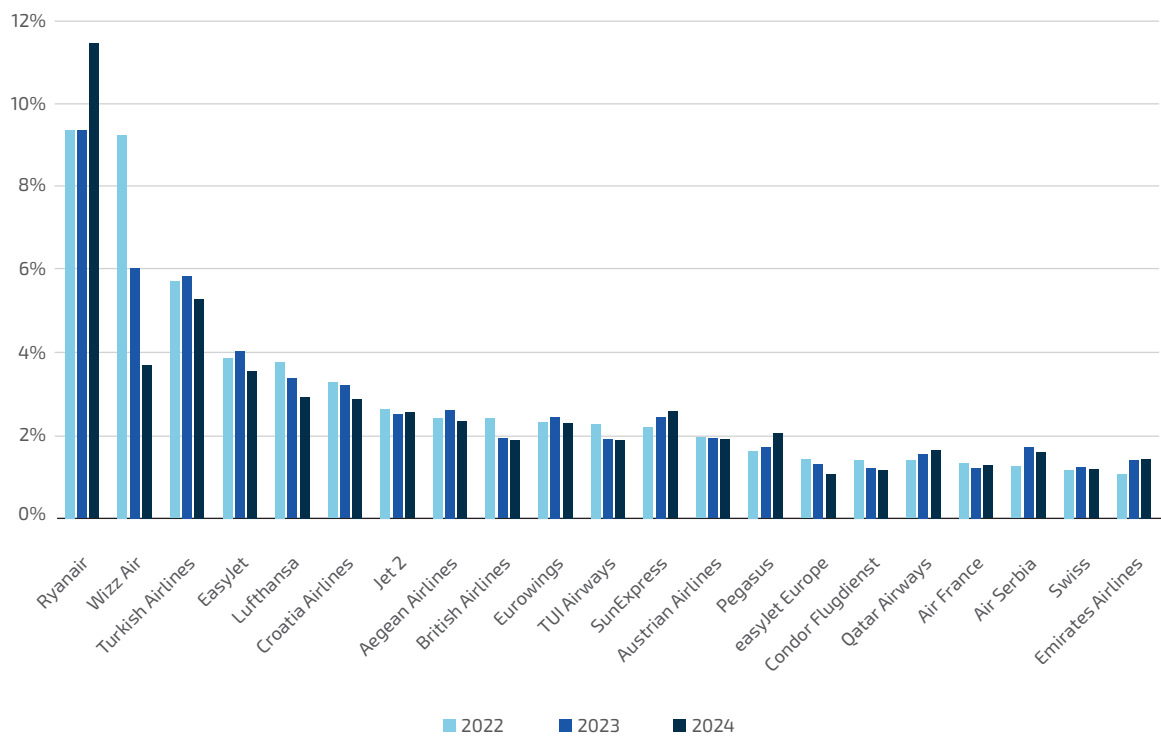
Air carriers share in en route flights 2022 - 2024

Operational Improvements

Operational improvements are planned through business activity in the regular process of annual planning of changes in CCL to meet goals primarily arising from regulatory requirements, as well as from agreements with cross-border partners, particularly concerning ATM system or airspace development.

In 2024, a new set of airspace improvements was gradually implemented. The lower portion of TMA Zagreb airspace was reclassified to reduce ATCO workload when managing VFR traffic. Another improvement aimed at facilitating low traffic operations accross TMAs Zadar, Pula, Zagreb and Osijek was redesigned. This redesign enabled more efficient airspace use by generating more optimal flight profiles and reducing the number of sector short clippings.

Eventually the capacity of ACC Zagreb increased by relieving the workload for low level traffic. The major reconfiguration of MIL zones to accommodate a new type of military aircraft (first units arrived in 2024) was also accomplished. Defining appropriate airspace portions while minimizing the impact on traffic flow across FIR Zagreb proved challenging due to the extensive airspace required by the new aircraft. The setting up of new coordination procedures improved overall airspace utilization and provided unmatched flexibility, reducing airspace utilization constraints previously necessary for the legacy MIG-21 fleet.

One of the most significant changes in 2024 was the implementation of cross-border operations between SECSI FRA and FRA-IT, which enabled more efficient flight planning for aircraft operators. This integration facilitated more direct routing across the affected airspace, resulting in shorter flight times, reduced fuel consumption, and improved operational predictability. These enhancements led to substantial CO_2 savings, supporting the aviation sector's environmental objectives.

Optimized trajectories not only lowered emissions but also contributed to broader sustainability goals within European ATM by enhancing overall network efficiency.

Regarding operational improvements related to ATM system upgrades, version 3.9 was deployed, including new functionalities such as Tactical Controller Tool and Blind Spot for safer service provision and support to capacity optimization. These tools added an extra safety layer to support executive controllers managing increased traffic demand.

Civil-Military Coordination

In Croatian airspace, CCL is also responsible for the provision of services to the Ministry of Defence of the Republic of Croatia and its Air Force.

For the purpose of maintaining a high level of safety and quality, relevant air traffic data are regularly exchanged between these two parties, which is the basis for creating the conditions for an efficient protection of the airspace without compromising the safety of all users nor deteriorating overall capacity.

In 2024, CCL faced new challenges following the Croatian Air Force's procurement of 12 Dassault Rafale fighter jets, which significantly increased the number of military flight operations. Simultaneously, the number of civil flights under CCL's responsibility continued to grow, demanding enhanced coordination between civil and military stakeholders. This included precise planning and dynamic ASM.

 In cooperation with the Ministry of Defence, new flight operation areas were defined in 2024, and new procedures were introduced for the Rafale fighter squadron at Zagreb Airport and other airports across the Republic of Croatia.

UAS

CCL developed AMC portal as its own tool for ASM and safe integration of UAS activities. It provides relevant information to all airspace users in real time and enables direct communication between all airspace users and the ASM organization. By providing targeted information, it gives users the opportunity of making reservations of airspace by directly submitting a request and communicating with the ASM organization.

For some years we've been witnessing a steady increase in reported UAS operations of civilian private and commercial users through the AMC Portal system. There has also been a noticeable trend in the growth of new ways of using UAS technology and exploring areas and concepts for their future application on a commercial basis.
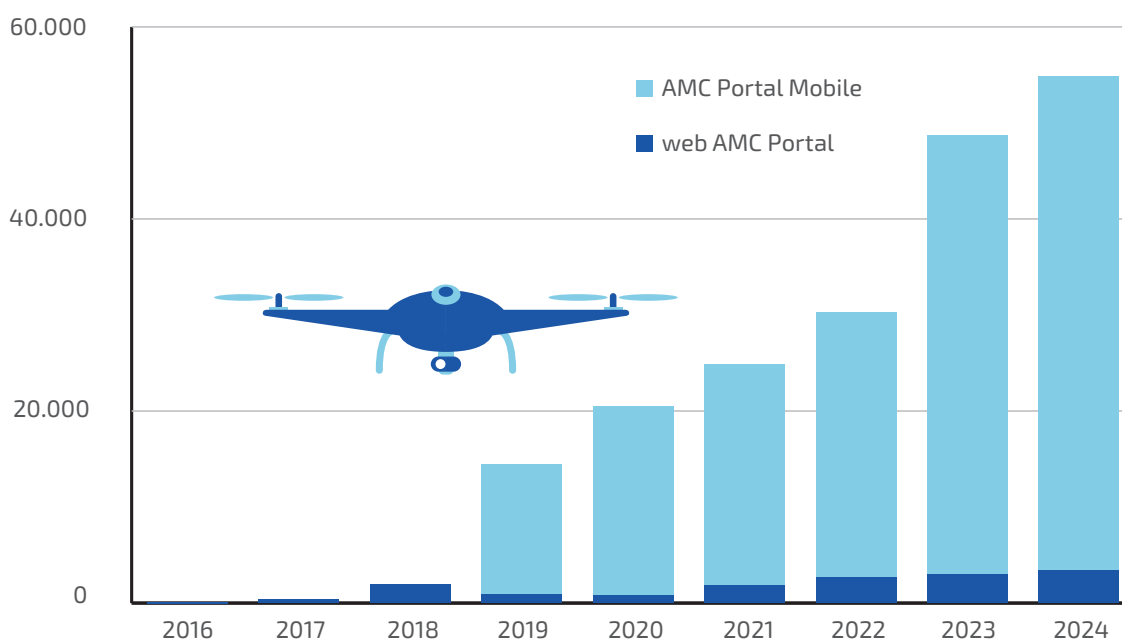
The number of UAS operations via AMC Portal in the period 2016-2023

In order to maintain the level of safety of all airspace users and to reduce the adverse impact on air traffic, CCL has started proactively with the coordination of government UAS activities. Separate procedures have been developed for the purpose of carrying out the operational tasks of the Croatian emergency services via AMC Portal system. These procedures enable safe access to airspace in a very short time through rapid coordination of the relevant CCL organizational units.

CCL employees from ASM/UTM Department and MET Sector held numerous training courses for government employees (Ministry of the Interior, Croatian Mountain Rescue Service, Firefighting Service, Civil Protection etc.).

The use of UAS by government users (MOD, Ministry of the Interior, Civil Protection, Firefighting Service, Croatian Mountain Rescue Service etc.) significantly contributes to the protection of the state border, territorial sea, people and property, and sometimes it is crucial for the search and rescue of people and supervision and protection of infrastructure and natural resources of the Republic of Croatia.

Environment

CCL contributes to the decarbonisation of the aviation sector by optimizing air traffic operations and reducing emissions through route shortening. By designing efficient arrival and departure flight procedures and enabling continuous descent operations (CDO), CCL supports optimum aircraft performance while mitigating environmental impacts during arrival and departure phases of a flight.

Through the implementation of the FRA concept, CCL enables airspace users to fly the shortest possible routes. The full deployment of FRA leads to reduced flight times and lower fuel consumption, directly decreasing CO_2 emissions. By setting specific targets for route shortening and ATM optimization, CCL also helps reduce operational costs and greenhouse gas emissions for airlines.

The most significant initiative supporting optimal airspace usage is the implementation of FRA, developed in partnership with seven neighbouring ANSPs. This is aligned with the goals of the SES initiative, which promotes the cross-border integration of FRAs to improve airspace efficiency and minimize environmental impacts. With the inclusion of North Macedonia and Albania in the SECSI FRA and the connection with FRAIT, the Italian FRA, on 21 March 2024, preparations are underway for the integration with Hungary's airspace. These developments underscore the ANSPs' strong commitment to continued airspace optimization for the benefit of all users.

The Commission Implementing Regulation (EU) 2019/317 defines environment as one of the key performance areas in (KPA) in ANS. This Implementing Regulation defines the horizontal en route flight efficiency in actual flown trajectories (KEA) and Key Performance Indicator (KPI) in the key performance area of environment, while the Commission defined performance targets by its decision.

The savings are being measured four times a year, in line with predefined parameters. In 2024 the analyses of potential savings in CO2 and NOx emissions were measured on the following selected dates: January 19, April 12, August 23 and December 20 using the Eurocontrol's post-operational analysis NET Strategic Tool.

The simulation of traffic in en route network was done before and after the introduction of FRA. On the basis of comparison, the following possible savings per flight were calculated:

✈ 517.53 kg of fuel

✈ 1632.87 kg of CO2 and

✈ 6.88 kg of NOx.

Within the framework of the Performance Plan (2019 - 2024), the target in the KPA of environment was set on the basis of KPI of en route horizontal flight efficiency of the actual trajectory - KEA. It is measured as average additional distance flown compared to the great circle distance.

The proposed target value for 2024 is set at 1.46%, which is actually a value that represents the inefficiency resulting from the comparison of the length of the en route part of the actual trajectory derived from the surveillance data and the achieved distance in the local airspace.

The calculation of this indicator is done by PRU, and it is published on PRU's web site. For 2024 the indicator was 1.6%, which is slightly higher than the proposed target value. Although the goal has not been reached, the inefficiency to the ideal trajectory is still acceptable taking into account the circumstances of high traffic growth and load on the capacities of Zagreb ACC sectors in the summer season.

Technical Infrastructure

Overview of Investments

CCL has made significant investments due to compliance with regulatory requirements and the need to enhance safety and quality of services and achieve performance targets. However, over the past few years, due to the COVID-19 pandemic, the air traffic developments and the challenging economic and political situation in Europe, the number of investments completed in RP3, including 2024, was below the plan. CCL has made every effort to close the gap between actual and planned investments during RP3. As a result, the latest figures show that investment implementation levels in 2024 are significantly above 2023.

	2023	2024
Investment Plan (mil. EUR)	26.54	33.06
Implemented (mil. EUR)	13.07	28.22

The table below lists the main investment projects in 2024, compared with the annual business plan for 2024:

Investment project	Business plan for 2024 / '000 EUR	Implemented in 2024 / '000 EUR
Upgrade of COOPANS ATM system	4,419	3,810
Upgrade of other ATM systems	2,725	2,933
Modernisation of the COOPANS ATM system (ATC-1)	3,800	4,443
Upgrade and modernisation of telecommunication and network infrastructure	2,420	2,040
Upgrade of the surveillance systems and implementation of the national wide area multilateration surveillance system (WAM)	1,687	3,073
Implementation of automatic weather observation systems	3,367	3,453
Other investments	14,644	8,466
TOTAL investments in 2023	**33,062**	**28,218**

Investment Highlights

Upgrade of the surveillance systems and implementation of the national wide area multilateration surveillance system (WAM)

The upgrade of the existing radar systems Kozjak and Psunj included the replacement of all electronic components, partial refurbishment of the mechanical components (antenna and drive system), and a general upgrade to ensure compliance with new functional requirements and modern technical solutions (integrated ADS-B, increased level of cybersecurity and general system robustness).

To achieve better coverage of the airspace, particularly to resolve surveillance gaps caused by complex terrain configuration), and to generally increase the availability of the surveillance service across all operational volumes/sectors, a project to build a national multilateration system (WAM) was undertaken. The implementation of nationwide WAM system also serves as a key enabler for smooth execution of modernisation activities on existing radar systems and facilitates future easing of regular maintenance and training activities.

The upgrade of existing surveillance systems and implementation of Croatian Wide Area Multilateration system (CroWAM) ensures better integrity and availability of surveillance information, which is an essential prerequisite for ensuring a high level of safety and supporting the further expansion of basic ATS capacity. The newly deployed WAM architecture is open for future expansions and adjustments to operational needs and provides, by default, supplementary ADS-B services.

The overall positive impact of the newly deployed and modernised systems extends to environmental protection, as newer principles and advanced technologies improve system performance, enabling further optimization of aviation procedures and ultimately achieving fuel savings and noise reduction.

Implementation of automatic weather observation systems

To maintain the safe and continuous provision of aviation meteorology services, the implementation of automatic weather observation systems (AWOS) is replacing outdated meteorological equipment at Zagreb, Zadar and Dubrovnik airports, while also establishing a new automatic system at Rijeka airport. This includes the preparation and construction of the electrical and communication infrastructure required for AWOS implementation. Replacing outdated systems and implementing new ones is necessary not only to introduce new operational functions but also to significantly enhance existing functions, such as the ATIS system in Zadar (Automatic terminal information service) which reduces ATCOs workload, allows remote work for forecasters and observers, increases automation compared to older systems, and improves technical supervision subsystems.

Upgrade and modernisation of telecommunication and network infrastructure

The most significant investments in 2024 were directed towards the modernization and development of communication and network infrastructure, including structured cabling, the enhancement of AdNET and MAGNet systems, the modernization of ExCo and PBX systems, and the replacement of the outdated microwave network. These projects ensured technical and security compliance with European and national regulations, strengthened cybersecurity, and enabled the migration of legacy communications to IP infrastructure, providing greater reliability, safety, and operational efficiency. While the majority of activities were successfully completed during 2024, a smaller portion has been carried over for completion in 2025. Through competitive procurement procedures and careful investment management, substantial savings were achieved compared to the initially planned budget, further confirming the effectiveness of project execution.

Safety and Management Systems

Air traffic safety is of paramount importance to CCL. In order to further improve the quality of service provided to our users, Safety and Management Systems were established at the corporate level. This organizational unit reports directly to the Director General.

Safety and Management Systems is responsible for the organization-wide management system including:

✈ safety management

✈ quality management

✈ environment management

✈ security management

✈ risk management

✈ performance management

✈ change and project management

✈ compliance monitoring

✈ occupational health and safety management

✈ internal control and auditing.

Safety Management

High level of ANS safety provided by CCL has priority over commercial, operational, social and any other aspects of business. CCL's Safety Management System (SMS) is aimed at a systematic and proactive achievement of an acceptable level of safety, thus making a valuable contribution towards the safety of European air traffic in general.

Safety Management System

The main component of SMS is the Safety Management Manual which defines SMS organization and processes as well as basic SMS procedures, in order to comply with the SMS requirements laid down in national regulations, SES requirements and European safety standards.

Safety Performance

Measuring and monitoring safety performance constantly helps us improve our safety level and service. CCL key safety performance areas are in line with the Commission Implementing Regulation (EU) No. 2019/317 laying down a performance and charging scheme in the SES and repealing Implementing Regulations (EU) No 390/2013 and (EU) No 391/2013 the purpose of which is:

✈ Level of effectiveness of Safety Management (EoSM)

All Key Performance Indicator (KPI) targets defined in the Performance Plan for 2024 have been met and the trends in Performance Indicators (PIs) that are being monitored are positive.

EOSM	LEVEL (SELECT)
Safety culture	C
Safety policy and objectives	C
Safety risk management	D
Safety assurance	C
Safety promotion	C

✈ Classification of severity of occurrences using the Toolkit for ATM occurrence investigation (TOKAI)

In 2024 there were 732 reported safety occurrences, of which were 489 ATM occurrences, 12 ATM Safety Report and 231 specific occurrences in ATM.
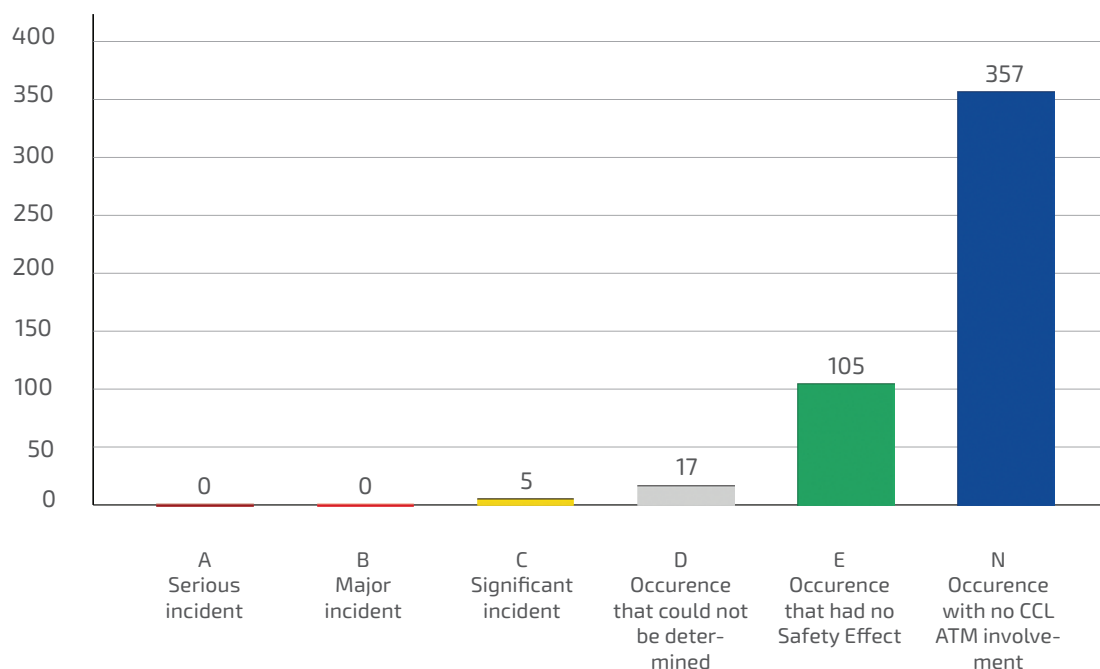
ATM occurrences - severity effect 2024

Severity of ATM occurrences was classified as follows:

Out of 7 events of separation minima infringement (SMI), CCL was directly involved in 5 events. Out of 6 events of runway incursion (RI), CCL was directly involved in 2 events.
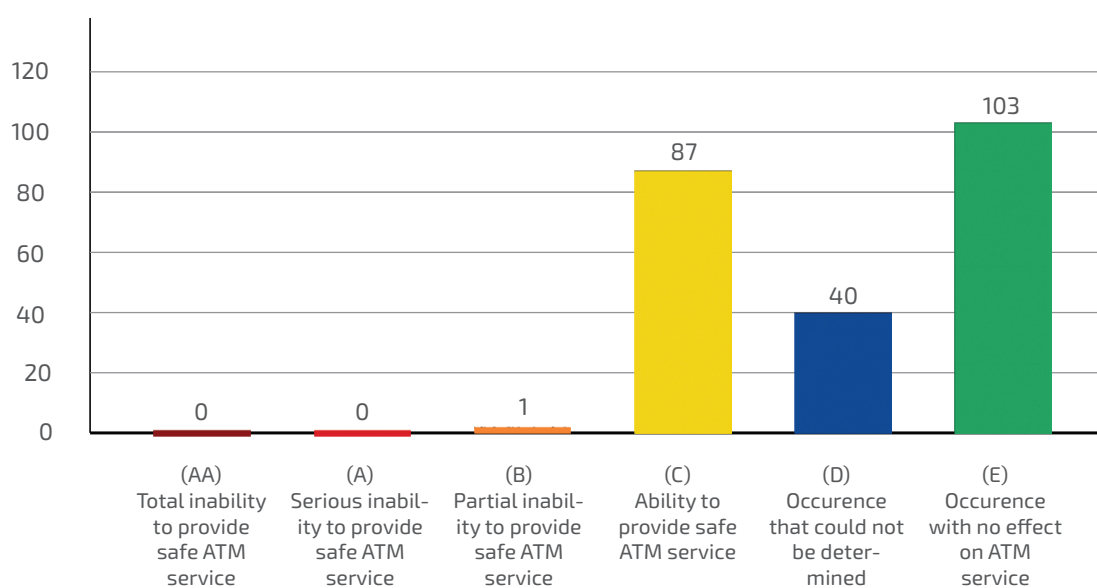
ATM specific occurrences - severity classification 2024

Severity of SATM occurrences was classified as follows:
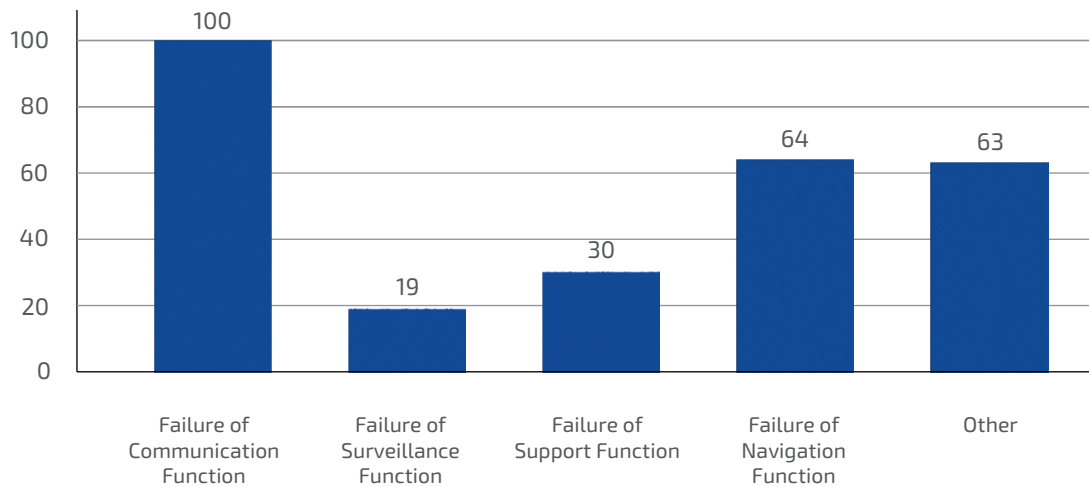
ATM specific occurrences - type of events 2024

Just Culture

The Just Culture Policy and special JC procedures are set up in CCL.

The JC concept has been disseminated to the staff and the management through the Intranet and safety promotion workshops in order to develop culture in which front line operators and others are not punished for actions, omissions or decisions they took and which are commensurate with their experience and training, while gross negligence, wilful violations and destructive acts are not tolerated.

Quality Management

CCL has implemented Quality Management System (QMS) for which it is certified in compliance with the ISO 9001:2015 international standard requirements.

QMS helps CCL to improve its overall performance and it provides a solid base for sustainable development. In addition, it enhances the continuous provision of services aimed at meeting customer, organizational and regulatory requirements through continuous improvement, in addressing associated risks, opportunities and ability to show conformity to specified requirements.

The quality of CCL's services is granted by an integrated QMS which is periodically reviewed and assessed for its long-term suitability, adequacy and effectiveness.

Consultation with service users

The quality of services is being continuously improved by regular consultations with users, i.e. by taking into consideration their remarks or suggestions. CCL plans the user consultation annually by its User consultation plan for the current year.

The information on user satisfaction are collected in direct communication with users by means of surveys. These surveys are published on CCL website, or are delivered by e-mail or via user forums/meetings.

After the analysis of performed consultation, the quality manager proposes the improvements of activities or service quality, and includes them as input elements in the assessment of the Company Management.

In 2024, one user consultation was conducted via survey, in which the Aeronautical Information Service (AIS) received high ratings. Additionally, 13 regular forums, conferences, and meetings were held with service users.

Consultations realized in the form of survey

Type of service/ function/process	Topic	User profile
AIS	Satisfaction with service and its products	Air carriers, airports, aeroclubs, MoD/Croatian Air Force, BHANSA, CCAA, Ministry of the Sea, Transport and Infrastructure, other state bodies

Consultations realized in the form of forum/consultations/meetings

Type of service/ function/process	Topic	User profile
ATFM	Operational development, new functionalities, and tools aimed at network efficiency enhancements	ANSPs, AOLO, NM, ATC Tactical team, EUMETNET
CNS	Monitoring of the implementation of the Contract on coordination procedures in operational use of the system	MoD, Airspace Surveillance and Control Battalion
CNS	Monitoring of the implementation of the Contract on the Provision of Radar Data	BHANSA
Business planning management - financial aspect	Defining cost bases and unit price, regulations, traffic	IATA, A4E, Lufthansa, Eurocontrol/CRCO/STATFOR, EC, ANSPs
Business planning management - financial aspect	RP4 Performance Plan consultation	IATA, Ryanair, Lufthansa, flydubai, Emirates, PRB
MET	Introduction to MET characteristics of Zagreb FIR	HEMS
	Changes in WAFC charts, verification results, space weather, introduction to MET changes in CCL, MET portion of web-based briefings	Air carriers (Croatia Airlines, Trade Air, Delić Air)
FPD	Procedures implementation plans, reports on procedures, works done on the airports related to changes in procedures	Airports, Croatia Airlines and other air carriers, data houses, ENAV
ATS	Improvement of service provision for the needs of CAF and coordination of CCL with MoD/CAF	MoD, CAF, Croatian Air Force
UTM	ASM/UTM, AMC Portal/AMC Portal Mobile	UAS users (civil and military)
ASM	Improvement of the process	MoD, CAF, Croatian Air Force, Croatian Mountain Rescue Service, Ministry of Interior
ATS and ASM	ASM, FUA, AMC Portal/AMC Portal Mobile, UAS operations, Ad Hoc airspace structures, co-operation with ATS	Aeroclubs, MSTI, CCAA, CUSA, MoD, CAF, Croatian Air Force, UAS users, airspace users
ATS and ASM	ATM	Airspace users participating in gliders and paragliders activities etc.
SMS	Exchange of experiences	BHANSA, SCL, HCL and ACG

Environment Management System

CCL recognizes the importance of environmental protection, so it endeavours to reduce the negative impact on the environment by providing safe and quality ANS. CCL's EMS also covers environmental aspects, and it is ISO 14001:2015 certified. CCL has also defined the Environmental Management Policy, to ensure the identification and management of environmental risks in a systematic way.

The basic goals of environmental protection in air navigation focus on reducing:

- ✈ aircraft noise impacts caused by flight operations
- ✈ aviation-related emissions contributing to local air pollution
- ✈ aviation-related impact on greenhouse gas emissions and on climate changes.

Indirect impact on the environment

CCL has an indirect impact on the environment by continuously reducing the emission of noxious gasses and aircraft noise abatement, by optimization of the airspace and route network. Service users have at their disposal certain possibilities aimed at protecting the environment by shortening the route, and it is up to the users whether they will seize this possibility or not.

Direct impact on the environment

CCL has a direct impact on the environment by means of utilization of communication, navigation and surveillance systems, by noise caused by operating devices and machines, as well as central air conditioning system, by use of renewable sources of energy and rational use of natural resources (electric energy, water and fuel for operating the equipment), as well as by producing waste.

Measuring of electromagnetic fields is performed in 2-years cycles on 110 locations, as well as for newly installed equipment, pursuant to the administrative decision of the Ministry of Health. No radiation levels have been exceeded since the introduction of measurement in 2015.

CCL demonstrates its care for the environment by rational use of energy products and improving electric energy management. CCL buys electric energy only from renewable sources. In this way, CCL contributes to the reduction of greenhouse gas emissions, supporting broader efforts in environmental protection and sustainable development.

CCL is one of the first ANSPs in Europe that implemented renewable energy sources generating 345 kW for the purpose of business operations. One of the significant changes in the power system in CCL's headquarters was the installation of the heat pumps system connected to underground wells, so that a new air conditioning system was used in CCL. This system is more beneficial as far as electric energy is concerned since in summer it uses cooling heat of water from the well.

Waste management and generating hazardous waste is a significant aspect for CCL, which is continuously being monitored and updated. In waste management, CCL proceeds by respecting the basic principles and implementing waste hierarchy. Besides the municipal waste, CCL collects, separates and ecologically disposes of hazardous and non-hazardous waste.

Security Management

The primary purpose of CCL's Security Management System (SecMS) is providing a secure environment for provision of ANS through measures taken to prevent acts of unlawful interference against individuals, facilities, processes and technical devices and equipment. SecMS also recognizes the importance of information security and acts proactively to protect confidentiality, integrity and availability of corporate and operational data in all of its forms and stages of processing.

In addition to its role in supporting airspace and airport security, SecMS encompasses continuous cooperation with national and international organizations with the aim of anticipating new threats to aviation security and undertakes appropriate and timely measures to mitigate the resulting risks, while taking care to minimize any negative impact of such measures on day-to-day business operations.

Enterprise Risk Management

CCL has introduced an Enterprise Risk Management system (ERM) compliant with internationally recognized and scientifically based methodology and standards and defined the ERM Policy.

The ERM is designed to adapt to the development of the company and changes in the risk profile and is based on a structured and systematic process that takes into account internal and external risks to which the Company is exposed.

CCL has set up the Risk Register as well as the Strategic Risks Map, and manages them actively by taking into account the identified sources and defined measures for the mitigation of the consequences of probability and severity of particular occurrences.

Ensuring business continuity remains a significant challenge. The ongoing war in Ukraine continues to affect global aviation, particularly in terms of safety concerns and broader implications such as energy price volatility, fuel shortages, supply chain disruptions, and inflationary pressures. Increasing air traffic volumes also pose a growing challenge in terms of capacity management and the risk of delays, underscoring the need for an optimal number of air traffic controllers.

Risk Categories

Education System

It applies to all employees, and in particular to the education of the ATCOs as a fundamental factor in the provision of services. Great attention is being paid to strict selection criteria, the implementation of the theoretical and practical part of education and the selection of the best instructors since these are critical risk management factors.

Technological Compliance

The provision of ANS requires top-quality technical and technological equipment.

Through the realization of investment projects, the Company achieves technological compliance with regulations, industry requirements and the best global technological standards.

No. of ATCOs

Insufficient number of controllers in the context of a steady increase in air traffic and the fact that this stressful job can be performed by only a small portion of the population, is considered an important business risk. This risk is managed by planning, forecasting and effective education.

Human Resources Management

The management of the Company considers human resources management to be the most important factor of success, therefore it is being analyzed, measured and managed by indicators that should improve the process of HRM.

Project Management

The Company regards effective project management as a business risk from the aspect of safety, engagement of resources and consequences on financial effects.

Cyber Threats

The Company has recognized cyber threats as a rather significant risk, and it implements solutions in the field of cyber protection.

Business Operations Continuity

CCL has a duty and obligation to ensure business continuity in relation to identified sources of possible business discontinuity (natural disasters, pandemic, technical system/device failure, terrorist attack, industrial action). Measures in sense of increasing resilience to these threats are a high level of reliability and redundancy of operational technical systems, personnel trained to act in special circumstances, operating manuals and instructions on procedure.

Meeting the Performance Targets and Organizational Targets

The performance targets shall be agreed and coordinated at EU level through a performance plan. Internal organizational objectives are aligned with European performance goals and it is therefore important to actively manage the company's goals at all levels by applying risk management measures.

Safety Management System

CCL's mission is to provide safe and quality services. Security aspects are embedded in business processes as well as in CCL's business culture.

Financial Risks

Financial risks managed by the company include a wide range of risks. In the narrow sense, various measures, among other risks, cover currency, interest rate and liquidity risks. New risk-related factors are timely anticipated through scenario-based planning.

Regulatory Compliance

The field of provision of ANS is a highly regulated activity subject to a wide range of international acts, implementing regulations as well as directives and standards that must be complied with.

Reputation

Reputational risk is "a risk from risk" because it is generated from other sources of variability. The risk of loss of reputation is usually due to adverse events arising from the exposure of the Company to various strategic, operational and financial risks. Loss of reputation can often have long-term consequences and any risk factor with a possible negative impact on the reputation is a threat to the survival of a company.

Efficiency of Strategic and Operational Planning

This risk is one of the key risks for achieving the set targets in the field of technology, human resources and securing financial resources for investment projects and operational expenditure.

Additional Services

Aeronautical Meteorology (MET)
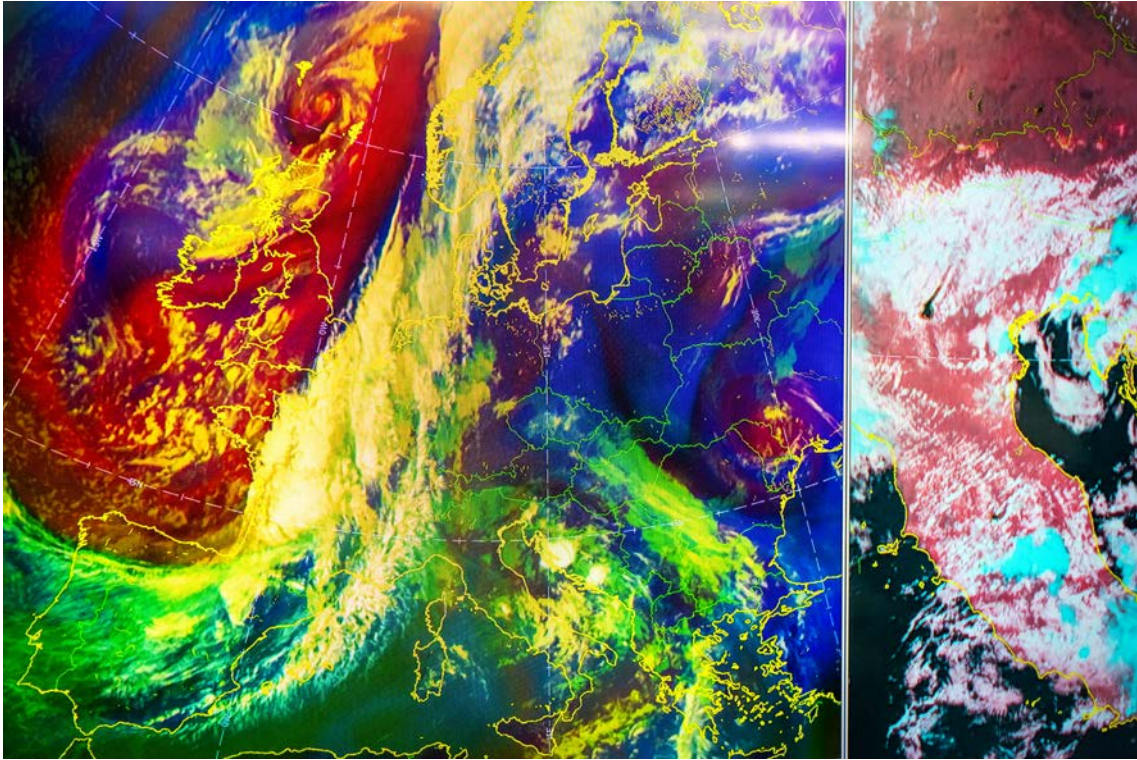
CCL provides aeronautical meteorology services, with special emphasis on the continuous improvement of services, staff education and regional cooperation.

The year 2024 marked a special milestone: 100 years since the beginning of aviation meteorological observations in Croatia. At Croatian airports, aviation meteorological observers continue to produce weather reports for international exchange every 30 minutes.

In March 2024, CCL's MET Service organized a Regional MET Coordination Workshop, bringing together 18 representatives from aviation meteorological services in Croatia, Bosnia and Herzegovina, Italy, Slovenia, and Serbia. The workshop focused on the exchange of expertise and the joint development and publication of harmonized forecast products.

Daily cooperation between the MET service and ATC services is important for flight safety and reducing traffic delays. Improved traffic regulation in conditions of adverse weather and increasingly pronounced climate changes impacts economic savings and the consequential reduction of CO_2 emissions.

The MET Service, in cooperation with other partners in the COOPANS Alliance, participated in a validation exercise under the ATM-TBO research and development project.

The initiative, coordinated by Eurocontrol and involving 31 partners, aims to significantly reduce aviation's environmental impact by making ATM smarter and more energy-efficient, which should result in reducing fuel consumption and emissions of CO_2 and NOx.

CCL's MET experts contributed by integrating thunderstorm activity polygons into the TBO and conflict detection and resolution tools, enabling dynamic route adjustments in real-time based on weather changes. This flexibility reduces unnecessary fuel burn, avoids adverse weather conditions, and enables faster response to shifting air traffic conditions. The result is greater energy efficiency, improved safety, and a reduction in environmental impact.

Aeronautical Information Management/Aeronautical Information Services (AIM/AIS)

CCL provides aeronautical data and information necessary for air navigation safety, regularity and efficiency. AIM/AIS Department consists of the International NOTAM Office, operational 24 hours a day, AIM/AIS Operations Support Department and the Aeronautical Publications Department.

The AIM system provides aeronautical information through the local AIM database and the European AIS Database (EAD). It includes static data in AIXM 5.1 format, the eAIP with integrated charts, AIP amendments and supplements, AICs, NOTAM/SNOWTAM, PIBs, and additional publications such as VFR manuals and charts with recommended routes. TAM messages are produced and distributed via the EAD in all relevant series for pre-flight briefing. The part of the service with respect to PFB and post-flight information is provided by Split Central ARO.

The local AIM database is synchronized with the EAD, ensuring seamless data exchange and access to all aeronautical information products in electronic format. Croatia's electronic AIP, available in English and Croatian, is published from the EAD in line with EUROCONTROL specifications.

The AIM Portal is part of CCL's AIM system, designed for registered aviation stakeholders and offering critical aeronautical information and products like eAIP, charts and more. It ensures regulatory compliance, data quality, and operational access for pilots and other flight professionals. AIM/AIS department is planning to implement digital NOTAM (dNOTAM) visualization on the AIM portal by the end of the year.

This upgrade will enable users to view NOTAM data on the map, improving situational awareness, minimizing interpretation errors, and supporting more effective pre-flight planning.
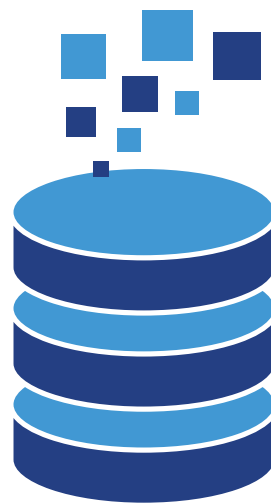
Flight Procedure Design Services (FPD)

FPD services encompass design, document, and validate of conventional procedures and PBN procedures for 9 Croatian international airports within Zagreb FIR for:

- ✈ standard instrument departures (SIDs),

- ✈ standard instrument arrivals (STARs),

- ✈ instrument approach (IAP) including circling.

FPD services also providing the production of aeronautical charts, the definition of polygons of minimum altitudes for radar vectoring, the analysis of the signal coverage of radio navigational aids, and the analysis of the impact of obstacles, areas, and zones on instrument procedures and routes.

According to Commission Implementing Regulation (EU) No 2018/1048 of 18 July 2018 laying down airspace usage requirements and operating procedures concerning performance-based navigation, CCL developed PBN Transition plan of the Republic of Croatia to ensure regulatory compliance with the PBN IR, and to meet passenger demands, without impacting on the safety or capacity of the airspace whilst fulfilling our national environmental commitments.

FPD service designed all PBN instrument flight procedures in accordance with the criteria from the Commission Implementing Regulation (EU) No 2017/373, Commission Implementing Regulation (EU) 2018/1048 (PBN IR) and the PBN Transition Plan of the Republic of Croatia according to the requested time frames. All published procedures are regularly maintained and changed in accordance with user requirements and changes in regulations, airspace structures, radio navigational aids, aerodrome data, obstacles and other data.

All data, procedures, and aeronautical charts for the conventional and PBN procedures for all Croatian international airports within Zagreb FIR, are published in the Aeronautical information publication (AIP) of the Republic of Croatia.

Performance

Traffic

In 2024, there were 920,123 flights, and traffic growth was significant when compared to 2023. When speaking of the number of flights, there were more than 100 thousand more flights recorded than in 2023, i.e. an increase of about 13%. Compared to 2019, the recorded increase is about 30%. These figures indicate a strong trend in the expansion of air traffic and connectivity on the South East Axis on which Croatia is located as a respond on tourism demand.

IFR GAT operations 2019 - 2024
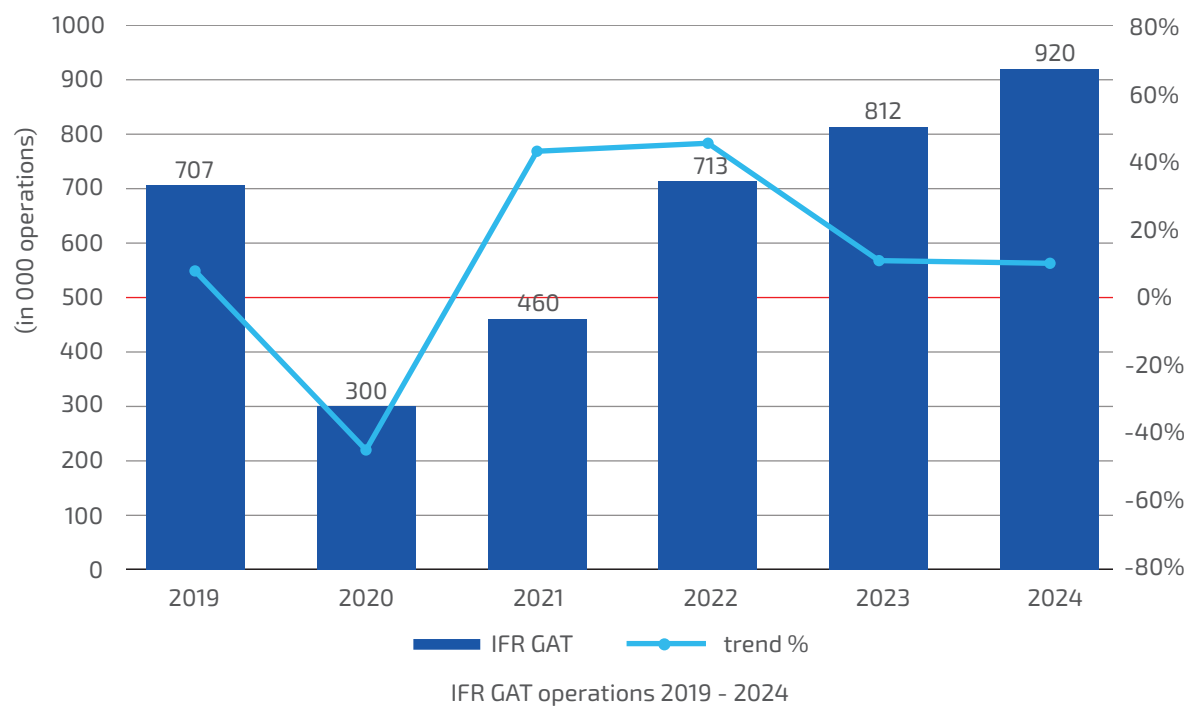
Monthly traffic volumes in 2024 consistently exceeded those recorded in the previous year. The only month with an increase below 10% was March; all other months recorded growth exceeding 10%. July and August were the busiest months, each surpassing 100,000 flights, setting a new monthly operations record. October saw the largest year-on-year increase (almost 20%), with slightly over 90,000 flights.

Across Croatian airports, a total of 135,196 IFR GAT operations were recorded, representing an 11% increase compared to 2023.

All airports except Brač recorded traffic growth in 2024 in comparison to 2023. However, when compared to pre-pandemic levels, the picture remains mixed. While total airport traffic in 2024 exceeded 2019 levels by 9.2%, some airports are still below pre-pandemic figures. When compared to 2019, Pula saw a decrease of 21%, Lošinj recorded a 4% decline, and Rijeka was also down by 5%.
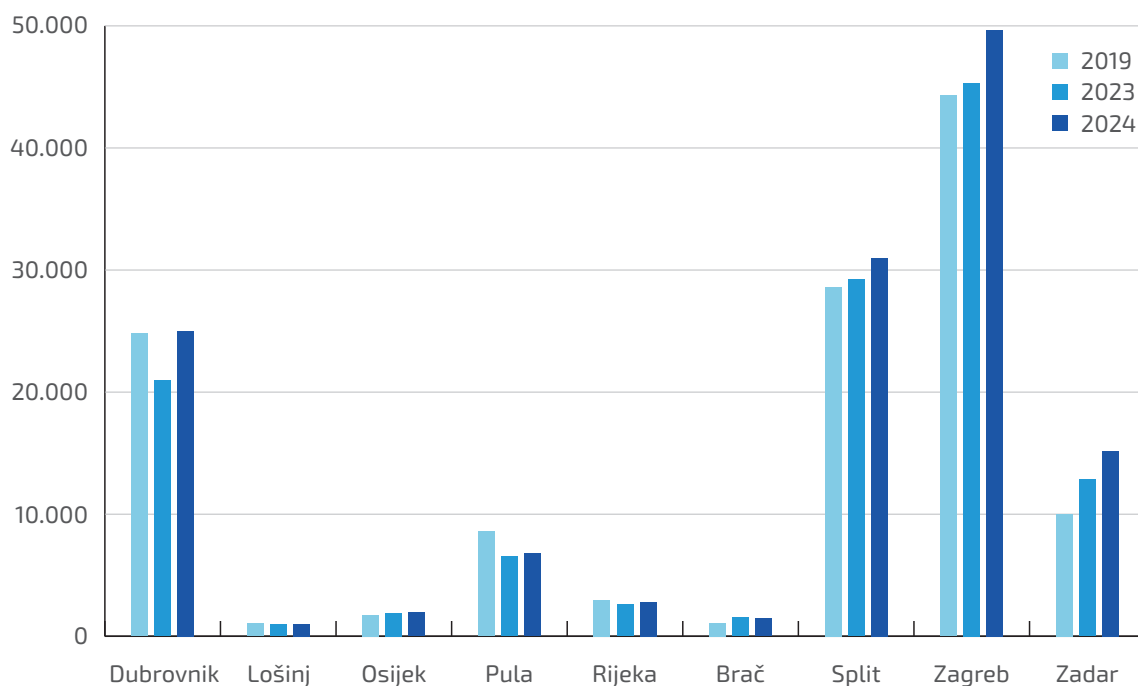
Airport IFR GAT operations 2019-2023-2024

Controlled Operations and ATFM Delays

In 2024 there were airport and enroute ATFM delays in Croatia. ATFM enroute delays were approx. 1.4 million minutes and were increased to an average of 1.51 minutes per flight.

■ Weather 54%　■ Capacity 43%　■ Staff 3%

ACC Zagreb - delays
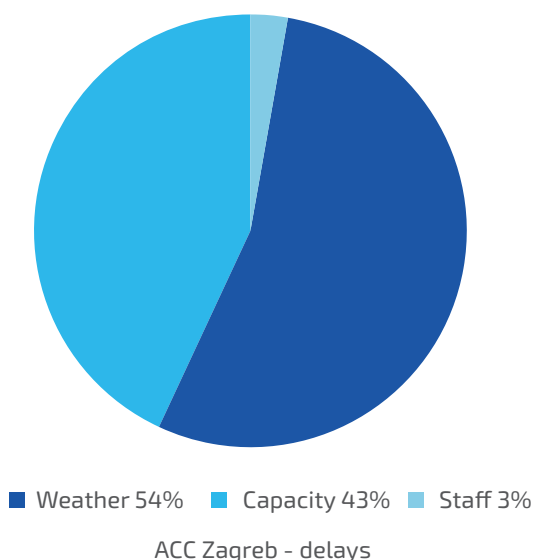
Service Units and Unit Rates

Traffic

En Route Charging Zone

The development of air traffic in Europe in 2024 continued on a positive trajectory, despite persistent challenges such as geopolitical tensions, economic uncertainty, and operational constraints. Nevertheless, the favorable trends observed in 2024 brought the European aviation sector even closer to a full recovery compared to pre-pandemic levels.

In Croatia, 2024 marked further growth and consolidation of air traffic compared to the previous year with an increase of 13% (measured in IFR-GAT). Contributing factors included the strong performance of the tourism sector, rising demand

from major European source markets, improved regional (primarily low-cost carriers) and long-haul connectivity, and the opening of new seasonal and year-round routes to key European hubs. Continued investments in infrastructure and service digitalization further supported operational efficiency. Despite ongoing global uncertainties and economic pressures, Croatia's aviation sector demonstrated resilience and adaptability, supporting an optimistic outlook for the years ahead.
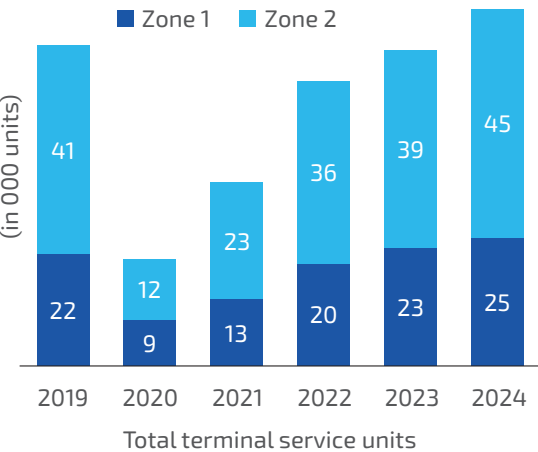
In the en route charging zone, 3.0 million en route service units were recorded in 2024, representing an 18.8% change compared to 2023 and 38.9% above the pre-pandemic 2019 level. At the same time, the achieved number of en route service units was 35.3% higher than planned in the revised RP3 Performance Plan for 2024.

Across the two terminal charging zones – Z1 (TWR ATC Zagreb) and Z2 (all other controlled terminal ATC centers in Croatia) – 70.4 thousand terminal service units were recorded in 2024, representing a 14.3% change compared to the previous year. Both charging zones registered growth, with a stronger increase observed in Terminal Charging Zone 2.

Total terminal service units

Total en route service units
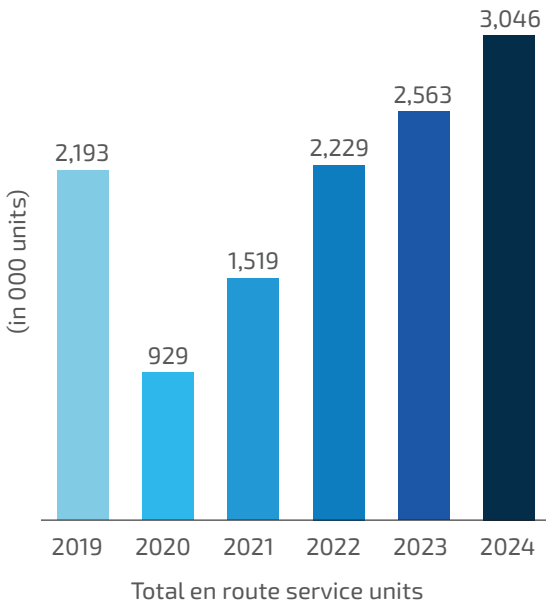
Terminal Charging Zones

The recovery of air traffic in Croatia continued in 2024, with terminal operations maintaining an upward trend, and the total number of terminal service units surpassing the pre-pandemic 2019 level.

Unit Rates

En Route Charging Zone

Based on the revised RP3 Performance Plan, as well as applicable adjustments, the en route unit rate actually charged to users in 2024 was EUR 36.10 (excluding the Eurocontrol administrative fee).

Compared to 2023, the en route unit rate in 2024 decreased by 21.1%, primarily due to regulatory adjustments set out in the SES framework, coupled with planned traffic increase. The chart below presents the en route unit rates for Croatia over the 2019–2024 period.

Croatian en route unit rates
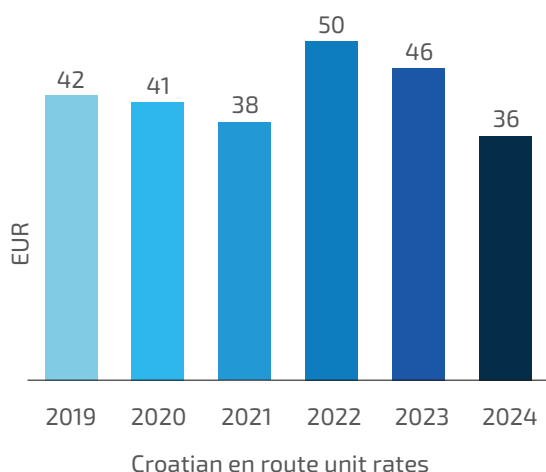
In 2024, Croatia's en route unit rate of EUR 36.10 was 38.8% below the FAB CE average (excluding Croatia). The chart below presents a comparison of planned en route unit rates with Croatia's neighboring states, most of which are FAB CE partners.

2024 budgeted en route unit rates
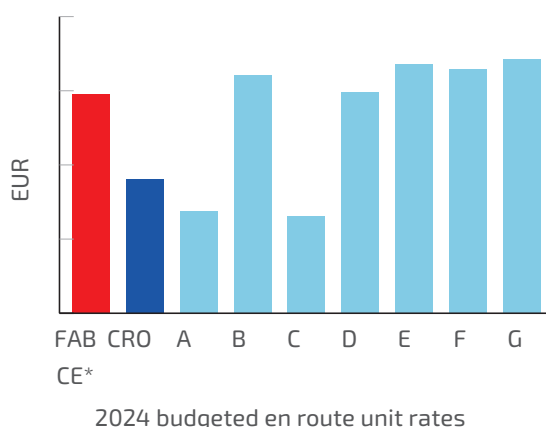
In accordance with the provisions of the Performance and Charging "exceptional measures" Regulation (EU Regulation No. 2020/1627), the difference between the finally eligible (i.e. revised) and provisionally charged en route unit rates for 2020/2021 resulted in the recognition of a "SES relevant long-term contractual asset". Recovery of this amount began in 2023 and is expected to be completed by 2027 at the earliest.

Terminal Charging Zones

Croatia operates two terminal charging zones, each with its own terminal unit rate.

In Terminal Charging Zone Z1 (TWR ATC Zagreb), the budgeted unit rate for 2024 was EUR 281.31 per service unit, representing a 7.0% decrease compared to 2023.

Croatian terminal unit rates
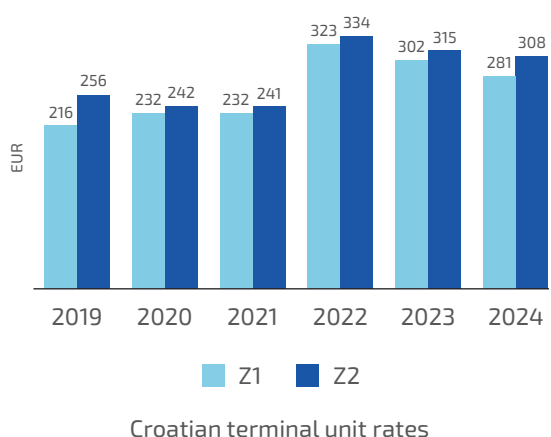
In Terminal Charging Zone Z2 (all other controlled terminal ATC centers in Croatia), the budgeted unit rate for 2024 was EUR 307.95 per service unit, representing a 2.4% decrease compared to 2023.

It is important to note that, despite higher traffic volumes in 2024 and the resulting decrease in unit rates for both terminal charging zones, CCL continued to adjust the unit rates for 2020 and 2021 terminal under-recoveries by applying only a fraction (1/7) of the total eligible carryovers. This approach reflects CCL's strong commitment to further supporting and strengthening terminal traffic development in Croatia.

Financial Performance

Overall Financial Performance

In 2024, CCL once again delivered business results exceeding expectations, despite operating in a dynamic and often unpredictable environment. This performance was partly driven by Croatia's favourable geopolitical position, providing services along the South East Axis — the fastest-growing post-pandemic traffic corridor in Europe, accounting for around 8% of total traffic within the Eurocontrol network. Operational and strategic efforts in 2024 remained focused on achieving the RP3 performance targets while intensifying preparations for the upcoming reference period, RP4.

Stable revenue streams, supported by consistent cost management, resulted in a profit after tax of EUR 17.7 million in 2024, underscoring CCL's continued strong financial performance.

Revenues and Business Income

In 2024, the Company recorded total revenues of EUR 135.8 million. While overall traffic growth and stable operational performance provided a supportive context, the increase compared to the previous year was mainly driven by other business revenues, reflecting the unwinding of previously recorded SES-related provisions.

Core Business Revenues (ANS charges and other core sales)

In 2024, core business revenues amounted to EUR 119.1 million, reflecting a slight decrease compared to the previous year. This was mainly the result of lower en route unit rates and the continued unwinding of the previously recognized

"SES relevant long-term contractual asset" from 2020 and 2021, in line with the "exceptional measures" regulation. At the same time, revenues from terminal services recorded an increase compared to 2023, supported by sustained traffic growth.

Other Business Revenues (excluding financial)

Other business revenues amounted to EUR 14.0 million, representing 10.5% of total revenues and showing a significant increase compared to the previous year. This growth was mainly driven by the unwinding of previously recorded long-term provisions (IAS 37).

The increase largely reflects the release of historical provisions established in previous periods to cover anticipated financial risks, which were expected to materialize in future years.

A substantial portion of these unwinding revenues relates specifically to previously created SES risk-sharing provisions, as some of the associated risks / adjustments materialized in 2024. The remaining other business revenues, not linked to the unwinding of provisions, mainly consist of IAS 20 revenues connected to EU funding received to support EU-backed projects.

Financial Income and Revenues

Financial income primarily consists of the positive effect from discounting and the unwinding of SES contractual assets, alongside interest income. These sources remain non-operational and marginal, accounting for only 2.1% of total revenues.

Total revenue development

Inflation: planned vs actual

As in the overall air navigation service provision industry, total revenue in 2024 continued to be dominated by route charges, which accounted for 72.1% of total revenues. Revenue from terminal services represented 15.2% of the total, while other business revenues, including financial income, made up the remaining 12.7%.

Costs and Expenditures

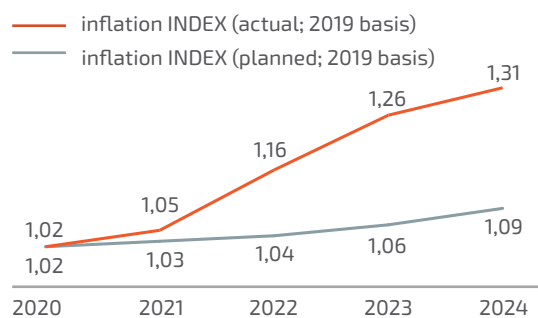Following the post-pandemic recovery, 2024 was marked by stable traffic growth and ongoing operational challenges linked to inflationary pressures and a competitive labor market. Total expenditures for the year amounted to EUR 114.3 million, exceeding the previous year's level. The cost structure in 2024 continued to reflect inflation-driven increases in staff costs, material expenses as well as depreciation, alongside sustained investment in operational capabilities.

Staff costs 71,3%   Other OPEX 18,2%
Depreciation 10,2%
Financial expenses 0,3%

Cost structure

Detailed cost development and structure is described below.

Staff costs

Staff costs remained the largest component of the Company's total cost structure in 2024, accounting for 71.3% of total expenses. For the year, staff costs amounted to EUR 81.5 million, reflecting an increase compared to 2023. This rise was primarily driven by continued recruitment of operational staff to meet growing traffic demand. Recruitment activity previously communicated and encompassed in RP3 PP but delayed in recent years due to various factors was intensified in 2024. This was particularly evident in the hiring of critical personnel such as ACC ATCOs and ATSEP. In addi-

tion, 2024 reflected the first full-year impact of salary adjustments agreed under the Collective Agreement signed in late 2023. While these adjustments were set significantly below the inflation index, they nevertheless contributed to the overall increase in staff costs.

Depreciation costs

Depreciation costs accounted for 10.2% of total expenses in 2024, amounting to EUR 11.7 million, which is 14.3% (or EUR 1.5 million) higher than in the previous year, despite the ongoing decommissioning of fully amortized existing assets.

This increase reflects the accelerated investment cycle and the commissioning of assets into operational use in 2023 and 2024, clearly demonstrating CCL's strong commitment to implementing the RP3 CAPEX plan. The growth is attributable to an increase of EUR 0.46 million in depreciation of intangible assets and EUR 1.0 million in depreciation of property, plant, and equipment.

Although 2024 marked the peak of investments in the RP3, the full year depreciation effects of these assets are expected to incur in the coming years.

Other operating expenditures (excl. financial cost)

Other operating expenditures (excluding depreciation and staff costs) amounted to EUR 20.8 million in 2024, representing 18.2% of the Company's total expenses. Compared to 2023, these costs were lower primarily due to the significant reduction in provision expenses in 2024. At the same time, other operating costs increased, mainly reflecting higher material costs, leased telecommunication lines, external services, and employee training (particularly for ATCOs). These increases were driven by persistent inflationary pressures in Croatia as well as

the overall growth in CCL's activities.

The expenditure structure in 2024 therefore indicates a continued focus on supporting operational capacity and service quality, while maintaining prudent cost control measures in light of ongoing inflationary pressures.

Financial Costs and Expenditures

Financial costs and expenditures, consisting primarily of interest expenses, remained marginal in 2024, accounting for only 0.3% of total costs. These costs are non-operational in nature and have no significant impact on the Company's overall financial position.

Cost Effectiveness

European ATM performance is regularly monitored by the Performance Review Unit (PRU). PRU's economic cost-effectiveness indicator gives an indication of how well an ANSP is providing the ANS in terms of cost-effectiveness.

According to the latest ATM Cost-Effectiveness (ACE) 2023 Benchmarking Report dated May 2025, the European System average for economic cost-effectiveness was EUR 607 per composite flight hour. In 2023 ATFM delays presented a major performance challenge; therefore, economic cost-effectiveness records did not align closely with financial cost effectiveness, especially in countries facing large and rapid traffic recovery/growth.

At the same time, CCL performed 24.5% better than the European system average in terms of 2023 economic cost effectiveness (i.e. 30.9% better than the European system average in terms of financial cost effectiveness measured as ATM/CNS provision costs per composite flight average). Such performance

placed CCL in the mid-range for economic cost-effectiveness, and within the lower quartile in terms of financial cost-effectiveness, both well below the European system average, placing it among top-performers.
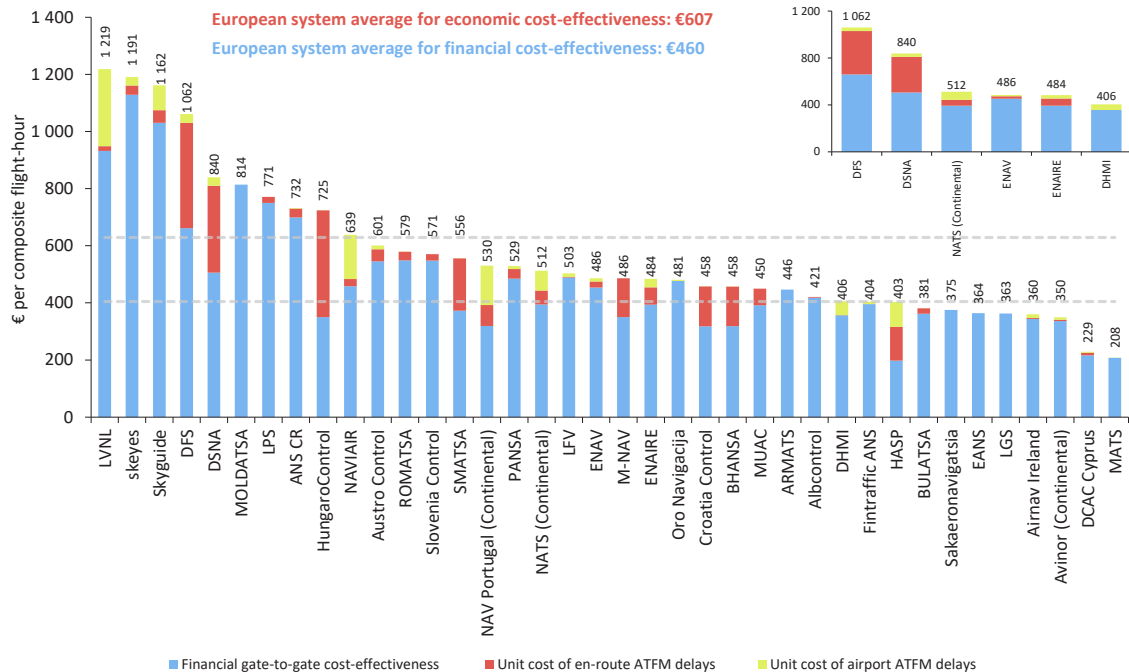
Economic gate-to-gate cost effectiveness indicator by ANSP, 2023

Cost Efficiency KPA

Realized 2024 cost efficiency target for CCL and Croatia (ENR DUC or DUC) as adopted within the revised RP3 Performance Plan of Croatia (April 2022) was respectively 30.4% and 29.0% better than planned for the period following the:

✈ total ENR costs in nominal terms being 10.5% (and 11.2%) higher than the 2024 revised plan for CCL (and Croatia), which at the 2024 inflation index 22.6 p.p. higher than planned resulted in total ENR costs in real terms (at 2017 prices) being -5.9% (and -3.9%) compared to the plan, with

✈ 2024 en route traffic realized substantially above the planned level (+35.3%).

Human Resources

CCL employs staff with adequate qualifications, to enable safe, high quality and continuous provision of services.

It pays special attention to human resources management, with a training system geared to ensure training, acquiring and continuous maintaining of competencies and experience, to meet international and national standards.

The knowledge, professionalism, and experience of its employees remain CCL's most valuable assets. For this reason, the company continuously invests in activities aimed at developing new competencies and improving communication and teamwork. Employees are encouraged to pursue lifelong learning and professional development—both through formal education and informal learning opportunities such as workshops, seminars, conferences, and specialized training. In 2024, particular emphasis was placed on developing leadership skills within the management structure, further strengthening the company's ability to respond to evolving operational and strategic demands.

Employees

In 2024, the total number of employees was 787 – 574 men and 213 women.

787

- ATM Sector - 210
- Approach and Aerodrome ATC Sector - 270
- Technical Services and Infrastructure Sector - 94
- MET and AIM/AIS Sector - 50
- Corporate Functions Sector - 72
- DG Offices - 84
- Military Sector - 6

574   213
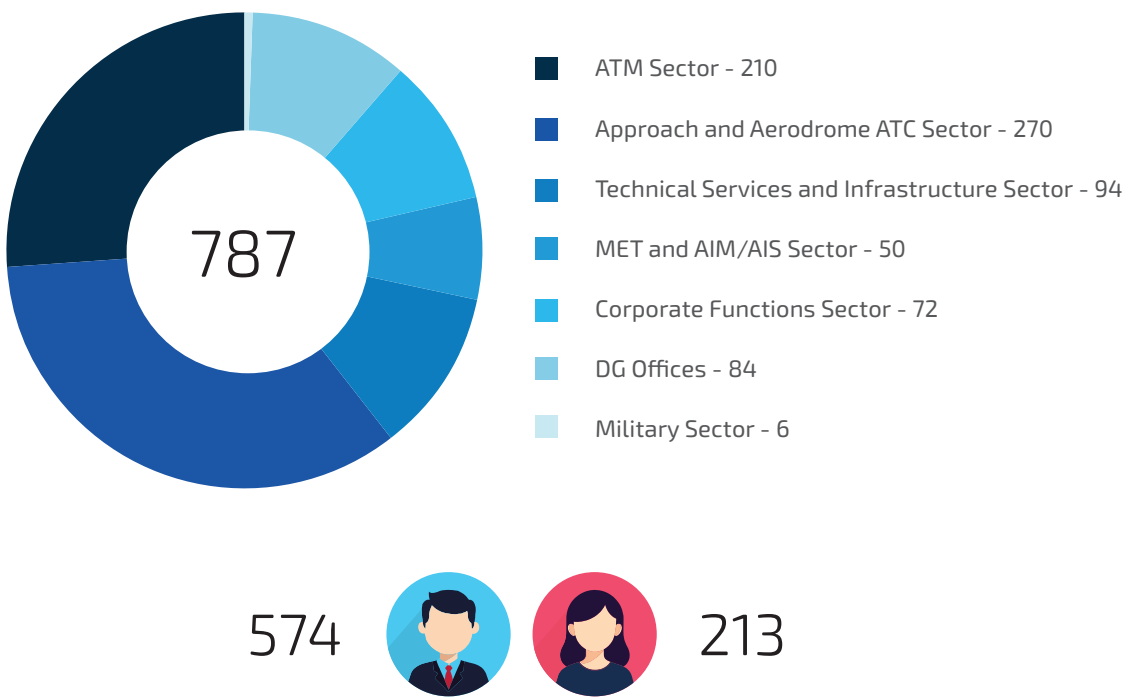
The majority of the aforementioned employees constitute operational staff, essential for the provision of ATM, CNS, AIS, and MET services. ATCOs, ATSEP, and other supporting functions (including staff for ancillary services, ATCO assistents etc.) represent 87% of the total workforce, whereas only a minor share is engaged in administrative functions.

Employment and Recruiting

CCL is fully committed to pursuing the principle of equal opportunities and dignity of every individual in its recruiting and employment policy.

The employment was carried out pursuant to the Labor Agreement and applicable internal employment procedures.

The total number of newly employed was 54, while 24 employees left the Company in 2024.

The selection of candidates was conducted in compliance with the predefined testing procedures, including the FEAST program and the assessment centre. The selection of ATSEP, MET, ATSP and administrative personnel was conducted according to the internal testing procedures.

Training

Integral ATCO training system was established in CCL. CCL is certificated for the Basic Training of all types of ATCO's, ADI/TWR, APS/TCL, ACS Rating and Unit Training in line with Commission Regulation (EU) 2015/340.

In addition to the training of new and existing ATCOs, the Training Organization also conducted initial and refresher courses for ATSEP, MET, ATSP and other operational personnel, in compliance with relevant EU regulations and respective training plans.

Operational staff – number of licenses in 2024
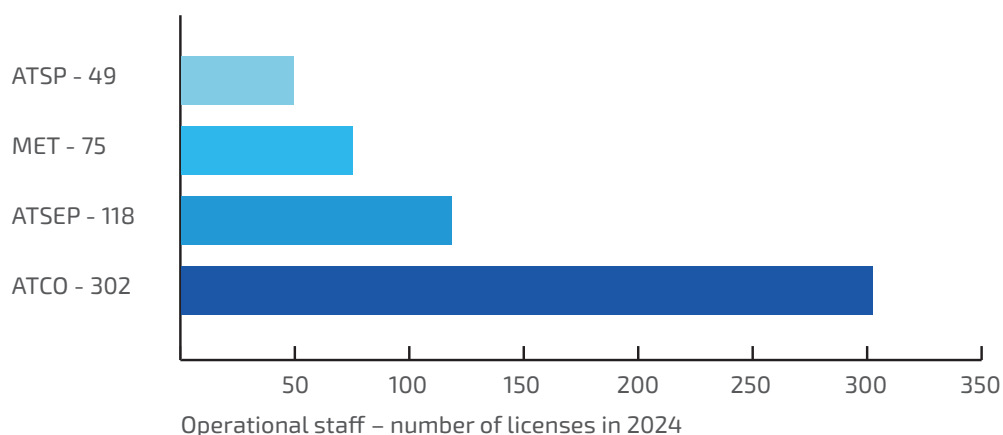
Operational staff – number of licenses in 2024

ATSP - 49
MET - 75
ATSEP - 118
ATCO - 302

50   100   150   200   250   300   350

Operational staff – number of licenses in 2024

In addition to the training of new and existing ATCOs, the Training Organization also conducted initial and refresher courses for ATSEP, MET, ATSP and other operational personnel, in compliance with relevant EU regulations and respective training plans.

Implementation of the tower simulator

A new tower simulator was installed at Croatia Control headquarters in 2024. The tower control simulator is essential for the initial and continuation training of air traffic controllers (including ATCO candidates), ensuring, among other things, the efficient maintenance of their licences. This advanced three-dimensional simulator provides realistic, high-quality, and effective training experiences. It also supports potential airport development projects by enabling simulations of new runways, aprons, taxiways, and other infrastructure changes. By offering an immersive and accurate environment, the simulator significantly enhances the quality, efficiency, and realism of ATCO training. Alongside the simulator's acquisition, CCL has provided appropriate facilities and dedicated space for its operation.

Health and Safety

CCL continuously conducts preventive activities aimed at the protection of employees' occupational health and safety.

Stress prevention and management program for ATCOs is carried out annually from mid-September to mid-April, i.e. in-between two seasons.

Critical incident stress management (CISM) is a method of care for air traffic controllers, FIC controllers and operational staff who have experienced a critical incident and are therefore under stress. In this program support is being given by CISM peers who are trained for this and participate voluntarily in CISM program. In 2024, within CISM framework a course for 34 peers was organized and their annual meeting was also held.

Outlook and Priorities for 2025

Amid increasing geopolitical tensions, persistent global economic uncertainty, and a complex operational environment, 2025 stands out as a year of strategic significance for CCL. While many European countries face volatility and regional reroutings due to evolving conflict zones and airspace restrictions, Croatia's exceptional geographic position continues to support strong air traffic growth. This sustained upward trend reinforces CCL's role as one of key enablers in the regional and pan-European aviation network.

In 2025, the Company shifts firmly from planning to execution of major investments and strategic transformation projects. This includes both capital infrastructure and human resources—especially through the largest-ever ATCO training initiative, aimed at meeting increasing operational demands and fulfilling performance obligations.

An important development is the approval of the Performance Plan for the Fourth Reference Period (RP4), which sets clear and measurable targets for the 2025–2029 period. This approval marks a critical milestone in CCL's regulatory journey, transitioning the focus towards meeting the officially adopted RP4 targets in all key performance areas, including safety, capacity, environment, and cost-efficiency.

Goals and priorities for 2025:

Safety

✈ to meet all RP4 safety targets, ensuring robust safety performance monitoring and continuous improvement across all operational domains

✈ to adapt internal safety oversight to address increased traffic complexity and evolving risk factors linked to regional instability and airspace constraints

Capacity

✈ to contribute proactively to the resilience of the pan-European ATM network, particularly under pressure from unplanned traffic growth.

✈ to maintain or surpass the baseline capacity of 205 operations per hour, with flexibility to adapt to seasonal and short-notice demand spikes.

Environment

✈ to meet or exceed the RP4 horizontal en route flight efficiency target of 1.46%, supporting EU-wide climate objectives.

✈ to expand performance-based navigation (PBN) and cross-border coordination to reduce emissions and route inefficiencies.

Cost Efficiency

✈ to deliver on the approved RP4 determined unit cost (DUC) target of -1.2% for 2025 in comparison to 2024, balancing planned investments and financial discipline.

Finance

✈ to maintain a strong financial foundation with a financial stability indicator below 1, ensuring the Company's resilience and capacity for long-term investments.

Technical Systems

✈ to implement a EUR 29.5 million investment program, prioritizing digitalization, automation, and technical upgrades for higher service availability and safety.

✈ advance with the deployment of next-generation ATM solution, improving scalability and readiness for future traffic levels.

Strategic Projects

✈ Together with COOPANS partners, continue deployment of TopSky ATC1 and EX-ODUS, the latter is supported by co-funding under the CEF DSD 2022 Call. These programs are key to regulatory alignment, technological innovation, and improved interoperability across the region.

✈ Leverage EU partnerships and funding mechanisms to future-proof the Company's operations in alignment with Digital European Sky and SESAR 3 priorities.

Human Resources / ATCO Training

✈ Continuation of in-house training with 20 new trainees who will, together with those already in the program, represent the largest ATCO training initiative in CCL's history,

✈ Scale up internal training capacity, modernize simulation infrastructure, and expand the pool of certified instructors to meet the needs of RP4 and beyond.

Financial Statements and Auditor's Report

RESPONSIBILITY FOR THE ANNUAL FINANCIAL STATEMENTS

The Management Board of the Company **CROATIA CONTROL LTD**, Velika Gorica, Rudolfa Fizira 2 ("the Company") is responsible for ensuring that the annual financial statements of the Company for the year 2024 are prepared in accordance with the Accounting Act (Official Gazette No. 85/24, 145/24) and the International Financial Reporting Standards ("IFRS") as adopted by the European Union, to give a true and fair view of the financial position, the results of business operations, the changes in equity and the cash flows of the Company for that period.

On the basis of the review, the Management Board of the Company has a reasonable expectation that the Company has adequate resources to continue in operational existence for the foreseeable future. Accordingly, the Management Board has prepared financial statements under the assumption that the Company is a going concern.

In preparing these financial statements, the Management Board is responsible for:

✈ selecting and consistently applying suitable accounting policies in line with the effective financial reporting standards;

✈ giving reasonable and prudent judgments and evaluations;

✈ preparation of the annual financial statements on the going concern principle unless such an assumption is not further appropriate.

The Management Board is responsible for keeping proper accounting records, which shall reflect with reasonable accuracy at any time the financial position, results of operations of the Company, changes in capital and cash flow of the Company, as well as their compliance with the Accounting Act and the International Financial Reporting Standards as adopted by the European Union. The Management Board is also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Signed on behalf of the Management Board

Mario Kunovec-Varga, Director General

CROATIA CONTROL LTD.
Rudolfa Fizira 2
10 410 Velika Gorica
May 16, 2025

INDEPENDENT AUDITOR'S REPORT

To the owner of the company CROATIA CONTROL Ltd.

Report on the audit of the annual financial statements

Opinion

We audited the annual financial statements of the company CROATIA CONTROL LTD, Velika Gorica, Rudolfa Fizira 2 ("the Company") for the year ended 31 December 2024, which includes the Statement of Financial Position (Balance Sheet) as at 31 December 2024, Statement of Comprehensive Income, Statement of Changes in Equity and the Cash Flow Statement for the year then ended, and Notes to the annual financial statements, including significant information about accounting policies.

In our opinion, the attached annual financial statements fairly present, in all significant respects, the financial position of the Company as at 31 December 2024, its financial performance and the cash flows for the year then ended, in accordance to the International Financial Reporting Standards ("IFRS") as adopted by the European Union.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Annual Financial Statements section of our report. We are independent of the Company in accordance with the International Code of Ethics for Professional Accountants (with International Standards of Independence) issued by the International Ethics Standards Board for Accountants (IESBA) (IESBA Code), as well as in accordance with ethical requirements relevant to our audit of the annual financial statements in the Republic of Croatia and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the annual financial statements of the current period. These matters were addressed in the context of our audit of the annual financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Non-current intangible Assets and Property, Plant, and Equipment

Description

Non-current intangible assets and Property, Plant, and Equipment as at 31 December 2024 amount to EUR 73,261,910, which represents 34% of the total assets. Total value of current assets was EUR 112,477,777 (52% of the assets), and its largest share in the amount of EUR 60,207,459 relates to the position Financial Assets, which refers to short-term deposits in commercial banks. Given the material significance of non-current intangible and Property, Plant, and Equipment assets, its role as the key material resource in the functioning of the Company, as well as the complexity of recording of these assets (procurement, calculation of depreciation, measurement, costs capitalization etc.), it is our opinion that these positions in the Statement of Financial Position /Balance Sheet represent the Key Audit Matters.

During 2024, the procurement of mentioned assets totaled EUR 28,217,813 and related mostly to the projects of upgrading of ATM systems and projects DATA-COM and VOICE-COM domain.

Pursuant to IAS 16, a part of the gross salary in the amount of EUR 747,182 in 2024 was capitalized to the related projects.

See Notes 15 and 17 to the annual financial statements.

How these issues were addressed in the audit

Our audit procedures included, among others, as follows:

- Assessment of the harmonization of recognition of mentioned assets with the relevant IFRS.

- Testing of the internal controls related to the process of procurement of mentioned assets on the basis of the representative sample of procurement transactions.

- We assessed the prudence of useful life of assets used by the Company when calculating the depreciation as well as the depreciation start date for activated assets and depreciation end date for assets no longer in use.

- New procurements of mentioned assets in 2024 were tested on the basis of a representative sample of procurement transactions.

- On the basis of representative transactions, we tested the disposals and write-off of Property, Plant, and Equipment and intangible assets

- We examined the capitalization of own costs.

- We determined that the process of arranging and registering the real estate ownership rights has not been completely settled. The settlement of these property legal issues is currently under way.

Through our audit procedures, we ascertained that the non - current intangible assets and Property, Plant, and Equipment in materially significant items have been recorded and published in line with the IFRS.

Posting of transactions related to the SES regulatory framework

Description

In the Statement of Financial Position (Balance Sheet) as at 31 December 2024, the Company stated a provision, among other, for contingent liabilities arising from the SES (Single European Sky) regulatory framework in the amount of EUR 24,937,297. For more detailed information, see Note 10 and Note 29 to the annual financial statements.

Also, based on the SES regulatory framework, the Company reported contract assets in the amount of EUR 20,146,458. For more detailed information, see Note 3 and Note 26 to the annual financial statements.

Revenues from core business The Company generates based on the provision of air navigation services which are subject to a common regulatory framework based on cost and turnover plans approved by the relevant authorities (RC, EC) with certain surpluses and deficits arising from the difference between planned revenues and actual income. In situations of significant difference between planned and achieved results, the prescribed mechanism for settling the deficit or surplus of revenues arising from the regulatory framework (SES provisions) is applied. This complex mechanism requires the Company to make complex estimates with a significant level of judgment and uncertainty as it relates to a period longer than one year, which may lead to the recording of incorrect amounts of SES provisions, i.e. contract assets.

Due to the significance of the reported amounts of SES provisions and contract assets and the complexity of the valuation process, in our opinion these positions in the Statement of Financial Position / Balance Sheet represent a key audit matter.

How these issues were addressed in the audit

Our audit procedures included, among other:

✈ Checking the validity of the presentation of the mentioned positions by inspecting the relevant EU regulations:

   - Implementing Regulations (EU) 2019/317 and 2020/1627 which prescribe a mechanism for the protection of air service providers.

✈ Assessment of the compliance of the policy of recognition of assets with IFRS.

✈ Checking the accuracy of the calculation of the required amounts of SES provisions in accordance with SES regulation.

✈ Checking the parameters used in the Calculation.

✈ Checking the accuracy of the calculation of the required amounts of contract assets.

✈ Comparison of calculations with the Performance Plan.

Through our audit procedures, we have verified that SES provisions as well as contract assets in material items have been recorded and disclosed in accordance with IFRS.

Other information

The Management Board of the Company is responsible for the other information. The other information includes the Annual Report, but does not include the annual financial statements and our Independent Auditor's Report on these statements.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the annual financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

With regard to the Management Report, we have also performed the procedures prescribed by the Accounting Act. These procedures shall include verifying that the Management Report has been drawn up in accordance with Article 24. of the Accounting Act.

Based on the procedures performed, to the extent that we are able to assess it, we report that:

1. the information in the attached Annual Report are aligned, in all significant aspects, with the attached annual financial statements;

2. attached Annual Report is compiled in accordance with Article 24 of the Accounting Act.

Based on knowledge and understanding of the Company's operations and its environment acquired within the framework of the audit of the annual financial statements, we are obliged to report if we have established that there are significant misstatements in the attached Management Report. In this sense, we have nothing to report.

Responsibilities of Management Board and Those Charged with Governance for the Annual Financial Statements

Management Board is responsible for the preparation and fair presentation of the annual financial statements in accordance with IFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the annual financial statements, Management Board is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless Management Board either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those in charge of governance are responsible for overseeing the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Annual Financial Statements

Our objectives are to obtain reasonable assurance about whether the annual financial statements as a whole are free from material misstatement, whether due to fraud or

error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- ✈ Identify and assess the risks of material misstatement of the annual financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- ✈ Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.

- ✈ Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management Board.

- ✈ Conclude on the appropriateness of management's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our Independent auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.

- ✈ Evaluate the overall presentation, structure and content of the annual financial statements, including the disclosures, and whether the annual financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those in charge of management regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also make a statement to those charged with governance that we have complied with relevant ethical requirements regarding independence and will communicate with them about any relationships and other matters that may reasonably be considered to affect our independence, as well as, where applicable, on actions taken to address threats to independence, and related protections.

Among the matters communicated with those charged with governance, we determine those matters that are of greatest importance in the audit of the current period's annual financial statements and are therefore key audit matters. We describe those matters in our auditor's report, unless law or regulation prevents public disclosure of the matter or when we decide, in extremely rare circumstances, that the matter should not be disclosed in our auditor's report because the adverse consequences of disclosure would reasonably be expected to outweigh the benefits to the public interest from such communication.

Report on Other Legal and Regulatory Requirements

1. On June 20, 2024 the Assembly of the Company appointed us on the proposal of the Supervisory Board to audit the annual financial statements for 2024.

2. At the date of this report, we have been continuously engaged in performing the Company's statutory audits, from the audit of the Company's annual financial statements for 2017, up to the audit of the Company's financial statements for 2024, which is a total of 8 years.

3. Our audit opinion is consistent with the additional audit report prepared for the Company's Audit Committee in accordance with provisions of Article 11 of Regulation (EU) No. 537/2014.

4. During the period between the initial date of the Company's audited annual financial statements for the year 2024 and the date of this report, we did not provide the Company with prohibited non-audit services, and in the business year prior to the aforementioned period, we did not provide services for the design and implementation of internal control procedures or risk management related to the preparation and/or control of financial information or the design and implementation of technological systems for financial information, and in performing the audit we preserved independence in relation to the Company.

Zagreb, May 16, 2025

Moore Audit Croatia d.o.o.

Trg Johna Fitzgeralda Kennedyja 6b

10 000 Zagreb

Max Gelo,
Member of the Management Board

Marko Dvorski,
Certified auditor

Balance sheet		
	At 31 December 2024	At 31 December 2023
	in EUR	in EUR
ASSETS		
Intangible assets	24,788,725	17,671,794
Right of use assets	505,152	644,203
Tangible assets	47,968,033	38,797,346
Financial assets	491,080	468,026
Deferred tax assets	7,219,097	8,975,207
Long-term prepaid expenses and accrued income	13,094,300	20,146,458
NON-CURRENT ASSETS	**94,066,387**	**86,703,034**
Inventories	427,526	376,112
Accounts receivable	19,615,013	20,820,488
Receivables from employees and shareholders	37,971	38,489
Receivables from government and other institutions	3,830,357	1,142,795
Other receivables	6,225	19,164
Financial assets	60,207,459	40,199,890
Cash at bank and in hand	28,353,226	66,284,313
Short-term prepaid expenses and accrued income	8,328,924	8,363,546
CURRENT ASSETS	**120,806,701**	**137,244,797**
TOTAL ASSETS	**214,873,088**	**223,947,831**
OFF-BALANCE SHEET ITEMS	**44,917,890**	**37,857,850**

Balance sheet		
	At 31 December 2024	At 31 December 2023
	in EUR	in EUR
CAPITAL AND LIABILITIES		
Subscribed capital	60,000,000	59,725,264
Other reserves	45,903,505	39,260,342
Profit for the current year	17,654,353	17,294,749
CAPITAL AND RESERVES	**123,557,858**	**116,280,355**
Provisions	**40,144,429**	**49,828,135**
Liabilities to banks and other financial institutions	9,290,597	14,668,953
Lease liabilites	382,130	515,560
Deffered tax liabilities	4,472	4,884
Long-term accrued expenses and deferred income	7,572,954	8,257,352
Long-term liabilities	**17,250,153**	**23,446,749**
Loan liabilities and deposits	380,667	285,149
Liabilities to banks and other financial institutions	5,378,357	6,775,029
Accounts payable	7,888,646	5,792,730
Liabilities to employees	8,783,958	8,430,189
Liabilities for taxes, contributions and similar fees	6,949,729	7,960,005
Other short-term liabilities	3,623,968	4,442,650
Short-term accrued expenses and deferred income	915,323	706,840
Short-term liabilities	**33,920,648**	**34,392,592**
TOTAL CAPITAL AND LIABILITIES	**214,873,088**	**223,947,831**
OFF-BALANCE SHEET ITEMS	**44,917,890**	**37,857,820**

Statement of comprehensive income		
	2024	**2023**
	in EUR	**in EUR**
Sales revenue	119,059,302	122,740,436
Other operating revenues	13,953,132	3,471,790
Operating revenues	**133,012,434**	**126,212,226**
Material costs	(11,981,188)	(11,074,909)
Staff costs	(81,497,344)	(74,659,692)
Depreciation	(11,683,806)	(10,225,182)
Other costs	(6,715,663)	(5,805,678)
Impairment	(75,354)	(135,122)
Provisions	(1,721,792)	(3,878,239)
Other operating expenses	(309,361)	(242,115)
Operating expenses	**(113,984,508)**	**(106,020,937)**
Profit/ Loss from operating activites	**19,027,926**	**20,191,289**
Financial income	2,792,356	1,356,430
Financial expenses	(304,506)	(437,898)
Profit/ Loss from financing activies	**2,487,850**	**918,532**
TOTAL INCOME	**135,804,790**	**127,568,656**
TOTAL EXPENSES	**(114,289,014)**	**(106,458,835)**
PROFIT BEFORE TAXATION	**21,515,776**	**21,109,821**
Profit tax	(3,861,423)	(3,815,072)
PROFIT FOR THE PERIOD	**17,654,353**	**17,294,749**
NET OTHER COMPREHENSIVE INCOME FOR THE PERIOD	-	-
COMPREHENSIVE INCOME FOR THE PERIOD	**17,654,353**	**17,294,749**

Cash flow statement		2024	2023
		in EUR	in EUR
I	**CASH FLOWS FROM OPERATING ACTIVITIES**		
A	Profit before tax	21,515,776	21,109,821
	Adjustments:		
	Depreciation	11,683,806	10,225,182
	(Gains)/ losses from asset disposal and non-current asset revaluation	(44,150)	9,682
	Interest and dividend income	(1,570,284)	(538,408)
	Interest expense	301,286	405,023
	Provisions	(9,683,706)	3,047,360
	Foreign exchange differences (unrealized)	2,973	(5,623)
	Other adjustments for non-cash transactions and unrealized (gains / losses)	3,481	3,940
B	Adjustments	693,406	13,147,156
C= A+B	**NET CASH FLOWS BEFORE CHANGES IN WORKING CAPITAL**	**22,209,182**	**34,256,977**
	(Increase)/ Decrease in short-term liabilities	1,859,952	7,604,547
	(Increase) in short-term receivables	5,561,889	8,101,525
	(Increase)/ Decrease in inventories	(51,414)	35,690
D	**Changes in working capital**	**7,370,427**	**15,741,762**
E	Interest expenses	(276,815)	(406,773)
F	Profit tax paid	(5,370,042)	(15,187,279)
I=∑(A:F)	**NET CASH FLOWS FROM OPERATING ACTIVITIES**	**23,932,752**	**34,404,687**
II	**CASH FLOWS FROM INVESTING ACTIVITIES**		
	Cash inflows from sale of non-current tangible and intangible assets	47,730	23,052
	Cash inflows from interest	1,570,284	1,353,232
	Cash inflows from repayments of loans and savings deposits	-	75,492
	Other cash inflows from investment activities	40,000,000	30,225,000

Cash flow statement		2024	2023
		in EUR	in EUR
G	**Total cash inflows from investing activities**	**41,618,014**	31,676,776
	Cash outflows for purchase of non-current tangible and intangible assets	(27,823,420)	(13,381,862)
	Cash outflows for given loans and savings deposits for the period	–	(468,780)
	Other outflows from investing activities	(60,000,000)	(40,000,000)
H	Total cash outflows from investing activities	(87,823,420)	(53,850,642)
II= G+H	NET CASH FLOWS FROM INVESTING ACTIVITIES	(46,205,406)	(22,173,866)
III	**CASH FLOWS FROM FINANCING ACTIVITIES**		
	Other inflows from financial activities	1,643,602	4,563,547
J	**Total cash inflows from financing activities**	**1,643,602**	**4,563,547**
	Cash outflows from the loan principals and bonds	(6,775,030)	(6,924,384)
	Other outflows from financial activities	(10,527,005)	(7,256,058)
K	**Total cash outflows from financing activities**	**(17,302,035)**	**(14,180,442)**
III= J+K	**NET CASH FLOWS FROM FINANCING ACTIVITIES**	**(15,658,433)**	**(9,616,895)**
	CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	**66,284,313**	**63,670,387**
	CASH AND CASH EQUIVALENTS AT END OF PERIOD	**28,353,226**	**66,284,313**
	INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS	**(37,931,087)**	**2,613,926**

Statement of changes in equity				
	Share (subscribed) capital	Other reserves	Profit for the current year	Total
	in EUR	in EUR	in EUR	in EUR
At 31 December 2022	**59,725,264**	**34,507,897**	**11,881,112**	**106,114,273**
Distribution of profit	-	11,881,112	(11,881,112)	-
Dividend payout	-	(7,128,667)	-	(7,128,667)
Profit for the current year	-	-	17,294,749	17,294,749
At 31 December 2023	**59,725,264**	**39,260,342**	**17,294,749**	**116,280,355**
Distribution of profit	274,736	17,020,013	(17,294,749)	-
Dividend payout	-	(10,376,849)	-	(10,376,849)
Profit for the current year	-	-	17,654,353	17,654,353
At 31 December 2024	**60,000,000**	**45,903,505**	**17,654,353**	**123,557,858**

Abbreviations

A4E	Airlines for Europe
ACC	Area Control Centre
ACG	Austro Control GmbH
ACS	Area Control Service
ACE	ATM Cost-Effectiveness
ADI	Aerodrome Control Instrument
ADS-B	Automatic Dependent Surveillance–Broadcast
ADSP	ATM Data Service Provider
AIC	Aeronautical Information Circular
AIP	Aeronautical Information Publication
AIM/AIS	Aeronautical Information Management / Aeronautical Information Services
AIXM	Aeronautical Information Exchange Model
AMC	Airspace Management Cell
ANS	Air Navigation Services
ANSP	Air Navigation Service Provider
AOLO	Aircraft Operator Liaison Officer
APS	Approach Control Surveillance
ARO	Airport Reservation Office
ASM	Airspace Management
ATC	Air Traffic Control
ATCC	Air Traffic Control Centre
ATCO	Air Traffic Control Officer
ATFM	Air Traffic Flow Management
ATIS	Automatic Terminal Information Service
ATM	Air Traffic Management
ATS	Air Traffic Services
ATSEP	Air Traffic Safety Electronics Personnel
ATSP	Air Traffic Services Personnel
AWOS	Automatic Weather Observation System
BHANSA	Bosnia and Herzegovina Air Navigation Services Agency
CAF	Croatian Armed Forces
CANSO	Civil Aviation Navigation Services Organization
CAPEX	Capital Expenditure

CCAA	Croatian Civil Aviation Agency
CCL	Croatia Control Ltd.
CEF	Connecting European Facility
CINEA	European Climate, Infrastructure and Environment Executive Agency
CISM	Critical Incident Stress Management
CNS	Communication, Navigation and Surveillance
COOPANS	Cooperation Between Air Navigation Service Providers
CP	Common Project
CRCO	Central Route Charges Office
CTA	Controlled Area
CTR	Control Zone
CUSA	Croatian Unmanned Systems Association
DSD	Digital Sky Demonstrators
DUC	Determined En Route Unit Cost
EAD	European Aeronautical information Database
EC	European Commission
EMS	Environmental Management System
ENR	En Route
EoSM	Effectiveness of Safety Management
ERM	Enterprise Risk Management
EU	European Union
EUMETNET	European Meteorological Network
EUROCAE	European Organization for Civil Aviation Equipment
EUROCON-TROL	European Organization for the Safety of Air Navigation
FAB	Functional Airspace Block
FAB CE	FAB Central Europe
FCE	FAB CE Aviation Services Ltd
FEAST	First European Air Traffic Controller Selection Test
FIR	Flight Information Region
FL	Flight Level
FPD	Flight Procedure Design
FRA	Free Route Airspace
FUA	Flexible Use of Airspace

GAT	General Air Traffic	SATM	Specific ATM
GNSS	Global Navigation Satellite System	SCL	Slovenia Control
HCL	HungaroControl	SDIP	SESAR Deployment & Infrastructure Partnership
HEMS	Helicopter Emergency Medical Service	SDM	SESAR Deployment Manager
HRM	Human Resource Management	SDO	Strategic Deployment Objective
IAP	Instrument Approach	SDP	SESAR Deployment Program
IATA	International Air Transport Association	SeCMS	Security Management System
ICAO	Internation Civil Aviation Organization	SECSI	South East Common Sky Initiative
IESBA	International Ethics Standards Board for Accountants	SEE FRA	South East Europe Free Route Airspace
IFR	Instrument Flight Rules	SES	Single European Sky
IFRS	International Financial Reporting Standards	SESAR	Single European Sky ATM Research
ISA	International Standards on Auditing	SMI	Separation Minima Infringement
ISLAND	Intelligent Suite for Local and Network Demand and Capacity Balance	SMS	Safety Management System
JC	Just Culture	STATFOR	Statistics and Forecast Service
KEA	Key Environment Area	SWIM	System Wide Information Management
KPA	Key Performance Area	TAM	Telephone Messaging Machine
KPI	Key Performance Indicator	TBO	Trajectory Based Operations
LARA	Local And Regional Airspace Management Supporting System	TCL	Terminal Control
Ltd.	Limited	TCT	Tactical Controller Tool
MAGnet	Multiservice ATM-Grade Network	TMA	Terminal Manoeuvring Area
MET	Aeronautical Meteorological Services	TOKAI	Toolkit for ATM Occurrence Investigation
MoD	Ministry of Defence	TWR	Tower Control Unit
MSTI	Ministry of the Sea, Transport and Infrastructure	UAS	Unmanned Aerial Systems
NATO	North Atlantic Treaty Organization	UTM	Unmanned Aircraft System Traffic Management
NET	Network	VC	Virtual Centre
NM	Network Manager	VFR	Visual Flight Rules
NOTAM	Notice to Airmen	WAFC	World Area Forecast Centre
OPEX	Operating Expense	WAM	Wide Area Multilateration
PBN	Performance Based Navigation	TRA	Temporary Reserved Area
PIB	Pre-flight Information Bulletins	TSA	Temporary Segregated Area
PP	Performance Plan	TWR	Tower Control Unit (Aerodrome Control Tower)
PRB	Performance Review Body	UAS	Unmanned Aerial Systems
PRU	Performance Review Unit	UTM	Unmanned Aircraft System Traffic Management
PSR/SSR	Primary/Secondary Surveillance Radar	VFR	Visual Flight Rules
QMS	Quality Management System	VoIP	Voice over Internet Protocol
RP	Reference Period	VRRS	Voice Recording and Replay System
		WAM	Wide Area Multilateration