

ANNUAL REPORT LFV 2024





Annual report LFV
Contents

OVERVIEW

Briefly about LFV 4
The Director-General has the floor 6

DIRECTORS' REPORT

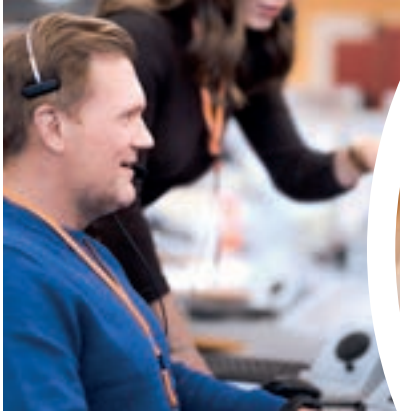
This year in brief 10
This year in aviation 12
Mission and governance model 14
Transport policy goals 15
Destination- ONE LFV 16
Main goals and results 20
Areas of operation 22
- Air navigation service – Performance Management 24
- Reporting according to performance plan 26
- Air navigation service – Our services 28
- Air navigation service – Aviation Safety 31
- Total Defence and Robust Air Traffic Service 32
- Other commercial activities 34
- Research and innovation 36

Environment and sustainability 38
Culture and employees 40
Investments 43
Internal governance and control 44

FINANCIAL STATEMENTS

Income statement 47
Comments on the income statement 48
Balance sheet 50
Funds statement 52
Comments on balance sheet, funds statement, and statement of appropriations 53
Accounting and valuation principles 54
Notes 57
Dividend proposal 65
Audit report 66
Board of Directors 68
Group Management 70
Five-year summary 73
Abbreviations and explanations 74









LFV is a state-owned enterprise that provides a safe, efficient and environmentally friendly air navigation service for civil and military aviation and unmanned aviation services.

BRIEFLY ABOUT LFV

Activities

LFV operates nationally and internationally in four main areas of operation:

- Air navigation service
- Total Defence and Robust Air Navigation Service
- Other commercial activities
- Research and innovation.

80 percent (82) of turnover is attributable to air navigation services, which include air traffic control and technical infrastructure. The air navigation service is largely financed by en-route and terminal fees. These are governed by performance plans established by the EU. The performance plan also includes aviation safety, capacity, environmental and cost efficiency goals.

LFV receives framework funding for civil defence and infrastructure for air navigation services, which are used for total defence measures and for investments in certain infrastructure. The aim is to provide a robust air navigation service according to the requirements of LFV in all contingency phases. LFV also receives funding to develop services and systems for unmanned aviation.

The enterprise group

The LFV Group consists of the state-owned enterprise Air Navigation Services Sweden, the wholly owned holding company LFV Holding AB, the subsidiaries LFV Aviation Consulting AB and Aviseq Critical Communications AB (AVISEQ) and the associated company Entry Point North AB (EPN).

The majority of LFV's operations are conducted in the state-owned enterprise. A smaller part, in particular the commercial activities, is conducted through the companies.

LFV leads aviation in all situations

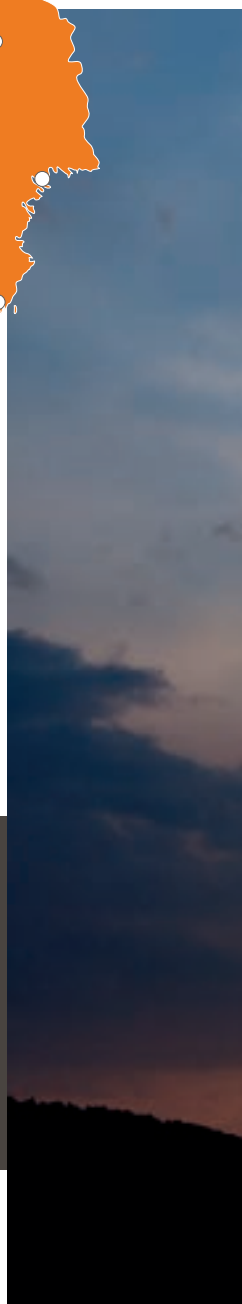
The LFV Group – Air Navigation Services of Sweden, known as LFV, is a state-owned enterprise under the Ministry of Rural Affairs and Infrastructure a safe, efficient and environmentally friendly air navigation service for civil and military aviation and unmanned aviation services. LFV shall also work to achieve the transport policy goals.

LFV is Sweden's leading provider of air traffic control for civil aviation and related services. LFV also provides air traffic control for military aviation in all contingency phases. LFV is a public authority with special responsibility for Sweden's total defence.

In 2024, an average of about 1,660 aircraft were managed in Swedish airspace per day. LFV provides air navigation services at 16 airports in Sweden and at 4 control centres.

Flight safety work is conducted at all levels within LFV to create conditions for safe flights.





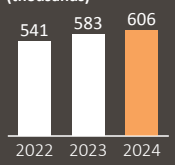
LFV IN NUMBERS

0.7
... billion SEK in turnover in 2024 (including revenue adjustment exceptional items –2.6)

1,412
... employees in the group

606
... thousand air traffic movements in Swedish airspace managed by LFV

Flight movements (thousands)



Certifications

LFV is certified by the Swedish Transport Agency according to current EU regulations to provide air traffic and air traffic management services as well as training of air traffic controllers. In order to meet the requirements of regulations and various stakeholders, LFV has a business management system certified according to ISO 9001.

Environment

LFV conducts long-term environmental work and works with targets linked to both direct and indirect emissions. For example, LFV contributes to reducing emissions from air traffic by designing airspace and by contributing to straight flight paths for air traffic. During the year, LFV carried out a carbon footprinting of its operations, as part of its environmental and sustainability goal of Net Zero Emissions.

Innovation

LFV's research and innovation activities mainly focus on improving the services LFV delivers. The operations are based on a number of strategic development areas: reduced environmental impact, aviation safety, flexible and scalable service delivery, and increased productivity and cost efficiency through increased use of AI and automation. Research and innovation are conducted in-house, but also within the framework of collaborations with universities, other public authorities and organisations. Funding is mainly provided by the Swedish Transport Administration and SESAR (Single European Sky ATM Research).

Collaborations and partnerships

LFV is involved in developing European airspace through cooperation in various organisations and alliances, such as COOPANS, Borealis and SESAR.



In 2024, LFV has continued to take important steps to meet the challenges posed by the world around us. We have strengthened our capabilities, improved our processes and focused on delivering our services in the best possible way.

LFV is equipped to meet the demands of the future



Ann Persson Grivas notes that 2024 has been a year characterised by both challenges and progress for LFV.

2024 has been a year characterised by both challenges and progress for LFV. Geopolitical developments have put the spotlight on areas such as total defence, protective security and information security. We have seen an increase in cyber-attacks and other types of disruptions across society, emphasising the importance of securing and strengthening our systems and processes.

Through our long-standing cooperation with the Swedish Armed Forces, we have built a strong foundation for delivering air navigation services in all contingency phases. The increased military activity in our region places new demands on us, and we continue to prepare for the opportunities and challenges brought by Sweden's m embership in NATO.

The international situation continued to affect air traffic in Swedish airspace, and during the year, traffic was at around 78 percent of 2019 levels. International and overflight traffic increased gradually, while domestic flights decreased.

Developing our services and partnerships

To further strengthen our long-term capabilities, LFV's Group Board decided in December 2023 to merge the operations of our wholly owned subsidiary Aviseq Critical Communication AB (AVISEQ) with the operations of the state-owned enterprise. AVISEQ is responsible for the operation and maintenance of LFV's technical systems and has extensive experience in delivering solutions for critical communications. By integrating these operations with the state-owned enterprise, we will be better placed to develop our services and partnerships in the long term.

Destination – ONE LFV focuses on our core mission

During the year, we worked on financial data and issues related to the next reference period (RP4), which starts on 1 January 2025. Cost-efficiency goals will remain a challenge in the coming years. To meet these challenges, we strengthened our efforts to identify and prioritise initiatives that support the goals of our specialisation, Destination – ONE LFV. This specialisation, implemented in 2024, focuses on our core and societal mission and puts us in a good position to adapt quickly to changes in the world around us.

An important step during the year was the agreement to upgrade our air traffic management system, which LFV in co-operation with the other five COOPANS member countries concluded with the system supplier. The upgrade is an important milestone for managing air traffic safely, efficiently and sustainably in the future. This modern air traffic management system ensures flexibility, adaptability and interoperability, enabling the smooth integration of new technological developments.

High levels of confidence in LFV

Our work to establish services for unmanned aviation is making progress. Last autumn, the request for tenders was published to the potential system suppliers who qualified to participate in LFV's procurement of a system for unmanned aviation. The evaluation of tenders and contract negotiations will take place in the first quarter of 2025. The system will be a subset of what is required to provide efficient services to the unmanned aviation community, increasing availability and maintaining safety for all airspace users. In autumn of 2024, work has also commenced on defining a process for unmanned aviation, which will become a new core process within LFV.

“Our specialisation puts us in a good position to adapt quickly to changes in the world around us."

During the year, we received confirmation of LFV’s good standing. Verian's annual survey ranked LFV among the 12 public authorities in Sweden with the best reputation. We were also recognised as an 'Excellent Employer 2024' by the Nyckeltalsinstitutet, where we particularly distinguished ourselves in areas such as permanent employment, equal managerial careers and competitive salaries. Such recognition strengthens our efforts to be an attractive employer. We also see other signs that LFV is an attractive employer. The number of applications for air traffic controller training is increasing. This bodes well for the future.

Ann Persson Grivas
Director-General





Directors’ report

2024 in brief

Continued growth in air traffic but the state of the world had an impact

Air traffic increased after the downturn caused by the pandemic, but domestic traffic decreased. In total, the number of aircraft movements in Swedish airspace amounted to 605,924, an increase of 3.9 percent compared to 2023, corresponding to an average of 78 percent of the 2019 volume. Airspace closures due to the war in Ukraine affected traffic flows.

AVISEQ and LFV – stronger together

During the year, work to integrate the operations of the subsidiary AVISEQ with LFV's state-owned enterprise has been ongoing. The aim is to gain control over the technical operational organisation of the ATS and CNS services and to continue to deliver on shared missions in all contingency phases. The date for the transfer of activities from AVISEQ to the state-owned enterprise is planned for 2025 but not yet finalised.

Upgraded air traffic management system

Together with the five other COOPANS member countries, LFV has concluded an agreement to upgrade the current air traffic management system. This upgrade provides the system with a new architecture and development environment, and fulfils the new EU regulatory requirements.

Flight at Malmö Airport managed remotely

In February of 2024, air traffic control at Malmö Airport was connected to LFV's remote air traffic control centre at Arlanda, RTC Stockholm. For a smoother transition, the service is provided for a period of time alternately from two management sites, RTC Stockholm and Malmö Airport.

Destination – ONE LFV

Destination – ONE LFV became effective in January. It is a new specialisation to ensure that the organisation as a whole moves in one direction towards common goals. It focuses on the core and societal mission and provides the conditions to respond more quickly to changes in the world around us. The specialisation includes three main goals to achieve this shift: Developed Air Navigation Service, Cost Efficiency and Productivity, and Functional Total Defence.

Participation in defence exercises

LFV contributed to the planning and implementation of the Swedish Armed Forces' Nordic Response exercises in northern Sweden early in the year. In June, LFV participated in the annual naval exercise Baltic Operations (Baltops). Baltops 24 was the first operation for Sweden as a NATO ally.

Preparedness in a turbulent world

The security situation remained serious in 2024, posing a threat to Sweden's infrastructure. LFV put extensive effort into preparedness in order to strengthen its capacity in all situations, including through exercises. During the year, LFV adopted a total defence plan for the years 2025-2034. LFV also intensified protective security efforts on several fronts.

Environmental policy adopted

In the spring, LFV developed a separate environmental policy that shows LFV's focus on responsible and structured environmental work. The environmental policy addresses issues such as business travel, energy consumption, digital meetings, the environmental impact of purchasing and procurement, and active air traffic control work with solutions for sustainable airspace.

Breakdown of revenue
(Group, %)



- Revenue from the charging scheme, 60
- Revenue for local air traffic service, 16
- Other commercial revenue, 5
- Other revenue, 6
- Appropriations, 13

Breakdown of operating expenses
(Group, %)



- Payroll, 35
- Social security contributions, 11
- Pension costs, 21
- Other operating expenses, 23
- Depreciations and write-downs, 10

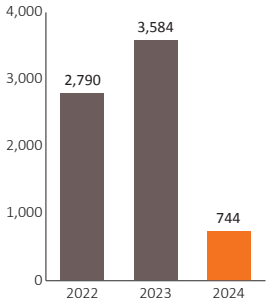
Investments

483

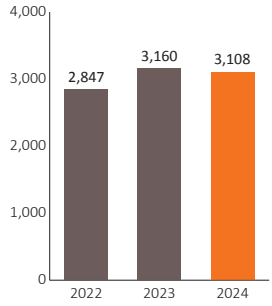
... million SEK



Revenue
(Group, SEK million)



Costs
(Group, SEK million)



Air traffic volume

+3.9 %

... compared to 2023

Focus on recruitment andskills

LFV needs to recruit more new air traffic controllers, due to large numbers of retirements in coming years. As a result, the number of students enrolled in the programme was increased during the year, and there will be a larger intake of students for the Entry Point North (EPN) air traffic controller school in coming years. To manage skill supply, LFV continued to focus on refining resource and recruitment planning.

Management of CNS/MET

In 2024, LFV and Swedavia investigated the potential opportunities related to transferring management responsibility for Swedavia's CNS and MET equipment from Swedavia to LFV. A feasibility study identified such opportunities. Following a Board decision in December, dialogue and negotiations between the partners regarding the terms and conditions now continue.

Profit/loss for the year

Profit/loss after financial items was SEK –106 million, excluding revenue adjustments of SEK 2,629 million due to revaluation of the pension liability. Comprehensive income was SEK 508 million, including revenue adjustments affecting comparability and after actuarial revaluation of the pension liability. The actuarial revaluation based on the 2024 calculation bases resulted in a reduction in the pension liability of SEK 3,244 million.

Continued high rate of investment

Investments for the year totalled SEK 483 million. LFV continued to invest in new measures to develop and increase the robustness of air traffic service, but also for the maintenance of existing systems and programmes.

Goal attainment according to the performance plan

LFV met the cost-efficiency and capacity targets in the Swedish performance plan in 2024. Aviation safety targets were met for the period. The war in Ukraine meant continued airspace restrictions that also affected air traffic in Sweden, which led to the environmental target not being met. 2024 was the last year of the charging scheme's reference period 3 (RP3).

Next reference period

In 2025, the next reference period (RP4) starts. LFV's cost basis was submitted to the Swedish Transport Agency on 1 October, which then compiled and submitted a Swedish plan to the EU. LFV received a preliminary decision from the Transport Agency on authorised cost levels. The European Commission will decide on the Swedish plan for FP4 in spring of 2025.

Significant events after the end of the financial year

No significant events have occurred after the end of the financial year that have an impact on the results and financial position for the financial year or other information in the annual report. The financial year ended on 31 December 2024.



Air traffic continues to recover despite decline in domestic traffic

Air traffic increased by 3.9 percent in 2024 to 78.3 percent of 2019 air movements. Overflight traffic in particular increased during the year. The number of aircraft movements in Swedish airspace totalled 605,924.



Overflight traffic, without take-off or landing in Sweden, represents the largest share of the total traffic volume and was the part of the traffic volume that increased most in 2024. Accumulated over the year, both overflight traffic and international traffic amounted to 80 percent of 2019 traffic. Compared to 2023 traffic, the outcome was +9.9 percent for overflight traffic, while international traffic increased by 1.6 percent. Domestic traffic, on the other hand, decreased by 7.8 percent compared to the previous year, reaching 68 percent of its 2019 level. The large increase in overflight traffic is largely due to increased traffic by Chinese airlines, which are not affected by airspace restrictions and can operate in both Russian and European airspace.

Development of air traffic in Sweden

In 2024, civil aviation airspace movements remained 22 percent below the 2019 volume. Demand for air travel has slowed. Digital forms of meetings, changes in the airline market, increased ticket prices, changes in the travel policies of companies and organisations, and environmental concerns all influence the choice of travel mode. In the airline sector, profitability problems are widespread and both SAS and BRA have undergone reorganisations in recent years. Norwegian, a major operator in the Swedish market, also underwent a reorganisation in the context of the pandemic.

Changes in the aviation industry

Since the pandemic, LFV has taken a cautious view of the development of the aviation market in Sweden. This is particularly true of the domestic market, where LFV's forecast is that traffic will permanently stabilise at a significantly lower level than before the pandemic. Demand in the domestic market has not been sufficient to justify the supply of air travel, driving structural changes that may in turn reduce supply and availability. In the autumn, BRA announced that it will cease operations at Bromma Airport as of early 2025. Instead, they serve as a subcontractor to SAS and focus on lease flights from Arlanda. Until the end of the year, BRA was the dominant operator at Bromma. The future of the airport is uncertain, and the need for air navigation services at the airport is expected to decrease. The City of Stockholm has also previously terminated the agreement with Swedavia regarding Bromma Airport, in order to free up space for housing and urban development. The agreement runs until 2038.

In terms of international flights, Sweden was also impacted by the changes taking place within SAS. A stronger concentration on Copenhagen as the main airport primarily means fewer direct and long-haul routes from Arlanda.

Demand for short domestic journeys has fallen. This is partly due to reduced demand for business travel, partly as a result of digital meetings.

Breakdown of modes of transport (%)

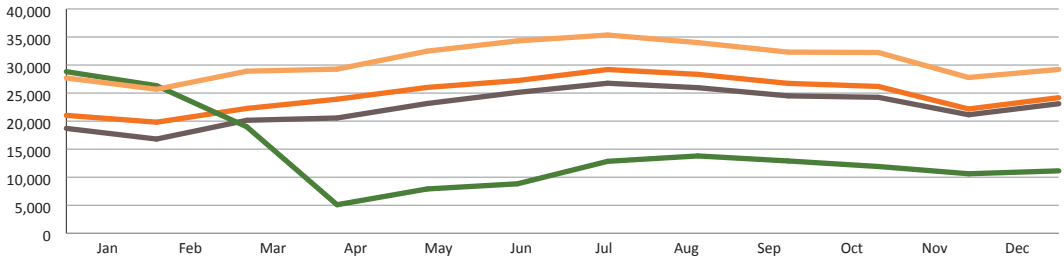


Long-term trend

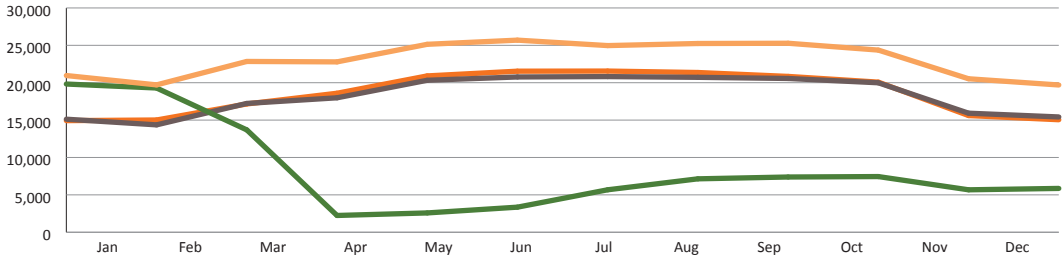
Geopolitical tensions and wars in Ukraine and the Middle East meant that the security situation continued to deteriorate. LFV's traffic forecast indicates a protracted development, where it will take until after 2030 before the number of airspace movements returns to the same levels as before the pandemic. LFV's traffic forecast for domestic traffic was further revised downwards for the coming year. If airspace restrictions linked to the Ukraine war are lifted, there will be faster and stronger long-term development, driven primarily by overflight traffic. Other factors that could have a major impact on air transport include the aviation industry's ability to manage the climate transition, macroeconomic developments and structural changes in the aviation market.

LFV's traffic forecast indicates a protracted development

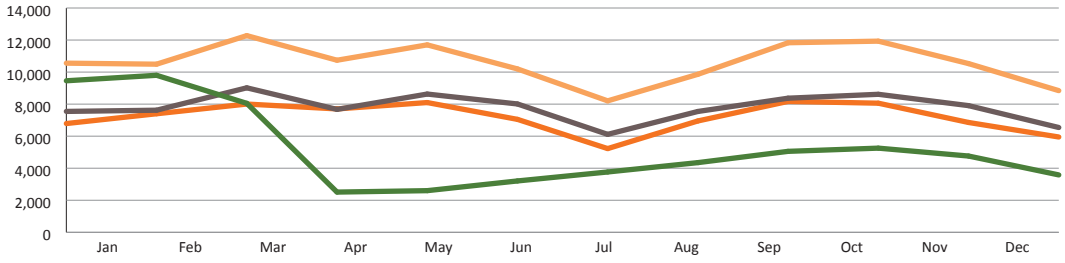
Number of overflights IFR movements



Number of international IFR movements



Number of domestic IFR movements



2019 2020 2023 2024

IFR = Instrument Flight Rules, i.e. flights carried out in accordance with instrument flight rules, which is the majority of all flights.
In addition to the figures for 2024, 2019 is reported as the pre-pandemic reference year, 2020 as the first pandemic year and 2023 as the reference for the previous year.



Complex regulatory framework governs operations

LFV's activities are governed and regulated by a large number of regulations, both national and international.

A state-owned enterprise

LFV is a state-owned enterprise and is governed by the same regulatory framework that applies to administrative authorities in general, but with a number of exceptions and additions. As a contracting authority, LFV is subject to national procurement rules and the EU acquis on competition and state aid. LFV conducts business activities in the form of limited companies in the enterprise group, where the business is governed by company-law regulations and applicable regulations for the companies' various activities.

Regulatory framework for air navigation services

LFV's activities in the field of air navigation services are governed by global guidelines and EU regulations as well as national laws, ordinances and regulations. LFV receives a large part of its revenue from airspace users, i.e. airlines, under a performance and charging scheme regulated by an EU regulation. Cost bases and charges are decided through the adoption of national performance plans, which provide the framework for the charging scheme for the current reference period, with 2024 being the final year of reference period 3.

The right to issue more detailed rules than those contained in an ordinance is called the right to issue regulations. The Swedish Armed Forces have the right to issue regulations for military aviation in the areas of flight information services, meteorological services and communication, navigation or surveillance services. The Swedish Transport Agency has the right to issue regulations in these areas for civilian aviation. LFV shall apply both regulatory frameworks.

Single European Sky II+

The European Parliament and the Member States reached an agreement during the year after lengthy negotiations on the Single European Sky, SES 2+. This is after the European Commission initiated changes to the regulatory framework to meet future requirements for increased capacity, modernisation of technical systems, flexibility, digitalisation, drones and cost efficiency. The regulation was published in the Official Journal of the EU in November. LFV will now analyse the impact of the final version of the Regulation on LFV.

European ATM Master Plan

The European ATM Master Plan is a comprehensive plan that guides the development of European air navigation services in a coordinated and harmonised manner, with the aim of enabling the realisation of Single European Sky . It is a plan for research and development in air traffic management and forms the basis for future EU regulations which will be mandatory for LFV to implement. The first version of the plan was launched in 2009 and it has been updated regularly since then. The fifth version of the European ATM Master Plan was finalised at the end of 2024 and includes a greater focus on unmanned flight, data-driven delivery models, virtualisation and increased automation.

Agency with specific responsibility for civil preparedness

LFV is an agency with specific responsibility for civil preparedness and contingency planning for heightened alert in Sweden. LFV also provides air navigation services to the Swedish Armed Forces in all contingency phases. Based on this, LFV must comply with a number of national laws, ordinances and regulations that regulate protective security, information security and crisis and civil preparedness issues.

Referrals

By responding to referrals, LFV has the opportunity to influence the development of new and amended rules and influence developments in various areas. In 2024, LFV handled some 50 referrals on everything from air navigation service rules to overall planning for infrastructure in Sweden. In its consultation responses, LFV provides views based on LFV's mission and the interests that LFV has to consider. Examples of areas in which LFV has responded to referrals include preparedness, safety and sanctions in aviation.

LFV has an important role for aviation in Sweden

LFV works for a safe, efficient and environmentally friendly air navigation service that is accessible and robust, thus contributing to the fulfilment of the transport policy goals.

The transport policy goals identify politically prioritised areas within national transport policy and are a basis for measures in the transport sector. The overall objective of Swedish transport policy is an economically efficient and sustainable transport supply for citizens and businesses throughout the country. Below that are functional and consideration objectives.

The functional objective is about creating accessibility for people and goods. The transport system must provide everyone with basic accessibility of good quality and usability and contribute to development capacity throughout the country. The transport system should also be equitable.

The consideration objective addresses safety, environment and health, which are important aspects of a sustainable transport system. The design, operation and use of the transport system shall be adapted to ensure that no one is killed or seriously injured. The transport system shall also contribute to the overall generational goal for the environment and the fulfilment of the environmental quality goals, as well as contributing to improved health.

New main goals

Both nationally and globally, aviation is of great importance for the ability of businesses and citizens to transport passengers and goods. Particularly for smaller localities that are geographically remote, air transport helps to ensure fast and efficient transport. LFV plays a crucial role in a well-functioning aviation infrastructure and is active in the development of the European air navigation service.

LFV's new main goals in Destination – ONE LFV support the overall transport policy goals by

- developing air navigation services for new and old modes of transport
- increasing efficiency and productivity
- striving for increased resilience in all contingency phases and thus contributing to a functional total defence.

Operations support goals

In 2024, LFV's key figures for monitoring operations were updated. This helps to ensure that operations comply with the transport policy goals. The aviation safety work within LFV creates the conditions for flights to be carried out safely, which contributes to the consideration goal.

LFV's day-to-day operations, through both air traffic control and the maintenance and operation of robust infrastructure, are a prerequisite for Sweden's transport system to function and be accessible to all. LFV is continuously investing in its operations to ensure that it always has capacity and robustness.

Meeting future demands

In 2024, LFV started work on producing a climate and vulnerability analysis. By analysing how a changing climate could affect parts of the transport system and by identifying and minimising potential risks, LFV contributes to meeting the transport policy goals.

One example of an investment that supports both the functional objective and the consideration objective is the new navigation aid for pilots (DME) that LFV launched in the autumn. By replacing older equipment, LFV ensures continued operational safety for control centres and airspace users, streamlines maintenance for a more cost-effective and environmentally sustainable operation and increases the accessibility of the navigation aid DME.

Another example that contributes to the functional objective is the Sweden U-space project. The project, which aims to meet the future requirements of a growing unmanned aviation, increases accessibility for new airspace users by providing services for the planning and execution of unmanned aviation flights in Sweden.

The Sweden Airspace Project (Swea) will reduce complexity in the airspace and lead to improvements, creating greater accessibility and contributing to the functional objective. Swea will lead to positive environmental effects through reduced fuel consumption for air traffic to and from Arlanda, and thus also supports the consideration objective.

In May of 2024, LFV released a new version of the drone map that makes it easier for drone pilots to use the airspace without risking disruption to existing aviation.

LFV is one of the partners in the Electric Aviation in Sweden project, which is investigating the potential of electric aviation in the country. The project supports the functional objective by contributing to development capacity, and the consideration objective by contributing to environmentally friendly aviation.

The examples are described in greater detail in other sections of the Annual Report.



LFV plays a crucial role in a well-functioning aviation infrastructure

New specialisation with focus on core mission

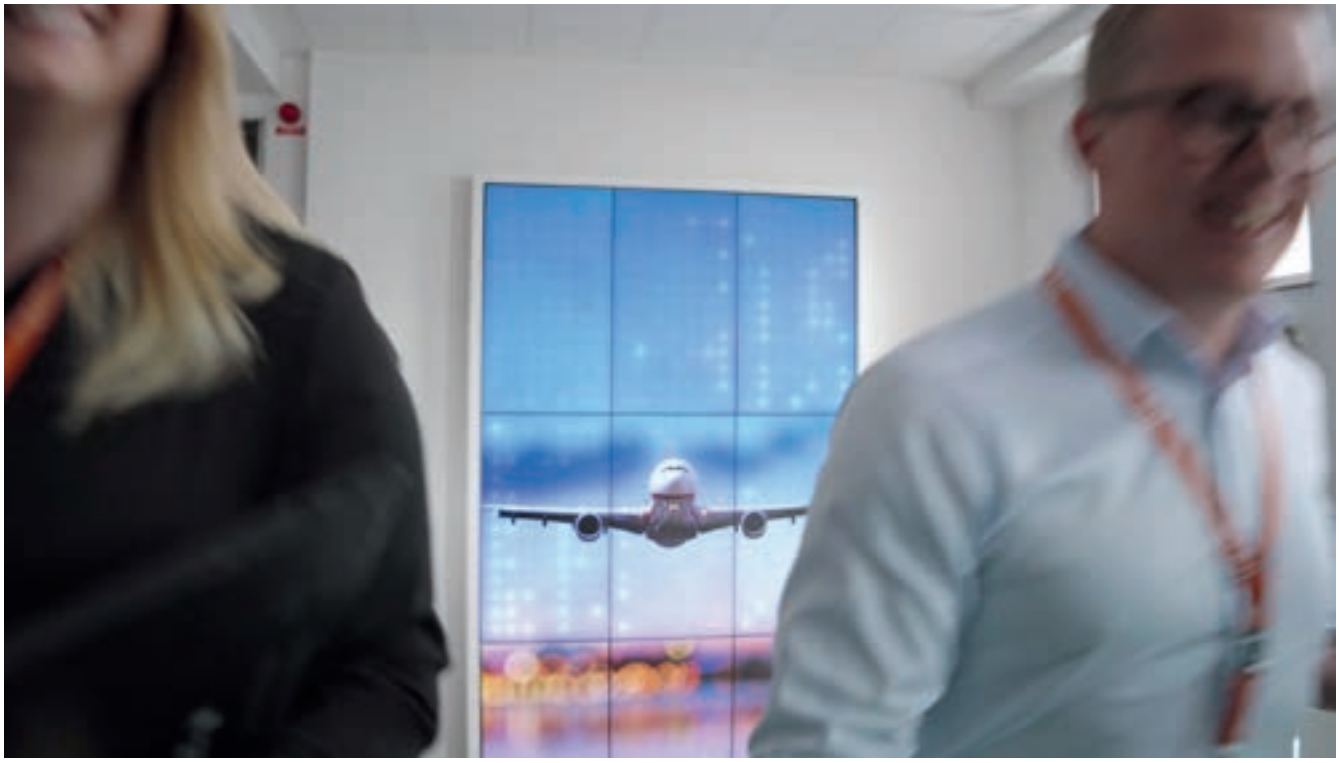
As of 2024, LFV has a new specialisation, Destination – ONE LFV. The new specialisation provides direction, facilitates the growth of the organisation and ensures that the organisation as a whole is moving in the same direction towards the common goals. The specialisation focuses on the core and societal mission and provides a framework for responding to changes in the world around us.

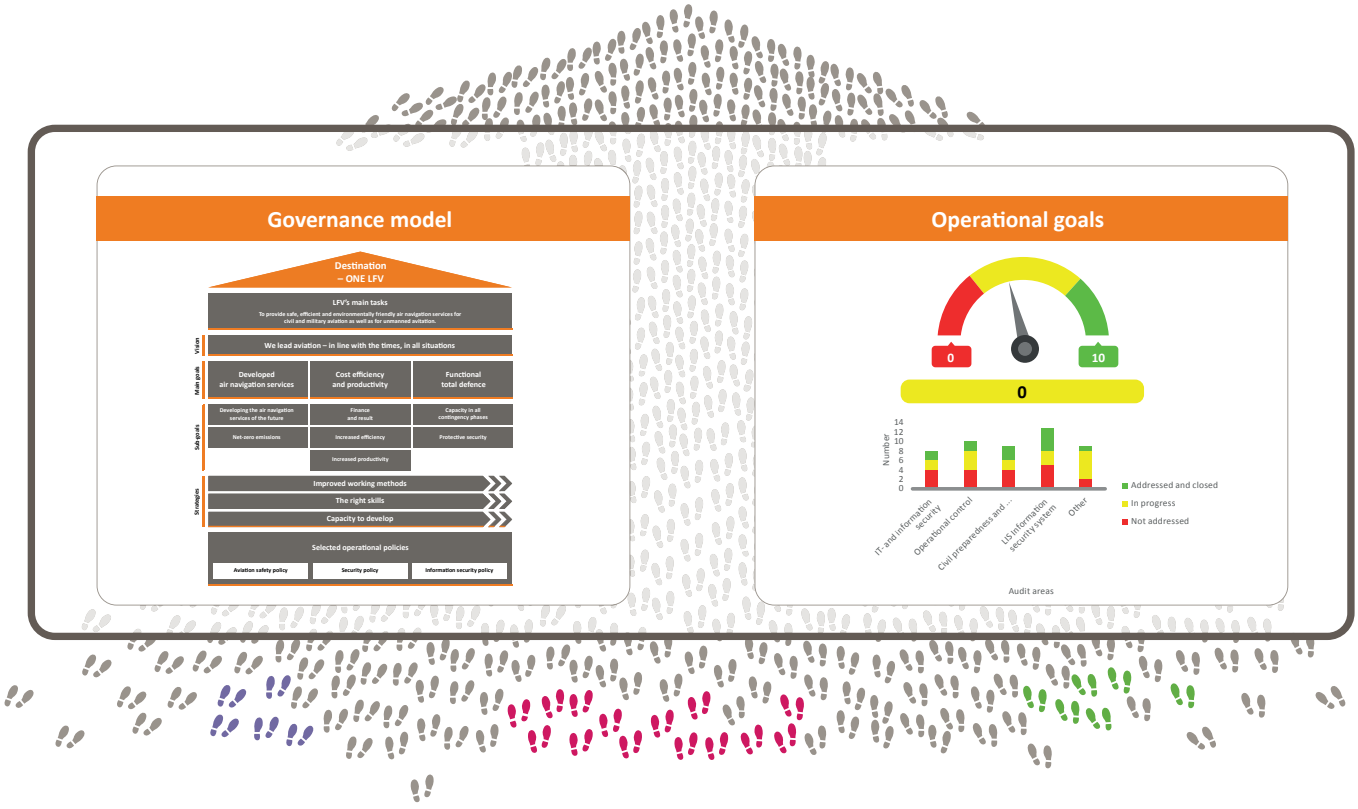
As the world changes, LFV must change with it. In recent years, demands on LFV's ability to adapt and contribute to societal development have increased:

- LFV's contribution to and responsibility for total defence is greater today than before.
- LFV operates in a rapidly changing industry where new travel patterns and increased environmental requirements place greater demands on the ability to adapt quickly.
- LFV sees an increase in new airspace users, not least as a result of increased use of drones, with new needs and requirements for current and future air navigation services.

Looking ahead

The new specialisation is about how the organisation will prepare for a new era. To evolve, maintaining a





safety focus while also looking ahead. The core mission remains the same- to provide safe, efficient and environmentally friendly air navigation services for civil and military aviation as well as services for unmanned aviation. For this to be possible, there needs to be a common understanding of the path towards the goals that the organisation will achieve together.

Three main goals create focus

Destination- ONE LFV consists of three main goals requiring the most development in order for LFV to be able to deliver based on current and future demands. Concentrating on three main goals, as opposed to the previous nine, gives the organisation greater focus and the ability to move in a unified direction. The goals create a clear direction for LFV as a whole to strive towards and support prioritisation between different activities and initiatives.

As a complement to the main goals and the sub-goals, which apply to the whole of LFV and are of a transitional and general nature, there are operational goals that are specific to the various parts of the organisation. These goals follow the day-to-day activities based on the function of the organisation and are not directly linked to the main goals. The operational goals have their own structure and serve to guide and track activities.

The specialisation focuses on the core and societal mission

The governance model includes transitional main goals and operational goals.

Focusing on Destination – ONE LFV

The new specialisation is called Destination - ONE LFV. The parts of the specialisation are illustrated below: LFV's main tasks as set out in its instructions, vision, main goals, sub-goals and strategies.

In connection with the new specialisation, LFV has developed a new vision: We lead aviation – in line with the times, in all situations The vision focuses on both the important core mission - we lead aviation – and the transition LFV wishes to make – in line with the times, in all situations.

The main goals

If the vision answered the why, the three main goals answer the question of what must be done. The main goals are the areas where LFV has the greatest need to develop in order to meet the demands placed on the organisation, today and in the future. The three main goals are Developed Air Navigation Service, Cost Efficiency and Productivity and Functional Total Defence. By achieving these goals, LFV ensures its ability to meet a changing industry and environment. Having only three main goals focuses the work and helps to prioritise activities in day-to-day work. The goals apply to all employees at LFV.

The meaning of Developed Air Navigation Service applies to both traditional air navigation services and unmanned aviation. LFV will take an active role and contribute to the development of air navigation services.

Cost-efficiency and productivity are necessary to meet the demands placed on LFV.

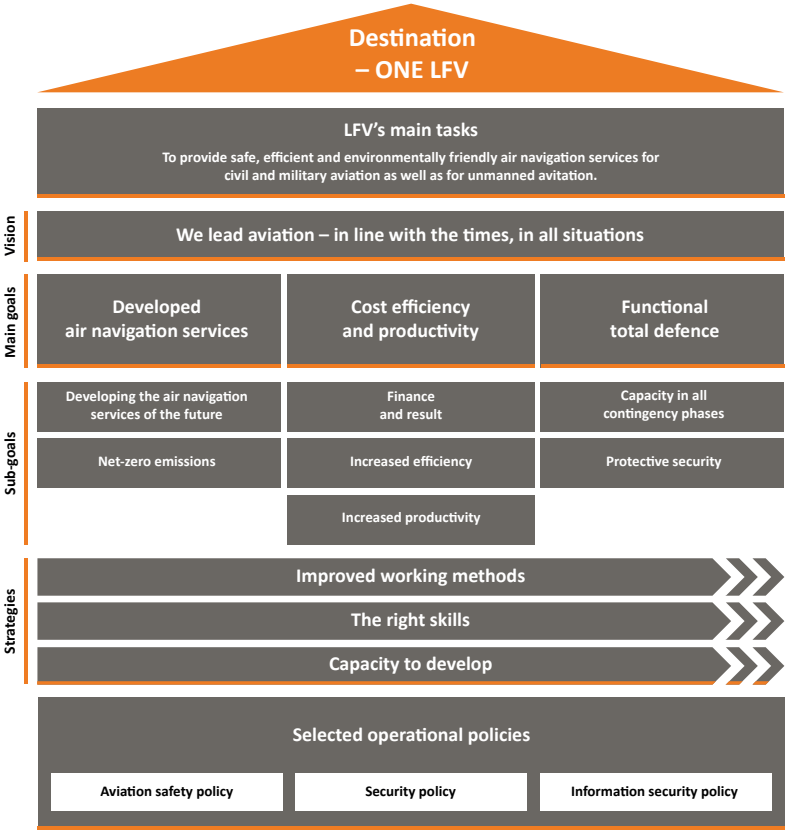
The goal Functional Total Defence is about meeting the expectations placed on LFV as an authority and contributing to Swedish total defence.

Sub-goals

The three goals also have sub-goals. They clarify the main goals and help in planning the work. They are set with two time horizons – one slightly shorter term, to 2026, and one slightly longer term, to 2030.

Strategies

Finally, the specialisation includes overarching strategies that respond to how the goals will be achieved. They are then completed with activities as part of the business planning process. In this way, LFV will make the transition demanded by the outside world, as ONE LFV.



The new specialisation Destination – ONE LFV with all components.

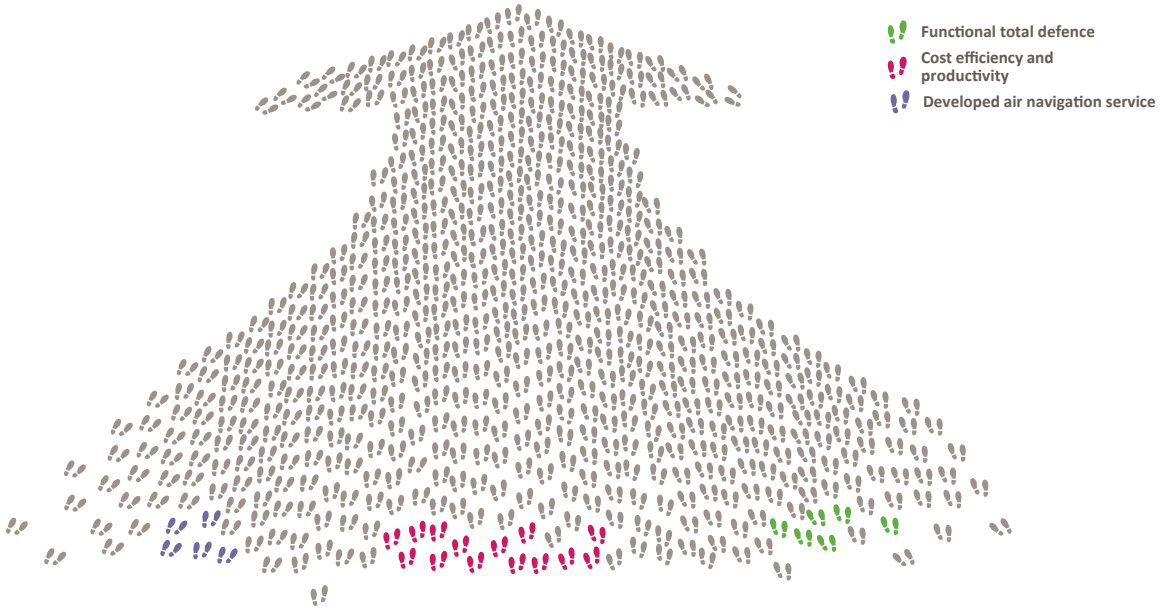
Operational Policy

The organisation rests on the solid foundation of LFV's operational policy. This includes the aviation safety policy, the security policy and the information security policy. Therefore, the Operational Policy is the foundation on which Destination – ONE LFV is built.

We lead aviation – in line with the times, in all situations

The logic of small steps

In order for LFV to move towards Destination – ONE LFV, the organisation must work with continuous improvements in stages that are small but numerous, using the logic of small steps. This can be likened to a methodology for change management, and can be used in relation to the main goals, the sub-goals and the operational goals. The logic of small steps taps into LFV's drive to work systematically with continuous transitional improvements pursuant to the new specialisation. Some of the steps are presented here.



Updated procurement process

LFV previously used the Utilities Procurement Act. As of 2024, LFV will instead apply the Public Procurement Act for purchases, which also entails changed the procurement amounts. To support this work, LFV's procurement process was updated.

The new procurement process was adopted in April. It shows how to carry out procurement based on the rules that LFV as a public authority must follow and provides an overview of the procurement work. The process has been developed with a particular focus on the user of the process- it should be easy to understand and easy to carry out correctly. In the first half of 2024, instructions were also issued and a new working method was introduced to further clarify the approach.

A unified approach leads to ONE LFV

Local air navigation services introduced harmonised working methods by using facts and measurable data to support decisions. The aim was to reduce the labour input per operation when changes are introduced. Harmonisation was achieved in areas such as operational methods, resource planning and training, which will simplify the implementation of new rules. It also makes it easier for staff working in multiple locations, and shortens the training time necessary prior to being authorised to work at another location.

A concrete example of a methodology requiring harmonisation is the development of sectors for drones and parachuting. Therefore, LFV began the process of investigating best practices, as well as how regulations should be interpreted in a unified fashion.

Smart resource-planning tool

The En Route department took steps towards the goal of cost efficiency and productivity through Business Excellence. The work includes initiatives aimed at increasing productivity, reducing opportunity costs, increasing standardisation, identifying value-adding activities and new business opportunities.

One of the initiatives is the feasibility study launched during the year to develop a resource-planning tool. By collecting and analysing data from different sources, the tool will help identify trends, anticipate needs and manage and plan resources more efficiently. The tool will be developed in many steps, using the logic of small steps, and may later include the support of AI.

Goals – how LFV achieves results

Operations have been conducted and followed up according to the new goal structure. The follow-up shows that the initiatives and activities highlighted in the business plan for the year are essentially proceeding according to plan and contributing to the transition.

Business plan

LFV's business plan for 2024-2028 describes the goals, plans and priorities of the organisation. The goals and activities set out in the plan are guided by the objectives set by the Government for the organisation, including the objectives and tasks set out in the annual letter of appropriation, and targets in the performance plan decided by the European Commission in reference period 3 (RP3).

In order to concretise the three main transitional goals and seven sub-goals, the most prioritised and largest initiatives and investment areas have been linked to one of the main goals and its underlying sub-goals . Fourteen initiatives were highlighted in LFV's overall business plan and another 90 or so in the underlying business plans. The implementation of these initiatives and activities during the year contributes to short- (2026) and long-term (2030) transition. The focus of follow-up in the first year of the new specialisation has been to ensure that work is up and running according to plan. The methodology, the form of follow up and the measurability of the goals, such as their impacts and their contribution to transition, are under development.

Developed air navigation services

Under the main goals are the sub-goals and related initiatives:

- Developing the air navigation services of the future
  - UTM, Sweden U-Space and unmanned aviation
- Net zero emissions
  - The Swea project
  - Ground movement presentation Stockholm
  - LFV's environmental plan

Work on developing services for unmanned aviation and meeting new needs is underway through the Sweden U-Space project. Another growing issue of importance to LFV is the environmental and climate impact of aviation, where LFV is working to contribute to the transition to sustainable aviation.

The ongoing Swea project aims to contribute to the environmental transition and reduce airspace complexity and is therefore a selected priority initiative. Initiatives linked to LFV's environmental plan were implemented during the year. The land-movement presentation initiative has been postponed to 2025.

Cost efficiency and productivity

Improving processes and working methods for development and management is important for LFV. It is part of strengthening the capacity to plan, prioritise and implement development and management activities. The three sub-goals and selected initiatives which contribute to this are formulated for:

- Finance and balance sheet
  - Meeting financial targets in the letter of appropriation
- Increased productivity
  - COOPANS ATM modernisation
  - Cost efficiency in operational staffing
  - Stand-alone Flight Information Service
- Increased efficiency
  - Increased delivery precision
  - Joint resource and capacity planning

Delays are indicated for one sub-project under COOPANS ATM modernisation, but do not at this stage entail any impacts on the end date or effects for the initiative as a whole, which runs for several years ahead. For the other initiatives, it has been reported that they were finalised with the intended impact or are progressing according to plan.

Functional total defence

The following sub-goals and selected priority areas are included under the third main goal, with the aim of contributing to Sweden's total defence and speeding up work to ensure air navigation services in all contingency phases:

- Capacity in all contingency phases
  - Capacity in all contingency phases
  - Robust CNS infrastructure
  - Protective security
  - Information security
- AVISEQ's activities will be integrated into LFV – the so-called merger was ongoing during the year and will be concluded in 2025.

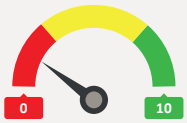
Each area under the sub-goal Capacity in all contingency phases includes a larger number of underlying activities and projects. Progress is essentially good, although some deviations are indicated, mainly concerning timetables. Investments in air navigation service infrastructure and protective security, as well as work on preparedness and information security, have been carried out.



Capacity/System availability	Operational goal	Target value	Outcome 2024	Target met 2024
AFTM delay minutes/flight	Minutes per flight	0.01	0.01	Yes
AFTM delay minutes/arrival	ATFM delay minutes/arrival Arlanda	0.15	0.09	Yes
Percentage/number of disruptions	Surveillance service: Number of sensors/ clusters with availability <99.5%	Green: 0–2 units Yellow: 3–4 units Red: >5	2	Yes
Delay minutes per movement	Minutes per movement in operational systems	0.07	0.00	Yes



Cost efficiency	Operational goal	Target value	Outcome 2024	Target met 2024
Position time	Share of time in position (%)	52%	ATCC Malmö: 47% ATCC Stockholm: 46%	No
Flight hour per FL hour	Flight hours per FL hour	ATCC Malmö: 1.6 ATCC Stockholm: 1.15	1.42 0.85	No
Position time	Share of time in position (%), Arlanda, Landvetter and Bromma	56%	56%	Yes
Flight hour per FL hour	Composite flight hour/FL hour ATS Arlanda, Landvetter and Bromma	0.95	0.96	Yes



Compliance and internal delivery	Operational goal	Target value	Outcome 2024	Target met 2024
Average recruitment rate, by organisation and activity	Average recruitment rate, by organisation and activity	80%	64%	No
Percentage of procurements where LFV has imposed extended environmental requirements	Number of procurements with environmental requirements	20%	13%	No
Strategic value orientation	Number of proposed and ongoing projects and activities that support LFV's specialisation	Developed air navigation services 40% Increased productivity and efficiency 40% Total defence 20%	52% 46% 2%	No

Strategies

LFV has three strategies that will facilitate and describe *how* transition towards the main goals will take place. In 2024, more than 70 activities were linked to these strategies. Most of these included a 1- or 2-year implementation plan, i.e. through 2024–2025. Eleven of these were included in LFV's overall business plan for 2024. These eleven activities were alike in being cross-organisational and in touching numerous functions and units across LFV. They specify various activities to improve working methods as well as acquiring the right skills and capacity to develop. Some of the initiatives launched during the year were work on process development, a new operations management system and planning and follow-up of total defence. Other activities carried out include the adaptation and modernisation of the office in Norrköping, as well as activities to develop leadership, culture and change communication.

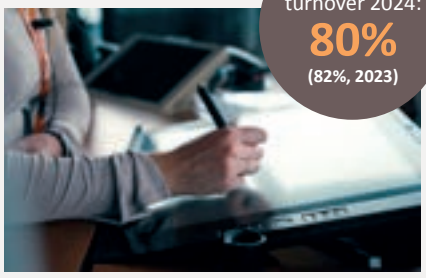
Operational goals

Complementing the main and sub-goals are operational goals. For 2024, there were more than 30 operational goals specified, which are specific to each part of the organisation based on its responsibilities and whether it has an executive, governing or supporting role. Thus, the operational goals are not directly linked to the main goals. The objectives are instead clustered into the areas of capacity and system availability, cost efficiency, compliance and internal delivery.

The table above presents a selection of the operational goals that primarily concern LFV's external delivery. The governing and supporting functions have goals related to internal delivery capability and facilitating operations. Attainment of goals related to capacity and system availability is deemed good. The outcomes for goals related to the area of compliance and delivery show the most challenges and the need for further efforts to achieve the goals. Goals have not been attained for various reasons, but in some cases other priorities intervened or goal-setting was overly ambitious.

LFV operates in four areas

LFV's activities are divided into four areas of operation: Air Navigation Service, Total Defence and Robust Air Navigation Services, Other Commercial Activities and Research and Innovation. Air Navigation Service is the largest area of operation, accounting for 80 percent of turnover excluding exceptional items. The other areas of operation are linked to and part of LFV's mission – to deliver safe, efficient and environmentally friendly air navigation service.



Air Navigation Service

This area includes air traffic management, communication, navigation and surveillance (CNS) services, flight information service and weather reports for both civil and military air traffic.

In 2024, Air Navigation Service had a total turnover of SEK 2,682 million (2,935) excluding exceptional items. This means that the operations area accounted for 80 (82) percent of LFV's turnover excluding revenue adjustments due to revaluation of the pension liability.

Air Navigation Service was financed by en route and terminal charges 74 (76) percent, compensation from the Swedish Armed Forces 14 (12) percent and compensation for operations at civil airports 12 (11) percent. En route and terminal charges are regulated by EU legislation.

This area of operation consists mainly of air navigation services within Sweden. The competitive part of the market in Sweden and internationally represents less than 1 (one) percent of the turnover of Air Navigation Service.



Total Defence and Robust Air Navigation Service

LFV is an agency with specific responsibility for civil preparedness. By increasing its own preparedness, LFV strengthens total defence.

LFV is working to create additional robustness and redundancy to be able to continue to deliver air navigation services in any contingency phase. A large number of measures were carried out during the year, many of which involved substantial investment.

Funds are provided through two framework funds within expenditure area 22 Communications: Civil Defence and Air Navigation Service Infrastructure. Revenue from direct government funding totalled SEK 408 million (326). This corresponded to 12 (10) percent of LFV's total turnover.



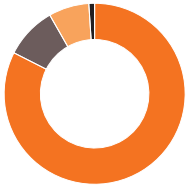
Other commercial activities

Other commercial activities includes airspace services, technical services, environmental services, training and air traffic controller hire. LFV offers specialised technical, operational, investigative and aviation safety expertise.

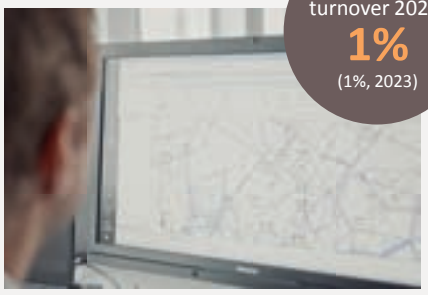
This area of operation also includes the subsidiaries' activities directed at external customers and shares in the profits of associated companies.

Turnover for Other commercial operations amounted to SEK 240 million (263), corresponding to 7 (7) percent of LFV's total turnover.

Breakdown of turnover



- Air navigation services, SEK 2,682 million, 80%
- Total Defence and Robust Air Navigation Services, SEK 408 million, 12%
- Other commercial activities, SEK 240 million, 7%
- Research and innovation, SEK 43 million, 1%



Portion of turnover 2024: **1%** (1%, 2023)

Research and innovation

LFV conducts research and innovation (R&I) in the field of aviation, primarily within the framework of the European research programme for air traffic management, Single European Sky ATM Research (SESAR).

The operations are funded by external revenue, mainly from the EU grants and funds from the Swedish Transport Administration.

During the year, research and innovation activities comprised SEK 43 million (49), which corresponds to 1 (1) percent of LFV's total turnover.

Composition of the state-owned enterprise group

The LFV Group includes the state-owned enterprise, the holding company LFV Holding AB and its wholly-owned subsidiaries LFV Aviation Consulting AB and Aviseq Critical Communicaton AB (AVISEQ) as well as the associated company Entry Point North AB (EPN).

The companies in the group are part of the area of operation Other commercial activities, but are also suppliers to LFV in various ways.

AVISEQ offers services in critical communications and delivers monitoring and technical operation and maintenance services in aviation and security. LFV is AVISEQ's largest customer.

Through LFV Aviation Consulting AB, LFV offers various consulting services in air navigation services and airport services on the international market.

EPN is jointly owned by LFV, Danish Naviair and the Irish Aviation Authority. EPN is a Swedish company with subsidiaries and joint ventures in Europe. They offer training in air navigation services to the owner organisations and other customers in the international market.

Certifications

LFV is certified by the Swedish Transport Agency in accordance with various EU regulations, such as 2017/373. These certify that we fulfil the requirements for the provision of air navigation services (ANS), air traffic management (ATM), procedure design (FPD) and for conducting training of air traffic controller.

LFV is also certified according to ISO standard 9001:2015 for quality management and ISO standard 14001:2015 for environmental management.

Area of operation:

Air navigation service – performance management

The EU's performance goals guide the activities

Air navigation services in Europe are governed by extensive EU regulations and performance plans. For 2024, LFV met the targets in the Swedish performance plan for flight safety, capacity and cost efficiency. The environmental target was challenging and was not achieved.

EU regulation of air navigation services covers several areas. Among other things, it concerns certification requirements and technical harmonisation. The European Commission establishes so-called performance plans for the Member States, which includes targets for aviation safety, capacity, environment and cost-efficiency, as well as descriptions of how to achieve the targets. Investments, staff plans, traffic forecasting and cross-border cooperation are key elements. For Sweden, the Swedish Transport Agency is responsible for organising the work on the Swedish plan and contacts with the EU. LFV in turn provides data to the Swedish Transport Agency. In 2024, LFV participated in the Swedish Transport Agency's consultations.

Through the performance plans, the European Commission seeks to achieve a number of long-term objectives:

- Maintain or improve aviation safety regardless of traffic increases.
- Reduce the environmental impact of each flight.
- Increase airspace capacity and reduce delays.
- Reduce air traffic control costs.

The Swedish performance plan includes air navigation services for overflight traffic, so-called en route, and the terminal service at Stockholm-Arlanda Airport. The third reference period, RP3 (2020–2024), ended on 31 December 2024. Work was ongoing throughout the year to prepare for the next reference period, RP4 (2025–2029).

A summary of the targets and outcomes of the current performance plan is set out in the table on page 26.

Reference period 3

2024 was the final year of RP3. The reference period was largely characterised by, firstly, the coronavirus pandemic, and then the weak recovery following the war in Ukraine. During the reference period, LFV has achieved its aviation safety targets in all years, and most capacity targets have also been met. However, the straight flight paths and cost efficiency targets have not been achieved in all years.

The reporting of performance plan outcomes for 2020-2024 includes provisional outcomes for 2024. These may be revised in the coming years, as the follow-up of 2024 will be reported to the Swedish Transport Agency and the EU in the spring of 2025. In 2025, the whole RP3 period (2020–2024) will be followed up by the European Commission.

Reference period 4

In 2024, intensive work has been ongoing for the next reference period, RP4 (2025–2029). The EU adopted EU-wide targets for the period in the different areas. The rules of RP3 also apply under FP4.

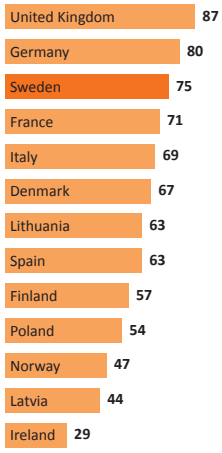
LFV submitted documentation to the Swedish Transport Agency related to cost estimates of operating en route air navigation services and terminal services for Stockholm-Arlanda Airport during RP4. LFV also provided investment documentation, staffing plans and descriptions of the planned activities for the next five-year period. The Swedish Transport Agency in turn compiled the basis for a Swedish performance plan, in consultation with the aviation industry, which was then sent to the EU on 1 October 2024 for review and adoption. LFV has received a conditional decision in December 2024 from the Swedish Transport Agency regarding approved cost levels for RP4.

Flight safety

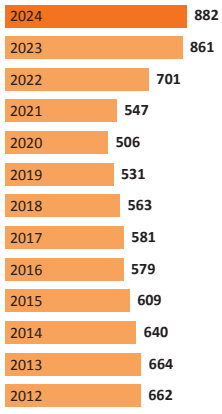
During RP3, flight safety targets were set to assess the effectiveness and maturity of the organisation's safety management system and compliance with and maintenance of safety culture. The targets cover all LFV activities. Target fulfilment is measured through an annual survey.

The survey for following up the targets has been completed for the years 2020–2023. LFV fulfilled all national flight safety targets during that period. Reporting for 2024 will be made to the Swedish Transport Agency in the first quarter of 2025. Thereafter, the Swedish Transport Agency will report to the EU on 1 June 2025. For this reason, no outcome is reported for 2024.

En-route charges 2024 selection of European countries
(euro/service unit)



En-route charges Sweden
(SEK/service unit)



Punctuality

99.9 %

...of flights have been completed without major delays caused by air navigation services in 2024.

Environment

Average horizontal en-route efficiency, i.e. the deviation between the actual distance flown and the straightest flight path from the departure airport to the landing airport, is the key performance indicator for environment in the performance plan. The intention is for the flight path to be as straight as possible and thus cause as little environmental impact as possible. For several years, Sweden has been applying Free Route Airspace, which means that airlines can fly in a straight line within Swedish airspace.

Before the airspace restrictions due to the Ukraine war, the deviation between distance flown and straightest distance in Swedish airspace was just over 1 percent. It was one of the best outcomes for national airspaces in Europe.

The outcome in recent years was affected by the extension of many flight paths due to restrictions, especially in the area around Kaliningrad. This affected the key figure of the environmental target in all neighbouring airspaces. The outcome for Swedish airspace was 1.72 percent in 2024 (1.75), compared to the performance plan's target of 1.05 percent. The environmental targets of the performance plan were adopted before the changed situation. Sub-components of the key ratio show that the flight paths within Swedish airspace are still straight and that the deterioration of the key figure is mainly due to the extension of the entire flight path, from take-off to landing.

Capacity

The capacity target measures air traffic delays caused by air navigation services based on the average delay per flight, both for en route and Terminal Stockholm-Arlanda. In this context, delays caused by air navigation services include both technical and weather-related disruptions. The target is set as an average delay per flight. Air traffic in Swedish airspace operated with high availability in 2024. A strong contributing factor in fulfilling the target was the relatively low volume of traffic compared to pre-pandemic years. 99.9 percent of en route flights in Swedish airspace in 2024 were carried out without any major delays caused by the air navigation service. The average delay in Swedish airspace was 0.01 (0.01) minutes per flight, compared to the target of 0.08 minutes per flight.

The airspace capacity of Terminal Stockholm-Arlanda was at a high level in 2024 and the target was met. The outcome for average delay was 0.07 (0.30) minutes per flight, which was better than the target of 0.15 minutes per flight.

Cost efficiency

The cost-effectiveness targets measure the development of real unit costs. The base year is the 2017 price level, as measured by the Harmonised Index of Consumer Prices (HICP). The en route and terminal charges at Stockholm-Arlanda Airport are regulated by the charging system. In total, these fees accounted for 60 (65) percent of LFV's turnover. The en route charges finance en route air navigation services provided at the control centres and associated infrastructure, flight information service and a significant part of the local air traffic service provided from control towers and terminal controls. For Terminal Stockholm-Arlanda, costs for tower services including management and support services are included. The Swedish Transport Agency's national guidelines regulate the scope of the parts included.

EU cost efficiency targets are calculated as unit costs, where costs are divided by the number of service units, a measure based on aircraft weight and distance flown. The outcome for 2024 was SEK –37 per service unit, which was better than the target of SEK 479. This was due to the large "reversed" uncontrollable pension costs, apart from which the outcome was SEK 510. The higher outcome is due to lower traffic volumes than forecast in the performance plan. The cost efficiency target for Terminal Stockholm-Arlanda was also achieved. The outcome was SEK-149 compared to the target of SEK 1,027, and for the Terminal as well this result was due to uncontrollable pension costs. Excluding uncontrollable costs, the outcome was SEK 1,066, a deviation mainly due to lower traffic volumes than those set in the performance plan.



In 2024, intensive work has been ongoing for the next reference period, RP4 (2025–2029).

Performance plan report

In accordance with the EU's Single European Sky (SES) legislation, performance targets for air navigation services en route and Terminal Stockholm-Arlanda have been set for the third reference period (RP3) 2020–2024.

The table below shows targets and outcomes in Sweden's performance plan and LFV's follow-up of these targets 2020-2024. The outcomes for Environment and Capacity are published by Eurocontrol, which coordinates European air traffic, in the Single European Sky Data Portal. The results of the follow-up of flight safety targets are published annually by the European Commission follow-up reports. The targets and outcomes are graded from A to D, where A is the lowest level and D is the highest level. The Cost Efficiency outcome in 2024 is preliminary and may be updated after final reporting to the Swedish Transport Agency in the spring of 2025. After final reconciliation of the 2023 outcome, the Cost Efficiency outcomes have been adjusted compared to the 2023 annual report.

Target areas – KPI	Area	KPI (definition)	Target 2024	Outcome 2024	Target 2023	Outcome 2023	Target 2022	Outcome 2022	Target 2021	Outcome 2021	Target 2020	Outcome 2020
AVIATION SAFETY												
Policy and goals	LFV	Maturity according to survey	C	—	C	C	C	C	C	C	No target	C
Risk management	LFV	Maturity according to survey	D	—	D	D	D	D	D	D	No target	D
Ensuring aviation safety	LFV	Maturity according to survey	C	—	C	C	C	C	C	C	No target	B
Promoting aviation safety	LFV	Maturity according to survey	C	—	C	C	C	C	C	C	No target	C
Aviation safety culture	LFV	Maturity according to survey	C	—	C	C	C	C	C	C	No target	C
ENVIRONMENT												
Average horizontal en route efficiency, %	En route	Discrepancy between distance flown and straightest distance	1.05	1.72	1.05	1.75	1.05	1.70	1.05	1.04	1.26	1.03
CAPACITY												
ATFM delay – minutes per flight	En route	Delays caused by air navigation service	0.08	0.01	0.08	0.01	0.07	0.04	0.05	0.00	0.12	0.01
Terminal ATFM arrival delays – minutes per flight	Terminal Arlanda	Delays caused by by air navigation service	0.15	0.07	0.15	0.30	0.15	0.09	0.05	0.00	0.35	0.00

COST EFFICIENCY – SEK per service unit			Target 2024	Outcome 2024	Target 2023	Outcome 2023**	Target 2022	Outcome 2022	Target 2020-2021	Outcome 2020-2021
	En route	Unit cost – Sweden	587.62		650.98		774.65		1,361.88	
		Unit cost – LFV	479.46	–36,75* (510.10)	467.76	673.99	560.74	614.29	1,036.72	1,008.62
	Terminal Arlanda	Unit cost – Sweden	1,268.17		1,317.83		1,722.42		3,968.73	
		Unit cost – LFV	1,027.09	–149,09* (1,066.02)	910.84	1,312.28	1,207.95	1,128.49	2,984.78	2,899.98

* 2024 outcome has been calculated including uncontrollable pension costs. For comparison, the outcome excluding uncontrollable pension costs is shown in parentheses.
** 2023 outcome has been updated after final cost reconciliation in 2023.



Area of operation:

Air navigation service – our services

External influences led to changes in flight patterns

Developments in the airspace and changes in civil and military flight patterns place constant demands on the adaptation of LFV's air navigation services to meet customer requirements and expectations.

The total number of IFR movements in Swedish airspace increased slightly compared to 2023. This increase was driven by international traffic, while Swedish domestic flights instead decreased in some sectors compared to 2023. LFV caused no delays during the year. However, some marginal delays were caused by weather.

Impact on air traffic

The Air Navigation Service at LFV's control centres in Malmö and Stockholm handle all overflight traffic in Swedish airspace. The volume of civil air traffic continued to be affected by the fact that airspace over Russia was closed to Western airlines, while European airspace was closed to Russian airlines. The total volume during the year varied between 70 and 82 percent of 2019 traffic and was at the end of the year at 78 percent.

Aviation safety remained high and en route operations met all aviation safety targets. Despite increased airspace complexity, there were only 1.5 incidents of separation minima infringement per 100,000 flight hours, below the target of a maximum of 4. Air navigation services have not contributed to any serious incidents during the year.

Military activity was high. Several major military exercises were conducted during the year, which increased the complexity of the airspace. LFV contributed with planning and air traffic control. Sweden's NATO membership requires new routines and ways of working for both LFV and the NATO countries, partly due to Sweden's integrated military and civil air traffic management.

In recent years, the demand for temporary so-called R and D (restricted and dangerous) areas has increased. These protected areas are mainly requested by the police and military. During the year, LFV improved management of the activation and deactivation of the areas, including the development of a digital operations log to reduce the risk of human error. LFV had two events related to protected areas in 2024. The target was a maximum of seven events.

In October, LFV submitted an application to the Swedish Transport Agency for authorisation of procedural control Procedural control is a method to manage flights even without access to radar, which increases LFV's ability to manage socially beneficial flights in the event of crisis or war, and further strengthens the ability to provide robust air navigation services.

In 2024, work continued on the Sweden Airspace Project (Swea), in collaboration with Swedavia. Swea will create a more suitable airspace structure for traffic flows to and from the Stockholm area, including by reducing complexity and increasing predictability for LFV's customers. A decision guidance document with two options for new airspace was produced. In the first quarter of 2025, one of the options will be chosen and developed. The aim is to implement the new airspace structure by the end of 2026.

Optimisation of competences

LFV worked during the year to streamline and facilitate work with staffing. The number of flight hours per air-traffic-controller hour increased from 1.09 in 2023 to 1.13 in 2024.

In 2024, work was completed to identify tasks that need not necessarily be performed by certified air traffic controllers, so that these tasks can instead be performed by persons without air traffic controller competences. It also assessed whether air traffic controller competences are required when recruiting for managerial positions. Thanks to these measures, between seven and eight air traffic controllers were freed up for air traffic control during peak periods.

To free up air traffic controller capacity, LFV is working on introducing a new qualification, Flight Information Service Operator (FISO), which will be able to perform a dedicated flight information service in lower uncontrolled airspace. The aim is for FISO to provide flight information services instead of air traffic controllers as of the summer of 2026.

In order to meet the demand for air traffic controllers as a result of future retirements, LFV accepted



All four airports in the remote air traffic control agreement with Swedavia are operational: Kiruna, Åre-Östersund, Umeå and Malmö Airport.

an increased number of students for air traffic controller training in 2024 as well. The rate of training will remain high in coming years.

To increase resource efficiency, it was decided to reduce the number of qualifications for Stockholm Approach to one instead of two. The number of landings at Arlanda and the complexity of the Terminal Stockholm area are expected to decrease, partly due to fewer landings at Arlanda and the effects of the airline BRA leaving Bromma Airport.

Local air navigation service

LFV provides local air navigation services, mainly for Swedavia's airports and for the Swedish Armed Forces.

In April of 2024, remote air traffic control from RTC Stockholm was deployed for an additional airport, Malmö Airport. This means that all four airports in the remote air traffic control agreement with Swedavia are now operational: Kiruna, Åre-Östersund, Umeå and Malmö Airport.

Growth of Swedish domestic traffic remained weak at Swedavia's airports during the year. In September, the airline BRA announced that it will cease operations at Bromma Airport as of 2025. Reduced flights from Bromma impact the need for air navigation services. During the final months of the year, discussions were initiated with Swedavia about Bromma's future staffing and opening hours.

Unmanned aviation

LFV's work on establishing services for unmanned aviation continued. In September, a request for tenders was sent out to the potential system suppliers who qualified to participate in LFV's procurement of a new system for unmanned aviation.

LFV's drone map is an important tool for drone operators. In May, the drone map was updated with information on temporary airspace changes, previously only published via NOTAMs (Notice to Airmen), which is helpful as the number of temporary restriction areas has increased significantly in recent times.

During the third quarter, several drone intrusions were reported that impacted operations at Arlanda. Work was initiated to describe the division of responsibilities between LFV, Swedavia and the police and to concretise how collaboration should take place during such events.

Military air navigation service

In Sweden, LFV's air traffic controllers handle both civil and military traffic, so-called integrated air traffic control, which is unique in the world. LFV is an important stakeholder for Sweden's air transport in all contingency phases and is the Swedish Armed Forces' supplier of air navigation services.

Cooperation with the Swedish Armed Forces takes place on several levels: strategic, tactical and operational. During the year, LFV worked intensively on the strategic work to ensure that we continue to have a robust air navigation service and contribute to total defence. There was a strong focus on developing co-operation with NATO, and exchanges of experience with air navigation service providers in Norway and Finland took place.

The Swedish Armed Forces have seven airports in Sweden where LFV personnel provide air navigation services: Vidsel, Luleå, Uppsala, Linköping Malmen, Karlsborg, Såtenäs and Ronneby. In addition, there are three training bases, one of which was established during the year. A new, permanent air traffic control tower was also inaugurated at one of the training bases in the spring.

In 2024, LFV and the Swedish Armed Forces updated the overall agreement for delivery of integrated air navigation services, a so-called basic agreement.



A very high availability for users contributed to a well-functioning air navigation service.

Technical infrastructure

LFV is responsible for a large part of the technical infrastructure for air navigation services in Sweden. This encompasses numerous systems and infrastructure at many different sites. All of these interact in a total air navigation service system that is maintained and managed by LFV in cooperation with our subcontractors. The requirements for systems and infrastructure are high and are continually being tightened in line with the growing need for a safe, efficient and environmentally friendly air navigation service.

The systems provided by LFV have worked well during the year. A very high availability for users contributed to a well-functioning air navigation service. There were no minutes of delay caused by technical equipment and no interruptions affecting air navigation services.

The global security situation places greater demands on the State to ensure its own capabilities and control over infrastructure that is critical for society to function. LFV and the Swedish Civil Contingencies Agency (MSB) entered into a collaboration agreement during the year to enable MSB to take over operation, maintenance, monitoring and user support for critical communication services. The agreement concerns the radio communication system Rakel.

A feasibility study was conducted to investigate the conditions for a possible transfer of the technical part of local air navigation services from Swedavia to LFV, i.e. the management of equipment for communication, navigation and surveillance services and weather information services.

LFV, together with the public authorities in Norrköping- SMHI, the Migration Agency, the Prison and Probation Service and the Swedish Maritime Administration- carried out a pilot project involving co-operation in IT issues.

LFV works continuously to develop our systems and infrastructure to meet new requirements and to adopt new technology. International cooperation within COOPANS to develop the air traffic management system continued in 2024. Projects in the areas of radio, networks, radar and IT and information security were also ongoing during the year.

Area of operation:

Air navigation service – aviation safety

Aviation safety a top priority

Aviation safety is a top priority throughout LFV and permeates all activities. LFV did not contribute to any injury or fatality incident during the year, thereby contributing to meeting ICAO's aviation safety targets.

All but one of the aviation safety targets set for 2024 were met. This concerns the target of finalising in-depth investigations within 90 days. This target shows a positive development compared to the previous year.

Some of the targets in the performance plan are based on self-assessment, where LFV reports the results to the Swedish Transport Agency, which assesses whether the self-assessment is correct based on supervision. In 2024, new, highly detailed guidance was published by EASA, which will form the basis for performing self-assessment. The new self-assessment guidelines are expected to enter into force in time for 2025 reporting.

Aviation safety organisation with clear responsibilities

Aviation safety forms the basis of LFV's operations, where everyone in the organisation must have a basic knowledge and understanding of aviation safety and how it is affected by the work they do. The Aviation Safety Committee, under the leadership of the Director General, manages and follows up LFV's aviation safety work.

The operational units have a clear and designated aviation safety responsibility and a responsibility to create favourable conditions for all employees to assume their aviation safety responsibility.

For LFV, it is important to learn from incidents that have occurred in order to constantly develop aviation safety work, both in daily operations and over the long term. Therefore, incidents which may have a high educational value or which are potentially serious are investigated. In operational activities, there are a number of focus areas of particular interest from an aviation safety perspective. Incidents in these areas are further analysed and compiled in a report for each area. The analyses of the focus areas can result in recommendations. Focus areas during the year were occurrences related to restricted or danger areas, human factors, separation minima infringement, runway incursion, drones, flight without transponder and technical incidents. During the annual review of focus areas, the Aviation Safety Committee decided that the area of Flight without transponder will be ended in 2025, as LFV does not have the power or opportunity to influence these events.

Safety culture in the field of aviation safety

A strong safety culture is an important foundation throughout LFV's operations. In order to evaluate LFV's internal safety culture in aviation safety, LFV conducted a safety culture survey in autumn of 2023, aimed at all employees. The results of the survey were analysed in spring of 2024. In the second half of the year, follow-up workshops were organised on the basis of the results, involving representatives of all staff groups. The outcomes of the workshops will be analysed and further developed in 2025.

The number of aircraft movements continued to increase compared to previous years. Nevertheless, there was no increase in the number of serious occurrences (such as separation minima infringement and runway incursion) where LFV contributed. The number of reported deviations and disruptions remained stable and high, indicating a good aviation safety culture with a good willingness to report.

'Just culture' is part of the safety culture. The EU defines this as a culture where employees are not punished for actions, omissions or decisions commensurate with their experience and training. At the turn of the year 2024/2025, LFV introduced mandatory digital training for all employees on safety and just culture.

Other activities carried out during the year include the development of LFV's aviation safety plan for the years 2025-2029.

New regulatory requirements

The EU and the Swedish Transport Agency set requirements for incident reporting, with all EU states reporting in a certain format, so-called taxonomy, and according to defined mandatory fields. LFV worked during the year to adapt reporting to the new format.

The pace of rulemaking from EASA remained high in 2024, and LFV must adapt its processes and procedures to ensure compliance with new requirements.

LFV'S FOCUS AREAS IN AVIATION SAFETY:

- R/D areas (incidents linked to restricted or dangerous areas)
- Human factors
- Separation minima infringement
- Runway incursion
- Unmanned aviation
- Flight without transponder
- Technical incidents

Area of operation:

Total Defence and Robust Air Navigation Service

Enhanced capabilities in all situations

The security situation remained grave in 2024, posing a threat to Sweden's infrastructure. LFV put great efforts into preparedness issues to strengthen its capability in all situations.

During the year, LFV adopted a total defence plan for the years 2025-2034. The total defence plan is based on MSB's Planning Policy for Civil Preparedness and identifies, among other things, focus areas where LFV will increase its capabilities.

The lessons learned from the large total defence exercise Leoniderna 2023 generated a basis for further development of LFV's crisis management teams. A key focus area has been staff methodology. In the autumn, training courses were held with skills-building activities for crisis management and crisis teams. The aim was to further develop LFV's ability to conduct operations in all situations, based on its role in total defence.

LFV operates in the civil preparedness sector Transport, where the Swedish Transport Administration is the agency with sectoral responsibilities for civil preparedness, with a special responsibility for leading the coordination of civil preparedness work in the sector. Cooperation between public authorities takes place at several levels in the civil preparedness sector, which provides broad support and joint management of the work. Cooperation between public authorities cooperation also takes place at regional level with county administrative boards, civil defence regions and military regions. During the year, this cooperation structure has continued to develop and establish plans for the joint work ahead, including through focus groups on, for example, situational awareness and reporting.

In addition to cooperation between authorities in the civil preparedness sector, there is also the cooperation structure Emergency Sector Private Transport- Public Cooperation (BT POS). LFV participated together with other transport authorities and representatives from the transport industry. The common mission is to deliver critical transport in all

The sharp increase in disruptions to satellite navigation systems became the norm in the Baltic Sea region in 2024.



The security situation remained grave in 2024



contingency phases. BT POS also includes a number of sub-groups, of which Air Transport is one.

LFV strengthened its contingency planning organisation, both in terms of the central coordination function and within the organisation as a whole. Other measures were also implemented in areas such as emergency storage and protection.

During the years 2022-2024, LFV collaborated with Swedavia, among others, in the Copia project, which aimed to strengthen security of supply at Swedavia's airports. Copia was finalised during the year and a handbook was published so that other airports can share the lessons learned from the project.

Since 2018, LFV has been allocated funds to make radio, radar and communication functions more robust. This work has taken longer than originally planned.

As part of increased resilience, LFV started a trainee programme for engineers in 2023, a programme that ended in 2024. All eight trainees admitted to the programme are still employed at LFV.

NATO cooperation

LFV has participated for several years in MSB's Civilian Cooperation Circle NATO, where critical infrastructure is represented by agencies with specific responsibility for civil preparedness. MSB guides and supports the work of public authorities under NATO Article 3, with the aim of supporting the Resilience Committee through analysis and work in the Transport Group planning group. They also support Sweden’s capacity as a nation to meet the requirements imposed by Article 3 on member nations and to provide other support with the coordination of training and recruitment of civilian experts.

In the Transport Group, LFV is part of a subordinate working group, Civil Aviation. It summarises the status and analysis of how civil aviation can contribute to NATO's air transport capacity and airspace coordination needs for NATO operations.

Protective security

The security situation remained serious in 2024, which, together with an increased threat of sabotage, led to increased risks for LFV's operations. Although there was no direct sabotage with a serious impact on LFV, there were occasional intrusions, damage and interference with radio traffic. The number of drone reports around LFV sites increased, although only a few sightings could be confirmed. In late 2023, there was a sharp increase in disruptions to satellite navigation systems, which became the norm in the Baltic Sea region in 2024.

LFV intensified its protective security efforts on several fronts, including further strengthening of physical security at our operational sites and protected objects. This work is a long-term undertaking that is expected to last for several years. Several recruitments were made to strengthen security work at LFV's largest protected objects and to coordinate security work. LFV also significantly increased its ability to manage and protect our most sensitive information by deploying appropriate systems and facilities for this purpose.

LFV decided to create its own asset for protection and surveillance in the event of a crisis and increased readiness. As a first step in creating this asset, a number of LFV employees and individuals from the voluntary defence force therefore completed a security guard training course at the end of the year.

Information security

In the appropriation directions for 2024, LFV was tasked with evaluating and developing information security work, and reporting on the measures taken based on the results. LFV conducted an evaluation using MSB's tool Infosäkkollen. The results of the evaluation are used to develop the systematic work on information security.

LFV's management system for information security (LIS) underwent a review to accommodate new EU information security governance. In particular, this work focused on EU regulation 2023/203 (Part-IS), which is a supplement to EU regulation 2017/373 and comes into effect in 2026. The regulation requires LFV to identify, detect and manage information security events, risks and incidents with potential impact on aviation safety. LFV also carried out work on the transposition of the NIS2 Directive. The Directive's requirements will be introduced into Swedish legislation in 2025 and LFV is affected as part of the transport sector.

In 2024, training in information management and information security was updated, in particular to convey that LFV's employees are an important part of the systematic information security work. With their behaviour, employees impact LFV's security, which must be maintained at all levels of preparedness.

With Sweden's entry into NATO, LFV must be able to handle NATO information. During the year, LFV developed guidelines for how the public authority should handle such information.

IT security

The risk of cyber-attacks against LFV remains high. A number of incidents were dealt with during the year, ranging from everyday events to more serious attempts at targeted influence against LFV by outsiders.

In 2023, LFV developed a multi-year action plan that will guide and support the work on IT security by focusing, prioritising and securing resources. During the year, the action plan was updated and made more detailed, and extended to cover both information and IT security for the whole of LFV.

LFV continued to build and develop its IT security organisation and operations, and to develop and manage general IT security solutions. The ability to systematically monitor, document and follow up on system incidents was further strengthened during the year. In the management of administrative and operational systems, measures to enhance IT security were planned and implemented. This included the development of new IT protective security services, such as Single Sign On, and the launch of a secure systems administration initiative.

LFV co-operated with public authorities and industry representatives nationally and internationally and exchanged experiences in the field of IT security.

Area of operation:

Other commercial activities

Providing services nationally and internationally

LFV offers several different air traffic and airport services. With expertise and many years of experience, LFV delivers services to customers in Sweden and internationally.

LFV has extensive experience with various technical systems and ensures operation and management of systems and technical infrastructure in accordance with applicable international and national legislation, norms and standards. LFV delivers technical services, such as a technical platform for flight information, L-CAPS, and various consultancy services in areas such as procedure and airspace design. Services are provided partly by the state-owned enterprise and partly by subsidiaries and associated companies.

Services via subsidiaries and associated companies

The subsidiary LFV Aviation Consulting AB offers consulting services in an international market. The customers are air navigation service providers, airports and aviation authorities.

Demand for ATM expertise is high, especially in markets outside Europe. In the spring, the mission to assist the local ORAT project, Operation Readiness Airport Transfer, in preparing for the commissioning of Angola's new national airport in Luanda was finalised.

Markets in Southeast Asia remain very interesting and dialogue is ongoing with air navigation service providers in several countries. Parts of this work are carried out in co-operation with Entry Point North. On 19 November, a memorandum of understanding was signed between the Civil Aviation Authority of Singapore (CAAS) and LFV. The aim of the memorandum of understanding is to learn from each other and potentially generate future business.

The subsidiary Aviseq Critical Communication AB (AVISEQ) provides technical operation and maintenance services to air traffic centres, airports, national authorities and companies in Sweden. AVISEQ also delivers, for example, critical communications with several services in the field of security. During the year, AVISEQ delivered to customers under contract and without any major disruptions. In order to gain control of the technical operations organisation for ATS and CNS services, AVISEQ's activities will be fully incorporated into LFV's organisation, a transition many parts of the business worked on during the year.

The associated company Entry Point North AB (EPN) offers basic air traffic controller training and provides other services and consultancy. During the year, the company continued to drive development towards increased digitalisation of the training and new service offerings, thereby broadening and developing its range of services. Its activities are mainly aimed at air navigation services and other related industries. One important backbone is basic air traffic controller training on behalf of the owners LFV, Danish Naviair and AirNav Ireland. The company also sells consulting services and training to external customers. During the year, EPN organised refresher training for Ukrainian air traffic controllers, so that they are ready to control civilian traffic again after the war.

Civil flight procedures and obstacle analyses

LFV's airport customers are state, municipal or private. For each customer, there is an agreement that forms the basis for delivery, information exchange and follow-up.

During the year, LFV conducted five-year reviews at airports in Eskilstuna, Kalmar, Borlänge and Ängelholm.

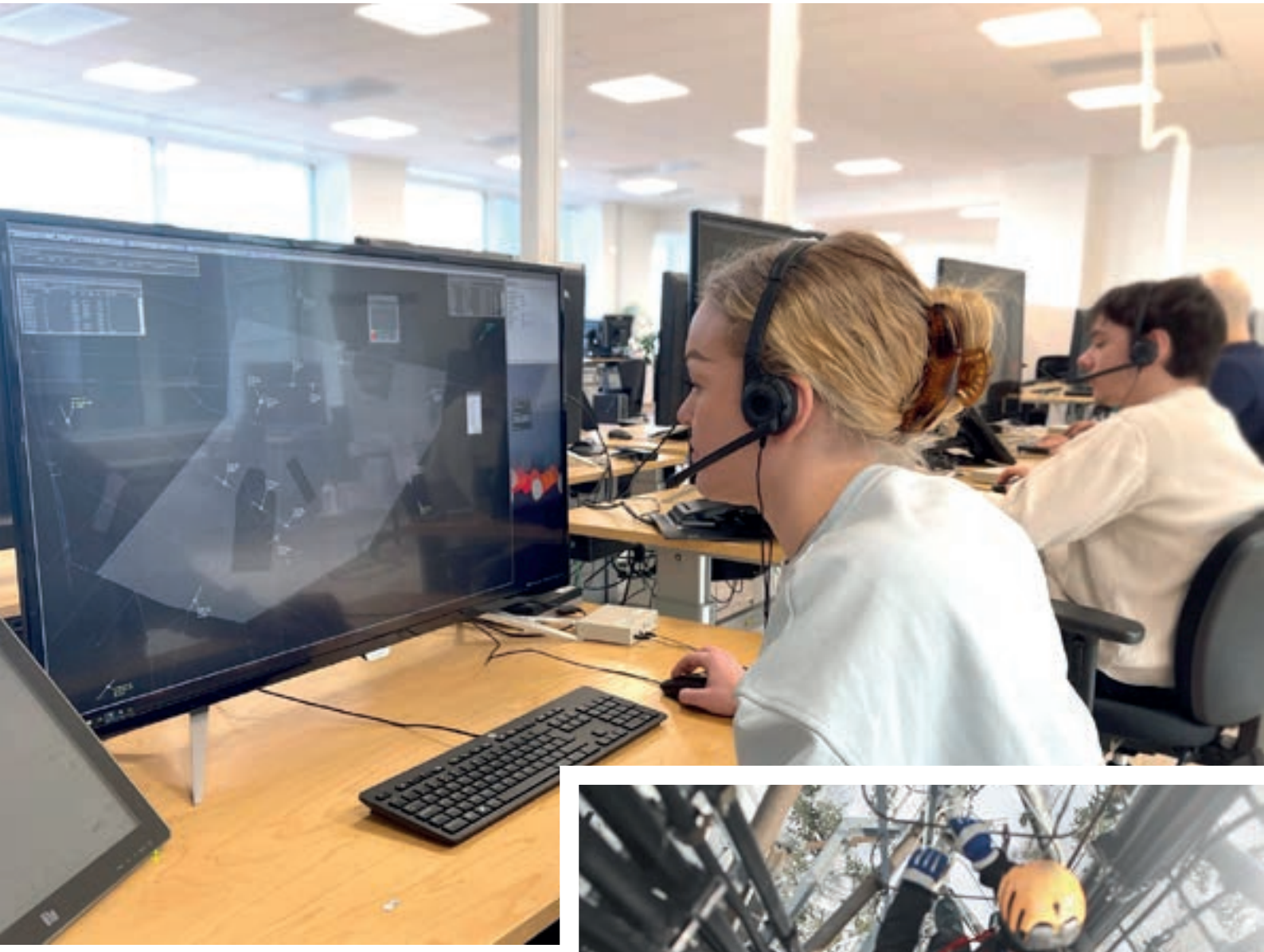
There was a record high of 598 requests for obstacle analyses from wind and telecom companies, among others. There was also an increase in the number of in-depth studies for the establishment of wind farms. 13 major aeronautical obstacle analyses were delivered and a fixed price model for the product was developed. The in-depth investigations are based on LFV's obstacle analyses and the potential impact on airport procedures for instrument approaches.

Work on designing helicopter procedures for Region Västra Götaland, both at hospitals and strategic locations in the field, continued during the year.

The SOLO project (regarding take-off and landing in unmanned locations), in which the Swedish Maritime Administration is project owner, was completed on 31 December 2024. LFV contributed to the procedure design of helicopter procedures and coordinated the work with the aviation safety assessments. The project also involved the Police Authority, medical transport operators and the Swedish Armed Forces.



There was a record high of 598 requests for obstacle analyses from wind and telecom companies, among others





In order to gain control of the technical operations organisation for ATS and CNS services, the activities of our subsidiary AVISEQ's will be fully incorporated into LFV's organisation

Technical services

In 2024, LFV provided technical services in the form of management and maintenance of ATS, MET and CNS equipment at a total of eleven municipal and private airports. For the airports in Ängelholm, Halmstad, Borlänge, Sundsvall, Örnsköldsvik and Sälen, there are current agreements that are extended for one year at a time. Five airports – Karlstad, Kalmar, Jönköping, Norrköping and Skellefteå – have extension agreements to use parts of the LFV network to access surveillance information. These agreements will end in 2025 when airports start using their own technologies for these systems.

Area of operation:

Research and innovation

Focus on aviation safety, environment and increased automation

LFV's research and innovation focuses mainly on improving the services LFV delivers and includes technical as well as operational concept development. Research is carried out in collaboration with both national and international partners.

LFV's main research focus is on aviation safety, reduced environmental impact, flexible and scalable service delivery, and increased productivity and cost efficiency through the use of AI and automation. During the year, LFV initiated, applied for and received funding for seven projects and activities.

Funding was entirely from external sources such as government research funds through the Swedish Transport Administration and EU funds from Single European Sky ATM Research (SESAR 3).

In 2024, LFV developed a new research-and-development plan that reflects LFV's long-term vision and supports both the main and the sub-goals of Destination – ONE LFV. The plan presents the areas LFV considers of highest priority to conduct research in order to develop air navigation services.

LFV presented several conference papers and published scientific articles in areas such as aviation psychology and human factors.

International cooperation

LFV is a key player in the European research programme SESAR 3, which focuses on developing air navigation services in Europe. The main purpose of LFV's participation in SESAR 3 is to ensure that Swedish special interests are taken care of within the common development of European aviation.

Of the ten research initiatives that LFV applied for in 2023, LFV received funding for two projects during the year: Aware, which aims to strengthen human-technology interaction through artificial intelligence, and Deepflow, which will develop a dynamic method to optimise and streamline traffic flow management.

In 2024, extensive work began to build stakeholder partnerships for the SESAR call for proposals taking place in 2025, which concerns research and development of the ATM system in Europe.

During the year, a collaboration within the Eurocontrol Innovation Hub was initiated, where several European air navigation service providers work together on issues related to the increased use of AI and automation in the air traffic management system.

National projects

As part of the work on the main goal 'Cost efficiency and productivity' within the framework of Destination- ONE LFV, LFV researched ways to increase the scope of automation in air navigation services. During the year, an AI and automation project, AI-PRAT, was launched to automate parts of the flight information service. Work is also underway to launch two other projects in the area in 2025.

In 2024, LFV ran 30 national research projects. Some of these were carried out entirely in-house, while several projects were carried out in partnership with industry, academia and other relevant stakeholders in the sector. LFV worked on developing better digital tools and system support for air traffic controllers in order to, among other things, streamline work and increase productivity. LFV also conducted research on air traffic controller fatigue and how shifts and scheduling impact air traffic controller fatigue.



LFV worked on developing better digital tools and system support for air traffic controllers in order to, among other things, streamline work and increase productivity.

In 2024, the R&I unit ran 30 national research projects



Electric aviation in Sweden

The Electric Aviation in Sweden project investigates how electric aviation can be practically implemented and what technologies are needed to facilitate this as early as 2030. The project is a collaboration between several leading actors, including LFV, RISE, Chalmers University of Technology, Linköping University, Örnsköldsvik Airport, Swedavia Airports, Vattenfall and Heart Aerospace. The project is part of a broader Nordic initiative on sustainable aviation. LFV is the originator, main partner and financial coordinator of the project, and therefore constitutes an important link between the Swedish Transport Administration, through which research is financed, and the project partners. Project management is carried out by RISE.

AI-PRAT

AI-PRAT is about applications of AI technology in language comprehension. The project explores ways to turn speech into text using AI and to understand language content, such as identifying call signs or important values. One application could be in an auxiliary system for, for example, making transcriptions or detecting incorrect readbacks between pilots and air traffic controllers. The project has selected one case study, Flight Information Service (FIS). It is being investigated whether it is possible to generate a response using voice synthesis and read it back to pilots requesting flight information. For example, this could be used to respond faster to requests in uncontrolled airspace.

CONCERTO

One SESAR project in which LFV participates is CONCERTO, led by Thales Group, a French multinational, and the German Aerospace Centre (DLR). The main objective of the project is to address the so-called non-carbon effects caused by aircraft contrails, which contribute to the greenhouse effect. The basic principle of the project is to identify areas of contrails, known as ECHO areas, in the atmosphere, which is only possible on short notice. According to ongoing research, a small proportion of flights are responsible for a large part of non-carbon impacts. The aim is therefore to create a new co-operation between air traffic control and airlines to manage the largest contributing flights in a cost-effective way.

New environmental policy provides structured environmental work

In 2024, LFV worked on the activities in the environmental plan developed for the year. These activities will help reduce LFV's environmental and climate impact pursuant to our goal of Net Zero Emissions by 2045, and increase knowledge of LFV's environmental and sustainability work both internally and externally.

Replacement of refrigerant

At the control centre in Malmö, LFV changed the refrigerant in three cooling units to refrigerants that are less harmful to the environment. Current legislation uses a value, GWP, based on the greenhouse effect of the refrigerant over a 100-year period. When LFV changed the refrigerant, the GWP dropped from 4,978 to 645.

Carbon footprinting for the net zero emissions target

During the year, LFV carried out a carbon footprinting of its operations in the previous year, as part of its environmental and sustainability goal of Net Zero Emissions. The objective is to reduce the environmental impact of LFV's operations so that there are no net emissions of greenhouse gases after 2045, and to enable the reduction of aviation emissions and contribute to the transition to more sustainable aviation. The carbon footprinting covered all LFV operations, converted to carbon dioxide equivalents. The 2023 total will be used as the base year, against which future measurements will be compared. Based on this calculation, targets and activities for the coming years will be formulated. The report was presented in December of 2024.

Environmental policy adopted

In the spring, LFV developed a separate environmental policy that shows LFV's focus on responsible and structured environmental work. The environmental policy addresses issues such as business travel, energy consumption, digital meetings, the environmental impact of purchasing and procurement, and active air traffic control work with solutions for sustainable airspace.

Updated travel policy

As of 1 January 2024, LFV implemented a policy requiring all employees to, whenever possible, book tickets with a biofuel blend for any business trips by air. The use of so-called 'bio tickets' will reduce LFV's direct environmental impact from emissions via business travel. Biofuels are made from waste products and do not emit fossil carbon dioxide. Today, aircraft can be powered with a blend that is up to 50 percent biofuel. This represents a 40 percent reduction in carbon dioxide emissions for each business trip, compared to trips made without biofuel blends.

Installation of charging points

During the autumn, LFV installed 20 charging points at the control centre in Malmö, as part of its work on sustainable development.

Climate and vulnerability analysis

In the autumn, LFV began work on producing a climate and vulnerability analysis focusing on its core activities, such as CNS equipment and air traffic control. The climate and vulnerability analysis is a mapping exercise to identify potential vulnerabilities that LFV could face in the event of extreme weather due to climate change.

New environmental training

A new general environmental training programme was completed in late 2024. The training is mandatory for all employees at LFV.

Environmental project on the high-altitude effect

In 2023, the Single European Sky ATM Research (SESAR) research project CONCERTO was launched. LFV is a partner in the project and will gather knowledge on non-carbon emissions and what operational measures can be implemented. At the end of 2024, LFV carried out simulations to see if it is possible to avoid flying through problematic areas in the atmosphere, in order to be able to carry out real tests in the airspace at a later stage of the project.

Straight flight paths

98.3%

... flight-path efficiency through Swedish airspace.



During the year, LFV carried out a carbon footprinting of its operations in the previous year, as part of its environmental and sustainability goal of Net Zero Emissions.

Focus on recruitment and continuing professional development

For LFV, culture, leadership and employeeship are central to operations. At LFV, everyone participates, works for the the good of the organisation and contributes to the operational goals.

During the year, there was a strong focus on recruiting new staff, such as engineers, to meet the demands of the business in a changing world. LFV also worked on introducing a digital recruitment process, and at the end of the year the first digital employment contract was signed.

LFV needs to recruit more new air traffic controllers, due to large numbers of retirements in coming years. As a result, the number of students enrolled in the programme was increased during the year, and there will continue to be a larger intake of students for the Entry Point North (EPN) air traffic controller school in coming years. Continued efforts to recruit through social media and other channels had a major impact, with many applicants.

Within the framework of LFV's management and employee development, the shared development platform *Medarbetarhuset* was implemented. The content of *Medarbetarhuset* is aimed at all employees and is an activity towards Destination — ONE LFV. Among other things, LFV continued its investment in methods and leadership training, with a focus on behaviour and change management. All managers have now completed the leadership training.

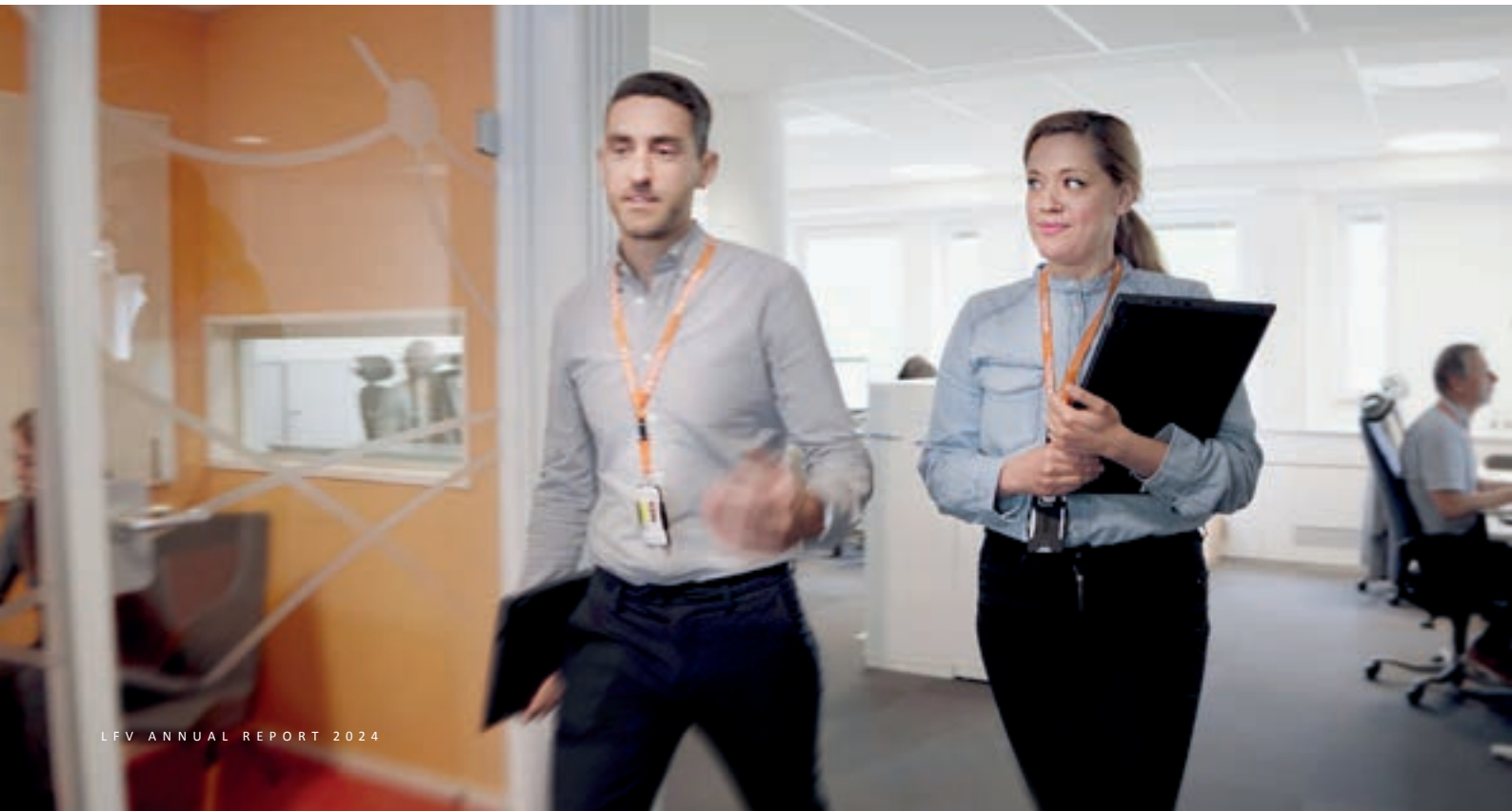
In order to strengthen the focus on continuing professional development for existing staff, work on reskilling/upskilling was started at the end of 2024 together with the trade unions. Reskilling and upskilling means that employees can further develop their current skills, or learn a completely new area of work, and may be linked to the work on skills supply and *Medarbetarhuset*.

Pulse measurements were carried out in areas such as leadership as well as organisational and social working environment. The results of the measurements showed positive figures.

Skills supply

The shortage of skilled labour remains one of the biggest challenges for LFV in the coming years.

During the year, a digital recruitment process was introduced for employees on individual salaries.



To manage skill supply, LFV continued to focus on refining resource and recruitment planning and the fulfilment of the strategy in Destination — ONE LFV: The Right Skills. During the year, resource and recruitment planning was integrated into the business planning process and is now being mainstreamed.

In order to promote the exchange and development of skills between different public authorities, and to strengthen the State's employer attractiveness in Östergötland, LFV continued its cooperation with the other nine public authorities that have their headquarters in Östergötland County in 2024, including staff loans.

During the year, a cooperation group was formed with EPN, in order to achieve a long-term focus on efficiency and increased success rate when training new air traffic controllers.

Working environment

Work on the basis of the working environment and human factors regulations was developed during the year, and a main safety committee was formed. A working environment and human factors forum was also established to provide greater focus and direction. LFV also contributed to international co-operation, including with groups within EASA and CANSO, in order to participate in the development of regulations and recommendations for the working environment and human factors.

Gender equality

LFV always strives for an even gender balance. The proportion of female managers in the state-owned enterprise was 38 per cent. In the subsidiary Aviseq AB, the number of female managers was 33 per cent. During the year, the gender balance of the Group remained broadly unchanged from the previous year, with fewer women than men.

Communications objectives

During the year, LFV developed new communications objectives and strategic positions, with the aim of creating a more communicative organisation. Based on the new goals, LFV's communications strategy and policy were updated.

A reputation survey by Verian showed that LFV's reputation among the public is high, on par with that of the Swedish Armed Forces. The Nyckeltalsinstitutet also presented a survey in which LFV was recognised as an 'Excellent Employer 2024' based on various key metrics.

LFV needs to recruit more new air traffic controllers, due to large numbers of retirements in coming years.

Number of annual employees



- Air traffic controller, 609 (47%)
- Other staff, 687 (53%)

Number of employees



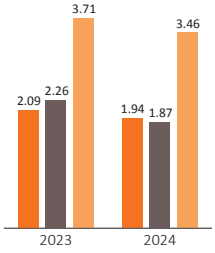
- Women, 497 (35 %)
- Men, 915 (65%)

Organisational and social working environment — index



2023 employee survey.
2024 pulse survey.
Figures refer to the state-owned enterprise only.

Sickness absence
(%)



- 29 years or younger
- 30—49 years
- 50 years or older

Total sickness absence in the state-owned enterprise has decreased slightly from the previous year. However, sickness absence of 60 days or more has increased compared to the previous year.



Investments

In 2024, new and replacement investments were made to meet the requirements on functionality, aviation safety, capacity and regularity as well as cost efficiency.

	Result 2021	Result 2022	Result 2023	Floor 2024	Result 2024
Acquisition and development of new investments					
ATM equipment	123	76	70	108	125
Radar equipment	70	67	90	36	49
Communications equipment	22	41	44	34	30
Radio equipment	108	142	158	125	151
Buildings	9	6	12	21	36
IT	15	16	28	16	11
Commercial investments	7	—	—	—	—
Contingency assets	1	1	0	2	3
Other	3	1	2	44	1
Total acquisition and development expenses	**358**	**350**	**405**	**386**	**406**
Of which investments in fixed assets	358	350	405	386	406
Funding					
Own resources	356	344	399	360	376
Revenue from grants	2	6	6	26	29
Total funding of acquisition and development	**358**	**350**	**405**	**386**	**406**
Maintenance of existing investments					
ATM equipment	4	7	3	31	17
Radar equipment	2	4	12	7	15
Communications equipment	15	18	30	16	33
Radio equipment	—	—	—	16	—
Buildings	7	6	2	12	12
IT	—	—	—	—	—
Commercial investments	—	—	—	—	—
Other	—	—	—	—	—
Total maintenance expenses	**28**	**35**	**48**	**81**	**77**
Of which investments in fixed assets	28	35	48	81	77
Funding					
Own resources	28	35	48	81	77
Total funding of maintenance	**28**	**35**	**48**	**81**	**77**
Total of which investments in fixed assets	**386**	**385**	**452**	**467**	**483**

The year's investments included ongoing upgrades of technical systems, new and replacement investments linked to working methods and investments to meet requirements for functionality, regularity and capacity. Major investments were also made in infrastructure for a robust air traffic service During the year, investments were made in strengthening preparedness and civil defence as well. Investments have been made to reinforce the surveillance infrastructure, implement new portable radar stations and portable radio with associated network/transmission for surveillance and communication services. Investments in contingency stockpiles and protective security enhancements were also made. These are priority areas and will continue to be so going forward.

The investment outcome for 2024 is higher compared to the outcome for 2023 and compared to the investment plan for 2024, as set out in Appendix 2 to the appropriation directions for 2024 (Budget 2024). The difference compared to the plan is mainly due to shifts in the timing of various projects.

The acquisition of fixed assets is mainly financed by own resources. A smaller part, mainly for protective security measures related to buildings and contingency assets, is financed from the Civil Defence appropriation. The appropriation Infrastructure for air navigation services is utilised in line with the annual depreciation of investments that fall within the scope of the appropriation. The investment expenditure incurred at the time of acquisition is funded by own resources.

Investments in ATM equipment as part of COOPANS continued during the year. Work on the upgrade of the air traffic management system, for which contracts were signed during the year, was a major focus in 2024. Commissioning is planned for late 2028 or early 2029. Other investments made in 2024 in the context of the TopSky air traffic management system aimed to ensure the continued safety, functionality and capacity of the current system, as well as to fulfil some of the legal requirements of what is known as Common Project 1 (CP1). In this case, investments concerned the establishment of the first SWIM service, Extended AMAN.

In recent years, LFV has developed and invested in infrastructure for remote air traffic control. In 2024, the last of four of Swedavia's airports that will be controlled from the remote air traffic control centre (RTC) in Stockholm became operational.

The higher rate of investment in recent years has presented challenges with regard to ensuring sufficient resources and proper expertise to carry this out while simultaneously performing regular maintenance and upkeep. Work on skills supply and implementation capacity is important.

In the next few years, investments are expected to remain at a relatively high level, with investments mainly in ATM, radar, and radio and communication equipment. Older equipment will be replaced, but most important is that increased requirements for common functionality within the Single European Sky are met. Work on robustness-enhancing initiatives and projects will continue.

Internal governance and control

LFV's work with internal governance and control is based on the tasks and goals set out in instructions, appropriation directions and other statutes and government decisions. The process includes risk analysis, control measures, follow up, documentation and assessment.

The Government Agency Ordinance (SFS 2007:515) states that the authority must have internal governance and control that functions in a reassuring manner. The Internal Governance and Control Ordinance (SFS 2007:603) places additional requirements on internal governance being integrated into the operations and a tool for senior management's governance.

Overall description of the work on internal governance and control

LFV's activities are planned, managed, and followed up against set targets in a business plan and related financial plan approved by the Board of Directors. This plan is submitted annually, by 1 March at the latest, to the Government in accordance with the Ordinance (SFS 2000:605) concerning the Annual Reports and Budget Documentation. The plans, usually with a five- year perspective, are drawn up taking into account the basic elements: risk analysis, control measures, follow-up, documentation, and assessment. Before each business plan period, planning begins with analyses and strategic discussions to produce goals where both internal and external factors are risk-assessed. This forms the basis for revision of strategies, main goals, business plan, and risks during the plan period.

Internal governance and control are ensured through LFV's organisation, rules of procedure and delegations, policies and guidelines. The process for internal governance and control is largely integrated into LFV's operational control. The process also includes work and control measures to prevent the organisation from being exposed to corruption, undue influence, fraud, and other irregularities. Policies, instructions, etc., and all essential processes, including descriptions, are collected and documented in LFV's Business Management System and document management system.

Other important components of the control environment are management's ongoing communication and dialogue with the activities, assessments and decisions by senior management, information and controls built into processes.

Risk management

LFV's risk management is an essential tool for LFV to achieve set goals and thereby limit or prevent unacceptable losses, damages, and disruptions. LFV's risk process is based on set main goals and is integrated into operational planning and follow up. Risk management is done in five steps, where root causes are determined and risks are evaluated, managed, and reported.

Each group entity manages operational, project and process risks within their respective areas of responsibility. Group management and the Board focus on top risks, which risks are considered to have the greatest value-at-risk and that have a clear connection to and significant impact on the main goals.

This year's risk report shows that the risk level for IT and information security remains high. The implementation of agreed action plans is ongoing. During the year, LFV continued its efforts to strengthen the control environment and identify and implement various risk mitigation measures regarding IT and information security. Protective security analysis and the security plan under the protective security legislation were updated. Work on measures will continue in the coming years.

Internal and external audit

LFV is subject to the Internal Audit Ordinance (SFS 2006:1228). Based on analysis of the risks of the activities, the internal audit examines whether senior management's internal governance and control is designed so that the authority fulfils its tasks with reasonable certainty, achieves the operational goals and meets the requirements set out in the Government Agency Ordinance. The results of the review are continuously reported to the Board. LFV works continuously to deal with the internal audit's observations.

In addition, LFV is subject to several other audits. These include annual audits by the Swedish National Audit Office and other external audits such as for external grants, ISO audits, certificates and other internal and external quality audits.

Basis for management assessment of internal governance and control

The basis for the assessment is that management systematically and regularly follows up the work on internal governance and control, assesses how the control environment and work are designed, and receives reports from the activities on an ongoing basis during the year as well as in connection with the annual report. The work on mitigation measures and action plans to address top risks also forms the basis of the assessment. The reporting and certification of internal governance and control submitted by all Group entities in connection with the annual accounts did not reveal any significant shortcomings. Management also takes note of the findings of the internal and external auditors and the work done by the organisation to address them.

Risk	Description	Management
Operations and and delivery		
•Aviation safety	LFV's air traffic control shall be characterised by a high level of aviation safety and efficiency. To maintain a high level of aviation safety and minimise the probability of aviation safety events occurring, continuous and systematic aviation safety work is conducted at all levels within LFV. The likelihood of a serious event occurring, with the contribution of the performance of LFV's duties, is considered to be very low.	LFV's management is based on LFV's Safety Management System (SMS) and its associated processes. Changes in operations/systems are systematically analysed before implementation and followed up, if necessary, with defined safety criteria and monitoring criteria to minimise aviation safety risks as far as reasonably possible. In addition to investigating each individual incident, LFV works continuously with focus areas (and where necessary identified problem areas) to proactively manage aviation safety risks. In 2023, two new focus areas have been added based on current trends and identified problem areas. A continuous analysis is made of events within each focus area. Based on these analyses, recommendations are made, which are then followed up.
• Air navigation services in all contingency phases	There is a risk that LFV will not achieve sufficient capability to manage peacetime crises, heightened preparedness or, ultimately, war within the scheduled time because the crisis and total defence work is not fully established in LFV.	LFV shall work towards the goals and implement the activities described in LFV's Total Defence Plan 2025-2034 in order to strengthen and further develop total defence capabilities in organisation, technology and procedures.
• Information and IT security	The security situation and the current threat mean that LFV can be affected by events that mean that systems become inaccessible, that information is altered, destroyed or leaked, or that unauthorised persons gain access to it. The need to protect sensitive information has increased.	LFV works with administrative and technical measures to strengthen information and IT security. Based on an action plan, LFV is working to update policy documents, conduct training programmes, and provide ongoing support to operations. The focus is on establishing common security functions, identifying risks and potential impact on LFV systems, improving LFV information management and increasing the number of IT security classifications of systems.
• EU regulatory framework CP1	There is a risk that LFV will not be considered to fulfil the requirements of the European Commission Implementing Regulation no. 2021/116, Common Project 1 (CP1) and that the European Commission takes measures that may lead to financial damage.	LFV is working to prioritise the implementation of these requirements by setting priorities, allocating resources and monitoring the progress of the work both in LFV and in the dialogue with COOPANS partners and the Swedish Transport Agency.
• Drones in the airspace	The increased presence of drones in Swedish airspace means that there is a risk of collisions between drones and manned aircraft, whether due to a lack of expertise among drone pilots, mistakes or malicious intent.	During the year, LFV took a number of initiatives to reduce the risk of drones, such as work with LFV's government assignment linked to unmanned aviation, development of drone services, and information campaigns. A joint initiative has been undertaken by LFV and Swedavia to clarify mandates and develop collaboration related to the presence of drones at or near airports.
Finances		
• LFV's finances and funding	LFV's finances are affected by the EU-regulated fee system. There is a risk that the Swedish performance plan for RP4 will not be approved and that further cost reductions will be required. There is also a risk linked to the RP3 final reconciliation that not all revenue estimates are approved.	The development of EU regulations and objectives is being monitored. LFV has submitted documentation to the Swedish Transport Agency for the next reference period and a Swedish plan has been sent to the EU for approval. In the meantime, LFV has received a preliminary decision from the Swedish Transport Agency that is in line with the requested cost levels. LFV has participated in the consultations organised by the Swedish Transport Agency with the industry. LFV also works with those parts of its operations that are financed by grants, subsidies or customers to ensure that objectives are met.
• Currency risk	Currency risk is defined as the profit/loss effect that a currency exchange rate can have on LFV's balance.	The risk is limited by hedging on the period of the known future flows. An interval controls the minimum share hedged within a certain period. Currency hedging of en route charges is done according to a specific procedure.
• Credit risk	Credit risk is defined as the risk that the counterparty in a transaction is unable to meet their commitment. LFV has a large surplus liquidity associated with pension liability to manage.	To limit credit risk when investing, counterparties, instruments, maturities, and permitted investments are regulated in LFV's financial policy. Investment may be made in treasury bills, government bonds, deposits into banks supervised by the Swedish Financial Supervisory Authority, certificates with counterparties wholly-owned by the Swedish central government or with a corresponding credit rating of K1 and in bonds with counterparties wholly-owned by the Swedish central government or with a minimum credit rating of A (Standard & Poors) and A2 (Moody's).
Other risks • Fraud and corruption	Overall, LFV's protection against fraud, corruption, bribery and other irregularities is deemed adequate.	The main activities are regulated and monitored by the Swedish Transport Agency. LFV's organisation, rules of procedure and delegations, regulatory framework, instructions, processes, etc., are defined and documented. In addition, there are other documents that help to clarify regulatory frameworks and LFV's position on these issues.

Financial statements



Income statement

		GROUP		STATE-OWNED ENTERPRISE	
Million SEK	Note	2024	2023	2024	2023
OPERATING REVENUE					
Aviation revenue	1	–36	2,880	–36	2,880
Work performed by the company for its own use and capitalised		82	72	60	49
Revenue from grants		427	347	427	347
Other operating revenue	2	270	285	184	198
TOTAL OPERATING REVENUE	3	**744**	**3,584**	**635**	**3,474**
OPERATING EXPENSES					
Staff costs	4	–2,123	–2,177	–1,950	–2,018
Miscellaneous external costs	5	–668	–623	–732	–668
Depreciation and write-downs of tangible and intangible fixed assets	6	–317	–360	–319	–285
TOTAL OPERATING EXPENSES		**–3,108**	**–3,160**	**–3,001**	**–2,970**
Income from participations in associated companies	7	18	9	—	0
OPERATING PROFIT/LOSS		**–2,346**	**432**	**–2,366**	**503**
INCOME FROM FINANCIAL INVESTMENTS					
Income from participations in Group companies	8	—	0	—	–65
Interest income	9	182	158	175	153
Interest expense and similar income statement items	10	–570	–539	–570	–539
TOTAL FINANCIAL ITEMS		**–388**	**–380**	**–380**	**–451**
Profit/loss after financial items		**–2,734**	**52**	**–2,761**	**53**
Tax/tax equivalent on profit/loss for the year	11	–2	–1	—	—
PROFIT/LOSS FOR THE YEAR		**–2,736**	**51**	**–2,761**	**53**
Added:					
Actuarial revaluation of pension liability	20, 23	3,244	–58	3,244	–58
COMPREHENSIVE INCOME AFTER REVALUATION OF THE PENSION LIABILITY	21	**508**	**–6**	**483**	**–5**

Comments on income statement

Unless otherwise stated, all amounts are reported in million SEK. Information in brackets refers to the previous year.

The profit/loss for the year including income adjustments amounts to SEK –2,736 million (51) and the comprehensive income after actuarial revaluation of the pension liability amounts to SEK 508 million (–6). Profit/loss after financial items for ordinary operations totalled SEK –106 million (52).

The profit/loss and financial position are impacted by the year's actuarial revaluation of the pension liability and by the fact that aviation revenue for the year has been reduced by revenue adjustments of SEK –2,629 million. This is an exceptional item and relates to the actuarial revaluation of the pension liability (SEK 3,244 million), which is taken up directly in equity and within comprehensive income. The revaluation is due to the reduction of the interest rate in the 2024 pension liability calculation basis compared to the 2023 calculation basis.

The adjustment of the revenue follows the regulatory framework of the charging scheme and the management of so-called uncontrollable costs. The same principle for uncontrollable pension costs is applied in 2024 as in the previous year, but in that case it was the reverse, with debt increases, as interest rates have been reduced for some years. This year's revenue adjustments also include adjustments to the remuneration for air navigation services to the Swedish Armed Forces and Swedavia.

The financial plan (budget) for 2024, the budget data submitted in the three-year plan to the Government on 1 March 2024, showed a profit/loss after financial items of SEK –94 million excluding the revenue adjustments. The comprehensive income reported in the three-year plan was SEK 421 million. The improvement in the comprehensive income compared with the budget and the previous year is mainly due to the effects of this year's revaluation of the pension liability due to a change in the basis of calculation.

Operating revenue

Operating revenue totalled SEK 744 million (3,584), a decrease of SEK 2,840 million. The revenue adjustment resulting from the revaluation of the pension liability reduced operating revenue by SEK 2,629 million. Operating revenue excluding this one-off effect is SEK 3,373 million, a decrease of SEK 211 million compared to 2023.

Aviation revenue

Of total operating revenue, the outcome for aviation revenue is SEK –36 million; excluding the one-off effect, the outcome amounts to SEK 2,593 million (2,880), which corresponds to 77 percent (80) of total revenue. En-route and terminal charges amounted to SEK –399 million and, excluding the one-off effect, to SEK 2,039 million (2,332).

LFV's revenue for en route air navigation services (en route charges) and for Terminal Stockholm-Arlanda is based on decided fee levels and the number of service units. Service units en route increased in 2024 by 7.8 percent compared to 2023 (–24.8 percent compared to 2019).

The en-route fee in Sweden for 2024 has been increased by 2.3 percent, however LFV's share of the Swedish charge has been reduced by 2.4 percent. The terminal fee has been reduced by 1.1 percent, and LFV's share by 2.4 percent compared to 2023. The fee changes mean less invoiced revenue per service unit. The 2024 fees include one seventh of the deficits from 2020-2022, which will be charged over a seven-year period starting in 2023.

The RP3 framework has a built-in risk-sharing mechanism for traffic and inflation. It is linked to actual traffic performance and inflation compared to the forecasts on which the performance plan is based, and affects the level of fee revenue. For 2024, the impact of the air traffic risk-sharing mechanism has been calculated based on the difference between Eurocontrol's June 2022 forecast, used in the agreed performance plan, and the 2024 outcome reported by Eurocontrol. Effects have also been calculated regarding the difference between the inflation forecast in the performance plan and actual inflation in 2024. In accordance with the regulatory framework, a reconciliation and provision has also been made for uncontrollable pension costs where the difference between the performance plan and the outcome has been recognised as a liability for 2024.

In connection with the reconciliation of the outcome in 2023, a provision of SEK 17 million (a positive revenue adjustment) was made in accordance with the bonus regulations for a route where the capacity target was exceeded. The capacity target has also been exceeded in 2024 and a revenue adjustment for the 2024 bonus has been recognised in the amount of SEK 16 million. In 2025, the RP3 charging scheme will be finalised and there is a risk linked to revenue corrections for inflation and uncontrollable pension costs related to handling and application for the years 2023 and 2024, which is why provision has been made in this year's revenue adjustments for en route and terminal totalling SEK 55 million. The revenue adjustment items in the charging system for the year totalled SEK –2,440 million (381).

Compensation for local air navigation services at public and military airports totalled SEK 363 million (549). Lower revenue compared to the previous year is mainly due to the compensation for one-off effects due to a change in the calculation basis following the revaluation of the pension liability in 2024.

Work performed by the company for its own use and capitalised

The value of performed by the company for its own use and capitalised attributable to investment projects amounts to SEK 82 million (72).

Revenue from grants

Grant revenue totalled SEK 427 million (347). The outcome for the year is attributable to the appropriation items Civil Defence, Air Navigation Infrastructure and Unmanned Aviation within expenditure area 22. Grant operations have gradually increased in recent years and are higher for 2024 compared to 2023 for all three framework grants, totalling SEK 80 million. The outcome is lower than budget, which corresponded to the full utilisation of the grants allocated for the year. The closing balance for 2024 is SEK 30 million.

Other operating revenue

Other operating revenue totalled SEK 270 million (285), of which revenue from commercial services amounted to SEK 162 million (173). Grant revenue totalled SEK 106 million (107). LFV received EU grants for the financing of investment and development activities. Grants for research and innovation are received both from the EU and the Swedish Transport Administration to develop and streamline air navigation services.

Operating expenses

Operating expenses for the year totalled SEK 3,108 million (3,160), an increase of SEK 53 million.

Staff costs

Staff costs totalled SEK 2,123 million (2,177), a decrease of SEK 53 million compared with the previous year and SEK 19 million below budget.

Salary costs are SEK 57 million higher than last year, while social security and pension costs are SEK 120 million lower. The remaining difference, SEK 10 million, is attributable to fluctuations in other staff costs. The increase in the number of staff and an annual salary review explain the increase in salary costs between years. Higher social security contributions come with higher salary costs, but at the same time the costs are lower for defined benefit pensions in accordance with PA 16, which are recognised as staff costs. The year's provision to the pension liability for earned pensions and changes in pension entitlements is SEK 129 million lower in 2024 compared with 2023. This is due to the fluctuation in the parameters of annual earnings, etc.

Miscellaneous external costs

Miscellaneous external costs for the year amount to SEK 668 million (623), an increase of SEK 45 million compared with the previous year.

Costs that have mainly increased compared to 2023 are for rent of premises, operation and maintenance of telecommunication equipment, licences for administrative systems, training of new air traffic controllers and IT, administrative and technical consultants. The increased level of activity in the grant operations explains part of the higher income for the year, but is slightly below budget for the year.

Depreciations and write-downs

Depreciations and write-downs amounted to SEK 317 million (360). The outcome for the year is attributable to deprecations and write-downs of intangible and tangible fixed assets. In 2023, write-downs of SEK 76 million were recognised, explaining a large part of the difference. At the same time, planned annual depreciation is increasing as a result of the higher levels of investment in recent years.

Income from participations in associated companies

Income from shares in associated companies is recognised here and amounts to SEK 18 million (9). This is SEK 9 million better than the previous year and SEK 3 million better than budget.

Financial items

The total financial revenue and costs for the year amounted to SEK 182 million (158) and interest expenses were SEK –570 million (–539). The total of financial items is thus SEK –388 million (–380).

The pension liability carries interest and annual indexation, which are recognised as financial items in the income statement. Other changes to pension entitlements and earnings for the year, etc., are reported as staff costs.

The net interest and indexation of the pension liability is SEK –570 million (–538). The indexation of the liability on 1 January 2024 amounted to SEK –538 million (–664), based on the increase in the price base amount of 9.2 percent (8.7) between 2023 and 2024. The interest on the debt for 2024 amounts to SEK 32 million. (2023: positive, SEK 126 million). The difference between the years is due to the change in the net interest rate from –1.51 percent in 2023 to +0.5 percent in 2024. The higher interest/indexation costs for the year are offset by a higher return on cash and cash equivalents.

Thanks to higher interest rates, the return on short-term investments and bank balances is SEK 24 million higher than in 2023. Net financial items are SEK 8 million lower than last year.

Revaluation of the pension liability due to changes in calculation bases

Actuarial revaluation of the pension liability on 1 January 2024 resulted in a decrease in the liability of SEK 3,244 million (2023: increase 58). The revaluation is recognised in unrestricted equity and as an additional item in Other comprehensive income after revaluation of the pension liability. It is the interest rate parameter that has changed in the 2024 bases compared to the 2023 bases. The calculation bases for 2024 were decided by the board of directors of the National Government Employee Pensions Board in November of 2023. The gross interest rate was raised from –1.5 percent to +0.5 percent. This implies an actuarial revaluation as of 1 January 2024 that reduces the liability by SEK 3,244 million. The net interest rate in the 2024 calculation basis is +0.49 percent (–1.51 percent).

In November of 2024, the National Government Employee Pensions Board decided on the interest rate for the 2025 calculation bases. The gross rate is +0.8 percent, and the net rate is +0.79. The effect of the change to the 2025 calculation basis is a decrease in the liability of SEK 394 million, which will be recognised on 1 January 2025 in the 2025 annual report.

LFV Holding

The Group's turnover, excluding group elimination of sales to the state-owned enterprise, totalled SEK 310 million (283) and profit/loss after financial items was SEK 32 million (–60).

The turnover is mainly derived from the subsidiary Aviseq Critcal Communications AB (AVISEQ), which provides services to LFV. LFV is the single largest customer. Intra-group purchases and sales between LFV and subsidiaries are eliminated in LFV's consolidated financial statements.

The results of the Holding Group are attributable to the operating results of subsidiaries, the return on cash and cash equivalents and the results from investments in associated companies. Associated companies are recognised using the equity method in the Group.

The profit/loss for 2023 was negatively affected by the impairment of goodwill in the consolidated accounts of SEK –66 million attributable to LFV Holding AB's 2020 acquisition of AVISEQ. In December of 2023, LFV's Board of Directors decided to transfer the operations and staff of AVISEQ to the state-owned enterprise. The timetable for the business transition has been brought forward to 2025, but otherwise there has been no change in conditions since the write-down test of 31 December 2023, which is why the previous assessment of the goodwill value remains as of 31 December 2024.

Annual reports for the financial year 2024 for LFV Holding AB and its subsidiaries and associated companies have not yet been adopted at each respective 2025 Annual General Meeting.

Balance sheet

		GROUP		STATE-OWNED ENTERPRISE	
Million SEK	Note	31/12/2024	31/12/2023	31/12/2024	31/12/2023
ASSETS					
Fixed assets					
Intangible fixed assets					
Goodwill	12		—		—
Software rights and other intangible fixed assets	12	570	565	581	573
Total intangible fixed assets		**570**	**565**	**581**	**573**
Tangible fixed assets					
Buildings	13	212	222	212	222
Maintenance expenses on third-party property	13	15	18	15	18
Field installations	13	7	2	7	2
Electrical installations	13	6	8	6	8
Telecommunications equipment	13	1,336	1,141	1,351	1,151
Vehicles, machinery, etc.	13	46	44	38	40
Contingency equipment	13	1	1	1	1
Stockpile	13	5	2	5	2
Leased fixed assets	13	1	1	1	1
Construction in progress	13	422	456	431	466
Total tangible fixed assets		**2,051**	**1,895**	**2,067**	**1,912**
Financial fixed assets					
Holdings in subsidiaries	14	0	0	234	234
Holdings in associated companies	15	65	57	—	—
Other long-term receivables	16	3,107	3,808	3,107	3,808
Deferred tax assets		0	0	—	—
Total financial fixed assets		**3,172**	**3,865**	**3,341**	**4,042**
TOTAL FIXED ASSETS		**5,793**	**6,325**	**5,989**	**6,526**
Current assets					
Current receivables					
Accounts receivable- trade		84	53	67	34
Receivables from subsidiaries		0	—	12	13
Receivables from associated companies		7	6	7	6
Tax assets		0	1	—	—
Other receivables	17	1,295	846	1294	844
Prepaid expenses and accrued income	18	294	352	286	343
Total current receivables		**1,680**	**1258**	**1,667**	**1239**
Short-term investments	19	3,396	2,763	3,396	2,763
Cash and bank		1,756	1,959	1,551	1,776
Total cash and cash equivalents		**5,152**	**4,722**	**4,947**	**4,539**
TOTAL CURRENT ASSETS		**6,832**	**5,981**	**6,614**	**5,779**
TOTAL ASSETS		**12,626**	**12,306**	**12,603**	**12,305**

Balance sheet

Continuation

		GROUP		STATE-OWNED ENTERPRISE	
Million SEK	Note	31/12/2024	31/12/2023	31/12/2024	31/12/2023
EQUITY AND LIABILITIES					
Equity capital					
Restricted equity	20				
Public capital		202	202	202	202
Restricted reserves		318	310	252	252
Total restricted equity		**520**	**512**	**453**	**453**
Unrestricted equity	20				
Profit/loss brought forward		3,453	166	3,549	252
Public capital without required return		40	12	40	12
Profit/loss for the year	21	–2,736	51	–2,761	53
Total unrestricted equity		**757**	**229**	**828**	**317**
Total equity		**1,277**	**741**	**1,282**	**771**
Provisions					
Interest-bearing provisions					
Pension provisions	23	8,243	10,553	8,243	10,553
Non-interest-bearing provisions					
Other provisions	24	30	36	30	35
Total provisions		**8,274**	**10,589**	**8,274**	**10,588**
Long-term liabilities					
Interest-bearing liabilities					
Liabilities to leasing companies	25	1	1	1	1
Non-interest-bearing liabilities					
Other non-interest-bearing liabilities	26	1,841	108	1,841	108
Total long-term liabilities		**1,842**	**109**	**1,842**	**109**
Current liabilities					
Non-interest-bearing liabilities					
Advance payments		0	0	0	0
Accounts payable- trade		270	256	246	237
Liabilities to subsidiaries		0	0	30	25
Liabilities to associated companies		7	9	7	9
Other non-interest-bearing liabilities	22, 27	711	334	698	317
Accrued expenses and deferred income	28	247	268	225	249
Total current liabilities		**1,234**	**867**	**1,206**	**837**
TOTAL EQUITY AND LIABILITIES		**12,626**	**12,306**	**12,603**	**12,305**
Memorandum items					
Contingent liabilities	29	0	0	50	50
Pledged assets		None	None	None	None

Funds statement

		GROUP		STATE-OWNED ENTERPRISE	
Million SEK	Note	2024	2023	2024	2023
Operating activities					
Profit/loss after financial items		–2,734	52	–2,761	53
Adjustment for items not included in cash flow, etc.	30	3,683	1,423	3,686	1,412
		949	**1,475**	**925**	**1,465**
Tax equivalent		–1	4	—	—
Cash flow from current operations before changes to working capital		**948**	**1,479**	**925**	**1,465**
Cash flow from changes in working capital					
Change in current receivables		41	–147	38	–147
Change in current and long-term receivables in the charging scheme	30	234	–343	234	–343
Change in current liabilities		–105	15	–103	8
Change in current and long-term liabilities in the charging scheme	30	–232	–38	–233	–38
Cash flow from operating activities		**886**	**966**	**862**	**944**
Investment activities					
Acquisition of intangible fixed assets		–110	–77	–114	–78
Acquisition of tangible fixed assets		–367	–369	–369	–374
Investments in financial assets		–8	–2	—	—
Increase in other long-term receivables		1	–71	1	–71
Cash flow from investment activities		**–484**	**–519**	**–482**	**–523**
Financing activities					
Amortisation of loan liabilities		0	0	0	0
Increase in state equity with funds received from the state budget		28	5	28	5
Cash flow from financing activities		**27**	**0**	**0**	**0**
Cash flow for the year		**430**	**446**	**408**	**421**
Cash and cash equivalents at beginning of year		**4,722**	**4,276**	**4,539**	**4,118**
Cash and cash equivalents at year-end		**5,152**	**4,722**	**4,947**	**4,539**

Statement of appropriations

Appropriations (thousand SEK)	Opening carryover	Allocation for the year according to appropriation directions	Reallocated appropriations	Withdrawal	Total amount available	Expenditure	Closing carryover
Expenditure area 22 Communications							
22 01 001 002 Civil defence to LFV	20,600	97,357	—	–18,087	99,870	–96,373	3,498
22 01 017 001 Air Navigation Infrastructure	74,032	332,000	—	–51,032	355,000	–339,678	15,322
22 01 019 001 Unmanned Aviation	19,562	30,000	—	–19,562	30,000	–18,762	11,238
	114,194	**459,357**	**0**	**–88,681**	**484,870**	**–454,813**	**30,057**

Comments on balance sheet, funds statement and statement of appropriations

Unless otherwise stated, all amounts are reported in million SEK. Information in brackets refers to the previous year.

Fixed assets

Total intangible and tangible fixed assets as of 31 December 2024 amount to SEK 2,621 million (2,460). Investments for the year amounted to SEK 483 million (452), of which SEK 281 million (337) in the publicly funded operations Total Defence and Robust Air Traffic Service. The remainder is mainly in Air Navigation Services.

The investment outcome is SEK 16 million higher than planned according to the appendix to LFV's appropriation directions, which totalled SEK 467 million. There are minor deviations in some areas, including radar equipment, totalling SEK 21 million. The difference is mainly due to a shift both forwards and backwards in time between the years when facilities were completed and commissioned.

Long-term receivables and liabilities

Long-term receivables amount to SEK 3,107 million (3,808) and long-term other non-interest-bearing liabilities to SEK 1,841 million (108).

The long-term receivables and liabilities relating to the charging scheme as of 31 December 2024 are SEK 2,936 million and SEK 1,799 million respectively, with a net amount of SEK 1,137 million. The net long-term receivable has decreased by SEK 2,410 million, which is due to the way in which en-route and terminal charges are to be settled under the regulatory framework for the performance plans of the charging scheme.

The difference between invoiced revenue and compensation for each year, including different revenue adjustment items, is reported as long-term receivables and long-term liabilities, respectively. LFV accrues the recoverable deficit for the year and the previous years. The part expected to be settled within the next 12-month period is reported as current other receivables and other current non-interest-bearing liabilities, respectively.

From reference period 2 (RP2), there are receivables related to uncontrollable cost increases regarding pensions. Long-term receivables from RP2 will be settled over a period of nine years starting in 2021. Long-term receivables related to the first years of FP3, the pandemic years 2020–2021, will be settled over a period of seven years starting in 2023. Receivables and liabilities related to uncontrollable pension costs in RP3 are settled over a period of five years starting in 2025. Of the net long-term receivables as of 31 December 2024, SEK 618 million (773) relates to RP2 and SEK 519 million (2,838) to RP3.

Other long-term receivables, in addition to receivables in the charging system, amount to SEK 171 million (196) and relate to prepaid rents for a 10-year period to the extent that they relate to the period after 31 December 2024. The current portion, SEK 24 million (24), is recognised as a prepaid expense.

Current receivables

Current receivables amount to SEK 1,680 million (1 258). This item is mainly attributable to the current portion of receivables under the charging system, which has increased by SEK 444 million compared with the beginning of the year. The settlement of these current receivables is done by adding this to the 2025 fee for en route and Terminal Arlanda and invoiced to the users of Swedish airspace in 2025.

Cash and cash equivalents

Cash and cash equivalents on the balance sheet date amount to SEK 5,152 million (4,722). An increase of SEK 430 million (446) since the start of the year. The positive cash flow is explained by higher invoicing of the charge to users due to more service units and higher fees. Of cash and cash equivalents, SEK 3,396 million (2,763) is invested in commercial paper maturing in 2025. Investments are made in accordance with LFV's Financial Policy.

Provisions for pensions

As of 31 December, provisions for pensions, including special payroll tax amount to SEK 8,243 million (10,553). The change for the year consists of accrued pension benefits of SEK 545 million (674), pensions paid including payroll tax SEK –181 million (–152), interest/indexation SEK 570 million (538) and changed calculation bases of SEK-3,244 million (58). Reported liability on the balance sheet date amounts to the pension obligation calculated by the National Government Employee Pensions Board in accordance with the current year's liability bases.

Tax and dividends

Tax equivalent for the year amounts to SEK –2 million (0). According to the 2024 appropriation directions, the Government does not intend to withdraw any dividend for the year. Therefore, no dividend is proposed.

Profitability and solidity

The Government is not imposing any profitability or solvency requirements during 2021–2024 to enable LFV to address the negative effects of the Coronavirus pandemic. Previously, LFV's financial targets were that the return on equity after tax equivalent over a business cycle should amount to 4 percent and the equity/assets ratio should correspond to 15 percent in the long term. The profitability is negative (7 percent) and the solidity amounts to 10 percent (6).

Funds statement

Cash flow for the year amounts to SEK 430 million (446). Cash flow from operating activities amounts to SEK 886 million (966). The net change in receivables and liabilities in the charging scheme amounts to SEK 2 million (–381), i.e. the change in both current and long-term receivables and other non-interest-bearing liabilities attributable to the charging scheme for en-route and terminal charges. The increase in liabilities to the charging scheme for the year relating to revenue adjustments attributable to the 2024 actuarial revaluation of the pension liability is an exceptional item and non-cash for the year and has therefore been recognised in non-cash items. Cash flow from investment activities is SEK –484 million (–519). Cash flow from financing activities is SEK 28 million (0).

Statement of appropriations

LFV disposes of appropriations through three framework grants within expenditure area 22: Civil Defence, Air Navigation Infrastructure and Unmanned Aviation. Total amount available for the year was SEK 485 million (466). LFV allocates funds for administrative and other preparedness and civil defence expenditure in the field of transport and expenditure on investments in certain infrastructure for air navigation services. The third appropriation, Unmanned Aviation, may be used for LFV's work and services for unmanned aviation.

The scope of the publicly funded activities increased. Expenditure on Air Navigation Infrastructure is higher than last year and amounts to SEK 340 million (277). Previous and current year's investments in Robust air traffic service entail increased depreciation and operating costs, and new initiatives and activities have also been implemented during the year to increase the robustness of air navigation services. The outcome is slightly lower than the allocated framework and budget. The outcome for Civil Defence, SEK 96 million (64), is also higher than last year.

Appropriations related to investments in the framework of Air Navigation Service (RF) are allocated in line with depreciations. Contingency assets and other investments related to total defence work are financed by the appropriation Civil Defence at the time of acquisition.

The year's expenses for work with unmanned aviation amount to SEK 19 million (10). An increase compared to 2023.

Accounting and valuation principles

Accounting principles

LFV's accounts for the state-owned enterprise and the Group comply with the Ordinance (SFS 2000:605) concerning the Annual Reports and Budget Documentation (FÅB) and ESV's regulations and general guidance, as well as the requirement for Generally Accepted Accounting Principles pursuant to the Bookkeeping Ordinance (SFS 2000:606). To the extent that there is no standard directly targeting public authorities and government agencies, LFV applies, as reported in the respective sections below, the valuation rules set out in the Swedish Accounting Standards Board's General Guidelines BFNAR 2012:1 Annual Report and Consolidated Accounts (K3).

LFV's subsidiaries draw up annual reports in accordance with the Swedish Annual Accounts Act and BFNAR 2012:1 Annual Report and Consolidated Accounts (K3).

The accounting principles and the formatting of the income statement and balance sheet in general are unchanged compared to the previous year.

Format and supplementary information

Income statements and balance sheets and funds statements have been formatted in accordance with the rules applying to state-owned enterprises and state-owned enterprise groups. As of 2020, reporting of actuarial revaluation of the pension liability has, where applicable, been added to the income statement. LFV thereby reports comprehensive income after revaluation of pension liabilities.

Consolidated accounts

LFV draws up consolidated accounts. The consolidated accounts include the state-owned enterprise and the group companies in which the state-owned enterprise directly or indirectly holds more than half of the votes for all shares or otherwise exercises a controlling influence (subsidiaries) and the other companies (associated companies) in which the state-owned enterprise has a significant influence as a result of shareholdings. All intra-group balances are eliminated upon consolidation.

Principles for the Group's reporting of deferred tax are described below under the heading Taxes and tax equivalent.

Subsidiaries

Companies in which LFV directly or indirectly holds more than half of the votes for all shares or otherwise has a controlling influence are classified as subsidiaries. Subsidiaries are consolidated in the consolidated accounts in accordance with the acquisition method. The acquisition date is the date on which the controlling influence is obtained.

Associated companies

Companies in which the state-owned enterprise or LFV Holding AB, through holding more than 20 percent and no more than 50 percent of the votes, can exercise significant influence are reported as associated companies. Associated companies are recognised using the equity method in the consolidated accounts.

Areas of operation and geographical markets

LFV's operations consist of four main fields of activity: Air Navigation Services, Total Defence and Robust Air Traffic Service, Other commercial activities, and Research and Innovation. Operations are conducted almost exclusively in Sweden. A minor part originates from markets outside Sweden.

Revenue recognition

Revenue are recognised to the extent it is likely that the economic benefits will accrue to the Group, and these benefits can be reliably calculated. Intra- group turnover is eliminated in the consolidated accounts. The principles applied are essentially consistent with BFNAR 2012:1 (K3), Chapter 23 Revenue, which the subsidiaries apply for revenue recognition. Revenue are recognised at the fair value of what has been received or will be received less discounts given.

Appropriations are reported and settled in accordance with the Appropriations Ordinance (SFS 2011:223). With respect to investments within the scope of publicly funded activities, appropriations are settled at the rate of depreciation, except for contingency assets and stockpile, which are funded by appropriations at the time of acquisition.

Grants are recognised as income upon receipt if the purpose of the grant is for it to be used by LFV and if there is no repayment obligation or if the probability of repayment obligation is small. Grants that are subject to repayment obligations are also recognised as revenue if such obligation arises only if the state-owned enterprise does not comply with the conditions and regulations of the grant in question or if something unexpected occurs that disrupts the conditions for the grant. Unused grants are accrued to cover future costs and are recognised under the item Other current liabilities.

Interest and dividends are recognised as revenue when it is likely that the Group will receive the financial benefits associated with the transaction and that the income can be reliably calculated

Valuation of ongoing service assignments

For service assignments on current account, the income attributable to a completed service assignment is recognised as revenue when the services are rendered and/or materials are delivered or used.

For fixed-price service assignments, the income and expenditure attributable to a completed service assignment are recognised as revenue and cost, respectively, in relation to the degree of completion of the assignment on the balance sheet date (successive profit settlement). An assignment's degree of completion is determined by comparing expenditure incurred at the balance sheet date with estimated total expenditure. When the outcome of an assignment cannot be calculated with reasonable certainty, revenue is recognised only to the extent equivalent to the expenditure incurred for the assignment that are likely to be reimbursed by the purchaser. Known or anticipated losses are immediately recognised as a cost.

General valuation principles

Unless otherwise stated below, assets, liabilities and provisions have been valued at cost of acquisition.

Fixed assets

Intangible fixed assets

Expenditure on development of significant value to the operations in coming years is recorded as an intangible fixed asset, provided all the conditions specified in the regulations exist. LFV reports expenditure for purchased licenses and other software whose useful life is estimated to exceed three years and externally acquired materials and services for the development and production of intangible assets as intangible assets when they otherwise meet the criteria for being recognised as assets.

Expenditure for internally generated development (Work performed by the company for its own use and capitalised) is added to the cost of acquisition when the criteria for capitalisation are otherwise met.

Research expenditure are not in any case recorded as a fixed asset.

Straight-line depreciation is made according to plan throughout the asset's useful life. The useful life of an intangible fixed asset is more than five years in cases where it can be determined with a reasonable degree of certainty that the useful life is longer, as is mainly the case for operational air traffic management systems and goodwill.

Tangible fixed assets

Tangible fixed assets are valued at their acquisition value with a deduction for planned depreciation. Expenses for time spent in production of fixed assets are added to the acquisition value. Where appropriate, write-downs are performed in the manner indicated below. Planned depreciation is calculated by accruing the acquisition value linearly over the course of the estimated useful life.

Depreciation begins when an asset is ready to be used for its intended purpose. When an asset includes significant components with different useful lives, the rules on so-called component depreciation are applied. Depreciation periods are continuously reassessed.

Ongoing investment projects related to tangible fixed assets are reported under the heading Construction in progress. The item also includes advance payments to suppliers relating to tangible fixed assets.

Depreciation according to plan:	
Software rights and other intangible assets	3–12 years
Installations in the field	15–30 years
Buildings	15–30 years
Maintenance expenses on third-party property	5– 10 years
Electrical installations	5–20 years
Telecommunications equipment	4–15 years
Vehicles, machinery and equipment	3-15 years
Contingency assets	3–20 years
Stockpile	-- years
Leased assets	3-5 years

When there are indications that an asset has decreased in value, the need for write-downs is assessed using ESV's general guidance, Chapter 5, Section 5, Write-downs.

Leasing

Leasing is classified as either financial or operational leasing. Agreements classified as financial leasing, mainly vehicles, are reported as fixed assets with a nominal cost of acquisition with deduction for planned depreciation, and obligations to make future lease payments are recognised as liabilities. Operating lease expenses are expensed on a straight-line basis over the lease term.

Financial instruments

Financial instruments primarily held to generate yield or appreciation are valued at fair value unless otherwise indicated below. The fair value is determined based on the market value of the instrument. The change in value since the previous balance sheet date is reported in the income statement.

Financial instruments not held to generate yield or appreciation are valued at amortised cost using the effective interest method, with the exception of shares in wholly and partly owned companies, financial guarantee contracts, and leasing agreements.

The following financial instruments may not be valued at fair value:

1. financial instruments held to maturity
2. loan claims and other claims arising from the activities and that are not held for trading purpose
3. shares and participations in wholly or partly owned companies
4. liabilities, with the exception of liabilities included as part of a trading portfolio

Financial instruments held to maturity are financial assets and financial liabilities with fixed or determinable payments and fixed maturities and which the Group intends to keep until maturity. Loan claims and other claims are financial assets with fixed or determinable payments but that are not derivative instruments. Amortised cost is the amount at which a financial asset or financial liability is recognised after acquisition, taking into account:

- Accrual of accrued interest using the effective interest method
- repayment of principal
- any write-downs

A financial asset or a financial liability is recognised in the balance sheet when the Group becomes a party to the contractual terms of the financial instrument; independent sales are recognised each trading day.

Accounts receivable - trade

Accounts receivable are recorded with the amount with which they are expected to be received. Provision for expected risk of loss relating to outstanding accounts receivable is made following individual assessment.

Receivables and liabilities in foreign currencies

Monetary receivables and liabilities in foreign currency are converted at the exchange rate on the balance sheet date. Hedged monetary receivables and liabilities are recognised based on the hedged rate.

Non-monetary receivables and liabilities are recognised at the rate at the time of acquisition. Revaluation of non-monetary items in foreign currency is recognised at the exchange rate on the day of the revaluation.

Exchange rate differences are recognised in the income statement for the financial year in which they arise. Exchange gains are recognised as financial revenue and exchange losses as financial costs under the heading where the difference occurred.

Public capital/equity

Non-restricted equity includes public capital without required return, which refers to appropriation funds that the public authority has used to fund fixed assets.

Provisions and contingent liabilities

A provision is defined as a liability of an uncertain amount and/or uncertain date when it will be settled. A provision is reported in the balance sheet when:

1. the Group has an obligation (legal or constructive) as a result of a past event
2. an outflow of resources is likely to be required to settle the obligation
3. a reliable estimate of the amount can be made.

Restructuring provisions are made when there is an adopted and detailed restructuring plan in place and the concerned parties have been notified. Future commitments regarding agreements with employees concerning occupational or partial pensions, paid leave of absence, or those who have been made redundant due to a shortage of work where a future commitment through the Swedish Job Security Foundation may be invoked are also recognised under Provisions.

The Group discounts obligations that are expected to be settled after more than 12 months. The increase in the provision due to the passing of time is recorded as an interest expense.

Pensions

As of 1 January 2016, an occupational pension agreement applies to government employment, PA 16, which consists of two sections. Section 1 is a wholly defined-contribution plan and applies to employees born in 1988 and later. Section 2 is a defined-benefits plan and to some extent a defined-contribution plan. Defined-benefits pensions in accordance with PA 16 section 2 apply to employees born from 1943 to 1973 or employees with an annual income of not less than 7.5 times the income base amount (2023 SEK 571,500; 2023 SEK 557,250).

Persons born before 1943 and with a retirement age of 65 years are covered by PA-91. For air traffic controllers, PA-91 applies if they were born before 1948.

The pension liability includes defined-benefits retirement pension, survivor's pension, disability pension, and temporary retirement pension (60–65 years) for air traffic controllers. With the introduction of PA16, the exception for temporary retirement pensions from age 60 does not apply for air traffic controllers born in 1988 or later.

The pension liability is calculated by the National Government Employee Pensions Board (SPV) using the safeguarding bases and means that earned pension rights are discounted to present value. The calculation is based on the current interest rate in accordance with SPV's board of directors' decision on actuarial bases for calculating pension liability. The adopted gross interest rate is calculated by Swedish Financial Supervisory Authority as an average of the interest rate for long-term treasury inflation protected securities for the period 1 October to 30 September of the previous year.

The defined-benefits part is adjusted upwards annually with the change in the price base amount.

Valuation is made according to the current year's calculation basis. The present value of the pension liability as of 31 December 2024 has been calculated using the 2024 calculation bases. Gross interest is 0.5 percent less overheads of 0.1 percent, i.e. a net interest rate of 0.49 percent. The net present value of the pension liability as of 31 December 2022 was calculated using the 2022 calculation bases with a gross interest rate of –1.5 and a net interest rate of –1.51 percent. The impact of actuarial revaluations of the pension liability in 2024 amounts to SEK 3,244 million (2023: SEK-57 million) including special payroll tax.

According to ESV's regulations and general guidance for the Ordinance (SFS 2000:605) concerning the Annual Reports and Budget Documentation, Chapter 4, Section 2, this effect is recognised directly against non-restricted equity instead of in the income

statement. LFV has also chosen to present actuarial revaluation of the pension liability as an addendum to the income statement.

Provision for the pension liability for earned pension benefits and interest accruing from the liability are expensed. The interest portion is recognised under financial revenue and costs. The interest portion includes the value hedging of pension benefits (annual indexation).

The pension liability includes commitments regarding both active staff and pensioners. Non-vested commitments regarding staff with an earlier retirement age than 65 are fully included in the liability, as these pension provisions are expected to be fully utilised. The state-owned enterprise pays special payroll tax on pensions paid. Provision for special payroll tax has therefore been recognised as pension liabilities at the end of the financial year. LFV's pension obligations, as set out above, are recognised under Provisions.

Contingent liabilities

Obligations resulting from past events that are not recognised as liabilities or provision because the size of the obligation cannot be calculated with sufficient reliability, or it is unlikely that an outflow of resources will be required to settle the obligation, are recognised as contingent liabilities.

Potential obligations resulting from past events, the existence of which is confirmed only by the occurrence or absence of one or more uncertain future events, which are not fully within the Group's control, are also recognised as contingent liabilities.

Taxes and tax equivalence and VAT

LFV's subsidiaries report current tax and thus pay income tax. The state-owned enterprise LFV is not liable for income tax, but LFV applies Chapter 10 of ESV's Special provisions for public utilities, and complies with the Government's regulations on so-called tax equivalent. This means that the public enterprises must pay to the State an amount corresponding to the income tax that would have been paid if the activities had been conducted in the form of a limited company. The tax rate is 20.6 percent.

The current tax equivalent for the year is calculated based on the profit/loss reported in the consolidated financial statements, with deduction for tax allocations corresponding to the balance sheet allocations that limited companies can use, with supplements for non-deductible items and non-taxable revenue. Deductions are also made for the income tax paid by the subsidiaries. The final amount of this year's tax equivalent to be paid is determined by the Government in connection with the adoption of LFV's annual report.

Deferred tax is reported on differences between recognised and taxable values, loss carryforwards and temporary differences if it is probable that they will be paid. Deferred tax assets on loss carryforwards are only recognised if it is probable that they will be able to be used against taxable profits in the future.

LFV pays special payroll tax on pension costs and is liable to pay tax under the VAT Act. As of 2009, LFV is not entitled to deduct VAT attributable to the exercise of official authority, referring to LFV's charging of air navigation fees. However, LFV receives compensation for input VAT, pursuant to the Ordinance (SFS 2002:831) concerning public authorities' rights to compensation for input VAT.

Profitability and solidity

Profitability is calculated as the profit/loss for the year after tax equivalent divided by average equity. Solidity is calculated as equity divided by total assets on the balance sheet date.

Other

The limit for accruals in the annual accounts of deferred and accrued income and expenses, respectively, amounts to SEK 100,000.

Regarding rounding of amounts stated in the annual report, the figures reported in tables and graphs have in some cases been rounded. This means that the sum of these does not always add up to the amount stated. In texts and tables, figures between 0 and 0.5 are shown as 0. A dash indicates a missing value.

Notes

Amounts are in million SEK unless otherwise stated.

Note 1 Aviation revenue

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Route charges	–360	2,146	–360	2,146
Terminal fees	–39	186	–39	186
Remuneration for air navigation service	363	549	363	549
Total	**–36**	**2,880**	**–36**	**2,880**

Note 2 Other operating revenue

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Rents and leases	6	6	6	6
Commercial service	152	161	70	81
Grants received	106	107	106	107
Service exports	4	7	—	—
Other	2	5	1	5
Total	**270**	**285**	**183**	**198**

The group companies' share of the state-owned enterprise's other operating income, 7.3% (7.0%).

Note 3 Operating income by area of operation

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Air Navigation Service	2,682	2,936	2,694	2,961
Less: exceptional items impacting comparability	–2,629	—	-2,629	—
Total Defence and Robust Air Navigation Service	408	336	408	336
Research and innovation	43	49	43	49
Other commercial activities	240	263	118	127
Total operating revenue	**744**	**3,584**	**635**	**3,474**

Information regarding the funding of the various branches of the business reported in *'LFV operates in four areas'*, pp. 22–23, where detailed descriptions of the branches of the business are provided.

Note 4 Staff costs and information about staff, Director-General, Board of Directors, and auditors

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Salaries	1,093	1,036	975	929
Payroll overhead	984	1,108	936	1,064
Other staff costs	46	32	39	25
Total	**2,123**	**2,177**	**1,950**	**2,018**
Payroll overhead includes pension costs, including payroll tax of	639	775	627	764

SALARIES AND COMPENSATION

	Boards of Directors, the Director-General and Managing Directors		Other employees	
	2024	2023	2024	2023
State-owned enterprise	5	4	970	925
Subsidiaries	2	2	117	105
Total Group	**6**	**6**	**1,087**	**1,030**

SALARIES/FEES FOR THE BOARD OF DIRECTORS AND DIRECTOR-GENERAL (IN SEK)

Ann Persson Grivas	240101–241231	1,952,517
Catharina Elmsäter-Svärd	240101–241231	110,572
Anders Ehrling	240701–241231	20,118
Ann-Christine Hvittfeldt	240101–241231	40,456
Cecilia Looström	240101–241231	40,546
Per Nilsson	240101–240630	20,338
Johan von Sydow	240101–241231	40,576
Robin Teigland	240101–240630	20,218
Jonas Wikman	240101–241231	40,336
Mats Wikström	240701–241231	20,238
Christian Axelsson	240101–241231	942,057
– of which board member compensation	240101–241231	40,456
David Johansson	240101–241231	1,277,343
– of which board member compensation	240101–241231	40,466

SICK LEAVE, %

	STATE-OWNED ENTERPRISE	
	2024	2023
Total sick leave as a proportion of normal working hours	2.66	2.96
Percentage of total sick leave representing continuous absence	54.41	50.55
Sick leave distributed by gender:		
Men	1.63	1.79
Women	4.16	4.63
Sick leave distributed by age group:		
29 years or younger	1.94	2.09
30–49 years	1.87	2.26
50 years or older	3.46	3.71

Note 5 Miscellaneous external costs

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Resale costs	85	73	1	2
Property and rent expenditures	109	102	95	90
Materials, maintenance, transport	279	249	270	238
Travel expenses	32	30	28	27
External services	99	89	277	238
Administrative costs	63	80	61	73
Total	**668**	**623**	**732**	**668**

The group companies' share of the state-owned enterprise's various external costs, 22.5% (20.3%).

REMUNERATION TO AUDITORS

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Swedish National Audit Office				
- Audit engagement	0	1	0	1
PwC				
- Audit engagement	0	0	—	—
E & Y				
- Audit engagement	0	1	0	1
Aider Accounting				
- Audit engagement	0	0	—	—
Total	**1**	**2**	**1**	**2**

Note 6 Depreciations and write-downs

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Intangible assets	105	170	105	93
Buildings	15	15	15	15
Maintenance expenses on third-party property	3	3	3	3
Field installations	0	0	0	0
Electrical installations	2	3	2	3
Telecommunications equipment	177	140	179	142
Vehicles, machinery and equipment	14	8	13	7
Contingency equipment	0	0	0	0
Stockpile	0	0	0	0
Leased facilities	0	0	0	0
Construction in progress	—	21	—	21
Total	**317**	**360**	**319**	**285**

Note 7 Income from investments in associates

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Associated companies:				
Entry Point North AB				
Share in associated companies' profit/loss	18	9	—	—
Total	**18**	**9**	**—**	**—**

Note 8 Income from participations in Group companies

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Capital gain from divestment of Group company (LFV Norway)	—	0	—	—
Write-down of participations in subsidiaries (LFV Holding AB)	—	—	—	65
Total	**—**	**0**	**—**	**65**

Note 9 Interest income

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Interest income, banks	19	48	14	43
Interest income from short-term investments	161	106	161	106
Interest income from current receivables	0	0	0	0
Other financial income	1	4	0	3
Total	**182**	**158**	**175**	**153**

Note 10 Interest expenses and similar items

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Interest portion of pension cost	570	538	570	538
Interest expenses for financial leasing	0	0	0	0
Other financial costs	1	1	0	1
Total	**570**	**539**	**570**	**539**

Note 11 Tax/tax equivalent on profit/loss for the year

	GROUP	
	2024	2023
Tax equivalent for the year		
Group profit/loss before tax	–2,734	52
Tax reported for the year	–2	–1
– of which tax in subsidiaries	–2	–1
– of which deferred tax on deductible tax losses and taxable temporary differences	—	—
Profit/loss after tax	–2,738	**51**

Deferred tax assets on loss carry-forwards have not been recognised at any value in the 2023 and 2024 annual accounts.

Note 12 Intangible fixed assets

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
GOODWILL				
Opening cost of acquisition	193	193	—	—
Acquisitions for the year	—	—	—	—
Closing acquisition value	**193**	**193**	**—**	**—**
Depreciations and write-downs brought forward	–193	–116	—	—
Depreciations for the year	—	–11	—	—
Write-downs for the year	—	–66	—	—
Depreciations and write-downs carried forward	**–193**	**–193**	**—**	**—**
Planned residual value carried forward	**—**	**—**	**—**	**—**

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
SOFTWARE RIGHTS AND OTHER INTANGIBLE FIXED ASSETS				
Opening cost of acquisition	1,130	1,053	1,139	1,061
Acquisitions for the year	105	77	109	78
Sales/disposals	–1	—	–1	—
Reclassifications	26	—	26	—
Closing acquisition value	**1,261**	**1,130**	**1,273**	**1,139**
Depreciations and write-downs brought forward	–565	–472	–566	–473
Depreciations for the year	–105	–93	–105	–93
Sales/disposals	0	—	0	—
Reclassifications	–21	—	–21	—
Depreciations and write-downs carried forward	**–691**	**–565**	**–692**	**–566**
Planned residual value carried forward	**570**	**565**	**581**	**573**

The useful life of an intangible fixed asset is more than five years in cases where it can be determined with a reasonable degree of certainty that the useful life is longer, as is mainly the case for operational air traffic management systems and goodwill.

Note 13 Intangible fixed assets

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
BUILDINGS				
Opening cost of acquisition	594	579	594	579
Acquisitions for the year	5	15	5	15
Sales/disposals	–1	0	–1	0
Closing acquisition value	**598**	**594**	**598**	**594**
Depreciations and write-downs brought forward	–372	–358	–372	–358
Depreciations for the year	–15	–15	–15	–15
Sales/disposals	1	0	1	0
Depreciations and write-downs carried forward	**–386**	**–372**	**–386**	**–372**
Planned residual value carried forward	**212**	**222**	**212**	**222**

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
MAINTENANCE EXPENSES ON THIRD-PARTY PROPERTY				
Opening cost of acquisition	28	24	27	23
Acquisitions for the year	0	4	0	4
Sales/disposals	—	—	—	—
Closing acquisition value	**28**	**28**	**27**	**27**
Depreciations and write-downs brought forward	–9	–6	–8	–5
Depreciations for the year	–3	–3	–3	–3
Sales/disposals	—	—	—	—
Depreciations and write-downs carried forward	**–13**	**–9**	**–11**	**–8**
Planned residual value carried forward	**15**	**18**	**15**	**18**

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
FIELD INSTALLATIONS				
Opening cost of acquisition	3	2	3	2
Acquisitions for the year	5	0	5	0
Sales/disposals	—	—	—	—
Closing acquisition value	**8**	**3**	**8**	**3**
Depreciations and write-downs brought forward	0	0	0	0
Depreciations for the year	0	0	0	0
Sales/disposals	—	—	—	—
Depreciations and write-downs carried forward	**–1**	**0**	**–1**	**0**
Planned residual value carried forward	**7**	**2**	**7**	**2**

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
ELECTRICAL INSTALLATIONS				
Opening cost of acquisition	72	77	72	77
Acquisitions for the year	—	—	—	—
Sales/disposals	—	–5	—	–5
Closing acquisition value	**72**	**72**	**72**	**72**
Depreciations and write-downs brought forward	–64	–66	–64	–66
Depreciations for the year	–2	–3	–2	–3
Sales/disposals	—	4	—	4
Depreciations and write-downs carried forward	**-66**	**-64**	**-66**	**-64**
Planned residual value carried forward	**6**	**8**	**6**	**8**

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
TELECOMMUNICATIONS EQUIPMENT				
Opening cost of acquisition	2,144	1,949	2,156	1,954
Acquisitions for the year	374	242	384	249
Sales/disposals	–62	–47	–62	–47
Reclassifications	–26	–	–26	–
Closing acquisition value	**2,431**	**2,144**	**2,452**	**2,156**
Depreciations and write-downs brought forward	–1,003	–910	–1,005	–910
Depreciations for the year	–174	–141	–179	–142
Sales/disposals	62	47	62	47
Reclassifications	21	–	21	–
Depreciations and write-downs carried forward	**–1,094**	**–1,003**	**–1,101**	**–1,005**
Planned residual value carried forward	**1,336**	**1,141**	**1,351**	**1,151**

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
VEHICLES, MACHINERY, ETC.				
Opening cost of acquisition	90	52	76	40
Acquisitions for the year	16	38	12	36
Sales/disposals	–5	0	–5	0
Closing acquisition value	**101**	**90**	**82**	**76**
Depreciations and write-downs brought forward	–46	–39	–36	–29
Depreciations for the year	–14	–8	–13	–7
Sales/disposals	5	0	5	0
Depreciations and write-downs carried forward	**–55**	**–46**	**–44**	**–36**
Planned residual value carried forward	**46**	**44**	**38**	**40**

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
CONTINGENCY EQUIPMENT				
Opening cost of acquisition	1	1	1	1
Acquisitions for the year	0	0	0	0
Sales/disposals	—	—	—	—
Closing acquisition value	**1**	**1**	**1**	**1**
Depreciations and write-downs brought forward	0	0	0	0
Depreciations for the year	0	0	0	0
Write-downs for the year	—	—	—	—
Sales/disposals	—	—	—	—
Depreciations and write-downs carried forward	**0**	**0**	**0**	**0**
Planned residual value carried forward	**1**	**1**	**1**	**1**

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
LEASED FIXED ASSETS				
Opening cost of acquisition	2	3	2	3
Acquisitions for the year	—	—	—	—
Sales/disposals	0	–1	0	–1
Closing acquisition value	**1**	**2**	**1**	**2**
Depreciations and write-downs brought forward	–1	–2	–1	–2
Depreciations for the year	0	0	0	0
Sales/disposals	0	1	0	1
Depreciations and write-downs carried forward	**–1**	**–1**	**–1**	**–1**
Planned residual value carried forward	**1**	**1**	**1**	**1**

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
STOCKPILE				
Opening cost of acquisition	3	2	3	2
Acquisitions for the year	3	0	3	0
Sales/disposals	—	—	—	—
Closing acquisition value	**5**	**3**	**5**	**3**
Depreciations and write-downs brought forward	0	0	0	0
Depreciations for the year	0	0	0	0
Sales/disposals	—	—	—	—
Depreciations and write-downs carried forward	**–1**	**0**	**–1**	**0**
Planned residual value carried forward	**5**	**2**	**5**	**2**

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
CONSTRUCTION IN PROGRESS				
Opening cost of acquisition	456	408	466	418
Reclassifications	–5	—	–5	—
Acquisitions for the year	543	374	543	374
Write-downs for the year	—	–21	—	–21
Completed new installations	–573	–304	–573	–305
Closing acquisition value	**422**	**456**	**431**	**466**

Note 14 Holdings in subsidiaries

	CO. REG. NO.	NUMBER OF SHARES:	PERCENTAGE OF SHARE CAPITAL	NOMINAL VALUE	COST OF ACQUISITION	BOOK VALUE 2024	BOOK VALUE 2023
Direct holdings							
Shares in group company, LFV Holding AB	556374-8432	75,000	100	75	75	234	234
Indirect holdings (via LFV Holding AB)							
Shares in group companies							
LFV Aviation Consulting AB	556193-1469	3,000	100	3	—	—	—
Aviseq Critical Communication AB	559235-1083	25,000	100	—	—	—	—

Note 15 Participations in associated companies

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Accumulated profit shares, etc.				
At the start of the year	57	55	—	—
Share of net profit/loss of associated companies	18	9	—	—
Change of participations in associated companies' equity	–10	–7		
Total	**65**	**57**	**—**	**—**
Book value	**65**	**57**	**—**	**—**

Holdings in associated companies – Breakdown of the state-owned enterprise's and the group's holdings in associated companies

	CO. REG. NO.	NUMBER SHARES	PERCENTAGE OF SHARE CAPITAL	NOMINAL VALUE	SHARE OF ADJUSTED EQUITY	BOOK VALUE	
Breakdown of the state-owned enterprise's and the group's holdings in associated companies						GROUP	STATE-OWNED ENTERPRISE
Indirect holdings (via LFV Holding AB)							
Entry Point North AB	556682-8272	100,000	33	—	65	65	—
						65	**—**

Note 16 Other long-term receivables

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Long-term receivables in the charging scheme				
At the start of the year	3,611	3,348	3,611	3,348
Additional items Eurocontrol	418	916	418	916
Settlement Eurocontrol	–1,093	–653	–1,093	–653
Non-current receivables in the levy scheme at year-end	**2,936**	**3,611**	**2,936**	**3,611**
Other long-term receivables				
At the start of the year	196	125	196	125
Change in other long-term receivables, prepaid rent	–26	72	–26	72
Other long-term receivables at year-end	**171**	**196**	**171**	**196**
Total balance carried forward	**3,107**	**3,808**	**3,107**	**3,808**

Note 17 Other receivables

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Current share of receivables via the charging scheme (Eurocontrol)	1,249	805	1,249	805
VAT recoverable	41	36	41	35
Other current receivables	5	6	4	4
Total	**1,295**	**846**	**1,294**	**844**

Note 18 Prepaid expenses and accrued income

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Prepaid rent	26	27	24	24
Miscellaneous prepaid expenses	39	53	38	52
Accrued interest revenue	16	51	16	50
Accrued revenue in the charging scheme	163	163	163	163
Other accrued revenue	50	59	45	54
Total	**294**	**352**	**286**	**343**

Note 19 Short-term investments

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Commercial paper	3,396	2,763	3,396	2,763
Total	**3,396**	**2,763**	**3,396**	**2,763**

Note 20 Equity

	GROUP			STATE-OWNED ENTERPRISE		
	Public capital	Restricted reserves	Non-restricted capital	Public capital	Restricted reserves	Non-restricted capital
Amount at the start of the year according to the adopted balance sheet	**202**	**310**	**229**	**202**	**252**	**317**
This year's change in public capital without required return			28			28
Transfer between unrestricted and restricted equity		8	-8			
Actuarial revaluation of pension liability			3,244			3,244
Profit/loss for the year			–2,736			–2,761
Amount at year-end	**202**	**318**	**757**	**202**	**252**	**828**
Total closing equity			**1,277**			**1,282**

Note 21 Profit for the year by business area

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Air Navigation Service	–144	53	–135	77
Less: revenue adjustments affecting comparability after actuarial revaluation of the pension liability for the year*	–2,629	—	–2,629	—
Total Defence and Robust Air Navigation Service**	—	—	—	—
Research and innovation	–5	–2	–5	–2
Other commercial activities	43	1	8	–22
Tax/tax equivalent	–2	–1	—	—
Actuarial revaluation of pension liability*	3,244	–58	3,244	–58
Comprehensive income after revaluation of the pension liability	**508**	**–6**	**483**	**–5**

* The negative revenue adjustments are offset by the positive effect of the actuarial revaluation of the pension liability.

** Revenue from grants is equivalent to the expenses for the year in the publicly funded activities.

Note 22 Settlement with central government

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Appropriations in non-interest-bearing funds				
Opening balance	4	–3	4	–3
Recognised against appropriations (+)	19	10	19	10
Funds related to transfers etc. paid to non-interest-bearing funds(-)	–21	–3	–21	–3
Receivables relating to appropriations in non-interest-bearing funds	**1**	**4**	**1**	**4**
Appropriations in interest-bearing funds				
Opening balance	–95	–126	–95	–126
Recognised against appropriations (+)	436	341	436	341
Appropriations credited to the interest account (–)	–429	–435	–429	–435
Repayment of grant funds	69	125	69	125
Liabilities related to appropriations in interest-bearing funds	**–19**	**–95**	**–19**	**–95**
Total closing balance settlement with central government	**–18**	**–91**	**–18**	**–91**

Note 23 Pensions provisions

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
At the start of the year	10,553	9,436	10,553	9,436
Pension provision for the year	545	674	545	674
Pension payments for the year*	–181	–152	–181	–152
Indexation and interest	570	538	570	538
Change due to change in calculation bases	–3,244	58	–3,244	58
Total	**8,243**	**10,553**	**8,243**	**10,553**

* Payments including special payroll tax.

Note 24 Other provisions

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Restructuring costs	5	4	5	4
Other provisions	26	32	26	31
Total	**30**	**36**	**30**	**35**

Note 25 Liabilities to leasing companies

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Leasing companies	1	1	1	1
Total	**1**	**1**	**1**	**1**

Note 26 Other non-interest-bearing liabilities

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Security funds	37	34	37	34
Restructuing fund	4	5	4	5
Debt to Eurocontrol	1,799	69	1,799	69
Total	**1,841**	**108**	**1,841**	**108**

Note 27 Other non-interest bearing current liabilities

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Debt to the central government	18	91	18	91
Debt to Eurocontrol	475	0	475	0
Employee withholding taxes and employer's contributions	61	56	56	51
Other current liabilities	157	186	149	175
Total	**711**	**334**	**698**	**317**

Note 28 Accrued expenses and deferred income

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Salaries and compensation	5	14	—	12
Holiday pay liability	82	75	75	70
Social security contributions	29	46	28	44
Other accrued expenses	82	67	75	47
Deferred grants	38	45	38	45
Other deferred revenue	10	21	9	32
Total	**247**	**268**	**225**	**249**

Note 29 Contingent liabilities

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Guarantee for pension liabilities with LFV Airport Center AB	0	0	0	0
Guarantee in favour of group companies (framework for bank guarantees)	—	—	50	50
Total	**1**	**1**	**51**	**50**

LFV may issue guarantees for credits up to SEK 400 million (400) in favour of LFV Holding AB regarding financial commitments in the group of companies.

Note 30 Other information for the funds statement

Adjustment for items not included in cash flow, etc.

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Depreciations and write-downs	317	360	319	350
Pension provisions	934	1,059	934	1,059
Revenue adjustment in the charging scheme related to the actuarial revaluation of the pension liability for the year	2,438		2,438	—
Other provisions	–6	4	–5	3
Total	**3,683**	**1,423**	**3,686**	**1,412**

Change in current and long-term portion of receivables and liabilities in the charging scheme

	GROUP		STATE-OWNED ENTERPRISE	
	2024	2023	2024	2023
Change in current receivables	–440	–80	–440	–80
Change in long-term receivables	675	–263	675	–263
Total	**234**	**–343**	**234**	**–343**
Change in short-term non-interest-bearing liabilities	475	–42	475	–42
Change in long-term non-interest-bearing liabilities	–707	4	–707	4
Total*	**232**	**–38**	**232**	**–38**

* Excluding increase in liabilities in the charging scheme attributable to the revenue adjustment of SEK 2,438 million, which is included above under adjustment for items not included in cash flow, etc.

Dividend proposal

The profit/loss after tax for 2024 amounts to SEK –2,736 million. Comprehensive income after actuarial revaluation of the pension liability amounts to SEK 508 million. No dividend is proposed. Tax equivalent for the year amounts to SEK –2 million (0). Tax payable amounts to SEK 0 million.

We deem the internal governance and control at the state-owned enterprise to be satisfactory during the period covered by the annual report.

We certify that the annual report provides a true and fair picture of the organisation's results and of its costs, revenue, and LFV's financial position.

Norrköping, Sweden on 13 February 2025

Catharina Elmsäter-Svärd
CHAIR

Ann Persson Grivas
DIRECTOR-GENERAL

Ann-Christine Hvittfeldt

Cecilia Looström

Anders Ehrling

Mats Wikström

Johan von Sydow

Jonas Wikman

Christian Axelsson

David Johansson

Audit report for LFV 2024

Pursuant to Section 5 of the Act on Audit of State Activities etc. (SFS 2002:1022), the Swedish National Audit Office has carried out an audit of LFV's annual report for 2024, dated 2025-02-13.

The audit report contains a total of five statements. If none of these statements contains a reservation or dissenting opinion, it means that the Swedish National Audit Office considers that the report and underlying accounting records are reliable, the accounts are true and fair, and that the senior management's administration complies with applicable regulations and special decisions.

Report on the annual report and consolidated accounts

Statements

According to the Swedish National Audit Office, the Authority has

- drawn up the annual report and consolidated accounts in accordance with the Ordinance (SFS 2000:605) concerning the Annual Reports and Budget Documentation, instructions, appropriation directions, and government decisions specific to the Authority.
- in all material respects provided a true and fair view of the financial results, funding, and financial position of LFV and the Group as of 31 December 2024.
- submitted a directors' report and other information consistent with and supporting a true and fair view in the annual report as a whole.

Basis for opinions

The Swedish National Audit Office has conducted the audit in accordance with the International Standards of Supreme Audit Institutions (ISSAI) for financial auditing, and the Swedish National Audit Office's internal regulations.

- The Swedish National Audit Office's review of income statement and other information in the annual report, including senior management's assessment of internal governance and control (IFRF).
- The Swedish National Audit Office's review of senior management's administration as part of the annual report review (IFRLF).

Our responsibility according to these standards is described in greater detail in the section Auditor's responsibility. We are independent of the Authority in accordance with the ISSAI 130 Code of Ethics and have otherwise fulfilled our responsibilities in accordance with this Code of Ethics. We believe that the audit evidence we have obtained is sufficient and appropriate as a basis for the Swedish National Audit Office's statements.

Statement on senior management's compliance with applicable regulations for the use of appropriations and revenue

Based on our audit of the annual report, the Swedish National Audit Office considers that the Authority has, in all material respects, used appropriations and revenue in accordance with the purposes determined by the Riksdag and in compliance with applicable regulations.

Basis for opinion

The Swedish National Audit Office has conducted the audit in accordance with ISSAI for financial auditing and IFRLF. Our responsibility according to these standards is described in greater detail in the section Auditor's responsibility. We believe that the audit evidence we have obtained is sufficient and appropriate as a basis for the Swedish National Audit Office's statements.

Opinion on senior management's assessment of internal governance and control

In our audit of the annual report, nothing has emerged to indicate that the management in its assessment of internal governance and control has not complied with the Ordinance on Internal Governance and Control (SFS 2007:603).

Basis for opinion

The Swedish National Audit Office has conducted the audit in accordance with ISSAI for financial auditing as well as IFRF and IFRLF. Our responsibility according to these standards is described in greater detail in the section Auditor's responsibility. We believe that the audit evidence we have obtained is sufficient and appropriate as a basis for the Swedish National Audit Office's opinions.

Senior management's responsibility

The Authority's senior management is responsible for the Authority's activities and must ensure that they are conducted efficiently and in accordance with applicable law and the obligations arising from Sweden's membership of the European Union, that they are reported in a reliable and fair manner, and that the Authority is economical with public funds. This is set out in Section 3 of the Government Agency Ordinance (SFS 2007:515).

Management is also responsible for drawing up an annual report that provides a true and fair view in accordance with the Ordinance (SFS 2000:605) concerning the Annual Reports and Budget Documentation, instructions, appropriation directions, and other decisions specific to the Authority. Management is also responsible for ensuring that appropriations and revenue have been used in accordance with the provisions and conditions set out in regulations, appropriation directions, and other government decisions.

Management is also responsible for ensuring that internal governance and controls are in place to ensure that the annual report can be prepared free of material misstatements, whether due to irregularities or error. Management's responsibility includes providing an assessment of the Authority's internal governance and control. This is set out in the Ordinance (SFS 2000:605) concerning the Annual Reports and Budget Documentation.

Management is also responsible for ensuring that the Authority has a process for internal governance and control that works in a satisfactory manner. This is set out in the Inter-

nal Governance and Control Ordinance (SFS 2007:603). This process shall ensure that the Authority fulfils its tasks with reasonable certainty, achieves its objectives, and meets the requirements of Section 3 of the Government Agency Ordinance (SFS 2007:515).

In preparing the annual report, the Authority's senior management shall assume that the Authority shall continue as a going concern. They disclose, where applicable, deviations and the reasons for these deviations.

Auditor's responsibility

Our responsibility is to audit the annual report. Our objectives are to obtain a reasonable degree of certainty that the annual report as a whole is free from material misstatements, whether due to irregularities or errors, and to submit an audit report containing the Swedish National Audit Office's opinions. Reasonable certainty is a high degree of certainty, but not a guarantee that an audit carried out in accordance with ISSAI, IFRF and IFRLF will always detect a material misstatement if one exists. Misstatements may arise due to irregularities or errors and are considered material if they, individually or collectively, can reasonably be expected to influence the financial decisions users make based on the annual report.

As part of an audit in accordance with ISSAI, we exercise professional judgement and maintain professional scepticism throughout the audit. In addition:

- we identify and assess the risks of material misstatement in the annual report, whether due to irregularities or error. We then design and perform audit procedures based on, among other things, these risks and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of failing to detect a material misstatement as a result of irregularities is higher than that of an error due to mistakes, as irregularities may involve collusion, falsification, intentional omissions, misinformation, or breach of internal governance and control.
- we obtain an understanding of the part of the Authority's internal governance and control relevant to our audit in order to design audit measures that are appropriate given the circumstances, but not to issue a statement on the effectiveness of the Authority's internal governance and control.
- we evaluate the appropriateness of the accounting principles used and the reasonableness of management's accounting estimates and related disclosures.
- we draw a conclusion on the appropriateness of management using the going concern basis of accounting in preparing the annual report. Based on the obtained audit evidence, we also draw a conclusion on whether there is any material uncertainty relating to such events or circumstances that may lead to significant doubts as to the Authority's ability to continue as a going concern. If we conclude that there is a material uncertainty, we shall, in the audit report, draw attention to the disclosures in the annual report concerning the material uncertainty and the assessment provided or, if such disclosures are insufficient, modify our opinions on the annual report.
- we evaluate the overall presentation, structure and content of the annual report, including the disclosures, and whether the annual report outlines the underlying transactions and events in a manner that provides a true and fair view.

As part of the review in accordance with IFRF, we plan and carry out the audit in order to:

- obtain sufficient and appropriate audit evidence that material information, of financial or non-financial nature, provided in the directors' report has been drawn up with the aim of providing a true and fair view of the activities together with the other parts of the annual report, based on the regulatory framework.
- ensure that other information is consistent with the other parts of the annual report and free from material misstatements, based on our knowledge of the Authority.

Our communication with management includes, among other things, the planned scope and focus of the audit and significant findings during the audit, including any significant deficiencies in internal governance and control that we identify during the audit.

Our responsibility also includes reviewing whether senior management's administration complies with applicable regulations and special decisions. We conduct the audit in accordance with IFRLF. In addition to the regulatory framework and special decisions that directly affect the accounts, this includes the regulations that directly refer to the use of funds decided by the Riksdag and the Government[1]. Based on the audit of the annual report, we submit an opinion with reasonable certainty on the Authority's compliance with these regulatory frameworks.

In planning and conducting the audit in accordance with ISSAI and IFRF, we consider those aspects of internal governance and control that are relevant to the Authority's preparation of the annual report to give a true and fair view, including management's assessment of the internal governance and control. This means that we have examined management's assessment of internal governance and control in the annual report. Our responsibility does not, however, include making a statement on the efficiency of the Authority's internal governance and control. We issue a limited assurance opinion on management's assessment of internal governance and control based on the measures we have taken to review the annual report. A limited assurance opinion does not have the same level of assurance as an opinion based on an audit.

Auditor in charge Katarina Holmqvist made the decision on this matter.

Katarina Holmqvist

Copy for information: LFV, Ministry of Finance

[1] *Appropriations Ordinance (SFS 2011:223), Fees Ordinance (SFS 1992:191), Ordinance on Lending and Guarantees (SFS 2011:211), Capital Supply Ordinance (SFS 2011:210), Transfer of State Real Estate Ordinance (SFS 1996:1190), and Transfer of State Movable Assets Ordinance (SFS 1996:1191).*



Board of Directors

Catharina Elmsäter-Svärd
Chair since 2022.
Current position: CEO Byggföretagen.
Directorships: Member, Railcare Group AB.
Previous positions: Minister of Infrastructure, County Commissioner of Finance, Member of the Riksdag.
Year of birth: 1965.

Anders Ehrling
Member since 2024.
Current position: Chair of Nordrest Holding AB (publ), Keolis Sverige AB, chair of Brödernas restaurants.
Previous positions: CEO SAS Sweden, CEO Scandic Hotels AB and BRA Sverige AB. Numerous board positions.
Year of birth: 1959.

Ann Persson Grivas
Member since 2017.
Current position: Director-General of LFV.
Directorships: Chair LFV Holding AB and Entry Point North AB. Member SOS Alarm and the Supervisory Council of the Swedish Institute for Space Physics.
Previous positions: Senior management positions Swedish Social Insurance Agency, Sony Ericsson, Vattenfall, 3 and SAS.
Year of birth: 1961.

Jonas Wikman
Member since 2023.
Current position: Major General and Air Force Chief.
Previous positions: Fighter pilot, head of aero-medical centre, managerial roles in the Defence Materiel Administration (FMV), head of planning at Armed Forces Headquarters, advisor to the Afghan Air Force during NATO's Resolute Support Mission in Kabul, Deputy Director of operations at Headquarters.
Year of birth: 1972.

Ann-Christine Hvittfeldt
Member since 2016.
Current position: Numerous board positions.
Previous positions: Volvo Logistics AB, Hemtex AB, Speedcargo AB/DFDS AS.
Year of birth: 1966.



Cecilia Looström
Member since 2020.

Current position:
Head of Department Swedish Civil Contingencies Agency.
Previous positions:
Assistant under-secretary Ministry of Defence, Head of Department Aerospace Engineering, FOI.
Year of birth: 1961.

Mats Wikström
Member since 2024. Vice chair since 2024.

Current position:
Director of Finance, National Property Board.
Previous positions: Director-General Swedish National Financial Management Authority, Finance Director Director Swedish Defence Materiel Administration.
Year of birth: 1966.

Johan von Sydow
Member since 2023.

Current position:
Director Storsthlm.
Previous positions:
Deputy County Governor, Stockholm County Administrative Board. Director-General and Deputy Director-General, Ministry of Finance.
Year of birth: 1969.

Christian Axelsson
Staff representative member since 2021.

Current position:
Systems manager and chair of LFV's SacoS association.
Directorships: LFV Holding (staff representative).
Year of birth: 1972.

David Johansson
Staff representative member since 2023.

Current position:
Air traffic controller and chair of ST within Air Traffic Control.
Year of birth: 1977.

Per Nilsson
Member
2014–30 June2024.
Robin Teigland
Member
2020–30 June2024.



Group Management

Ann Persson Grivas
Director-General since 2017.

Directorships: Chairman of LFV Holding AB and Entry Point North AB. Deputy Chair, Luleå University of Technology/LTU. Member, SOS Alarm and the Supervisory Council of the Swedish Institute for Space Physics.
Previous positions: Senior management positions Swedish Social Insurance Agency, Sony Ericsson, Vattenfall, 3 and SAS.
Year of birth: 1961.

Magnus Corell
Deputy Director-General since 2019.

Directorships: Chair LFV Holding AB and Entry Point North AB. Member, SOS Alarm and the Supervisory Council of the Swedish Institute for Space Physics.
Previous positions: Senior positions in the Government Offices, with experience from the Ministry of Infrastructure, the Ministry of Enterprise and Innovation and the Ministry of Justice.
Year of birth: 1969.

Petra Sernulf
Director Legal Affairs, Quality, Aviation Safety, Environment and General Counsel.

Employed: 1997–2005 and since 2008.
Directorships: Member LFV Holding AB, Aviseq Critical Communication AB and the Swedish Public Employment Service.
Previous positions: Service as law clerk in district court and legal counsel for LFV, the Board of the Swedish Prison and Probation Service and Glimstedt law firm.
Year of birth: 1963.

Ulf Thibblin
Chief Technical Director.

Employed since: 2013.
Directorships: Member of LFV Holding AB, LFV Aviation Consulting AB and Aviseq Critical Communication AB.
Previous positions: Senior management positions within Saab and Ericsson.
Year of birth: 1958.

Niklas Ferm
Director of Systems and Development.

Employed since: 2022.
Directorships: Member LFV Holding AB and LFV Aviation Consulting AB.
Previous positions: Senior management positions within Saab.
Year of birth: 1972.



Anna Granberg
Director Operations.

Employed since: 1991.
Directorships: Member LFV Holding AB and LFV Aviation Consulting AB.
Previous positions: Air Traffic Controller, Head of Division, Swedish Armed Forces.
Year of birth: 1970.

Jan Berggren
Director Shared Services.

Employed since: 2003.
Directorships: Member LFV Holding AB.
Previous positions:
Several senior positions within both LFV and the Swedish Maritime Administration.
Year of birth: 1962.

Boel Enjin
Director Governance and Finance.

Employed since: 2021.
Directorships: Member LFV Holding AB.
Previous positions: Senior management positions within the Swedish Defence Materiel Administration, the Swedish Social Insurance Agency, the Swedish National Agency for Education, and the Swedish Armed Forces.
Year of birth: 1967.

Petter Eklund
Director En Route.

Employed since: 2021.
Directorships: Member LFV Holding AB and Aviseq Critical Communication AB.
Previous positions: Senior management positions within the Swedish Coast Guard, BRA (Braathens Regional Airlines), the Swedish Transport Agency, and the Swedish Civil Aviation Authority.
Year of birth: 1972.

Fredrik Henning
Acting director HR and Communications.

Employed since: 2021.
Directorships: Member LFV Holding AB.
Previous positions: Senior management positions within, among others, ED Gruppen, Huddinge Municipality, and Infratek.
Year of birth: 1980.


MIN08
MAX13
190/11 KT

Five-year summary

	2024	2023	2022	2021	2020
AIR TRAFFIC (thousand)					
Number of movements in Swedish airspace:					
Domestic	86	94	91	65	62
International	223	219	198	110	100
Overflights	297	270	253	184	169
COMPLETELY	606	583	541	359	332
Number of service units (thousand)	2,874	2,666	2,472	1,795	1,676
FINANCES (million SEK)					
Operating revenue	744	3,584	2,790	2,523	3,310
Profit/loss after financial items	–2,734	52	–16	104	700
Comprehensive income after revaluation of the pension liability	508	–6	–6	103	–122
Investments	483	452	385	386	557
Return on equity, %	(neg.)	7	(neg.)	15	(neg.)
Equity ratio, %	10	6	7	7	6
Cash and cash equivalents	5,152	4,722	4,276	4,437	5,104
Equity capital	1,277	741	742	742	638
Pension liability	8,243	10,553	9,436	9,052	8,739
BALANCE SHEET TOTAL	12,626	12,306	11,214	10,996	10,708
STAFF					
Number of annual employees	1,296	1,239	1,202	1,153	1,121
of which operational air traffic controllers	609	594	577	505	500
of which other staff	687	645	625	648	621
Number of employees	1,412	1,372	1,331	1,301	1,348
of which women	497	494	487	483	509
of which men	915	878	844	818	839
Sick leave, % in the state-owned enterprise	2.66	2.96	3.38	2.50	3.02

Abbreviations and explanations

ANS. Air Navigation Services. Air navigation service

ANSP. Air Navigation Services Provider. Provider of air navigation service.

ATCC. Air Traffic Control Centre. Air traffic control centre.

ATM. Air Traffic Management. Air traffic control.

ATS. Air Traffic Services. Air traffic management.

AVISEQ. Aviseq Critical Communication AB. Wholly owned subsidiary.

BOREALIS. The Borealis Alliance. An association of air navigation service providers in nine countries: Ireland, the United Kingdom, Iceland, Denmark, Norway, Sweden, Finland, Estonia and Latvia. Cooperation for more efficient air routes with reduced environmental impact.

CANSO. Civil Air Navigation Services Organisation. International cooperation organisation for air navigation service providers.

CINEA. The European Climate, Infrastructure and Environment Executive Agency, formerly INEA, is responsible for developing the European transport system.

CNS. CNS stands for Communication, Navigation, Surveillance, i.e. radio equipment, navigation aids and radar equipment as well as surveillance.

COOPANS. Cooperation between six air navigation service providers in Sweden, Denmark, Ireland, Austria, Portugal and Croatia. Coordinates the development of a joint air traffic management system.

DME. Distance Measuring Equipment. A navigation aid for pilots that also supports air traffic control. DME is used to determine the position of the aircraft.

EASA. European Aviation Safety Agency. The European aviation safety authority.

EN ROUTE. Higher Airspace Operations Traffic is controlled from a control centre.

EPN. Entry Point North AB. Associated company that operates a school for air traffic controllers with LFV, Danish Naviair, and Irish IAA as owners.

EUROCONTROL. Coordinates European air traffic. Eurocontrol has no legislative authority but works to harmonise and develop air navigation services in the nearly 40 Member States.

ICAO. International Civil Aviation Organisation. UN agency for aviation.

MET. Aviation weather service.

MSB Swedish Civil Contingencies Agency.

NIS 2. The Directive on Security of Network and Information Systems. Measures for a high common level of network and information system security across the European Union.

RISE: Research Institute of Sweden AB.

RP. Reference Period. The EU sets targets for air navigation service providers over a reference period.

RTC. Remote Tower Centre. Control centre for remote air traffic control.

RTS. Remote Tower Services. Remote air traffic control.

SERVICE UNIT. A service unit is a measure used for billing that is based on the weight of the aircraft and then multiplied by the distance travelled.

SES. Single European Sky. The EU's effort to reduce the number of air-spaces in Europe, which are currently, with a few exceptions, national.

SESAR. Single European Sky ATM Research. Joint European research programme to increase airspace capacity.

SWEA. Sweden Airspace Project. A project for streamlining the air navigation service. Operated in collaboration with Swedavia.

SWIM. System Wide Information Management. Global initiative in the aviation industry to harmonise the exchange of flight and weather information for all airspace users and stakeholders.

UAS. Unmanned Aircraft System. Unmanned aerial vehicles or drones.

EN ROUTE CHARGE. The Swedish en route charge is charged for aircraft over 2,000 kg flying in airspace where Sweden operates air navigation service.

U-SPACE. A concept described by Regulation (EU) 2021/664 of new digital services for drones.

U-SPACE AIRSPACE. A geographic UAS zone with U-space services provided by U-space Service Providers (USSPs).

UTM. Unmanned Aircraft System Traffic Management. Digital services to manage unmanned aviation.

LFV — Luftfartsverket
Company registration number: 202100-0795

601 79 Norrköping
Visiting address main office: Hospitalsgatan 30, Norrköping
Telephone: 011-19 20 00

email: lfv@lfv.se
instagram@luftfartsverket · facebook.com LFV · linkedin.com LFV · lfv.se



Thank you to everyone who participated in LFV's annual report. Graphic design and production: Newsroom.
Photographers: Peter Karlsson Svarteld, GK Nordic, Jesper Sundström, Antonia Sehlstedt, Swedish Armed Forces, Emma Elofsson Holmgren, Filmuminati, Lavette, Getty Images.
The pictures were taken at ATCC and FPC Stockholm Arlanda, ATS Arlanda, ATS Landvetter and LFV's head office, among other places..
Printed by: Stema Specialtryck AB 2025.

