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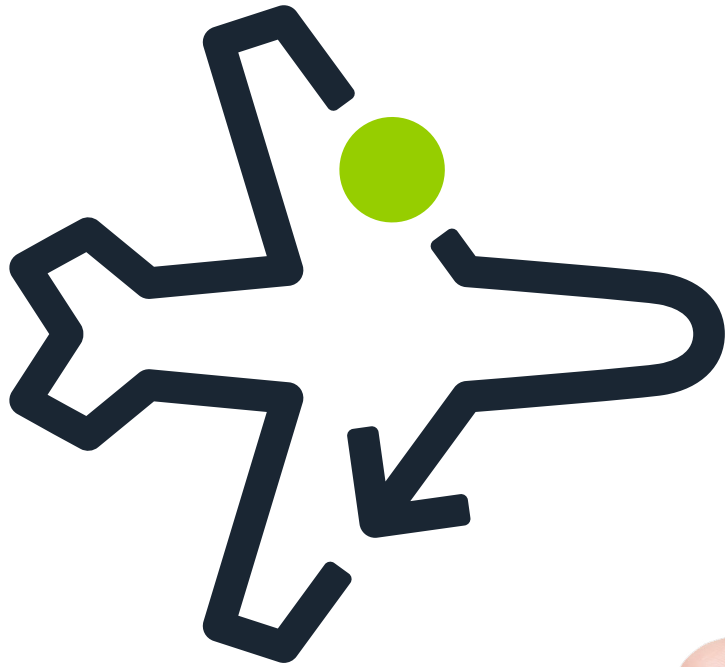
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Context

Aena's commitment to the fight against climate change is aligned with the main European and national objectives to achieve sustainable air transport.

Climate action cannot wait

Air transport continues to progress in its imperative climate actions by reducing greenhouse gas emissions (GHG), also accelerating the progress rate by implementing innovative technologies and practices. This commitment to sustainability underscores the industry's dedication to achieving environmentally friendly aviation practices.

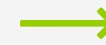
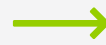
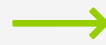
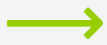
At COP28 in 2023, the progress made on global climate action under the Paris Agreement was acknowledged, although it was noted that much remains to be done. Hence, the goal of constraining the rise in global temperature to well below 2°C, preferably 1.5°C, was again reiterated acknowledging that doing so will markedly mitigate the risks and repercussions of climate change. This underscores the concern regarding the hastened impact of climate change and the need to enact viable and impactful mitigation measures across all sectors.

In this context, the transportation sector is confronted with a significant challenge stemming from the imperative to decarbonize the economy, all while there is a growing demand for connectivity and the promotion of intermodal logistics chains.

Moreover, the imperative of addressing the climate emergency and achieving more efficient energy management is not only a legal obligation, as reflected in the European climate regulatory framework, but also a geopolitical, economic, and social necessity. This is particularly evident given the prevailing conditions of armed conflicts and energy transition, which are reshaping the current global economic system.

Hence, the pivotal role of all companies, particularly those in the aviation sector, is paramount in addressing these challenges. They possess the capacity to implement initiatives aimed at reducing their environmental footprint and thereby facilitate the decarbonization of the economy. Likewise, this is not a journey that a company should embark on alone. Achieving climate neutrality requires the combined efforts of all countries, both developed and emerging, as well as companies and institutions worldwide. If we work together as a global team and create the necessary synergies, we can successfully decarbonize the planet.





Europe as world leader in climate action



The European Commission, building on the Green Deal published in 2019, has established ambitious and legally binding climate targets that encompass all key sectors of the economy. This initiative is enclosed in the Fit for 55 policy package.

In recent years, Europe has taken on a leading role in the global climate transition, demonstrating a strong commitment to shaping the ecological transition for the benefit of both citizens and industries. To achieve this goal, the EU is striving for a fair and prosperous society, characterized by a modern, resource-efficient, and competitive economy. The aim is to achieve net-zero greenhouse gas emissions by 2050 while ensuring that economic growth is decoupled from resource use.

Building on the above objectives, the Fit for 55 Package serves as the European Commission's policy mechanism. Its purpose is to revise existing legislation and introduce new initiatives to align policies with climate objectives agreed upon by the Council and the European Parliament. Additionally, it aims to bolster innovation and enhance the competitiveness of EU industry. In this regard, the reduction of fossil fuel consumption in transportation is paramount to the EU's attainment of climate neutrality by 2050. The Commission has set an objective to slash greenhouse gas emissions from this sector by 90% by the aforementioned year.

An example of such an initiative is the ReFuelEU Aviation regulation, endorsed by the Council in October 2023. Its aim is to diminish the environmental impact of aviation, allowing the sector to support the EU's climate objectives by widely embracing sustainable aviation fuels derived from both bio-based and synthetic sources. Hence, the regulation sets a target of 2% sustainable fuel usage by aviation in 2025, with a subsequent goal of reaching 70% by 2050.

Another new regulation is the Alternative Fuels Infrastructure Regulation (AFIR). Formally adopted in July 2023, which aims to ensure that citizens and businesses have access to a sufficient network of infrastructure to recharge or refuel their vehicles with alternative fuels. In the case of aviation, the aim is to ensure that the energy demanded by aircraft on the ground is supplied in the most sustainable way possible, Avoiding the use of fossil-fueled generators.

In this framework of measures, in December 2022 a political agreement was reached on changes to the **EU Emissions Trading System (EU ETS)** rules on aviation. This agreement included, among other things, the phasing out of free emission allowances for the aviation sector by 2026, the evaluation of the

The evaluation of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSA), established by the International Civil Aviation Organization (ICAO), aims to determine its alignment with the goals of the Paris Agreement. Additionally, a new aid scheme is proposed to accelerate the adoption of sustainable aviation fuels, financed by revenues from the EU Emissions Trading System (ETS), estimated at €1.6 billion. This revision was formally adopted in April 2023.

Another set of measures relevant to the airport sector, outlined within the Fit For 55 regulatory package, encompasses energy efficiency measures for buildings. These measures, provisionally approved in December 2023, target a reduction of final energy consumption in the European Union by 11.7% in 2030 compared to 2020. They include initiatives aimed at reducing the energy consumption of buildings. Additionally, packages of measures addressing the hydrogen and decarbonized gas markets are proposed, seen as crucial vectors for promoting sustainability in aviation.

Finally, the Council is currently discussing the revision of the Energy Taxation Directive, with a change in the fuel regime that could involve the elimination of tax exemptions for air transport (kerosene tax).

This regulatory package is an essential support for the aviation sector in its fight against climate change, but it is also necessary for governments, international organizations and other stakeholders to work together to achieve a unified vision through comprehensive policy mechanisms, specific investments and fiscal support and regulations that enable a level playing field and avoid a competitive scenario of carbon leakage to other markets with less demanding regulatory frameworks and provide incentives for this necessary change.

KEY REGULATORY MEASURES OF THE EU FIT FOR 55 PACKAGE FOR AVIATION



Refuel AviationEU 



Alternative fuels infrastructure 



Review of the EU Emissions Trading Scheme (EU ETS) 



Revision of the Energy Taxation Directive 

Sustainable Aviation Revolution

The economic and social benefits that air transport and connectivity bring to people around the world are undeniable. Among the benefits that come with air transport, encouraging tourism is one of the most economically relevant. In fact, tourism was the main engine of economic growth in Spain in 2023, closing this year with an activity of 186,596 million euros, which corresponds to a contribution to the Spanish economy of 12.8% of GDP, the highest value in the historical series¹. It is noteworthy to emphasize the significant role that air transport plays in trade, responsible for handling 35% of the total value of goods.

In this regard, the aviation industry envisions future generations being able to continue enjoying air travel, facilitating communication, expanding horizons, fostering cultural exchange, and sharing experiences. However, it recognizes that sustainable development is paramount for the future of transportation.

¹ Source: Exceltur

² <https://www.icao.int/Newsroom/Pages/ES/States-adopts-netzero-2050-aspirational-goal-for-international-flight-operations.aspx>

This is why the industry has adopted the 2050 target of achieving zero-carbon air transport. The achievement of this target will depend on the combined effect of multiple CO₂ emission reduction measures, including the accelerated adoption of new and innovative aeronautical technologies, the streamlining of flight operations and the increased production and deployment of sustainable aviation fuels (SAF) as well as the key role of clean hydrogen, a versatile energy source for alternative propulsion on the path to decarbonization of aviation.

This goal of net zero aviation carbon by 2050² is undoubtedly a major challenge for the aviation sector, but it already has a successful track record of working to overcome challenges and this transition will be no different. The roadmap is underway and we are working against the clock to bring about this sustainable revolution.

To this end, all industry players are working collaboratively with a common goal: to continue providing more unforgettable trips in a sustainable and emission-free way.



Compliance with the main guidelines relating to climate change

This report provides details on governance, strategy, risk and opportunity management, objectives, metrics, and climate-related developments, adhering to the recommendations of the **Financial Stability Board**, specifically its **Task Force on Climate-related Financial Disclosures**. In this respect, Aena supports the TCFD in joining this initiative together with the other company leaders committed to take action against climate change.

The guidelines derived from the supplement of the European Commission's **climate-related Directive 2014/95/EU of the European Parliament and of the Council of the European Union**, have been taken into account, which establishes a description of the policies of results and risks linked to environmental issues.

On the other hand, in alignment with Aena's commitment to the **Science-Based Targets Initiative (SBTi)**³ for setting science-based emission reduction targets, these targets were calculated and submitted in 2023 based on the following criteria:

LEVEL OF COMMITMENT: Business Ambition for 1.5°C³

- a) **Establishment of intermediate objectives 2030 (short term).** In the case of Scope 3, the objectives submitted for validation are as follows:
 - **36% reduction in absolute emissions from purchased goods, fuel and energy activities, generated waste, business travel, and downstream transportation and distribution.**
 - Commitment that **60% of suppliers (by spend) and 67% of their customers by emissions (airlines) will have science-based targets by 2028.**
- b) **Establishment of a long-term target** according to SBTi criteria to achieve zero net GHG emissions in the value chain by 2050, in line with the ICAO long-term objective (LTAG).

³ The scope of the objectives includes Aena SME SA, SCAIRM, and its subsidiaries in the United Kingdom (LLA) and ANB.

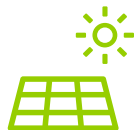
2023 Highlights



Bringing forward the year of achievement of **net zero to 2030**.



Short- and long-term decarbonization targets based on the 1.5°C scenario sent to **SBTi** for validation.



Purchase of 100% renewable electricity with guarantee of origin for the 4th consecutive year.



Aena achieved a remarkable **70%** reduction in its Scope 1 and 2 emissions compared to 2019, exceeding the target by 9 points. This achievement eliminated the need for emission offsets.



New accreditation strategy **Airport Carbon Accreditation** with 19 airports at level 4+ in 2026 and level 5 in 2030.



Awarding of new licenses for the provision of **ground handling** services to third parties, with a commitment to be practically zero emissions as of 2024.



2023 Highlights



Participation in the **Steering Committee of the Alliance for Sustainability in Air Transport** in Spain, leading the airports working group.



Report on the degree of eligibility and alignment of actions, calculated on **Aena's economic activities based on the EU Taxonomy** (66.25% eligibility and 35.8% alignment in turnover).



Aena is the fourth most sustainable company in the transport and transport infrastructure sector worldwide according to the **Dow Jones Sustainability World Index of S&P Global**, having obtained 75 points in the environmental dimension and 72 points in the social dimension (both out of 100).



Approval of the update **of the Integrated Quality, Environmental, Energy Efficiency and Occupational Health and Safety Management Policy and the Sustainability Policy of Aena, S.M.E., S.A.** by the Board of Directors.

Adhesions and Alliances

Aena plays an active role in the collaborations and accessions with third parties, and is involved in the following important national and international alliances which promote sustainable development and contribute to the fight against climate change. Among the main alliances:



NETZERO 2050 ACI

ACI Europe's NetZero2050 initiative currently encompasses the agreement of 324 airports managed by 104 operators in 38 European countries that have committed to achieve net zero carbon emissions from operations under their control by 2050, and among these, 132 have set a target date prior to 2030. Aena is part of this agreement, having increased its level of ambition during 2023 and advancing the commitment to achieve Net Zero to 2030.



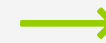
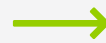
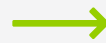
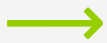
SCIENCE BASED TARGETS INITIATIVE

The Science-Based Targets initiative (SBTi) drives important climate change action in the private sector to guarantee that companies establish emission reduction objectives that are based on science. Aena has been committed to this objective since November 2021. During 2023, it submitted its objectives to SBTi for validation.



CLIMATE AMBITION ACCELERATOR

A program driven by the UN Global Compact designed to give companies the necessary resources to establish emission reduction objectives based on science that comply with the 1.5°C scenario, in accordance with SBTi requirements, and to reach net zero by 2050. Aena has participated in the second edition of the programme together with 945 other companies from 69 different countries.



CLEAN SKIES FOR TOMORROW COALITION

From the World Economic Forum, The Clean Skies for Tomorrow Coalition provides a crucial global mechanism for senior executives and public leaders, across and beyond the aviation value chain, to align on a transition to sustainable aviation fuels as part of a meaningful and proactive pathway for the industry to achieve carbon neutral flight. Aena has been part of this coalition since mid-2021.



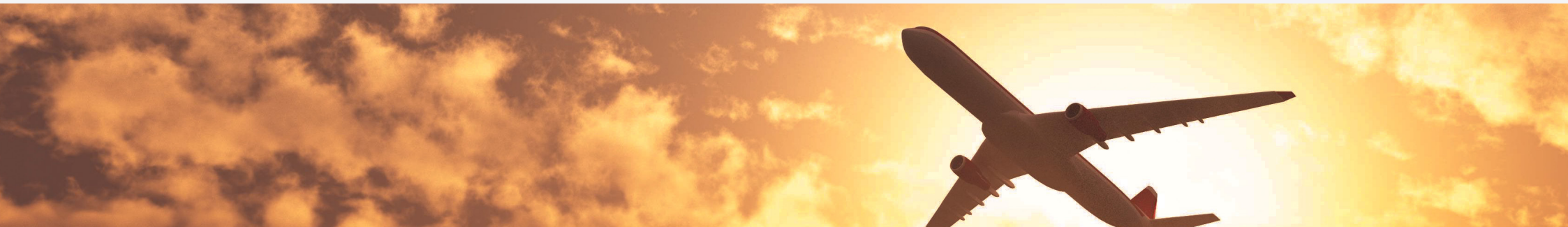
DECLARATION OF TOULOUSE

It is the first public-private initiative to support European aviation's goal of achieving zero net CO₂ emissions by 2050. This is also the first joint initiative of its kind at global level, aligning all EU stakeholders to decarbonise and transform the aviation sector in Europe. Signed by the 27 EU Member States, along with 10 Member States of the European Civil Aviation Conference, and approximately 150 companies and stakeholders from the aviation and energy sectors (including aviation manufacturers, airlines, federations, trade unions, etc.), this declaration outlines a collective vision for the sector's long-term goals. The objective is to achieve net zero CO₂ emissions by 2050, aligning with the EU's climate objectives and the Paris Agreement.



EUROPEAN CLEAN HYDROGEN ALLIANCE

Driven by the European Commission, the initiative aims to contribute to the creation of a strong, innovative and competitive clean hydrogen sector in Europe that is fully capable of sustaining and enabling the energy transition outlined by the Commission in its communication "A clean planet for all". It combines technological knowledge and resources with funding from public and private sources. Aena has been part of this alliance since the beginning of 2021 with the aim of contributing to the development of the green hydrogen value chain in airports.



ALLIANCE FOR ZERO EMISSION AVIATION

EU initiative to prepare for the entry into service of electric and hydrogen-powered aircraft to ensure that air transport contributes to the goal of climate neutrality by 2050. Aena is represented through ACI Europe (leader of working group 3 on Airports) and participates directly in working group 4 on Aviation Regulation, Certification and Standardization.



RENEWABLE & LOW CARBON FUELS INDUSTRIAL ALLIANCE

EU initiative to boost the production and supply of renewable and low-carbon fuels in the aviation and maritime sectors. It is a key measure to drive the regulations of FuelEU Maritime and RefuelEU Aviation. Aena is a member of the alliance and participates as an expert in working group number 2 of the alliance on Production Pathways and Value Chain in the aviation sector.



ALLIANCE FOR THE USE OF H2 IN SPANISH AVIATION

The Alliance, spearheaded by the Spanish Aerospace Technology Platform, seeks to advance the utilization of hydrogen and meet the goals outlined in the hydrogen roadmap, the PERTE (Strategic Projects for Economic Recovery and Transformation), and the EU's green deal. Aena actively participates in the alliance and leads the Airports working group.



ALLIANCE FOR SUSTAINABILITY IN AIR TRANSPORT IN SPAIN

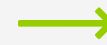
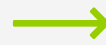
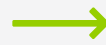
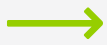
Alliance led by the main agents of the aeronautical business sector, universities and NGOs. Among its objectives is to spearhead the decarbonization of the air transport sector, encompassing all feasible solutions and technologies to achieve this goal. Additionally, it aims to enhance Spain's industrial capacity to provide disruptive technologies, promote public-private collaboration to advance research, development, and innovation (R&D&I), and expedite the development of low-carbon aircraft. It was approved in April 2023, and Aena is part of its steering committee.



FORÉTICA

Reference organization for sustainability and corporate responsibility in Spain. Its mission is to integrate social, environmental and good governance aspects in the strategy and management of companies and organizations. It currently has more than 200 members.





Aena recognized as a sustainable company

Our commitment to sustainability is recognized and valued by various institutions and indexes:



CDP CLIMATE CHANGE (CLIMATE DISCLOSURE PROJECT)

An international, non-profit organization that awards an environmental rating to companies that incorporate climate change as a strategic factor. In 2019, 2020 and 2022, Aena has obtained an A, the highest rating awarded by the Carbon Disclosure Project (CDP) for climate change. In 2021 and 2024, Aena obtained an A-rating, which continues to place it among the leading companies in its commitment against climate change, above the European average and its sector.

Member of
Dow Jones Sustainability Indices
Powered by the S&P Global CSA

DOW JONES SUSTAINABILITY INDEX

During 2023, Aena has obtained 75 points in the environmental dimension and 72 points for social performance (out of 100), making it the fourth most sustainable company worldwide in the transport and infrastructure sector. This achievement reflects recognition of its strategic and cross-cutting sustainability initiatives.



FTSE4Good

FTSE

The analyst FTSE Russell assesses Aena annually on sustainability, having obtained the highest score of 5 out of 5 for its ESG performance in 2023.



In 2023, Aena was also included in the "Europe's Climate Leaders 2023" ranking, which is carried out by the Financial Times newspaper in collaboration with Statista, the largest online data portal. This list includes the 500 European companies that have achieved the greatest reduction of their carbon emissions and made more climate-related commitments. Finally, in recognition of the work carried out by Aena in the area of sustainability, we received the CDP Awards in 2023 for our achievements in the fight against Climate Change, as well as the Excellence in #Sustainability Award from Capital Radio (Business) together with Exolum and ALA (Spanish Airline Association).





CERTIFICATIONS

Our commitment to sustainability is recognized and valued by various institutions and indices:



EMAS REGULATION

The Community Management and Audit System Environmental Management System (EMAS) facilitates the evaluation and improvement of the company's environmental performance and promotes transparency.



ISO 9001: QUALITY MANAGEMENT SYSTEM

It focuses on customer satisfaction and the ability to provide products and services that meet the company's internal and external requirements.



ISO 14064: CALCULATION OF THE CARBON FOOTPRINT

Allows for verification and validation of greenhouse gas emissions of a company.



ISO 14001 ENVIRONMENTAL MANAGEMENT SYSTEM

Allows the control and minimization of impact on the environment that could be caused by our activities. nuestra actividad.



AIRPORT CARBON ACCREDITATION

It is the Airport Council International (ACI) carbon footprint certification program, which certifies the calculation of the carbon footprint of airports and the evolution of their commitments to reduce CO₂ emissions. Approximately 91% of the network's emissions are certified by this program, with the following levels achieved at 9 airports.

VERIFICATION OF THE CORPORATE CARBON FOOTPRINT

In 2023, Aena SME SA and SCAIRM successfully verified their carbon footprint for the years 2019-2022 in accordance with the UNE-EN ISO 14064-3:2019 Standard and fully complied with all GHG Protocol criteria, achieving a limited level of assurance. The carbon footprint verification for fiscal year 2023 was obtained in early 2024.



2023:

- **Level 3** (Optimisation): AS Madrid-Barajas, JT Barcelona-El Prat, Palma de Mallorca and Malaga-Costa del Sol.
- **Level 2** (Reduction): Lanzarote, Alicante-Elche, Menorca and Ibiza.
- **Level 1** (Inventory): Santiago.

During **2023**, the level of ambition has been increased by expanding the level of commitment of certified airports by 2026: 19 airports at level 4+ (Transition) and 19 airports at level 5 (NetZero) in 2030.



Sustainable governance

Aena's commitment to the fight against climate change is reflected in the involvement of senior management and decision-making to ensure compliance with the strategic objectives regarding decarbonisation.



Governing Bodies

The commitment of the Board of Directors to sustainability is through Aena's Sustainability Policy. On this basis, the Board of Directors' measures include the promotion and enforcement of this internal regulatory framework, incorporating management in decision-making and ensuring the long-term commitment by the entire organization.

To guarantee the correct process and implementation of the Sustainability Strategy, the Sustainability and Climate Action Commission includes in its functions: recognizing, driving, directing, and supervising the objectives, plans of actions, practices and policies relating to society and the environment.

In this way, the company has an internal task force specifically created to transversally enforce the Strategy and support its implementation by promoting the active and direct involvement of all departments and employees.





The Climate Action Plan is integrated into the company strategy and counts on the support of our shareholders. Thus, during 2023, the updated 2022 Climate Action Plan Report was approved, on a consultative basis, at the corresponding Shareholders' Meeting, with 90.37% of votes in favor.

Aena also has a *Chief Green Officer (CGO)*. This role is carried out by Aena's Director of Innovation, Sustainability and Customer Experience with the main objective of incorporating sustainability into all of the company's business areas and communicating, both to the Board and to employees, any updates and progress in the company's sustainability through the established communication channels.





FUNCTION

Shareholders General Meeting	Consultative voting and monitoring of Climate Action Plan
<p>Board of directors</p> <p> Appointments, Remuneration and Corporate Governance Committee</p> <p> Auditing Committee</p> <p> Sustainability and Climate Action Committee</p>	<p>Approval of CAP and annual and periodic supervision.</p> <p>Guidance and control of climate action strategy, policies, objectives, risks and results.</p> <p>Remuneration model including climate action-related objectives.</p> <p>Supervising the risk management system, ensuring the identification, management, and communication of the main risks within the established parameters.</p> <p>Informing, supervising and reporting in relation to the Climate Action Plan.</p>
<p>Executive Committee</p> <p> Chief Green Officer</p>	<p>Follow-up of the Climate Action Plan.</p> <p>Making sustainability a key element in the Company's decision making and communicating both to the board and employees about the Company's sustainability updates and progress through established communication channels.</p>
Innovation, Sustainability and Customer Experience Department	Elaboration and co-ordination of Climate Action Plan.



The Sustainability and Climate Action Committee, which met 4 times in 2023, on February 23rd, May 30th, September 25th and December 18th, is responsible for reviewing the correct development of the initiatives deployed within Aena's Climate Action Plan. The Audit Committee also plays a role in reviewing the environmental risk system, while the Appointments and Remuneration Committee is tasked with establishing a compensation system to support the deployment of the CAP. Finally, the results are presented annually to the Board of Directors and are subject to a consultative vote by the General Shareholders' Meeting.

The degree of compliance with the Climate Action Plan is tied to the compensation of the workforce, including the Chairman and CEO, Executive Vice President, members of the Executive Management Committee, and the rest of the Senior Management, which is linked through the performance management system.

Specifically, the variable bonuses of the Chairman and Chief Executive Officer and the Executive Vice President are tied to the achievement of company objectives, including sustainability objectives such as the preparation and proposal of the Climate Action Plan. For the Chairman and Chief Executive Officer, these objectives are weighted at 25% of 100% of the company objectives, and for the Executive Vice President, they are weighted at 25% of 50% of the company objectives.

Furthermore, concerning the remuneration of Senior Management, the variable bonus is contingent upon the achievement of the company's objectives, including an objective related to the Climate Action Plan. This objective is weighted at 25% of the 50% and 40% weighted by the company's objectives for Senior Management.

Sustainable Finance

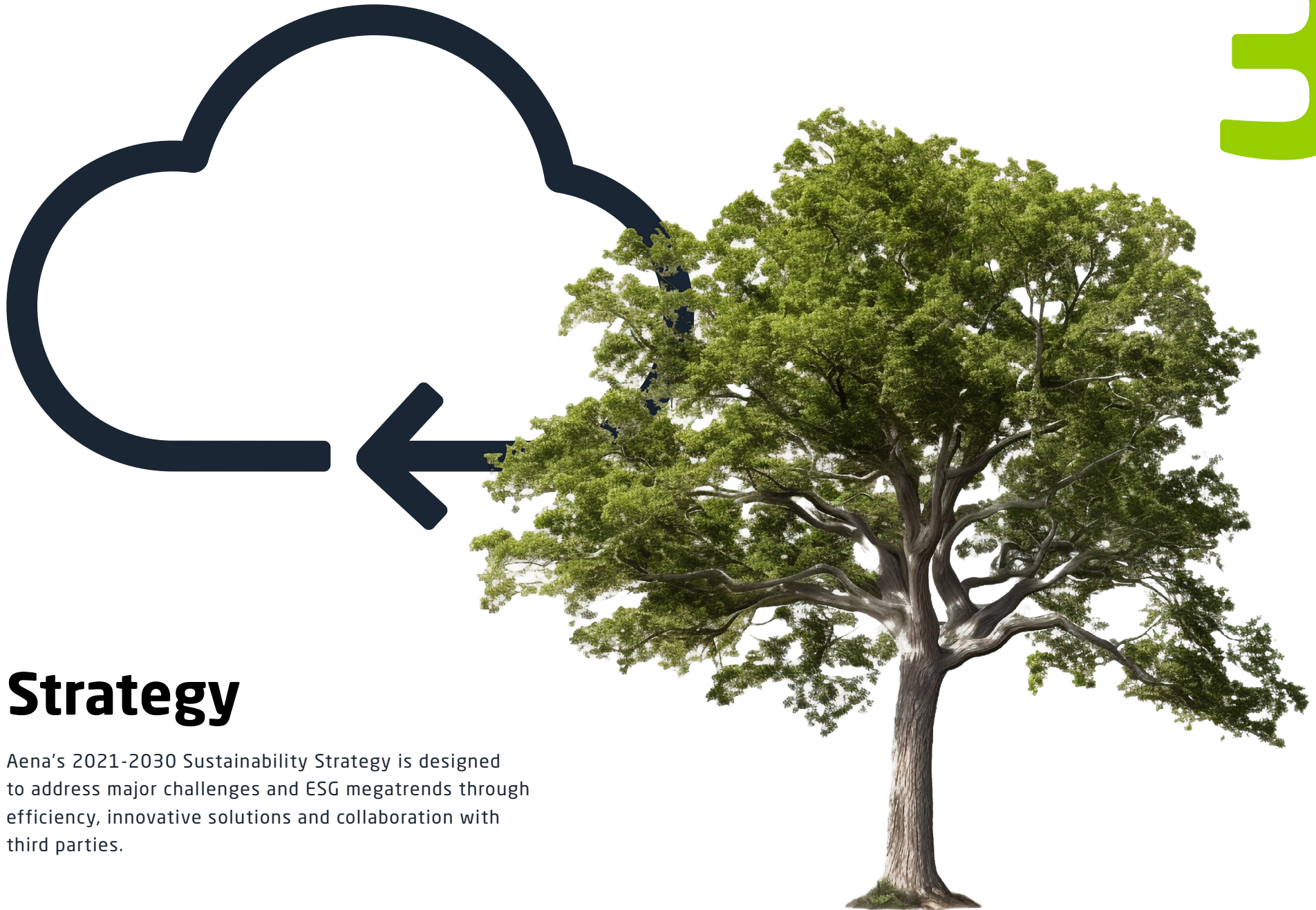
Aena joins the European Commission's objective to align financial investment with a more climate-resilient economy across the region, while promoting social and governance considerations. For this reason, when identifying financing alternatives, we have opted for those that provide added value for society and the environment, incorporating ESG factors in their investment decisions.

Aena currently has several financing instruments linked to the Company's sustainable commitments. It is worth noting that in 2023, Aena signed a sustainable syndicated credit line ("Sustainability-Linked RCF") amounting to 2,000 million euros, which was subscribed by 14 national and international financial institutions. The most outstanding feature of this operation is that the interest rate is fixed not only on the basis of the credit rating, but also on compliance with a CO₂ emission reduction target.

Furthermore, as part of the Company's Statement of Financial Information report, Aena identifies eligible economic activities that align with the European Environmental Taxonomy: Regulation (EU) 2020/852 of the European Parliament and the Council on the establishment of a framework to facilitate sustainable investments.

Through the taxonomy report, Aena publishes and verifies information on how the company's activities are linked to sustainable economic activities. This includes establishing the degree of environmental sustainability of its revenues, investments, and expenses based on the criteria outlined in the taxonomy. Specifically, in compliance with the Delegated Acts on climate change mitigation and adaptation, Aena provides the necessary information to evaluate its performance in combating climate change.





Strategy

Aena's 2021-2030 Sustainability Strategy is designed to address major challenges and ESG megatrends through efficiency, innovative solutions and collaboration with third parties.

Aena's Sustainability Strategy

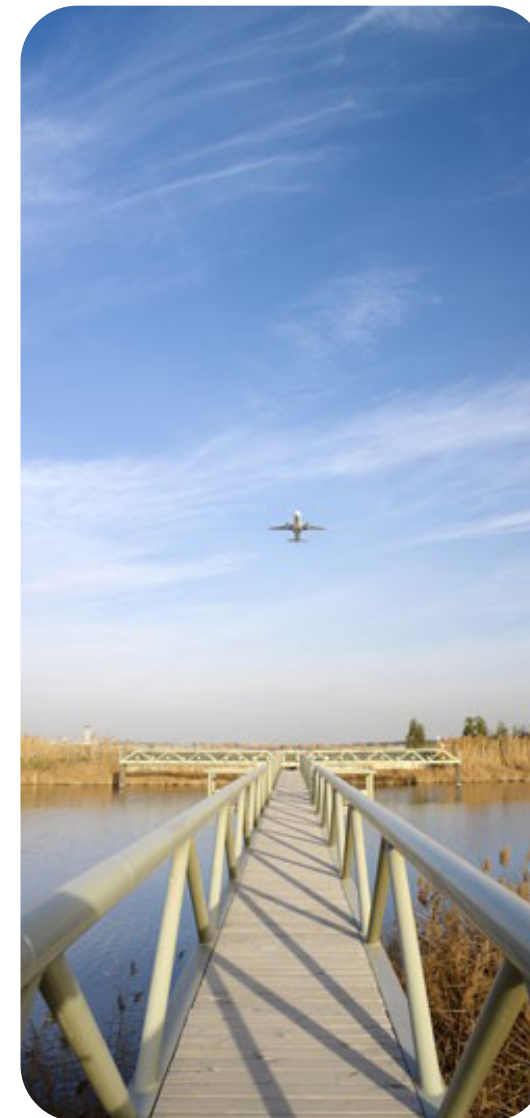
Aena's 2022-2026 Strategic Plan incorporates sustainability as a transversal factor in the Company's roadmap, giving special relevance to the environmental line, conforming with what is already reflected in the DORA 2022-2026, the 2022-2030 Sustainability Strategy and its Climate Action Plan⁴.

Thus, at Aena we are committed to being an **active agent not only in the fight against climate change**, but also with respect to other environmental challenges such as minimizing the consumption of natural resources, reducing atmospheric pollution, noise and protecting biodiversity. All these efforts are aimed at strengthening our commitment to environmental stewardship, managing natural resources responsibly, and minimizing the environmental footprint of our operations, thereby fostering the conditions for the sustainable development of our airport network.

This commitment is supported by our 2021-2030 **Sustainability Strategy, which includes Aena's Climate Action Plan**, reinforcing our commitment to respond to ESG (Environmental, Social and Governance) challenges and megatrends.

To achieve these goals, collaboration with third parties and effective communication and dissemination of our environmental initiatives are crucial drivers of progress. They enable us to engage all stakeholders and foster synergies through dialogue and the exchange of ideas. Thus, throughout 2023, we have participated in 21 forums, congresses and events focused on environmental communication and awareness in an exercise of transparency and authenticity.

⁴ Aena's Climate Action Plan includes Aena SME SA and SCAIRM.





COMMITMENT TO THE SDGs

6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



15 LIFE ON LAND



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS





Structure of Aena's Sustainability Strategy



Programs

Lines of Action

Carbon neutrality



Renewable energy



Energy efficiency



Sustainable own fleet



Offsetting emissions

Sustainable aviation



Clean aircraft propulsion



Efficiency in aeronautical operations



Sustainable groundhandling fleet

Responsible use of resources



Efficient water footprint



Circular economy

Community and sustainable value chain



Sustainable mobility



Co-operation and awareness



Air quality



Noise management



Preservation of biodiversity

Social commitment



Relationship with the community



People Management





OUR FRAMES OF REFERENCE



SUSTAINABILITY POLICY: (updated during 2023) defines and establishes the principles, commitments, objectives, and strategy to be followed by the Company to carry out its activity, optimizing the contribution to sustainable development, creating long-term value, maximizing positive impacts, and minimizing negative impacts on society and the environment throughout its value chain, through ethical and transparent behavior. Among the main general strategic principles, there is the integration of sustainability in all areas of business and administrative branches of the Company, transmitting this culture to employees, customers, providers, supply chains, partners, are other interested parties for sustainable management and compliance with social and environmental sustainability objectives by all companies involved in the Aena's activities. It also refers to minimising the environmental impact in transitioning to a circular economy that includes all activities.

INTEGRATED QUALITY, ENVIRONMENT, ENERGY EFFICIENCY, AND OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT POLICY (updated during 2023): includes the principles that serve as a guide and reference framework in the development of the Company's environmental activities, integrated with quality and occupational health and safety. Among them: ensuring the conservation of the environment and prevention of contamination, integrating criteria for sustainable development that contribute to reducing the impact of activities, promoting the sustainable use of resources and action against climate change in line with the objectives laid out in the current Sustainability Strategy. The update of this Policy during 2023, stands out for incorporating new principles established by leading ESG analysts/providers such as DJSi and FTSE.

Reinforcing the commitments of the Climate Action Plan and roadmap

The Climate Action Plan 2021-2030⁵: Towards zero emissions, approved in 2021, reflects Aena's commitment to environmental protection, decarbonization and climate emergency as key issues in its management. The objectives outlined include achieving Net Zero Carbon status by 2040 and attaining carbon neutrality by 2026, aligning with both national and international regulatory frameworks. These frameworks include the Paris Agreement, the commitments articulated in the declaration of the Government of Spain in response to the climate and environmental emergency, the National Integrated Energy and Climate Plan 2021-2030, the Sustainable Development Goals (SDGs), and the recommendations of the Task Force on Climate-Related Financial Disclosures. (TCFD).

Recognizing that sustainability, particularly addressing climate change, stands as the primary challenge confronting the aviation sector presently, Aena has deemed it imperative to bolster our commitment to Environmental, Social, and Governance (ESG) factors. This commitment extends to mitigating our own emissions (Scope 1 and 2) while also reinforcing our role as a facilitator and catalyst for decarbonization across emissions encompassed in our value chain (Scope 3) and beyond our direct control.

With regard to airport emissions, the following is noteworthy:

- This year, we have achieved an **emissions reduction exceeding 70%**, surpassing our target by more than 9%. This substantial overcompliance ensures that we comfortably meet our reduction target of 61%.
- Given the good progress of the initiatives included in the Climate Action Plan, **we have brought forward our target of reaching the net-zero emissions milestone by 10 years from 2040 to 2030**. This represents very significant progress in relation to ACI members' global commitment to reach this milestone by 2050 and the industry's commitment to decarbonizing aviation through the "Destination 2050" initiative and aligns our level of climate ambition with that of major European airport operators.

⁵ Aena's Climate Action Plan covers the airports in the Spanish network, including Murcia International Airport (AIRM) and SSSC.



- In addition, our commitment to the decarbonization of the activity is reinforced through the inclusion of more airports in ACI's ACA accreditation program. By **2026**, the main airports in the Aena network will be certified at level 4+, in accordance with our commitment to carbon neutrality, and by 2030 they will be certified at level 5, thus accrediting the achievement of **"Net Zero"**.

In addition, Aena has made significant progress in its commitment to the **decarbonization of emissions from third parties (Scope 3)**, whose activity is related to our business; not only airlines or ground handling service providers, but also our suppliers and airport surface area tenants, among others. In this regard, the main developments are summarized below:

- During 2024 we will complete our process of joining the **"Science Based Targets initiative"** for Aena⁶, which promotes the establishment of science-based targets as a strategy to boost the competitive advantage of companies within the transition to a low-carbon economy. This adhesion is an unequivocal sign of the company's commitment not only to reducing its own emissions, but also the emissions of third parties linked to our activity.
- In addition, Aena's commitment to sustainability, reflected in the high level of sustainability requirements for the awarding of licenses for **ground handling** services in Spain, has obtained a response from the companies awarded with a commitment to decarbonize the service by practically 100% as of 2024.

⁶ The scope of the objectives includes Aena SME SA, SCAIRM, and its subsidiaries in the United Kingdom (LLA) and ANB.



CLIMATE ACTION PLAN OF AENA:

STRATEGIC PROGRAMS



CARBON NEUTRALITY

Scope 1 and 2

Become a carbon neutral airport operator (2026) and lay the groundwork to achieve Net Zero Carbon (2030).

Total Scope 1 and 2 emissions



SUSTAINABLE AVIATION

Scope 3

Driving other actors in the aviation sector to accelerate their decarbonisation

LTO emissions and ground handling



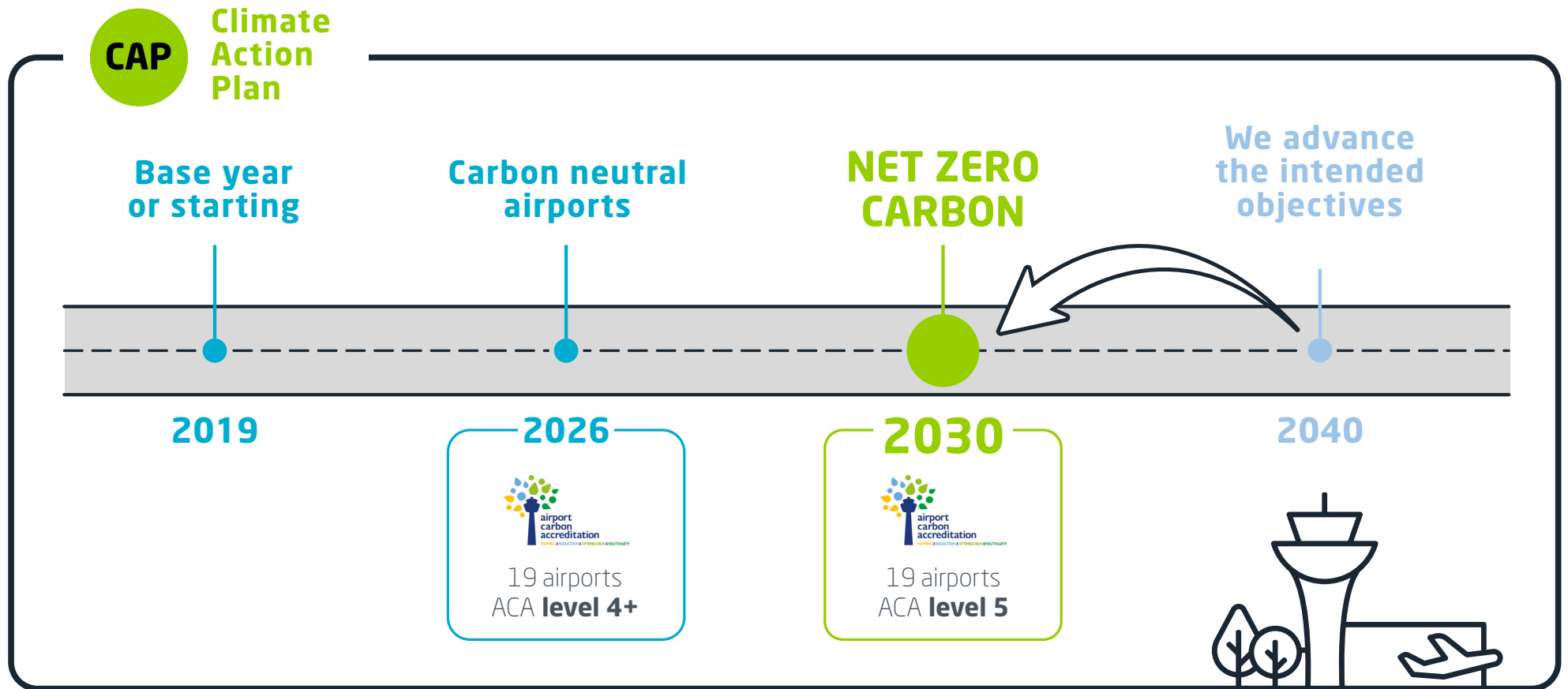
COMMUNITY AND SUSTAINABLE VALUE CHAIN

Scope 3

Improving the sustainability of our ecosystem by collaborating with providers, leaseholders, transport, and community companies

Transport emissions to/from airport

All these advances in sustainability will allow us to assume the expected increases in air traffic, guaranteeing the decarbonization of our activity to the extent necessary to meet the commitments of the Paris Agreement, and boosting the competitive advantage associated with a low-carbon economy.





4

Risks and opportunities related to climate change

Climate scenario analysis, recommended by the TCFD (Task Force on Climate-related Financial Disclosures), allows the integration of climate-related risks and opportunities into the organisation's strategy and creates useful information for investors.



Risk Management

Climate risks are integrated into the Company's risk map, complemented by robust management, supervision, and control mechanisms. These mechanisms incorporate indicators and measures aligned with the objectives of the Climate Action Plan to ensure effective risk mitigation and compliance.

Aena adopts a holistic approach to risk management, involving all corporate divisions and governing bodies in the comprehensive process of identifying, analyzing, evaluating, assessing, and controlling risks.

Aligning with our corporate environmental commitments and objectives, integrating climate risk analysis into our risk management framework is crucial. It enables us to identify, prevent, and mitigate the various strategic impacts of climate change while also uncovering new opportunities.

Organization scheme for risk management



BOARD OF DIRECTORS

Defines, realises and approves the Risk Control and Management Policy.



AUDIT COMMITTEE

Oversees the internal control and risk management systems, ensuring that they are identified, managed and maintained at planned levels.



CORPORATE DIRECTORATES

Identify and evaluate the risks under their area of responsibility, proposing and executing action plans for their mitigation and reporting on the effectiveness of such plans.



INTERNAL AUDIT MANAGEMENT

The Risk Management Department oversees the proper functioning of the Risk Management System, standardises and consolidates information related to risk identification and assessment, including follow-up actions, and reports to the Management Committee and the Audit Committee.

In 2023, the climate risk analysis has been updated following the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) in line with best practice, to facilitate a better understanding of the impact of climate change risks and opportunities on our business.

Physical and transition risks and opportunities

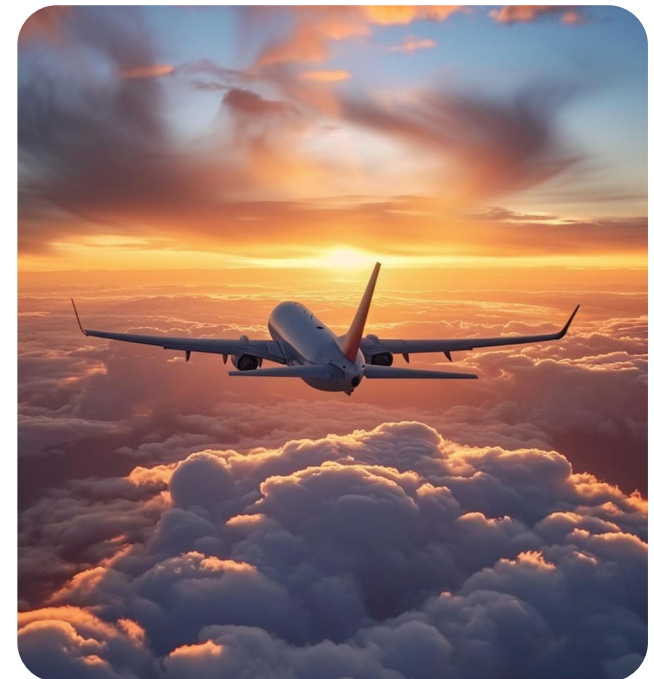
Following the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD), climate risks have been analysed, differentiating between physical or transition risks and opportunities.

The following climate scenarios have been considered in the physical risk analysis:

- **RCP 8.5 SCENARIO** (Business as Usual scenario): corresponds to a trajectory in which emissions continue to rise at the same rate as today, assuming global warming that is unlikely to exceed 4°C.
- **RCP 4.5 SCENARIO** (strong mitigation scenario): corresponds to a trajectory in which emissions would have been halved by 2080 and it is very likely that 2°C of global warming will not be exceeded.
- **SSP1-2.6 SCENARIO** The SSP scenarios consider both the level of emissions and the Shared Socioeconomic Pathway⁷. The “1” refers to the socioeconomic trend, in this case the sustainable development trend, and the 2.6 refers to the approximate level of radiative forcing⁸ for the year 2100. This scenario has similarities to RCP2.6 in terms of climate projections, although it covers a wider range of future greenhouse gases and atmospheric pollutants. Such scenarios are considered in the IPCC Sixth Assessment Report.

⁷ Shared socioeconomic trajectories (SSPs) are scenarios of global socioeconomic change projected to 2100.

⁸ Radiative forcing or climate forcing is the difference between the insolation (sunlight) absorbed by the Earth and the energy radiated back.



To analyse the potential risks for air traffic, we used climate scenarios of the International Energy Agency that show information, data, and projections relative to air traffic in various timelines. The study focused on the following climate scenario:

- **NZE (NET ZERO EMISSIONS BY 2050) SCENARIO:** this scenario outlines how the global energy sector can achieve net zero CO₂ emissions by 2050, aligning with the UN Sustainable Development Goals and limiting global warming to 1.5°C by 2100. It represents the most demanding pathway for organizations, as it entails implementing various costly measures. Consequently, achieving this goal may require organizations to adapt their strategies in the short term to accommodate these measures.

In the 2023 climate risk and opportunity study, the potential economic, operational and reputational impact of the following risks has been quantified:

- **PHYSICAL RISKS:** airport infrastructures or the management of transport services may be affected in the medium/long term by heat waves, extreme precipitation and temperatures, water stress or droughts, rising sea levels and the risk of river or coastal flooding.

Based on the physical risk analysis carried out and taking into account the adaptation measures already implemented or planned, the vulnerability of airport activity in the different operational areas to climate change has been determined. Likewise, as a consequence of a possible materialization of these risks, an increase in air conditioning expenses (OpEx) could be expected, as well as the potential future need to incur investments to extend runways at some airports to avoid operational restrictions or to protect facilities against extreme precipitation or sea level rise (CapEx), among others.

TRANSITION RISKS

The transition risks analyzed in the short, medium and long term are as follows:

- Regulatory and legal changes that could lead to an increase in the price of carbon emissions, demand reduction or other aspects related to the implementation of the EC Fit For 55 regulatory package, and the ban on short-haul flights.
- Incorporation of new technologies and sustainable fuels at airports, especially in relation to the mandatory use of Sustainable Aviation Fuel (SAF) by airlines.
- Energy recession resulting from the energy crisis.
- Changes in consumer preferences and behavior due to the stigmatization of the sector.





• **OPPORTUNITIES:** Based on the assessment of climate risks, the following opportunities have been identified to ensure the sustainability of the Company's business model in the long term:

- Renewal of the company's own sustainable fleet for the use of alternative fuels: electric technology and use of HVO.
- Production of renewable electricity for self-consumption.
- Development of Efficient Airport Operations Management technologies that enable more efficient, competitive, safe, and sustainable traffic.
- Transforming airports into sustainable multimodal hubs to improve the customer experience and reduce emissions throughout the "door-to-door" journey: Airport connections to train stations/ports, sustainable shuttles between terminals and establishment of electric and hydrogen refueling infrastructure to promote sustainable public and private transportation at our airports.
- Development of services adapted to changes in consumer preferences resulting from climate change.

Based on the above, the company is currently preparing the relevant Climate Change Mitigation and Adaptation Plan. This will contain the mitigation measures for the identified risks and the corresponding prioritized adaptation measures that complement the CAP and the Net Zero Roadmap and represent Aena's comprehensive response to managing the risks and opportunities of climate change:

- Mitigation measures: consist of reducing the negative environmental impacts resulting from airport activity and developing environmentally friendly means of transportation. The aim is to encourage airline collaboration with other stakeholders, promoting the reduction of greenhouse gases released into the atmosphere and contributing to the mitigation of climate change.
- Adaptation measures: consist of measures to adapt the airport's activities and infrastructure to the foreseeable evolution of climate variables, the potential impacts of climate change and the potential impacts on the airport's infrastructure and operations, as identified in the physical climate risk study and in the strategic environmental assessment of the airport master plans. This analysis relates to interim timelines pursuant to forecast development.

Similarly, procedures are established to mitigate the operational impact of emergency situations, such as those related to meteorological and geological events, which may affect aircraft and/or facilities during operations. Therefore, each airport has specific Action Plans to address meteorological situations that could impact operations, such as the Winter Action Plan designed to manage inclement winter weather conditions. The ice and snow contingencies, commonly referred to as the Winter Plan, are activated in the 21 Spanish airports across the network that are susceptible to adverse weather conditions during the winter months. The rest of the network's facilities maintain a level of response to this type of inclement weather that varies according to their operational needs and geographical location. For the Winter Plan, Aena establishes the procedures to be followed by airports in the event of this type of contingency in order to minimize the impact of ice and snow on air traffic at airports, where the priority at all times is safety.

With respect to geological events, it should be noted that, in the case of airports close to areas at risk of volcanic eruptions, there are procedures for ash removal.

AENA RISK ANALYSIS

PHYSICAL RISKS

- Extreme temperatures
- Heat waves
- Extreme precipitation
- Water stress and droughts
- River flooding
- Sea level rise

TRANSITION RISKS

REGULATORY AND LEGAL RISKS

- EU standard Fit for 55
- Ban on flights with high-speed train alternative

TECHNOLOGICAL RISKS

- New technologies and sustainable fuels at airports

MARKET RISKS

- Economic recession due to energy crisis

REPUTATIONAL RISKS

- Stigmatization of the sector



OPPORTUNITIES



• **Renewal of the company's own** sustainable fleet for the use of alternative fuels: electrical technology and use of HVO



• **Electricity production** renewable in self-consumption



• **Development** of Efficient Airport Operations Management technologies that will allow for more efficient, competitive, safer and sustainable traffic



• **Multimodal hubs** to enhance the customer experience: connections from airports to train stations/ports and sustainable shuttles between terminals

• **Developing services** adapted to changes in consumer preferences resulting from climate change



Monitoring of the Climate Action Plan 2023

Our commitment to decarbonization is reinforced in 2023,
thanks to the favorable progress of the targets achieved.



5

Metrics, Objectives and Evolution of Emissions

Aena calculates its carbon footprint, which encompasses the airports within the Spanish network, heliports, SCAIRM, and Central Services. This calculation helps assess the impact of its activities on climate change, monitor environmental performance concerning climate change, and evaluate the effectiveness of measures implemented to combat it.

For the calculation of 2023 emissions, we have used current emission parameters, which are calculated each year. It is worth noting that Aena's emissions certification is incorporated into the annual Airport Carbon Accreditation program at major airports, covering approximately 91% of the network's emissions from 2020 onwards. Furthermore, in 2023, we secured verification of our carbon footprint (scopes 1, 2, and 3) in compliance with the international assurance standard ISAE 3410. This verification, conducted under the GHG Protocol calculation methodology, provided a limited level of assurance. It is important to highlight that the calculation of Scope 2 emissions has been conducted based on market-based criteria. This approach considers the residual electricity mix for non-renewable energy, with a conversion factor of zero applied to electricity sourced from renewable sources with a valid certificate of origin.

Greenhouse gas emissions (Scope 1, 2 and 3) (tCO₂e)

	2019	2020	2021	2022	2023	Reduction 2023 vs 2019
Scope 1 emissions	22,770	17,113	16,793	17,805	14,309	-37,16%
Scope 2 emissions	113,861	26,199	31,871	26,990	26,263	-76,93%
Scope 3 emissions	3,866,448	1,870,884	2,255,476	3,280,638	3,375,955	-12,69%

Note: CO₂ equivalent (tCO₂eq) is a universal measure used to indicate, in terms of CO₂, the equivalent of each greenhouse gas with respect to its global warming potential. The table includes the tCO₂e emissions of Aena SME SA and SCAIRM for the period 2019-2022, verified in accordance with the criteria of UNE-EN ISO 14064-3:2019, with a limited level of assurance, under the GHG Protocol calculation methodology and in the case of the 2023 footprint in accordance with the requirements of the international standard for assurance engagements ISAE 3410.

Scope 1 and 2

Description of the categories of Scopes 1 and 2 of Aena's carbon footprint:

The categories of Scope 1 and 2 included below are based on those established in the ACI EU Airport Carbon Accreditation Programme



Scope 1 emissions:

Direct emissions from sources or processes and activities controlled by Aena in its facilities, such as emissions from heating boilers, the fire extinguishing service or fleet vehicles.



Scope 2 emissions:



Indirect emissions produced by the generation of electricity or thermal energy purchased at airports.

Aena's energy consumption

Greenhouse gas emissions are calculated from the organisation's fuel and energy consumption.



Aena energy consumption (GJ)

	2019	2020	2021	2022	2023
 Fuels (Scope 1)					
Gasoil/ Diesel	175,238	128,154	131,276	136,081	112,248
Gasoline	2,297	1,907	1,973	1,886	1,340
Natural Gas	164,590	132,092	120,498	133,503	122,635
Propane	851	551	796	624	389
Kerosene	2,661	1,501	2,314	1,544	820
Biofuels	-	-	-	-	9,628
Subtotal	345,637	264,205	256,857	273,637	247,060
 Purchase of electric and thermal energy (Scope 2)					
Electricity	3,447,151	2,591,629	2,884,816	3,346,497	3,433,570
Heating/ Cooling	623,144	522,762	605,602	620,436	606,099
Subtotal	4,070,295	3,513,095	3,490,418	3,966,933	4,039,669
Total	4,415,932	3,378,596	3,747,275	4,240,570	4,286,729

Note: In 2023, the purchase of biofuels included HVO, biopropane and biomethane.

Scope 3

At Aena, we recognize that airports contribute to only a fraction of the sector's emissions. Therefore, we aspire to catalyze the transformation of the entire aviation sector by fostering collaboration and implementing innovative solutions in partnership with key stakeholders, including airlines, handling companies, as well as employees and passengers at our airports. So, our road towards decarbonisation of the sector also involves reducing Scope 3 emissions related to third parties.

The categories applicable to Scope 3 are established based on sections from the CDP (Carbon Disclosure Project) survey on climate change, as follows:

Description of Type 3 categories of Aena's carbon footprint:

- **Purchased goods and services:** Includes all "upstream" emissions from the production of all goods (intangible products) and services (intangible products) purchased or acquired by Aena.
- **Capital goods:** emissions associated with the life cycle of capital goods purchased or acquired. Capital assets are those treated as fixed assets, property and equipment.
- **Activities related to energy production:** Activities related to energy production: Includes emissions related to the production of energy or fuels acquired and consumed in the reporting period that have not been included as part of the footprint in Scopes 1 and 2 (emissions from fuel use and electricity consumption). Scope 1 includes use of fuels by controlled or owned sources. Scope 2 includes those emissions derived from the use of fuels to generate electricity, steam and air conditioning acquired and consumed.
- **Waste generated in operations:** Including deposit emissions and treatment of residues generated in our operations in the annual report. This category includes both solid and liquid residues.
- **Business travel:** Includes emissions derived from travel by employees for work and business activities in vehicles owned by Aena or operated by third parties such as airplanes, trains, buses, etc.
- **Employee commuting home-work-home** Includes emissions due to employee commuting home-work-home. Can be due to:
 - Travel by car
 - Travel by bus
 - Travel by train
 - Travel by underground train
 - Others (e.g., bicycle, walking, tram).
- **Upstream leased assets:** This category includes emissions associated with the operation of assets that are leased by Aena and that are not included in the Scope 1 and 2 emissions inventory. This category includes machinery over which the organisation has no operational control.
- **Downstream transportation and distribution:** Includes all emissions of "downstream" transport. In our case, it covers the movement of passengers to and from airports, as well as the distribution of goods to the nearest transport node.

Emissions evolution Scope 3 (tCO₂e)

- Use of services provided by the company:**

Includes emissions caused by the use or consumption of goods or services sold. Our customers include: airlines, handling agents and passengers. The use of services by passengers is included in Scope 1 and 2 emissions, as it corresponds to the use of facility services (lighting, air conditioning, water, etc.) that has already been considered in the Scope 1 and 2 inventory or in other Scope 3 categories.

In the case of airlines and ground handlers, emissions from aircraft take-off and landing (LTO cycle), auxiliary units (LTOs) and auxiliary units (LTOs) are included in this category (APU) and the emissions caused by the activity of these agents, of Scope 3.

- Investments:** This category includes issues associated with investments made in international investee subsidiaries in 2023.

Scope 3 emissions are calculated according to the Corporate Value Chain (Scope 3) Accounting and Reporting Standard published by the GHG Protocol Initiative.

	2019	2020	2021	2022	2023
Purchased goods and services	364,289	211,438	242,184	325,126	398,008
Capital goods	388,463	416,448	356,485	254,361	204,687
Activities related to the energy production (not included in Scope 1 or 2)	38,730	5,298	9,690	12,228	12,469
Waste generated during the operation	15,717	7,298	3,548	4,922	5,750
Business travel	3,949	2,661	1,760	2,195	1,186
Commuting home-work Employee commuting	3,367	1,275	2,523	2,036	6,486
Upstream leased assets	37	No material	38	88	128
Transportation and distribution	611,323	143,885	130,742	638,907	384,554
Use of services provided by organization					
Ciclo LTO	2,327,368	1,019,117	1,431,664	1,859,373	2,179,148
APU	58,490	22,577	31,438	51,371	57,510
Handling	30,754	18,288	19,485	32,164	30,290
Investments	23,960	22,600	25,918	97,908	95,739
Total	3,866,448	1,870,884	2,255,476	3,280,638	3,375,955

Note: Emissions of greenhouse gases are calculated based on consumption of fuels and energy by the company.

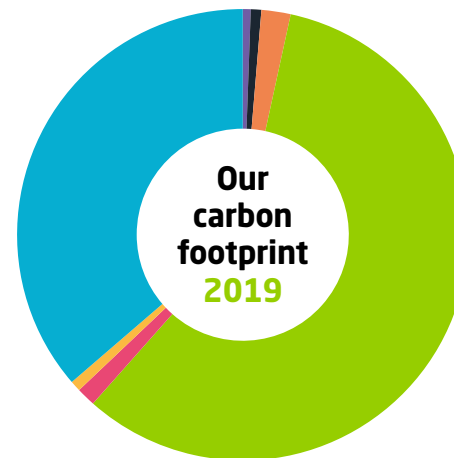
Emission reductions in Scope 1 with respect to 2019 have reached 37.19%, thanks to the implementation of mitigation and efficiency measures, the increase in the percentage electric vehicles in our own fleet, efficiency measures in air conditioning or the purchase of biofuels.

The Scope 2 emissions reduction achieved in 2023 with respect to 2019 is 76.9%, mainly due to the purchase of 100% of electricity with a guarantee of renewable origin, and the reduction of the operating regime of the concessioned cogeneration plant at AS Madrid-Barajas that supplies thermal energy to the airport's terminals, which results in lower consumption of natural gas.

The Scope 3 footprint reduction achieved in 2023 compared to 2019 has been around 12 %, mainly due to the introduction of a more sustainable aircraft fleet by airlines, as well as collaborative initiatives with third parties implemented during 2023.

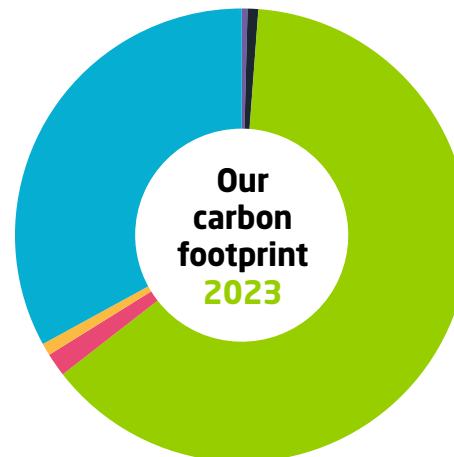


Emission contribution year 2019 (tCO₂e)



- Scope 3, Others **1,453,836 tCO₂e**
- Scope 3, APUs **54,490 tCO₂e**
- Scope 3, Handling **30,754 tCO₂e**
- Scope 3, LTO Cycle **2,327,368 tCO₂e**
- Scope 1, Fuels **22,770 tCO₂e**
- Scope 2, Heating and cooling **30,071 tCO₂e**
- Scope 2, Electricity **83,790 tCO₂e**

Emission contribution year 2023 (tCO₂e)



- Scope 3, Others **1,109,160 tCO₂e**
- Scope 3, APUs **30,290 tCO₂e**
- Scope 3, Handling **57,510 tCO₂e**
- Scope 3, LTO Cycle **2,179,148 tCO₂e**
- Scope 1, Fuels **14,309 tCO₂e**
- Scope 2, Heating and cooling **26,263 tCO₂e**
- Scope 2, Electricity **0 tCO₂e**

2023 Objectives and Actions Linked to Scope 1&2 Emission Reductions: CARBON NEUTRALITY PROGRAM

OBJECTIVES 2023

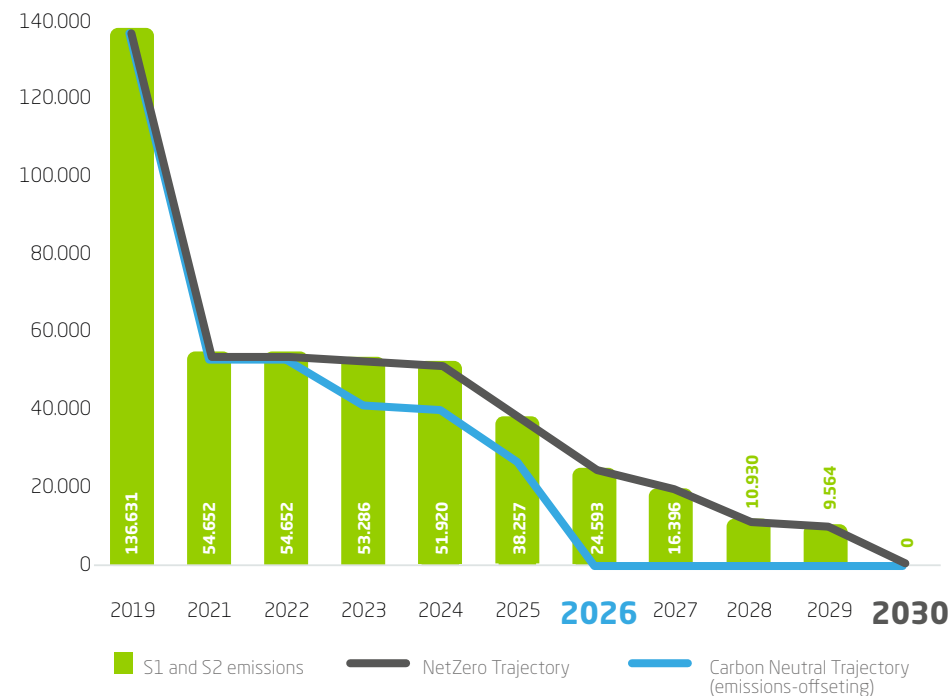
In 2023, the emissions reduction target was exceeded by more than 9% (total reduction of 70%). As a result, it was not necessary to purchase carbon credits to offset emissions, as the reduction target set for 2023 was also exceeded.



70% reduction in CO₂ emissions in 2023 compared to 2019, 9 points above the planned target, which implies an overcompliance and, therefore, it is not necessary to carry out emission offsets.

EMISSIONS REDUCTION

CAP Objective
Evolution of Scope 1 and 2 emissions (tn CO₂e)





Throughout this year, we have remained committed to sourcing electricity that is 100% guaranteed to be of renewable origin, ensuring not only our own consumption at Aena but also extending this commitment to our tenants and other companies operating within our airports. In addition, 0.9% of renewable electricity was produced in self-consumption from wind turbines and photovoltaic installations already in operation.

With regard to renewable energy production, progress in the development of the photovoltaic plan at our airports has been compromised due to the difficulties encountered by Aena in obtaining permits for connection and access to the grid.

In this regard, it is important to take into account the **capacity problems of the electricity grid**, which have led to a large number of projects currently waiting to be connected to the grid, both at national and European level. In order to take on the full capacity of renewable generation, it will be necessary to undertake large investments to expand its capacity.

Both the aforementioned limitations, which condition the development of the photovoltaic plan included in Aena's Climate Action Plan, and the advancement of the Net Zero objective from 2040 to 2030, make it necessary to reinforce the company's electrical and thermal energy strategy in order to guarantee compliance with the emission reduction objectives associated with the consumption of consumables, and to be able to reach net zero emissions in 2030.

ACTIONS 2023

Electric power strategy

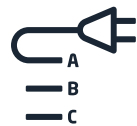
The company's electric power strategy is based on four pillars of action:



PHOTOVOLTAIC PLAN AND OTHER RENEWABLE INSTALLATIONS

10 airports with guaranteed access and connection.

In 2029:
~ 285 MWp (*)
~ 51% (*)



FINANCIAL PPA RENEWABLE ENERGY 10 YEARS

Collaborate with one or more renewable producers by financing and stabilizing their investment for 10 years, in exchange for specific fixed-price GdO.

As of 2026:
15-20% (*)



PURCHASE 100% RENEWABLE ENERGY WITH CERTIFICATE OF GUARANTEE IN ORIGIN

Purchase of renewable energy with a guarantee of origin certificate up to 100%.



FUTURE NETWORK INDEPENDENCE SOLUTIONS

Feasibility analysis of lithium and green hydrogen battery storage leveraging land availability, with the aim of increasing installed power through storage and improving resilience and independence from the grid.

100% green energy

* Percentages calculated with respect to 2019 consumption: 952 GWh/year.



Photovoltaic Plan and Other Renewable Installations: Throughout 2023, work continued on the Photovoltaic Plan based on actions related to the drafting of projects, permit applications and the deposit of the necessary guarantees. Thus, during 2023, construction work began on the 120 Mwn plant at Adolfo Suarez Madrid-Barajas airport and contracting procedures have begun for the construction of both the 10 Mwn Josep Tarradellas Barcelona-El Prat airport plant and the 12.5 Mwn Reus airport plant. In addition, the 0.6 MW solar photovoltaic plant at Gran Canaria Airport was commissioned by the end of 2023.

Taking into account the aforementioned difficulties, **the deployment of Aena’s Photovoltaic Plan in 2029 could reach a percentage of 51% with respect to consumption in 2019.**

Photovoltaic plan. Installations and power (2023)



Airport AS	Peak power	Production (GWh/year)
AS Madrid-Barajas (142)	142 MWp	243
JT Barcelona-El Prat	12 MWp	19
Reus	15 MWp	25
Zaragoza	6 MWp	12
Málaga-Costa del Sol	7 MWp	10
València	28 MWp	50
La Gomera	1 MWp	2
AS Madrid-Barajas (45)	50 MWp	89
Sevilla	4 MWp	8
La Palma	1 MWp	2
Others	19 MWp	28



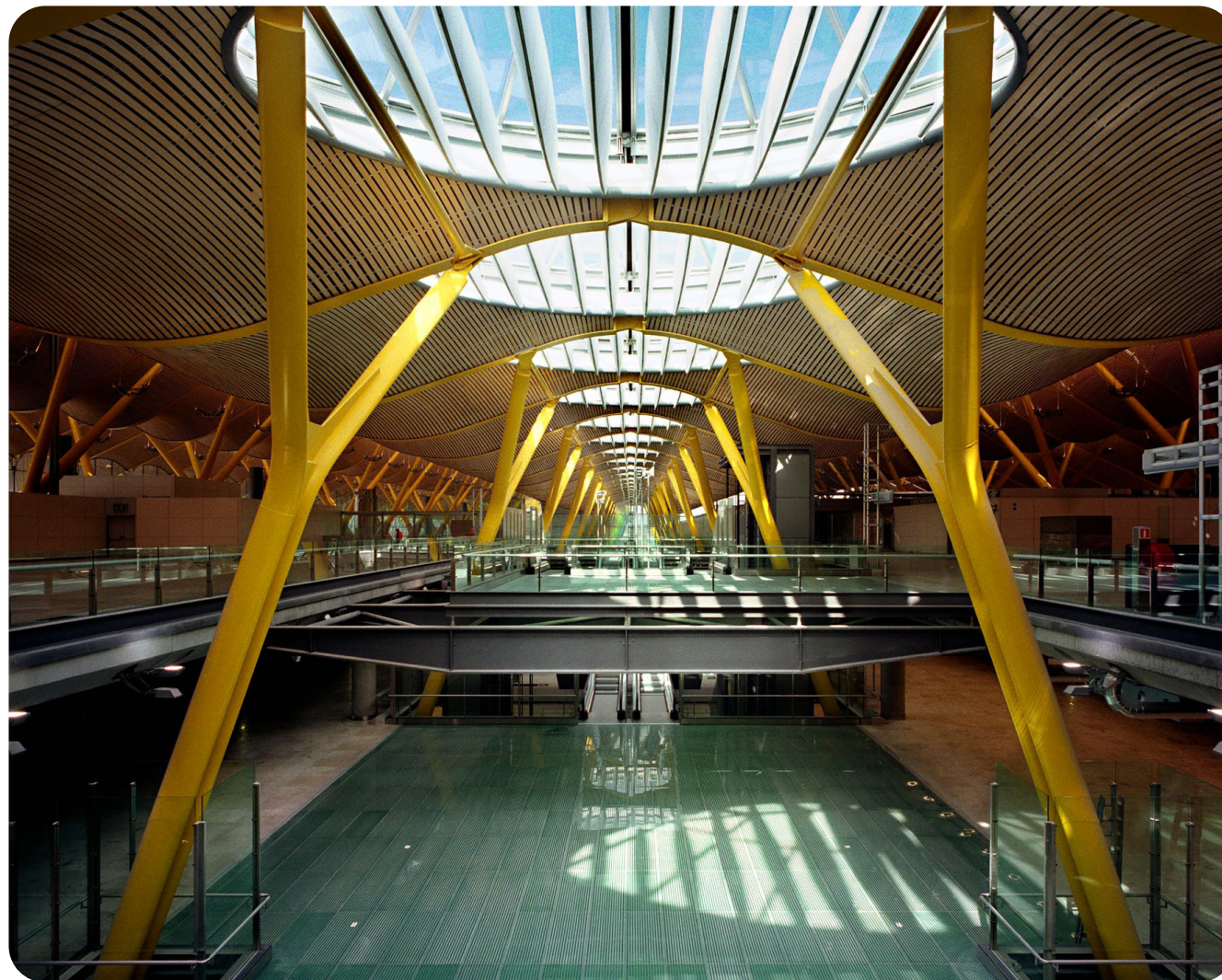
PPA (Power Purchase Agreement)⁹

Financial: It will materialise as of 2026, with the objective of covering between 15% and 20% of total electricity consumption.

Commitment to maintain the purchase of 100% renewable energy with a certificate of guarantee of origin: Incorporation in electricity contracts of the necessary requirements to guarantee that 100% of the energy consumed by Aena is of renewable origin.

Future grid independence solutions: In addition, and with the aim of increasing installed power through storage and improving the resilience and independence of the electricity grid of the airports managed by Aena, studies have been initiated to ascertain the feasibility of storing renewable energy in lithium and green hydrogen batteries, taking advantage of the space available at our airports, with the aim of increasing installed power through storage, improving the resilience and independence of the electricity grid.

⁹ PPA (Power Purchase Agreement): is a long-term power purchase agreement or contract between a renewable developer and a consumer.



Thermal energy strategy

The thermal energy strategy is being strengthened to enable the corresponding emission reductions and achieve the “Net Zero” target by 2030.

It is aimed at reducing mainly own Scope 1 emissions, derived from the use of fossil fuels for air conditioning, and Scope 2 emissions from the cogeneration plant managed by third parties at A.S. Airport. Madrid-Barajas.

The use of renewable energies for the **generation of thermal energy** in the airports of the Aena network is presented as an opportunity to improve the environmental situation of the airports, making them more sustainable, efficient, and resilient, with the **objective that by 2030 100% of the thermal energy** consumed by our airports will be **of renewable origin**.

The reinforcement of the strategy is mainly based on two pillars of action:

SUSTAINABLE HEATING/COOLING

Implementation of renewable thermal energy solutions, based on Geothermal (MAD and PMI) and Aerothermal (BCN) hybrid with Renewable Electricity.

- **Geothermal energy**
- **Aerothermics**
- **Electric chillers**
- **Electric boilers**

Total thermal energy production:
 Geothermal and aerothermal --> 168 GWh/year
 Heating --> 94 GWh/year
 Cooling --> 74 GWh/year



RENEWABLE FUELS AND GASES

- **Substitution of natural gas consumed by biomethane or biogas with guaranteed renewable origin.**
- **Replacement of heating oil consumed with sustainable diesel (HVO)**



Sustainable heating/cooling

The strategy includes implementing renewable thermal energy solutions, such as geothermal energy for Adolfo Suarez Madrid-Barajas and Palma de Mallorca airports, and aerothermal energy for Josep Tarradellas Barcelona-El Prat airport. Additionally, it involves electrifying air conditioning systems through heat pump installations, electric chillers, and boilers, hybridized with renewable electricity production or purchase.

During 2023, progress has been made in carrying out the preliminary work for the implementation of these facilities.

Sustainable climate control. Geothermal/Aerothermal installations and production



Purchase of sustainable fuels for heating

The new thermal energy strategy encompasses the procurement of sustainable fuels, aiming to fully phase out the use of fossil fuels in our facilities by 2030. This complements the emission reductions anticipated in the field of thermal energy by the aforementioned renewable energy initiatives.

The transition from fossil fuels to sustainable heating fuels involves procuring biomethane or biogas with certified renewable origins, replacing fossil-origin natural gas. Additionally, it includes substituting heating diesel with sustainable alternatives like hydrobiodiesel or HVO (hydrotreated vegetable oil).

In 2023, the procurement of sustainable fuels marked a significant milestone as the first batches of hydrobiodiesel (HVO) and biomethane, certified under the ISCC+ and ISCC EU schemes, were supplied for boilers and generators at several airports including JT Barcelona-El Prat, Valencia, Palma de Mallorca, Ibiza, and Girona-Costa Brava.

Moreover, the continued purchase of biopropane for the FGL Granada-Jaén airport further replaced fossil-origin natural gas and diesel previously consumed across the Aena airport network.

Another significant achievement in 2023 was the reduction in diesel oil consumption in the T123 boilers at AS Madrid-Barajas Airport. This was made possible by connecting the airport's cogeneration plant with Terminals 1, 2, and 3, enabling the utilization of surplus thermal energy produced by the cogeneration plant for air-conditioning purposes in these terminals. Previously, these terminals relied on diesel oil boilers for air-conditioning. As a result, the boilers at these terminals will no longer be used in 2023, saving more than 1,000,000 liters of diesel fuel.



Finally, as this cogeneration plant will be one of the main sources of CO₂ emissions at the airport in 2023, a specific action plan has been drawn up for it.

This plan establishes that, once geothermal energy becomes operational as the main producer of thermal energy for the airport, the new cogeneration plant will be configured as a control center for renewable thermal energy, also providing continuity and emergency power. To this end, it will manage a hybrid renewable energy solution. The plant's operating regime will be conditioned to compliance with the GHG emissions reduction based on Aena's Climate Action Plan, and additional investments in sustainable technologies will be made to cover the peaks.

The project includes the installation of new chillers and electric boilers and the connection of these to one of the airport's future photovoltaic plants.

All these actions will be implemented in order to guarantee the emission reduction targets committed to and achieve "Net Zero Carbon" in 2030.

OTHER ACTIONS

Electric vehicles

In 2023, the purchase and acquisition of electric vehicles and vans continued, with a total of 66 electric vehicles and 109 electric vans. In addition, during 2023, work has begun on the transition of the current diesel shuttles at AS Madrid-Barajas Airport to electric shuttles, with the aim of having them in operation by 2026.

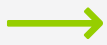
Energy efficiency

During the year 2023, measures aimed at adapting and controlling energy consumption to actual airport operations and technological improvements in lighting and air conditioning (presence detectors, replacement with LEDs, renovation of air conditioning installations and automatic lighting regulation, etc.) have continued.

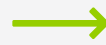


With respect to the installation of energy management platforms for the network's airports, already installed at Adolfo Suarez Madrid-Barajas airport, during 2023 we have been working on a strategy that will enable deployment at the network's main airports, taking into account innovative technologies such as the use of artificial intelligence, which will enhance their functionality.

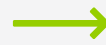
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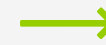
SUSTAINABLE
GOVERNANCE



STRATEGY



RELATED RISKS AND
OPPORTUNITIES TO
CLIMATE CHANGE



**MONITORING
OF THE CLIMATE
ACTION PLAN**



2023 Objectives and Actions Linked to the Reduction of Scope 3 Emissions: **COMMUNITY AND VALUE CHAIN AND SUSTAINABLE AVIATION PROGRAMS**

ACTIONS 2023

The main actions aimed at reducing Scope 3 emissions are framed within programs 2 (Sustainable Aviation) and 3 (Community and Value Chain) of our CAP, focused on positioning Aena as a driver for other agents in the aviation sector to accelerate its decarbonization, as well as promoting sustainable mobility to and from the airport, and proactive collaboration with the supply chain and the community.

The following is a summary of the main actions carried out during 2023 aimed at reducing Scope 3 emissions:

Sustainable Ground Handling Fleet

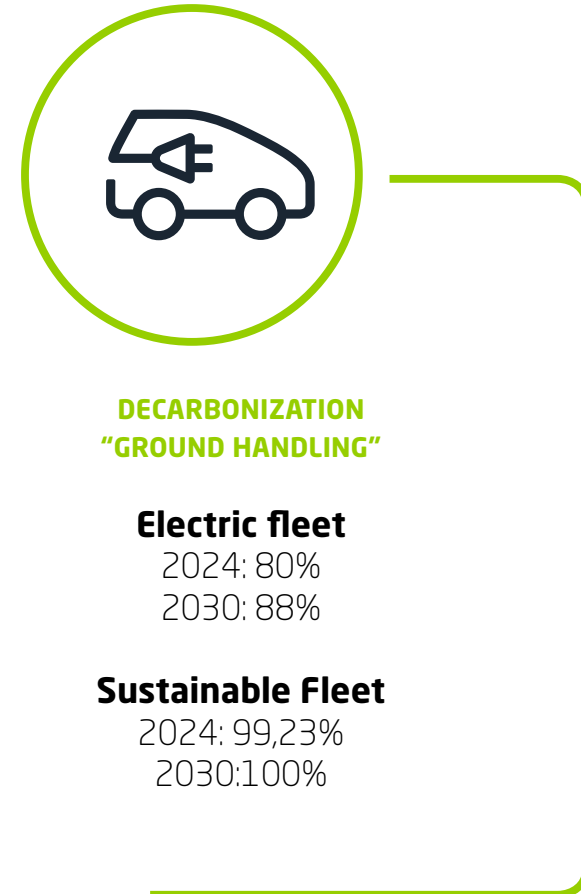
One of the pillars of action for the decarbonization of third-party activity is the transition to sustainable fleets of vehicles and aircraft ground handling equipment.

In this context, we are rolling out the necessary initiatives to guarantee that this transition is possible and completed for all ground crew airport services.

In pursuit of these objectives, in 2023, Aena awarded a new public tender for ground handling services to third parties, specifically in the ramp handling category. This tender includes targets to achieve an 80% electric fleet and 99.23% sustainable fleet by 2024, with further ambitions to reach an 88% electric fleet and 100% sustainable fleet by 2030. These initiatives aim to ensure that the ground handling activity becomes practically “Zero Emissions” by 2024.

In addition, ground handling vehicles will have telemetry in these new licenses, which will improve efficiency by reducing energy consumption.

To meet the recharging needs of this additional electric equipment, 335 electric chargers have been installed in the airside of most airports during 2023 to serve this new electric fleet. This action will be completed by 2024 for all airports in the network, with 184 additional recharging points to be installed. To carry out this action, a European grant has been obtained from the CEF-AFIF Program (included in the “Connecting Europe Facility”, in the “Alternative Fuels Infrastructure Facility” line), as it is a project of special relevance due to its magnitude.



Sustainable aviation fuels

During the year 2023, the RefuelEU Aviation regulation has been approved, which establishes mandatory minimum and increasing amounts of sustainable aviation fuels to be used. This new regulatory reality is based on sustainable aviation fuels (SAF) and e-fuels, as they are currently the only technologically viable alternative to promote the decarbonization of air transport in the short-medium term.

The new Regulations contain, among others, the following main provisions:

1. The obligation for aviation fuel suppliers to ensure that all fuel made available to aircraft operators at EU airports contains a **minimum percentage of sustainable aviation fuel from 2025 and, from 2030, a minimum percentage of synthetic fuel**; both percentages must be progressively increased until 2050; fuel suppliers will have to incorporate 2% sustainable aviation fuels by 2025, 6% by 2030 and 70% by 2050; from 2030, 1.2% of fuels must also be synthetic, increasing to 35% by 2050.
2. The obligation for aircraft operators to ensure that the annual amount of aviation fuel they refuel at a given EU airport represents at least 90% of the aviation fuel required annually, in order to **avoid tankering practices** that generate more emissions due to excess weight.
3. The obligation for airport managers to facilitate aircraft operators' access to the SAF, and the obligation to report to the competent authority the amount of aviation fuel consumed at each airport.

The Spanish refining system is one of the four with the largest production capacity in Europe, and is poised for being a leader in the SAF production market.





It is worth mentioning the different initiatives announced by companies in the energy and Oil&Gas sectors regarding the production of SAF in Spain. Thus, a new facility with a production capacity of 250,000 tonnes of biofuels was commissioned in Cartagena at the end of 2023, which could produce up to 200,000 tonnes per year of sustainable aviation fuels. In addition, an electrofuels demo plant is also under construction in Bilbao, with a capacity of 2,100 tonnes per year, and initiatives have been announced to produce 500,000 tonnes of e-fuels by 2026 and 800,000 tonnes by 2030. These quantities more than cover the estimated demand for PBS in Spain for the coming years, and could even meet European demand by exporting this product to other European countries with a production deficit.

In addition to the Spanish refining system, it's worth noting that the aviation fuel logistics system is one of the most efficient in the world, both economically and environmentally. This fact reinforces the availability of SAF at any of our airports, minimizing the logistic costs of the process in comparison with the rest of the European and world logistic systems.

As of today, physical SAF is already marketed in five of the main Spanish airports: Adolfo Suárez-Madrid Barajas, Josep Tarradellas Barcelona-El Prat, Son Sant Joan de Palma de Mallorca, Málaga-Costa del Sol and Sevilla-San Pablo.

The main air operators in Spain have already announced SAF consumption targets above even what is required by the RefueEU Aviation regulation, and some operators have already started in 2023 to supply PBS in fixed proportions and on a continuous basis.

Finally, it should be noted that during 2023 the **Air Transport Sustainability Alliance (AST)** has been formed, where more than 900 companies from the entire aviation value chain are represented, to promote the decarbonization of the sector and of which Aena is a member as a member of the **Governing Council**.

Hydrogen

To ensure the sustainability of air transport, not only in the short term but also in the medium and long term, it is crucial to collaborate closely with other stakeholders in the air transport ecosystem. This entails joint planning of actions to ensure continued service provision at Aena airports following the introduction of zero-emission aircraft and ground handling vehicles powered by hydrogen.

One of the main challenges to be solved is the definition of hydrogen airport logistics, taking into account the associated safety requirements, the needs for its transportation, both in gaseous state (for ground vehicles) and in liquid state (for aircraft), liquefaction needs, and the different alternatives to guarantee its availability for each of the airport centers.

For all of the above, it is necessary to have a forecast of the introduction of hydrogen vehicles and aircraft in the fleets of airlines and ground handling companies, and take into account that we will probably have to service a technological mix of sustainable aviation solutions, which will require us to have a wide range of logistics solutions.

In this regard, the collaborative efforts undertaken throughout 2023 within the “Alliance for the Promotion of the Use of Green Hydrogen in Aviation” are particularly significant. This collaborative initiative involves key stakeholders in the air transport sector, as well as representatives from hydrogen manufacturers and technology centers. Together, they have identified the primary challenges and barriers that the air transport sector must address to facilitate the introduction of future hydrogen-powered aircraft into service.

Furthermore, throughout 2023, efforts have been made to collaborate with key industry stakeholders to establish a partnership agreement. This agreement aims to facilitate a comprehensive Europe-wide initiative known as the **“Hydrogen Hub”**.



This initiative seeks to gain deeper insights into the hydrogen supply requirements (both gaseous and liquid) at airports, **assess the necessary adaptations to airport infrastructure and ground operations, and explore potential deployment scenarios for commercial aviation utilizing hydrogen (H₂) technology.**

The objective is to jointly develop a **roadmap** with actions to address the challenges, for which we will define a promotion plan and design a communication strategy on the needs of hydrogen aviation. The work will be carried out in 2024.



Efficient flight operations

ENAIRES, with which Aena maintains close collaboration, plays a crucial role in the reduction of air transport emissions in our country. Both companies have carried out a joint analysis of our sustainability objectives, based on ENAIRES’s ambitious “Green Sky” program and our Climate Action Plan.

As a result, we have included in our service contracts the following commitments based not only on emissions reduction but also on other environmental improvements:

Reduction of atmospheric emissions: Through the implementation of A-CDM and Advanced Towers, as well as the “additional Taxi Out time”. Also through improving Taxi-In efficiency, together with General Management for Civil Aviation. In total, the Aena network has A-CDM and advanced towers at 5 and 10 airports, respectively.

Likewise, the average additional Taxi-out time at the five largest Spanish airports (AS Madrid-Barajas, JT Barcelona-El Prat, Gran Canaria, Palma de Mallorca and Malaga-Costa del Sol) has remained below the average of the five major European airports.

As for the average additional ASMA time, at the major airports of JT Barcelona-El Prat, Gran Canaria, AS Madrid-Barajas and Malaga-Costa del Sol it remained below the average of the five major European airports in 2023.

Thanks to the above and the improvement in aircraft efficiency, a reduction in CO₂ emissions due to the LTO cycle of 6.4% has been achieved in 2023, compared to 2019.

Finally, the CEM⁹ Working Groups have also been included, where we identify and launch all those initiatives of interest for ENAIRES, Aena and air transport stakeholders that can contribute to making our industry more sustainable.

⁹ CEM (Collaborative Environmental Management) EUROCONTROL’s collaborative framework



Community and sustainable value chain

During this year, work has been done to promote multimodal transport, as the key to decarbonizing the entire trip of each air transport user. To achieve this objective, it is imperative to transform airports into multimodal hubs that streamline efficient, sustainable, and resilient door-to-door connections. This entails further defining plans to link our airports with train and high-speed rail stations and installing the requisite recharging infrastructure to support the operation of the most sustainable vehicle technologies on airport grounds. One of the main actions carried out in 2023 is the installation of new electric charging points so that by the end of the year the total number of charging points installed in our car parks is 772.

On the other hand, with the aim of proactively collaborating with the supply chain and the community to boost the sustainability of the air transport sector, the first call for the **“Aena with Research”** program was launched in 2023. This program seeks to promote research and technology transfer projects in the airport sector, insofar as they contribute to drawing conclusions to address problems, needs or opportunities in the sector, especially in areas related to social and environmental sustainability and the sustainable transformation of air transport. The projects will be developed by research groups, teams or departments of reputed recognition in their area.

The purpose is to provide financial support for research projects in the following areas:

- Carbon neutrality.
- Sustainable aviation.
- Responsible use of resources.
- Community and sustainable value chain.
- Social commitment.

The research grants program is endowed with a maximum amount of 840,000 euros for a total duration of 4 years.

In this first call for proposals, 18 different proposals were received and are in the process of being evaluated in order to begin the development of the works during 2024.

Innovative and sustainable projects

The second call of the Aena Ventures program, Aena’s startup accelerator aimed at solving the different challenges of the airports of the future, has been launched during the 2023 year. The program is divided into 5 challenges, one of which is framed around improving the sustainability and environmental performance of airports, called **“Greener Airport”**. In total, this edition of Aena Ventures received more than 500 proposals from 40 different countries, and a total of 95 proposals for the **“Greener Airport”** challenge.

Among all the proposals received, the projects that will finally be accelerated in this second year were also selected during the 2023 annuity. The project was selected for the **“Greener Airport”** challenge to carry out a proof of concept for the capture of CO₂ from fixed emission sources at airports.

This pilot project consists of the installation of a CO₂ absorption plant in the boilers of JT Barcelona-El Prat airport in operation for one month, validating both the technical and economic feasibility of implementing this type of solution in an airport environment, with the aim of contributing to the goal of zero net emissions



Editorial production: Editorial MIC