

2024 Environmental Report



Contents



Company Overview

Aer Lingus is the Irish flag carrier, founded in 1936. Aer Lingus operates over 100 routes from Dublin, Cork, Shannon and Knock to Europe, the UK and North America. Reaffirming its commitment to North America, the airline will operate 24 transatlantic routes in 2025 from Dublin and Shannon in Ireland, and Manchester in the UK, to North America and the Caribbean.

Aer Lingus is a 4-star airline, awarded by Skytrax, the international air transport rating organisation. Aer Lingus is a member of International Airlines Group (IAG), one of the world's largest airline groups.

Company Overview	· 02	<i>page</i>
Introduction	· 04	
Key Highlights	· 06	
The Need for Climate Action	· 10	
Our Carbon Reduction Strategy	· 12	
Addressing Environmental Impacts	· 22	
		<i>page</i>
		Our Supply Chain Programme · 28
		Environmental Metrics · 30
		Strategy & Governance of Sustainability · 36
		Supporting UN Sustainable Development Goals · 40
		Appendix · 42

Introduction

Aer Lingus takes its climate action responsibilities very seriously and, as part of IAG, has set a target of achieving net zero emissions by 2050 – the first airline Group worldwide to do so.

In 2024, Aer Lingus' sustainability programme focused on delivering reductions in emissions through the use of sustainable aviation fuel (SAF), growing our fleet of new fuel-efficient aircraft, and introducing operational improvements.

Aer Lingus, as part of IAG, has set a target of achieving net zero emissions by 2050 and to power 10% of our flights using SAF by 2030. These targets are driven by Aer Lingus' commitment to reducing our environmental impact by taking effective and measurable steps both on the ground and in the air, dependent on appropriate government policy support.

This report outlines the environmental performance of Aer Lingus in the year 2024 and provides information on our environmental strategies, as well as insights into our sustainability performance metrics.

Effective measurement of our progress is crucial to achieving our goals. Key achievements in 2024 which are outlined in more detail in this report include:

- An increase in the volume of SAF used by Aer Lingus from 750 tonnes in 2023 to 5,595 tonnes in 2024
- 35% of Aer Lingus' long-haul fleet is now comprised of next-generation aircraft
- The expansion of on-board recycling to our long-haul operation in 2024, resulting in 7 times more cabin waste being recycled vs 2023

- 74% of Aer Lingus' light-weight Ground Operations vehicles are now electric

Aer Lingus is proud to play an important role in connecting and uniting people and communities as well as facilitating trade, connecting businesses and supporting broader economic growth.

Aviation is a force for good and provides a vital function for societies and economies worldwide. However, as with any industry, the aviation sector must recognise the urgency of reducing its environmental impact through meaningful and measurable actions.

In the past 12 months, Aer Lingus conducted a Double Materiality Assessment as part of IAG's compliance with Spanish Law 11/2018 requirements which include alignment with the CSRD, and compliance with the EU Taxonomy regulation (2020/852).

Aer Lingus' focus is on delivering the maximum reduction in emissions at source, through three key pillars:

1. Investment in new technology aircraft
2. Purchase of Sustainable Aviation Fuel (SAF)
3. Increased application of operational efficiencies

New Technology Aircraft

Significant advancements continue to be made in aircraft technology. New generation aircraft reduce emissions by up to 20% compared to legacy aircraft and can reduce noise footprint by up to 50%.*

Aer Lingus began its transition to new generation aircraft in 2019, with eight new Airbus A321neo LR delivered between 2019 – 2021 to join our long-haul fleet. In 2024, Aer Lingus received two new Airbus A321 XLR aircraft, with another four aircraft of this model planned for delivery in 2025 to serve our growing transatlantic network.

On short haul routes, six new A320neo aircraft joined the fleet in the last three years, with additional replacement A320neos planned for delivery in 2025.

Sustainable Aviation Fuel (SAF)

Sustainable Aviation Fuel (SAF) is the main term used by the aviation industry to describe a non-conventional (fossil derived) aviation fuel. SAF is the preferred IATA and ICAO term for this type of fuel although when other terms such as sustainable alternative fuel, sustainable alternative jet fuel, renewable jet fuel or biojet fuel are used, in general, the same intent is meant. The full definition is available on the IATA website.

SAF produces similar levels of carbon dioxide to conventional fuel when burned, but it is already part of the carbon cycle and is not extracted from the ground, specifically for creating aviation fuel. That means using SAF results in a reduction in carbon emissions compared to the traditional jet fuel it replaces over the lifecycle of the fuel.

The ReFuelEU Aviation Initiative mandates that jet fuel suppliers blend a

specified proportion of SAF into jet fuel delivered to EU airports, distinguishing SAF into two main categories: biological origin fuels, including HEFA and advanced biofuels, and non-biological origin fuels, such as eSAF/Power-to-Liquid or synthetic fuels. The mandate requires SAF to make up 2% of fuel at EU airports by 2025, increasing to 70% by 2050, with synthetic fuels becoming a larger part of the mix, reaching 35% by 2050.

Achieving this target will require significant additional investment into these technologies and a major increase in large-scale production globally. Increased Government focus is also required to support and incentivise the production and supply of SAF in Ireland and in the European Union. Aer Lingus is participating in the Irish Government SAF Taskforce as we recognise that a collective effort – across airlines, manufacturers, fuel suppliers, investors, and policymakers – is required to build a new sustainable aviation fuel supply chain in Ireland and Europe. **This is critical for reducing carbon emissions from aviation and also presents an opportunity for Ireland to invest in an emerging industry, bringing its own employment opportunities and economic benefits for Ireland.**

Aer Lingus first operated with SAF in 2023, sourced in the UK and used on flights from London Heathrow. In 2024, Aer Lingus tripled the volume of SAF sourced at London Heathrow versus 2023 and procured our first SAF in Spain. Aer Lingus has also signed a number of contracts for the supply of SAF on the west coast of America anticipated to commence from 2026.

Operational Efficiencies

The single biggest short-term opportunity to improve operational efficiency in Europe is the implementation of the European Union's Single European Sky initiative, to modernise European air traffic management. The European Commission estimates that this initiative alone could reduce carbon emissions from aviation by up to 10%.

Separate to this, Aer Lingus is progressing a range of operational initiatives to reduce carbon emissions, including the introduction of more efficient flight planning, the use of single-engine taxiing, and reducing weight onboard. All of these contribute to reduced fuel usage and therefore lower carbon emissions.

Aer Lingus has also found new ways of reducing waste on board our aircraft through dynamic load planning technology, onboard recycling on both short-haul and long-haul flights into Ireland and replacing single use plastics with biodegradable alternatives. We are also replacing diesel powered ground operations vehicles with electric alternatives and, where that is not practical, replacing diesel with hydro-treated vegetable oil (HVO). Emissions from production of the fuel are reduced by up to 90% compared to diesel, and it can also improve air quality.

74% of Aer Lingus' light-weight Ground Operations vehicles are now electric and we are no longer using diesel fuel in any of our airside ground vehicles at Dublin, Cork or Shannon, having transitioned to HVO in 2024.

The challenge of reducing carbon emissions from aviation remains significant, but as outlined in this report, Aer Lingus is taking steps to reduce our environmental impact and continues to work towards our goal of achieving net zero carbon emissions by 2050. We need all stakeholders in the aviation ecosystem to work together to enable the low-carbon transition.

Aer Lingus' new Airbus A321 XLRs deliver up to 20% lower burn per seat than previous generation aircraft. In 2025, Aer Lingus will receive four more XLRs, significantly expanding our next-generation fleet.



* <https://aircraft.airbus.com/en/aircraft/a320-family>

Key Highlights 2024

At Aer Lingus, we are working towards achieving a lower carbon future and net zero carbon emissions by 2050, making every journey count with consideration for our people and planet.

Our teams across Aer Lingus, have worked together to achieve significant sustainability milestones over the course of 2024.

sustainability milestone

New Technology Aircraft

We welcomed the first two new Airbus A321 XLR aircraft to our fleet, which will operate on long haul routes in 2025. On short haul, we also received two new A320neo aircraft, adding to the four delivered in previous years. These aircraft will deliver up to

20% savings on fuel burn per seat

than previous generation aircraft and are much quieter.*



Hardware Recycling of IT equipment

We encouraged the reuse of laptops within the Aer Lingus community until their end of useful life where we then

recycled nearly 2 tonnes

of various items (eg: laptops, computers and monitors).

sustainability milestone

sustainability milestone

Sustainable Aviation Fuel (SAF)

London Heathrow SAF New Deal

increase of SAF usage three-fold in 2024

In 2024 we received 2,200 tonnes of SAF at London Heathrow

Spanish SAF New Deal

2024 – uplifted our first European SAF

In 2024, we received nearly 3,400 tonnes of SAF in Spain

We are also participating in the SAF Taskforce established by the Department of Transport and made submissions to support development of a domestic policy package in Ireland.



sustainability milestone

Recycling on board on long-haul flights

We expanded onboard recycling to long haul flights into Ireland

This has allowed us to divert waste from category one waste disposal and significantly reduce waste going to landfill or incineration.



sustainability milestone

IEnvA

Aer Lingus became the first Irish airline to successfully be awarded the IEnvA stage 2 certification from the International Air Transport Association. This certification acknowledges our work in reducing carbon emissions.

We conducted our second IEnvA certification audit in November 2024

and expect to receive renewed certification in Q2 2025.



*Information available from: <https://aircraft.airbus.com/en/aircraft/a320-family>

sustainability milestone

Ground Fleet Investment

74% of our light-weight Ground Operations vehicles are electric



In 2024 all our airside ground operations vehicles at Dublin, Cork or Shannon, have transitioned to hydro-treated vegetable oil (HVO)

Using HVO compared to diesel reduces CO₂ emissions from the production of the fuel by up to 90% and can help improve air quality.

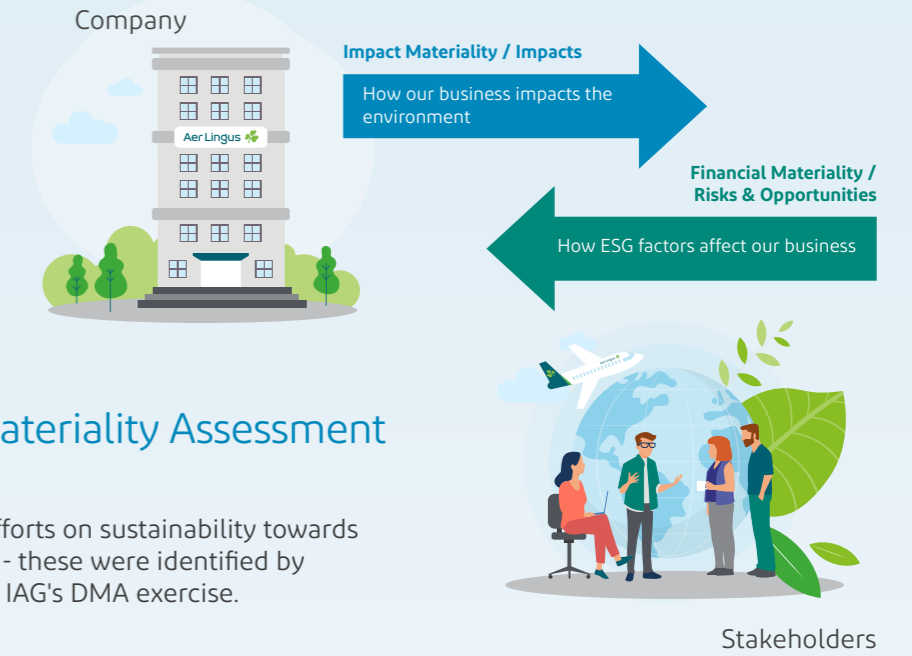


Reduction in emissions up to **90%** v diesel on a LCA basis

sustainability milestone

Double Materiality Assessment (DMA)

We prioritise efforts on sustainability towards material topics - these were identified by participating in IAG's DMA exercise.



Compliance

In 2024 we laid the foundations for the increased regulatory compliance obligations coming in from 1 January 2025, such as

mandate to use 2% of SAF on EU departing flights

and starting to monitor non-CO₂ emissions.



sustainability milestone



Fuelling the change

Accelerating Sustainability

'Fuelling the Change' Campaign

In 2024 Aer Lingus put an increased focus on fuel efficiency initiatives. One example is our internal communication campaign 'Fuelling the Change' to

educate and inform on the use of more efficient operational and flying procedures to reduce fuel

We also trialled a series of flights to showcase the power of collective fuel-saving initiatives with our A320neo aircraft.

sustainability milestone



The Need for Climate Action

At Aer Lingus, we understand the urgency of reducing our environmental impact. A critical part of that is recognising, managing, and reducing our impact on the planet so that we can play our part in tackling climate change.

Supporting UN Sustainability Goals



At Aer Lingus, we understand the urgency of reducing our environmental impact. A critical part of that is recognising, managing, and reducing our impact on the planet so that we can play our part in tackling climate change.

The growth of the global aviation industry has created enormous economic and social good – it connects people and cultures, enables international trade and enterprise, and facilitates tourism which is vital to local economies in Ireland and around the world.

The aviation industry faces particular challenges in this regard. According to best estimates,

the industry contributes approximately 2.5% of global carbon emissions.

We are committed to acting responsibly and tackling this challenge head on.

As an island nation, Ireland is particularly dependent on aviation for international connectivity.

Over 94% of visitors to Ireland arrive via air transport

(source: CSO)

According to ITIC, in 2024

international visitors to Ireland spent €6.2 billion

with the most valuable source market being North America (€2.2 billion).

According to IATA, airlines, their supply chains and tourism activity contributed a total of \$20.2bn (€19.2bn) to Irish GDP in 2023 and over 128,000 jobs.



For Aer Lingus

the majority of our CO₂ emissions are emitted from flights of over 1,500 kilometres,

for which there is no practical alternative mode of transport at present.

Notwithstanding those benefits and constraints, it is clear that we need to operate and grow in a different way than we have in the past.

Over the past number of years, we have been engaged in initiatives aimed at reducing our carbon emissions.

Aer Lingus is part of IAG, the first airline group worldwide to commit to achieving net zero carbon emissions by 2050.

IAG is a leading airline group in the work towards net zero aviation and in 2018 was an early adopter of the Task Force on Climate-related Financial Disclosures (TCFD) guidance.

In November 2019, IAG became the first airline group in the world to publish a roadmap for achieving net zero. In April 2021, it became the

first European airline group to commit to 10% sustainable fuels by 2030,

dependent on appropriate government policy support, and the first in the world to commit to net zero Scope 3 emissions by 2050.

There will be challenges ahead. While we are already achieving tangible progress on minimising our carbon emissions, there is much work to be done on increasing the production of sustainable aviation fuels to meet industry demand and the development of other green technologies.

Aer Lingus is committed to playing an active role in that work and supporting innovations which can accelerate our progress towards net zero.

Our Carbon Reduction Strategy

Aer Lingus is committed to reducing its emissions.

We strongly support the goal of reducing global emissions to achieve the Paris Agreement target of limiting climate warming to 1.5 degrees above pre-industrial levels. We are taking innovative and effective steps both on the ground and in the air and we are proud to be part of the first airline group in the world, IAG, to commit to net zero carbon emissions by 2050.

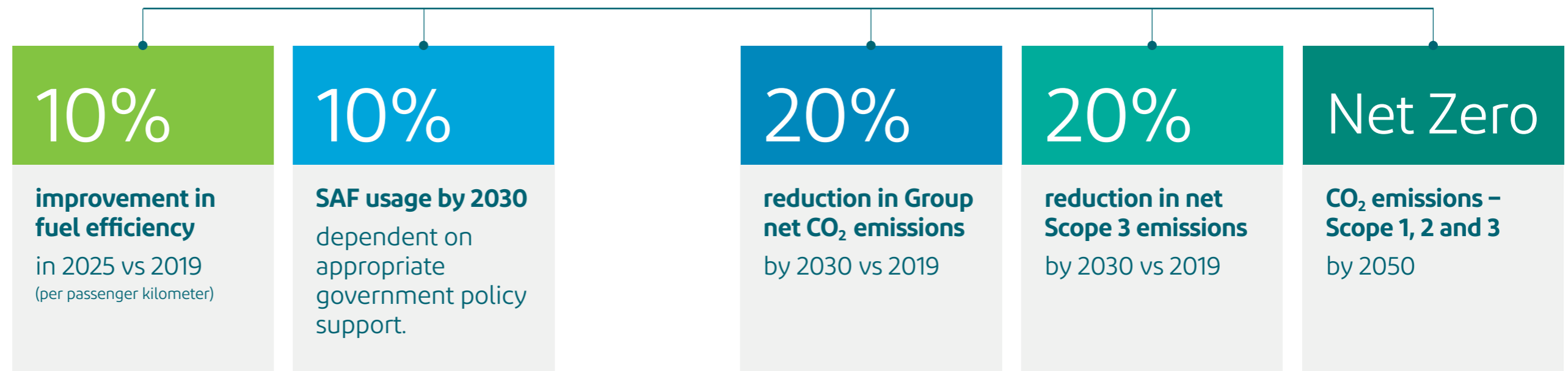
Our Journey to Net Zero



For more information on our Net Zero strategy refer to the IAG Annual Report and Accounts 2024.

Our targets include:

Supporting UN Sustainability Goals



How to achieve these targets

'Our Journey to Net Zero' infographic illustrates how we aim to achieve net zero CO₂ by 2050 through a combination of Sustainable Aviation Fuel (SAF), investment in new technology aircraft and operational efficiencies, and robust carbon offsets and removals. Aer Lingus regularly reviews its transition plan.

→ Our Carbon Reduction Strategy

Sustainable Aviation Fuel (SAF)

Sustainable Aviation Fuel (SAF) is the main term used by the aviation industry to describe a non-conventional (fossil derived) aviation fuel. SAF is the preferred IATA and ICAO term for this type of fuel although when other terms such as sustainable alternative fuel, sustainable alternative jet fuel, renewable jet fuel or biojet fuel are used, in general, the same intent is meant. The full definition is available on the IATA website.

There is an urgent need for appropriate policies to provide a strong investment signal to scale up production to meet industry demand.

As of 31 December 2024, our parent company, IAG's total expenditure (including future commitments) for SAF offtake exceeded \$3.5 billion.

There are many different types of SAF which are broadly categorised into three generations:

- **First generation SAF** is made from HEFA (Hydrogenated Esters and Fatty Acids) – the current commercial scale process for producing the fuel. In the UK and EU, HEFA is made from waste oils and fats which are in short supply and also in demand for the production of non-crop-based biodiesel and renewable diesel for road transport. There is therefore a need to develop SAF with a greater diversity of feedstock types.
- **Second generation SAF** is made from other carbon-containing sustainable feedstocks and includes the conversion of waste into syngas and the conversion of flue gases and waste/residues from biomass feedstocks into ethanol and then to SAF. These technologies are either ready, but not yet deployed at commercial scale, or are very close to maturity.
- **Third generation SAF** is known as an “e-fuel” or PtL (Power to Liquid), a fuel made from chemically combining green hydrogen with CO2 taken directly from the atmosphere or captured from industrial emissions using Direct Air Capture (DAC) technology. Although the production process is well understood the first commercial plants are critically dependent on the emergence and deployment of the efficient large-scale electrolysis and DAC capacity required for its production.

Sustainable Aviation Fuels (SAF) Purchase Agreements – new deals

We are also participating in the SAF Taskforce established by the Department of Transport and have made submissions to support development of a domestic policy package in Ireland.

London Heathrow SAF

increase of SAF usage three-fold in 2024

In 2024, we received 2,200 tonnes of SAF at London Heathrow

Spanish SAF

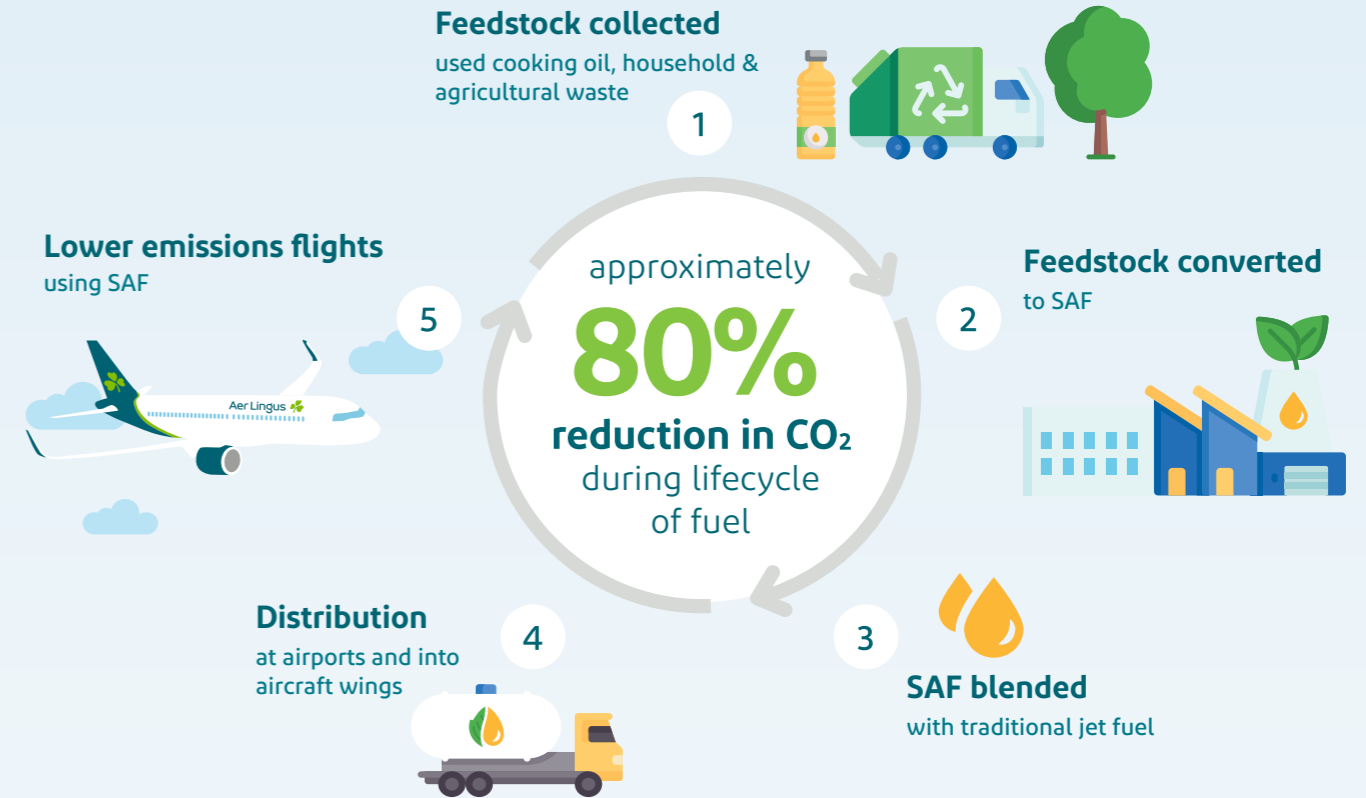
2024 – uplifted our first European SAF

In 2024, we received nearly 3,400 tonnes of SAF in Spain

The ReFuelEU Aviation Initiative mandates that jet fuel suppliers blend a specified proportion of Sustainable Aviation Fuels (SAF) into jet fuel delivered to EU airports, distinguishing SAF into two main categories: biological origin fuels, including HEFA and advanced biofuels, and non-biological origin fuels, such as eSAF/Power-to-Liquid or synthetic fuels. The mandate requires SAF to make up 2% of fuel at EU airports by 2025, increasing to 70% by 2050, with synthetic fuels becoming a larger part of the mix, reaching 35% by 2050. A similar mandate exists in the UK. Under the UK SAF mandate, SAF will comprise 2% of total jet fuel in 2025, increasing to 10% by 2030 and 22% by 2040, with a declining reliance on HEFA. A power-to-liquid obligation begins at 0.2% of jet fuel in 2028, rising to 3.5% by 2040, with possible adjustments based on market conditions.



How Sustainable Aviation Fuel (SAF) Works

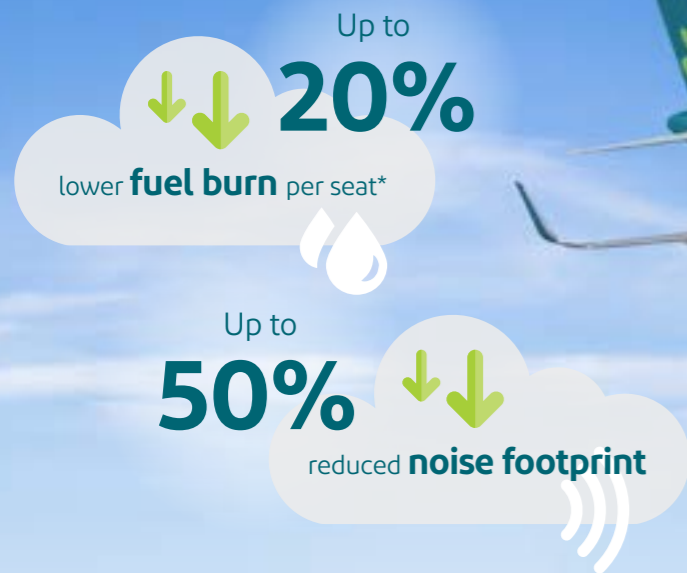


Spotlight on SAF

- Sustainable Aviation Fuel (SAF) is one of the key methods to reducing carbon emissions from aviation.
- SAF is generally considered one of the most realistic and effective means to reduce aviation emissions in the coming decades and as a long-term solution for decarbonising long-haul travel.
- SAF is a 'drop-in fuel' and can be safely mixed with jet fuel to varying degrees, using the same supply infrastructure.
- Globally, there are eight certified pathways to making SAF, based on use of specific technologies and feedstocks.
- SAF feedstocks such as used cooking oil, municipal waste and waste wood, absorb CO₂ in their lifecycle before this carbon is recycled into fuel, then emitted during the flight.
- SAF produces similar levels of carbon dioxide to conventional fuel when burned, but it is already part of the carbon cycle and is not extracted from the ground, specifically for creating aviation fuel. That means using SAF results in a reduction in carbon emissions compared to the traditional jet fuel it replaces over the lifecycle of the fuel.
- SAF can be produced locally in any country, including Ireland.
- It can reduce the impact of shipping fuel and contribute to Ireland's energy independence.
- Currently SAF costs approx. 3–5 times the price of conventional jet fuel.
- Ireland has the capacity to produce SAF through feedstocks such as forestry residues, agricultural waste and from wind power sources. This would offer a valuable home-produced sustainable fuel source for airlines operating out of Ireland.

We continue to engage with the Irish government and the European Union to advocate for greater production of SAF to meet future demand. In December 2023 Aer Lingus joined the government-industry SAF Taskforce to assist with development of Government policy in this area. We look forward to working with our government and industry colleagues towards developing SAF production in Ireland and meeting our obligations.

A320ceo vs A320neo



→ [Our Carbon Reduction Strategy](#)

New Technology Aircraft

We are committed to the sustainable growth of our airline and are investing in modernising our fleet to more fuel efficient and quieter aircraft. **Our transatlantic fleet of 25 aircraft now includes eight Airbus A321neo LR aircraft and two A321XLR aircraft which offer up to 20% fuel saving and CO₂ reduction per seat versus their predecessor (source: Airbus).**

In addition, Aer Lingus has ambition to receive further next generation long haul aircraft in 2025. These aircraft also offer up to 20% lower fuel burn per seat than previous generation aircraft and the longer range would give Aer Lingus the opportunity to further expand the route network to new destinations in future.

In 2024 we added **two new Airbus A320neo aircraft** to our short haul fleet, in addition to two added in 2023 and 2022 delivering up to 20% fuel savings and CO₂ reduction compared to previous generation Airbus aircraft. These new aircraft service high demand routes on the Aer Lingus short haul network and frequently operate on flights between Dublin and London.

Improving Operational Fuel Efficiency

New technology aircraft will deliver significant carbon reductions and fuel savings, but we are doing more to improve our operational fuel efficiency. We have a dedicated fuel efficiency programme which enables our teams across our operation to increase fuel efficiency. Measures we are implementing to improve operational efficiency include the use of single-engine taxiing and delaying engine start-up to save carbon emissions prior to take-off.

Aer Lingus is a key member of the IAG Carbon Efficiency working group that brings sustainability colleagues and fuel management experts together to leverage expertise and share best practice to develop fuel efficiency initiatives towards our carbon reduction objectives.

During 2024, there was a strong focus on fuel efficiency initiatives. We ran the internal communication campaign 'Fuelling the Change' on our internal communications platform, AerWaves, to educate and inform on the use of more efficient operational and flying procedures to reduce fuel. See the following case studies for details.

Case Study 1

Baggage Hall

We own around 1,400 baggage bins. Our original stock are steel ULDs weighing around 80kg each. They all eventually need replacing due to wear and tear and instead of a like for like replacement, we have opted for a composite lighter weight alternative weighing 25% less than the steel variety! To date, our stock holds approx. 70% of the new variety and in 2024 a further 250 were delivered. We have been saving approx. 200 tonnes of fuel per annum by replenishing our stock with these new bins.



Case Study 2

Engine Wash

There is a requirement to carry out a periodic wash on our aircraft engines to optimize their performance and we run a wash schedule which is driven by the aircraft cycles or flight hours.

Aer Lingus have opted to use an alternative engine wash system at our Dublin base and this cleaning process is slightly different to the traditional method. Engineers use specialist equipment that injects hot vapourised water directly into the engine core while another Engineer dry motors the engine.

Provided aircraft operate within 24 hours after the wash, there is no requirement to complete an engine run up and test, which was part of the traditional wash method. This saves approx 350kg of jet fuel per wash if both engines are washed on an A320-CEO.

Our aircraft spend a lot of time flying, meaning engines washes are frequent, and so changing to this process has meant the fuel savings really start to add up.



Case Study 3 Taxi Times

As part of every flight plan, fuel is calculated to account for the aircraft taxiing from stand to the departing runway and this is known as 'taxi-out'. This fuel calculation is all dependent on the number of taxi-out minutes estimated. We use statistical data to estimate these times.

We have recently sourced airport operational data which contains more comprehensive information such as actual runway used by each flight. By merging this with our own aircraft movements data, we are aiming to optimise the fuel calculated on all flight plans for this phase of their journey.

Case Study 4 Air Traffic Control

In 2024, through collaboration with Air Traffic Control (ATC) at Shannon, we launched a trial for flights operating to Cork and Shannon airports. The controlled airspace we fly in can be very busy and it isn't always possible to plan the most optimum route from A to B. This trial involved Air Traffic Control reviewing our routes and proactively offering us short cuts and more direct routings during the flight. This saved time, fuel and emissions.

In addition, by working together, we trialled improving the efficiency of our descent (known as continuous descent operations) This burns less fuel and reduces noise footprint.

When planning the aircraft's descent, our cockpit crew and ATC are working together in relation to planned speed control and distance to go information. This engagement allows us to fly more efficient descents. This is known as Continuous Descent Operations and is an alternative to descending in a series of steps. A smooth continuous descent burns less fuel and reduces noise. As an example, if applied to our London arrivals into Shannon and Cork each day, saving on average just 100kgs of fuel burn per flight through these flight efficiencies, we could offset the emissions of an A321neo LR Shannon- JFK transatlantic flight each month.

Case Study 5 Tray Tables

The last row seats in the A330 economy cabins had tray tables fitted to the back of them, which made them unusable in that location, yet they were adding unnecessary weight. We have kicked off the process to remove 15 of these from each aircraft. By doing so, we save approximately 26 tonnes of fuel per year. It's a lot for a few tray tables, and there's the added benefit that we now have additional spare parts!

Case Study 6 Single Engine Taxi In/Out

Single engine taxi is taxiing using the power of one engine and it can be performed on departure and on arrival. This procedure ultimately reduces fuel burn and emissions. There are multiple factors which can influence our ability to perform a single engine taxi, including weather conditions and expected taxi duration.

All going well, we can taxi on a single engine after landing to our arrival stand and also on departure from pushback. The fuel burn and emissions savings from taxiing on a single engine can be significant. In 2024, we reduced our fuel burn by over 600 tonnes by performing this procedure.

Further improvements could be made for all airlines following the recent adoption of the Single European Sky (SES2+) Regulation, marking a significant step toward a more efficient and sustainable European airspace.

This regulation introduces rules and incentives for air navigation service providers to enhance efficiency, adopt modern technologies, and address increasing congestion in European airspace. By optimizing air traffic management, SES2+ aims to reduce flight delays, improve safety, and increase operational efficiency, ultimately lowering the aviation sector's environmental footprint.

A core objective of SES2+ is to cut emissions through more direct and efficient flightpaths, reducing unnecessary fuel burn and airspace fragmentation. With the implementation of these improvements, airlines could achieve emissions reductions of up to 10%. Additionally, the regulation sets specific climate and environmental performance targets for air navigation service providers, ensuring sustainable practices are prioritized across the industry. EUROCONTROL, designated as the network manager, will collaborate with stakeholders to coordinate the deployment of modernized infrastructure, reinforcing the system's efficiency. However, the full benefits of

SES2+ will depend on the implementation measures now being developed by the European Commission, which will require agreement from Member States.

Furthermore, ReFuelEU tankering mandates introduced by the European Commission will require airlines to report actual fuel tankering levels annually from 2025. This includes monitoring, evaluating, and analysing cases of fuel tankering, with potential penalties for unjustified practices. Operators must also report yearly on actual aviation fuel uplift per EU airport to demonstrate compliance with regulations. Independent verifiers will oversee these reports, ensuring compliance with EU sustainability and efficiency objectives.

Aer Lingus strongly supports SES2+ and other sustainability-driven policies, as they align with our commitment to reducing aviation's environmental impact while improving operational efficiency.

SES2+ information available from: https://transport.ec.europa.eu/news-events/news/single-european-sky-regulation-enters-force-aiming-more-efficient-and-sustainable-airspace-2024-12-02_en



→ Our Carbon Reduction Strategy

Ground Operations Efficiencies

We take a holistic and detailed approach to reducing our carbon footprint. That means looking at everything we do on the ground as well as in the air. To that end, we are exploring more energy efficient solutions for our office buildings such as reduced use of natural gas and electricity, increased renewable energy use and smart technology solutions for lighting, air conditioning and heating. For example, LED-lit staff car parks have reduced energy consumption from lighting by 33% compared to 2019.

As part of our plan to reduce emissions of our ground operations, Aer Lingus is in the process of upgrading our light-weight ground fleet to electric vehicles. Currently, 74% of our light weight ground fleet is electric. This is a 9% increase on 2023. In February 2023 Aer Lingus became the first airline at Dublin Airport to use hydro-treated vegetable oil (HVO) as an alternative fuel source for our ground vehicles.

HVO fuel reduces emissions from production of the fuel by up to 90% vs diesel. HVO fuel can also contribute to improved air quality by reducing NOx emissions and particulate matter emissions. Aer Lingus is no longer using diesel at any of our hub airports at Dublin, Cork or Shannon. 100% of our airside Ground Operations vehicles are either electric or use HVO fuel.



Using HVO in our Ground Vehicle Fleet



HVO (Hydro-treated Vegetable Oil) is a low emissions biofuel made from renewable materials and a direct replacement for conventional diesel. No modifications are required to our current ground vehicle fleet to use this fuel.

Validating Our Success

The IATA Environmental Assessment (IEnvA) programme is a globally recognised evaluation system designed to independently assess and help to improve the environmental performance of an airline and it is closely aligned to the international standard for the environmental management system ISO 14001. IEnvA is the airline industry version of ISO 14001, the international standard for environmental management systems. IEnvA is tailored specifically for airlines and is fully compatible with the requirements of the International Organization for Standardization (ISO).

In May 2023, Aer Lingus became the first Irish airline to successfully be awarded the IEnvA stage 2 certification from the International Air Transport Association. This certification acknowledges Aer Lingus' work in reducing carbon emissions across flight operations and corporate facilities. This is the highest level of certification available from IATA.

IEnvA certification ensures that an airline identifies and has environmental management plans to mitigate its significant environmental impacts, and has set performance targets. Stage 2 also certifies that an airline has developed processes for monitoring and reviewing its performance against its environmental targets and objectives. It validates our strong commitment to sustainability across the operation and gives our stakeholders, including customers, governments, financiers and partners comfort that Aer Lingus is not just meeting global sustainability standards and best practice, but also committed to continuous improvements to stay at the forefront of sustainability within our industry.



We are currently in the process of recertification of IEnvA stage 2. This process has allowed us to build on our previous certification and demonstrates that we have displayed 'continuous improvement' since our last certification, along with the addition of a number of new aspects to the certification. The process has also allowed us to critically engage with our current environmental management systems and for these to be verified by a third-party external consultant.

Addressing Environmental Impacts

Aer Lingus is committed to reducing the impact of aircraft noise and air pollution and continue to work to minimise noise impacts.

We regularly monitor noise and air quality performance using national databases and global aircraft noise standards. Improvements are driven through fleet modernisation and new operational practices like continuous descents. We engage with stakeholders such as regulators and industry partners and participate in research and operational trials to identify and refine solutions.

Supporting UN Sustainability Goals



Noise ICAO Chapter 14

% of fleet at standard

2024	28%
2023	21%
2022	18%

Noise

Replacing older aircraft with new models has significant noise reduction benefits. The Airbus A321neo LR has a noise footprint up to 50% smaller when compared to its predecessor (source: Airbus).

The introduction of two further A320neos and two A321XLR aircraft to our fleet in 2024 has contributed to an improved noise performance for Aer Lingus in line with the ICAO Chapter 14 Noise Standard which is aimed at reducing the number of people affected by significant aircraft noise.

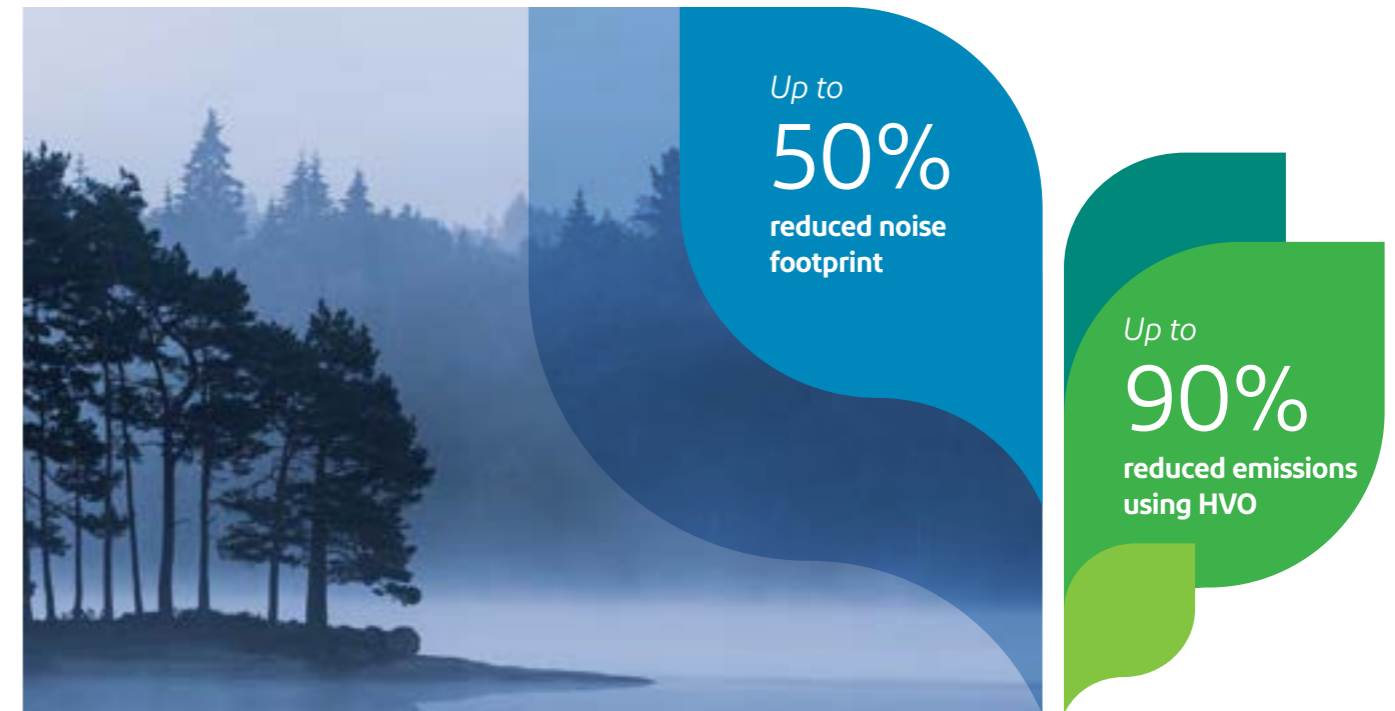
Up to 50% reduced noise footprint (A321neo LR vs. predecessor)

Compliance will continue to improve as newer aircraft are introduced to the fleet and following retirement of older aircraft.

Air Quality

The use of hydro-treated vegetable oil (HVO) as an alternative fuel source for our ground operations vehicles is also making a contribution to improved air quality. HVO reduces vehicle emissions by up to 90% and reduces NOx and particulate matter (PM) emissions.

Up to 90% reduced vehicle emissions (HVO vs diesel)



Waste Reduction

When it comes to reducing waste, we operate on the principle that great customer experience and sustainability are not mutually exclusive. Our customers expect Aer Lingus to continue to deliver exceptional levels of service while at the same time, delivering on our sustainability goals.

To address the challenge of reducing our waste, we have taken a highly strategic approach to the issue in order to deliver long term solutions. Single use plastics and other materials cannot simply be replaced by heavier multiple use alternatives as this would add weight to aircraft and increase fuel burn and CO₂ emissions.

We have a target to **reduce on-board waste by 20% and recycle 40% of on-board waste by 2025**, in line with our parent company IAG's commitments.

In pursuit of this objective, Aer Lingus became the first Irish airline to introduce recycling onboard our short haul flights inbound into Ireland in 2023 and in 2024 expanded recycling to all flights into Ireland.

Previously, all our waste from the aircraft was required by law to go to landfill or incineration, primarily to avoid animal disease outbreaks, such as the Foot & Mouth Disease. We worked with the Irish Government to obtain the legislative clarification needed to enable recycling onboard and to determine which items could be recycled.

Once we had the necessary clarification, we conducted onboard trials using different cart and bag types to ensure we could successfully segregate the recyclable waste from other waste.

We also worked with our waste management provider, Panda, who adapted their procedures to ensure that the recycled waste coming off the aircraft was processed separately.

Since the initial roll-out in 2023 we have seen a significant increase in the levels of onboard recycling in 2024.

How Recycling on the Aircraft Works

1 We invested in innovative equipment and new processes



2 We encourage our customers to keep waste items separate



3 Our crew collect & segregate waste items

4 We store waste from the aircraft in our new recycling compactors



5 Panda collects and transports waste to their recycling facility

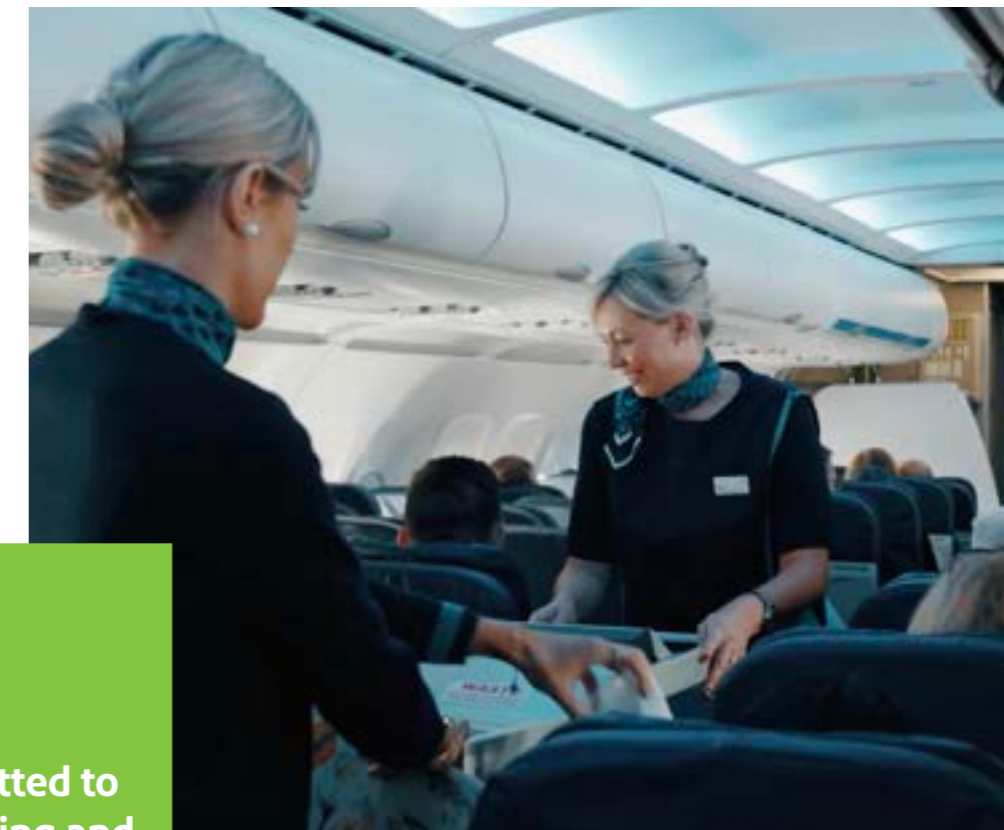


We carried out successful recycling trials into Cork in Q4 2022 and Dublin in Q1 2023 and we rolled out recycling on short-haul flights into Cork and Dublin in the summer of 2023.

We have reduced consumption of single-use plastics by almost 23 tonnes a year since 2019 by introducing birchwood cutlery packs. Our objective is to have zero single-use plastics used on board our aircraft by the end of 2025, with the exception of those items for which there is no viable alternative material.

We have reduced the need for newspapers and magazines onboard by introducing digital alternatives – a saving of 14 tonnes of paper per year.

We are taking steps to minimise food waste onboard in line with our 2025 waste-reduction targets. In 2023, we introduced the use of dynamic load planner technology for short haul flights from Cork and Dublin to reduce fresh food wastage. The load planner technology considers flight variables such as day of flight, time of flight, seasonality, flight loads and historical data on a route by route basis to better predict fresh food requirements on board.



At Aer Lingus, we are committed to reducing, reusing and recycling waste.

→ Protecting the Environment

Double Materiality Assessment (DMA)

In 2024, Aer Lingus performed a Double Materiality Assessment ('DMA') as part of contributing to IAG's overall compliance with Spanish Law 11/2018.

This assessment is essential for understanding and managing the significant impacts, risks, and opportunities related to sustainability within IAG and its operating companies.

Double materiality encompasses two key perspectives:

- **Impact Materiality** – the effect of the company's activities on the environment and society
- **Financial Materiality** – the effect of sustainability-related risks and opportunities on the company's performance

Please refer to IAG's 2024 Annual Report for full CSRD disclosures.

As part of IAG, Aer Lingus engaged with third party consultants, Transcendent, who facilitated the DMA, alongside the other IAG Operating Companies. The methodology of the assessment was as follows:

1. Identification of sustainability topics
2. Identification of Impacts, Risks and Opportunities (IRO's)
3. Assessment of a) Impact materiality, involving the population of 6 questionnaires, completed by 16 subject matter experts around the business, and (b) Financial materiality determined by IAG's Enterprise Risk, Finance and Sustainability teams
4. Consolidation and validation of results

The double materiality assessment not only determines the scope of the organisation's sustainability reporting. It also supports an efficient allocation of the resources needed to achieve CSRD compliance and provides insights for shaping company strategy.

Through conducting a double materiality assessment – we have identified the following as environmental topics:

- Climate Change and Emissions Management
- Pollution of Air
- Waste Management and Circular Economy
- Noise Pollution

The results of this Aer Lingus double materiality assessment align to those presented in IAG's double materiality assessment findings. Where small differences are observed, this reflects IAG's approach to apply a weighted scoring system to incorporate all feedback from its operating companies.



Company

Impact Materiality / Impacts

How our business impacts the environment

Financial Materiality / Risks & Opportunities

How ESG factors affect our business

Stakeholders



Our Supply Chain Programme

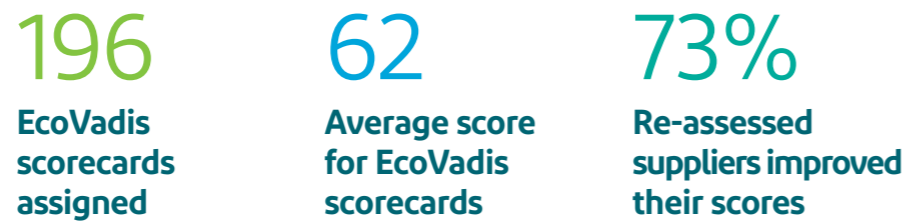
As part of IAG, Aer Lingus are the first airline group worldwide to extend our net zero commitment to our supply chain.

This will see the group support and monitor suppliers to ensure the goal of net zero emissions for products and services provided to IAG is achieved by 2050.

The IAG Group Procurement team leads the Supply Chain Sustainability Programme on behalf of Aer Lingus and the IAG Group, with a focus on five key aspects:

- The Third Party Code of Conduct
- Independent financial risk analysis and sustainability assessments (EcoVadis)
- Corporate Social Responsibility (CSR) audits
- Integration of sustainability as a standard in the procurement process

Aer Lingus supply chain in numbers



Supporting UN Sustainability Goals



Carbon reductions in our supply chain

IAG is delivering a programme of work designed to support carbon reductions by its suppliers and value chain. This involves improving the quality of emission reporting and working collaboratively to deliver emission reductions with suppliers.

IAG Procurement leads our engagement with our supply chain and is embedding sustainability aspects into the day-to-day operation of the organisation, such as sustainability targets in the performance objectives of all IAG Procurement employees. Through its 'Lunch and Learn' programme, sustainability colleagues have also delivered four information sessions during 2024, covering supply chain management, the circular economy, SAF and working towards a net zero supply chain.

To improve the quality of emissions reporting in our value chain, the Group has developed a comprehensive Scope 3 measurement in partnership with Watershed across all applicable Scope 3 emission categories.

IAG Procurement also kicked-off its Supplier Engagement Programme in 2024, which encourages suppliers to share their sustainability commitments and carbon reduction efforts to identify best in class practices and potential collaborations to achieve common goals across the following procurement categories: aircraft seats, engines and catering.

Working with EcoVadis



IAG continues to work with EcoVadis to focus on driving Group suppliers to improve their sustainability performance to reduce emissions for all goods and services provided to IAG.

IAG supply chain in numbers



In 2024, IAG Procurement's focus was the quality of engagement with key suppliers through obtaining EcoVadis scorecards covering 79% of IAG's total spend. In 2025, IAG will continue engaging with suppliers based on their EcoVadis scores to improve their sustainability performance.

Environmental Metrics

Supporting UN Sustainability Goals

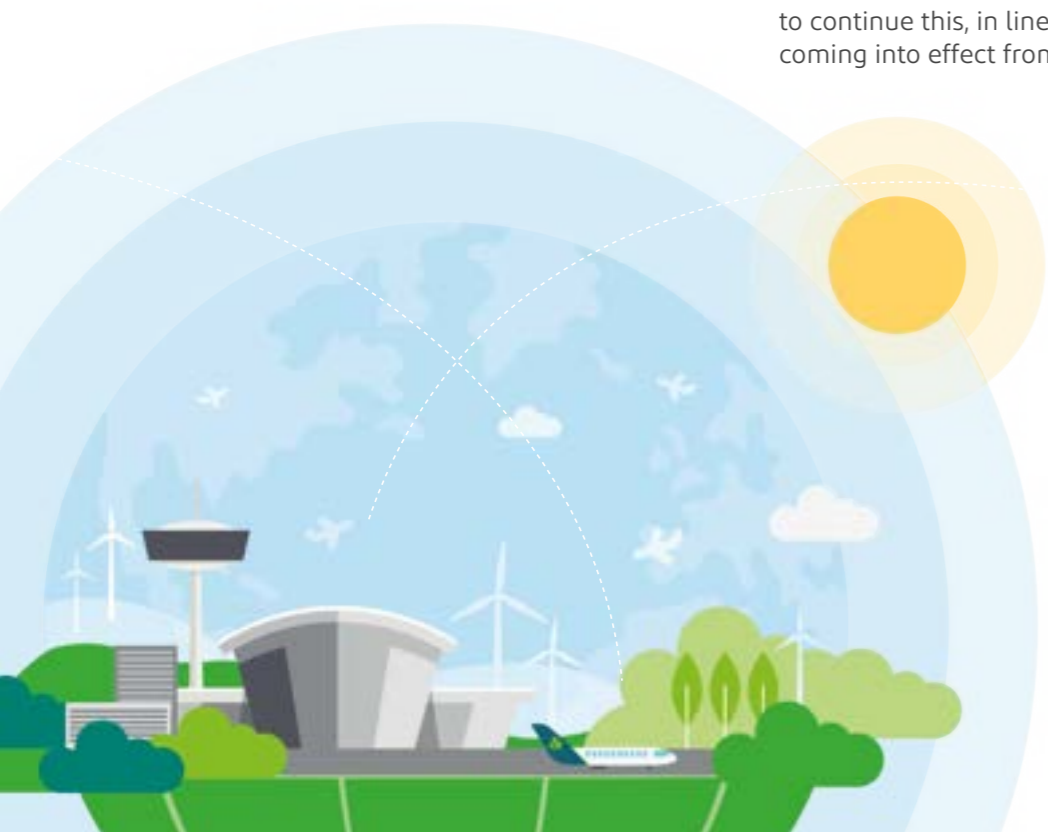


Scope 1

Aer Lingus’s transition plan focuses on reducing CO₂ from jet fuel use, as this represents over 99% of our Scope 1 emissions. Aer Lingus measures its full carbon footprint and tracks multiple metrics each quarter to ensure progress on reducing emissions. Emissions are calculated by multiplying fuel and energy use by appropriate conversion factors that are aligned with the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report.

2024 saw progress against the key metric of carbon efficiency. With a gCO₂/pkm carbon efficiency improvement of 1% versus 2023 and 6% compared to 2019. There was continued improvement in our carbon efficiency measure in 2024 due to continued investment in new technology aircraft such as A320neo and A321XLR and in SAF, a key lever to reducing carbon emissions from aviation.

Although during 2024, our Scope 1 CO₂ emissions from our direct operations, flights and ground operations saw an increase 1% versus 2019. This increase is due to demand growth in the aviation sector and will continue until SAF is readily available at a large scale. We increased our SAF consumption in 2024 and plan to continue this, in line with the EU and UK mandates coming into effect from 2025.



Scope 2

Our indirect emissions associated with the purchase of electricity and other energy improved, reducing by 3% on 2023 when calculated on the location basis. This measures the emissions generated by our activities according to the emissions intensity of the grid. A number of investments have been made into our corporate facilities to reduce our electricity consumption such as new HVAC heating.

In 2024, Aer Lingus engaged third parties to optimise energy efficiency in our offices and buildings.

		FY					
	Unit	2024	2023	2022	2021	2020	2019
Carbon Footprint Metric							
TOTAL Scope 1 CO ₂ e	Million tCO ₂ e	2.3	2.3	1.9	0.5	0.7	2.3
TOTAL Scope 2 location-based	Kt CO ₂ e	3.4	3.5	3.4	1.9	2.7	4.4
TOTAL Scope 2 market-based	Kt CO ₂ e	0.4	0.4	0.5	0.5	0.1	4.4
Scope 3	Million tCO ₂ e	0.8	1.3	0.6	0.2	0.3	0.7
Other Metric							
Jet Fuel	tonnes Fuel	735,759	708,024	584,704	164,108	226,838	729,135
SAF Fuel	tonnes Fuel	5,816	750	–	–	–	–
Renewable Electricity	%	87	88	86	78	97	98

Scope 3 GHG emissions (emissions data from previous years is restated in line with updated methodologies - see further details in this section)

Scope 3

We continue to refine Scope 3 calculations based on the latest data and assumptions. To improve the quality of emissions reporting in our value chain into the future, IAG has developed a comprehensive Scope 3 measurement in partnership with Watershed, a leading platform that assists companies in measuring, reporting and reducing their carbon footprints, across all applicable Scope 3 emission categories.

IAG GBS first partnered with Watershed, in 2023 to improve reporting of IAG’s Scope 3 emissions. Following further work with Watershed in 2024, all 15 applicable Scope 3 emissions categories are now reflected in the Scope 3 measurement. Improvements have been made to the emissions reporting methodology for 2024.

Work continues to improve the quality of Scope 3 emission calculations from our supply chain.

Standardised conversion factors are used where data from suppliers is not available, and as more data from suppliers becomes available some values may be restated. Any significant restatements will be made in future reports with explanations provided.

→ Environmental Metrics

Air Quality & Noise

Aer Lingus is reporting this metric to show progress towards our target to achieve 10% reduction in noise levels compared to 2019 by 2025. The introduction of the Airbus A321neo LR over the recent years and six new A320neos to our fleet has contributed to a significantly improved noise footprint (ICAO Chapter 14). In 2024 saw a 4% point improvement versus 2023 and a 6% point improvement versus 2022. Additionally, through our investment in new aircraft we have seen an improvement in noise per LTO (landing and take-off).

During 2024, Aer Lingus achieved a 3% point improvement in nitrous oxide emissions versus 2023 (CAEP Chapter 8) and 4% points versus 2022.

The addition of our new aircraft in our fleet have been beneficial in reducing our noise pollution, which is an important consideration for us and for the local communities surrounding our hub airports.

	Unit	2024	2023	2022	2021	2020	2019
Noise per cycle	QC per LTO	1.06	1.10	1.11	1.20	1.21	1.12
Noise ICAO Chapter 14	% at standard	28	21	18	15	7	10
Nox per cycle	kg per LOT	8.08	8.30	8.28	8.61	8.47	8.03
Nox CAEP Chapter 8	% at standard	43	41	39	37	30	29

Waste Reduction

Aer Lingus is working towards ambitious targets to reduce waste generation, increase recycling and remove single-use plastic by 2025 across our business. Our colleagues in IAG Cargo have achieved a 12% point improvement in waste recycled to 86% of all waste.

According to the latest IATA Cabin Waste Audit results, average onboard waste per flight is 0.94kg per passenger. Onboard waste consists of both cabin and catering waste. In 2024, onboard waste per passenger was 0.31kg. We continue our efforts to reduce waste. For example, in 2024, Aer Lingus recycled over 7 times more cabin waste versus 2023, driven by the roll-out of onboard recycling on long haul flights into Ireland. Levels of catering recycling decreased, consistent with greater levels of flying, however we continue to work with our catering partners to increase recycling of catering waste and have plans implement a number of process improvements in 2025.

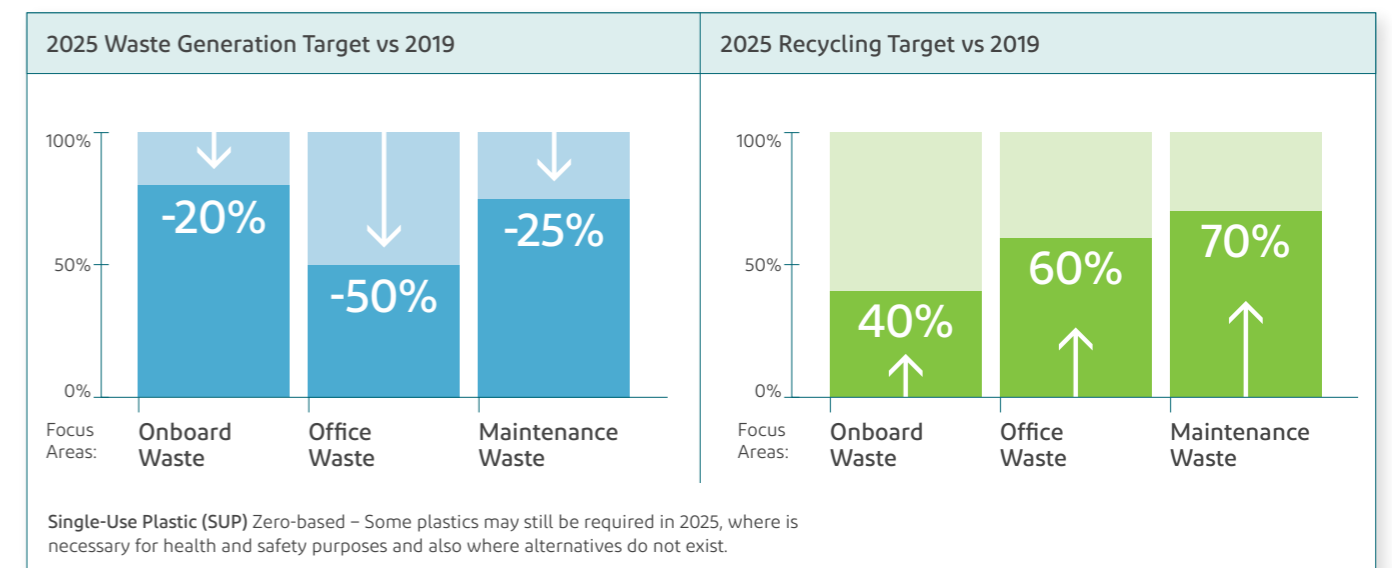
In 2024, Aer Lingus recycled over 7 times more cabin waste versus 2023, driven by the roll-out of onboard recycling on long haul flights into Ireland.

	Unit	2024	2023	2022	2021	2020	2019
On-Board waste per passenger at hubs	kg/pax	0.31	0.33	0.31	0.33	1.00	n/a
Office waste per full time employee	kg/FTE	94.83	129.32	121.64	93.91	180.26	177.53
Maintenance waste per unit of activity	kg/person-hr	0.16	0.08	0.06	0.04	0.11	0.13
Cargo waste per unit of cargo carried	kg/tonne cargo	1.59	1.84	2.00	0.79	1.10	1.14
On-Board waste at hubs recycled/recovered	%	6	9	9	9	0	0
Office waste recycled/recovered	%	24	7	9	2	-	-
Maintenance waste recycled/recovered	%	34	3	20	4	74	12
Cargo waste recycled/recovered	%	89	86	69	78	73	74

Compared to 2019 there has been a significant reduction in the waste generated in our offices.

26.7% decrease in office waste per unit of activity. Throughout our offices, we have been actively enhancing our recycling rates and minimising overall waste. This has been accomplished by investing in new bins, updated bin decals, and innovative methods to engage our employees in supporting these improvements.

Our Waste Reduction Targets aligned with IAG "5 through 2025"



→ Environmental Metrics

External Ratings

IAG was awarded 2024 Eco-Airline of the year by Air Transport World for a best-in-class SAF programme and the Airline Strategy 'Airline Business of the year' award for the Group's ESG leadership.



- Scope 1 emissions** — Direct greenhouse (GHG) emissions that occur from sources that are controlled or owned by an organisation directly from flights and ground vehicles (jet kerosene, natural gas, ground vehicle emissions etc.)
- Scope 2 emissions** — Indirect GHG emissions associated with the purchase of electricity, steam, heat, or cooling.
- Scope 3 emissions** — Include all other indirect emissions that occur in the value chain such as carried cargo, employees commuting to work and business travel.
- Scope 2 Market vs Location** — The location-based method calculates what the company is physically putting into the air from the emissions intensity of the grid. The market-based approach shows emissions the company is responsible for through its purchasing decisions, i.e. such as purchasing or not purchasing renewable energy.
- ICAO Chapter 14** — Noise from aircraft. Compare aircraft noise against standardised limits that are a combination of lateral, approach, and flyover noise levels.
- ICAO CAEP 8** — NOx emissions from aircraft engines. The standards have become increasingly stringent: the CAEP 8-certified engines must emit less than half the NOx emitted by engines certified to the original CAEP standard.
- Noise per LTO** — Average noise per flight considering arrival and departure noise for each aircraft type. Based on the number of flights of all aircraft which operated during the year, including leased aircraft.
- NOx per LTO** — Average emissions of the air pollutant nitrogen oxide as aircraft take off and land. The calculation considers the engine certifications and aircraft types of all aircraft which operated during the year, including leased aircraft, referencing information from the ICAO emissions database.



Aer Lingus is proud to be among the leaders in the aviation industry in terms of both net zero commitments and use of SAF.

We are also proud of the key role we play in connecting Ireland to key tourism markets around the world.

Strategy & Governance of Sustainability

Our sustainability strategy, initiatives, and reporting are based on a rigorous assessment of which business activities have a material impact on the environment and what is most important to key stakeholders.

Supporting
UN Sustainability
Goal



Governance

Aer Lingus has its own distinct sustainability programme which is regularly reviewed to ensure alignment with the Group strategy.

Key Governance Structures

- Accelerate Sustainability is a key pillar of our Transformation Programme. Head of Sustainability sits on a monthly Transformation Working Group and the Chief Corporate Affairs Officer attends a monthly Executive Steering Group that tracks progress and KPIs under the Transformation Programme.
- Quarterly meetings of the IAG Board Safety, Environment and Corporate Responsibility (SECR) Committee to provide dedicated oversight of the Group's sustainability programme and a link between the IAG and operating company management committees and the IAG Board.
- The quarterly Sustainability Steering Group (SSG) comprising of senior representatives from each operating company and key IAG teams provides oversight of environmental and social initiatives and reporting.
- The IAG Sustainability Network convenes monthly, comprising of sustainability representatives from all operating companies, to share ideas and updates.
- There are several cross-Group working groups which regularly convene to monitor key initiatives and share best practice. These include: waste reduction, reporting & disclosures, carbon efficiencies and non-CO₂ emissions.
- The IAG SAF Steering Group meets quarterly, focusing on oversight of SAF strategic direction and approval for new purchases and investments. Aer Lingus CEO is a member of this Group.

- The IAG SAF Management Group meets monthly focusing on SAF strategy, projects and progress. Aer Lingus Head of Sustainability participates in this meeting.
- A weekly Communications Group discusses internal and external sustainability communication opportunities.
- Aer Lingus have a dedicated Fuel Efficiency Program embedded within our broader sustainability governance framework.
- Sustainability is embedded into core business processes:
 - Sustainability impacts are a key criterion during the business case and financial approval processes. Business cases over a certain threshold are subject to approval by CEO & CFO.
 - Sustainability is a risk on the Corporate Risk Register, which is reviewed quarterly at Management Committee, bi-annually at Aer Lingus and IAG Board level.
 - Sustainability opportunities and costs are included in the three-year business plan one-year financial plan.
 - Adhering to the requirements of IEnvA environmental assessment program ensures that as an airline we identify significant environmental impacts and continually maintain environmental management plans to mitigate against these impacts.
- Regular meetings of the SAF Steering Group and People Working Group reporting into the SSG.
- Internal Group-wide policies related to sustainability help to ensure that wider decision-making aligns with the sustainability strategy. These include the Code of Conduct, Third Party Code of Conduct and specific policies on Environmental Sustainability, Modern Slavery, Anti-Bribery and Corruption, Equal Opportunities and Selection and Diversity.

These are approved by the Board of Directors.

Carbon Reduction

- Public commitments for carbon reduction & Sustainable Aviation Fuel (SAF)
- Fleet renewal strategy
- The Carbon intensity metric (gCO₂/pkm) is included as a management incentive: tracked & reviewed monthly by Aer Lingus CEO, CFO and the wider Executive Team.
- Sustainable Aviation Fuel (SAF) Steering Committee reviews all SAF opportunities and progress towards 2025 ReFuelEU mandate & 2030 10% SAF target dependent on appropriate government policy support. The Committee includes leadership representation from across the business.
- As Aer Lingus collaborate on opportunities across IAG, Aer Lingus participates on the IAG SAF Management Group and the Aer Lingus CEO sits on the IAG SAF Steering Group.

Waste Reduction & Recycling

- Public commitments for waste reduction & recycling
- Weekly meetings are held with representatives across the business to plan and monitor the implementation of recycling onboard, which is also monitored as part of the Transformation governance.
- Working group meeting to review single use plastic reduction & waste reduction initiatives



→ Strategy & Governance of Sustainability

Compliance

Aer Lingus provides sustainability data on a quarterly and annual basis for inclusion in the IAG Annual Report. The data is included in the IAG non-financial information statements (NFIS), which are independently verified in line with ISAE3000 (Revised) standards. At Aer Lingus, we participate in the annual external audit, where all of our data is verified by a third party.

For the IAG Annual Report, our sustainability team collects information from across the business to measure, report and verify our carbon emissions impact (which includes Scope 1, Scope 2, Scope 3), Waste, Noise, NOx, Water and Community giving.

We participate in four emissions trading schemes: The EU Emissions Trading Scheme (ETS) and its equivalents in the UK and Switzerland, and the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) for all non-European flights.

Emissions data from intra-European & UK flights is independently verified at the year end, for compliance with the UK, EU and Swiss emissions trading schemes. Each airline must verify their tonnes of CO₂ emissions annually.

Aer Lingus also enables customer carbon offsetting through our partnership with Pure Leapfrog which allows carbon credits to be purchased by supporting a carbon offsetting scheme.

Sustainable Aviation Fuel (SAF)

SAF is generally considered to be one of the most realistic and effective means to reduce aviation emissions in the next decades and as a long-term solution for reducing carbon emissions from long-haul flights.

SAF is a sustainable drop-in replacement for fossil jet fuel with a minimum 70% lower net lifecycle carbon intensity and it requires no changes to aircraft or delivery infrastructure. It is, however, significantly more expensive than standard jet fuel and is currently produced in small quantities in comparison to the overall needs of the global aviation industry.

Aer Lingus has, as part of IAG, an ambition to fuel 10% of flights with sustainable aviation fuel by 2030, dependent on appropriate government support. As part of that journey Aer Lingus used SAF for the first time at LHR in 2023 and we continued that in 2024, as well as uplifted SAF in Spain for the first time. In addition, we have signed two SAF supply agreements with Gevo and Aemetis that will see SAF accounting for 54% of fuel procured by Aer Lingus in the US West Coast from 2028.

The EU Green Deal and the Fit for 55 Package are powerful tools for change with which Aer Lingus and IAG's objectives are aligned.

Policy

As part of these packages, the EU has committed 20 million free allowances (known as 'SAF allowances'), to encourage SAF uptake between 2024 and 2030. This scheme is designed to competitively allocate emission allowances to operators to support them cover the price differential between the use of SAF and fossil fuel jet kerosene, on eligible routes. The EU has increased the ETS innovation fund budget to help deploy net zero and innovative technologies.

By doing so, the EU can ensure that it produces more SAF while simultaneously reducing its price and making decarbonisation for EU airlines affordable.

Aer Lingus believe further policy opportunities exist including:

- Further fostering investments in SAF by increasing the 20 million 'SAF allowances' and extending the scheme beyond 2030. Airlines will pay more into the EU ETS when current free allowances are progressively removed between 2024 and 2026. Aviation revenues need to be effectively redirected to accelerate the EU SAF market.
- Guaranteeing that the upcoming ETS Innovation Fund prioritises SAF projects together with a swift adoption of Price Stabilisation Mechanisms, like the Contracts for Difference, as critical enabler for its scale up.
- Prioritising SAF within the Net Zero Industry Act so that procedures are simplified and so that current EU support for SAF can rapidly reach producers – thereby hastening the scale-up of production and concurrent price reduction.
- Ensuring certainty via the strategic allocation of feedstock to the aviation sector: neither hydrogen nor electrification can sufficiently replace fossil fuel-based aviation technology, unlike in other sectors.
- Ensuring that import barriers are not placed on SAF, at least on a temporary basis, until the EU can produce SAF at scale.
- Ensuring that Book and Claim flexibility mechanisms are available across the EU to guarantee the rapid scale-up of SAF, as production is placed where it is more cost-efficient.
- Unlocking further EU Government initiatives to ensure that SAF production is developed across the length and breadth of the EU. Further initiatives should be developed by Member States.

Aer Lingus has joined the government-industry SAF Taskforce to inform policy in this area. We look forward to working with our government and industry colleagues towards developing and accelerating opportunities for SAF production in Ireland.

Recycling

Waste reduction, reuse and recycling form a key pillar of the Aer Lingus sustainability strategy. Significant progress is being made on all fronts. In 2022, Aer Lingus worked with the Irish government to agree on the interpretation of legislation to enable the reclassification of certain onboard waste streams to facilitate its recycling. We will continue to work with government departments and agencies and other partners to maximise the amount of waste which can be recycled and will make every effort to reduce and eliminate waste which cannot.

Single European Sky (SES)

Traditionally, air traffic management has been developed and provided at a national level by air navigation service providers (ANSP). This has led to the fragmentation of European airspace into a multitude of control areas broadly corresponding to national borders.

It is currently estimated that this fragmented approach causes an average flight within Europe to be 42km longer than necessary with a consequent additional environmental impact. Inefficiencies caused by Europe's fragmented airspace bring extra costs of around €4 billion a year (source: European Commission).

Aer Lingus is a strong supporter of the Single European Sky (SES) proposal which would restructure European airspace as a function of air traffic flow, rather than according to national borders. This would improve and reinforce safety, create additional capacity, increase the overall efficiency and performance of the air traffic management system, and offer the potential of a 10% reduction in European aviation emissions (source: IATA).

Supporting UN Sustainability Goals

The UN has identified 17 Sustainable Development Goals (SDGs) to support as part of the global 2030 Agenda for Sustainable Development. The SDGs provide a blueprint for a more sustainable future for all.

Throughout this report we have indicated where Aer Lingus activities support the following SDGs:



Ensure healthy lives and promote well-being for all at all ages.



Ensure access to affordable, reliable, sustainable and modern energy for all.



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.



Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.



Make cities and human settlements inclusive, safe, resilient, and sustainable.



Ensure sustainable consumption and production patterns.



Take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy.

Appendix

CORSIA Carbon Offsetting and Reduction Scheme for International Aviation

EU ETS European Emissions Trading System

Hydro-treated Vegetable Oil (HVO) A low emissions biofuel made from renewable materials and a direct replacement for conventional diesel.

IATA International Air Transport Association

ICAO International Civil Aviation Organisation

ICAO CAEP 8 Governs NOx emissions from aircraft engines. The standards have become increasingly stringent: CAEP 8-certified engines must emit less than half the NOx emitted by engines certified to the original CAEP standard.

ICAO Chapter 14 Governs noise from aircraft. Compares aircraft noise against standardised limits that are a combination of lateral, approach, and flyover noise levels.

IEAvA IATA Environmental Assessment Programme

Nitrous Oxides NOx is the collective term for the Nitrogen Oxides NO and NO₂, which are significant components of harmful air pollution.

NOx per LTO Average emissions of the air pollutant nitrogen oxide as aircraft take off and land. The calculation considers the engine certifications and aircraft types of all aircraft which operated during the year, including leased aircraft, referencing information from the ICAO emissions database.

Noise per LTO Average noise per flight considering arrival and departure noise for each aircraft type. Based on the number of flights of all aircraft which operated during the year, including leased aircraft.

Paris Agreement The legally binding international treaty on climate change adopted by 196 Parties at the UN Climate Change Conference (COP21) in Paris in 2015. Its overarching goal is to hold “the increase in the global average temperature to well below 2°C above pre-industrial levels” and pursue efforts “to limit the temperature increase to 1.5°C above pre-industrial levels.”

Particulate matter (PM) is made up of particles of solids or liquids that are carried in the air. These particles may include dust, dirt, and soot.

Scope 1, 2 & 3 Emissions According to the leading GHG Protocol corporate standard, a company's greenhouse gas emissions are classified into three scopes.

- **Scope 1 emissions** are direct greenhouse (GHG) emissions that occur from sources that are controlled or owned by an organization directly from our flights and ground vehicles. (jet kerosene, natural gas, ground vehicle emissions etc.)
- **Scope 2 emissions** are indirect GHG emissions associated with the purchase of electricity, steam, heat, or cooling. There are two means of calculating Scope 2 emissions – market and location. The location-based method reveals what the company is physically putting into the air from the emissions intensity of the grid. The market-based approach shows emissions the company is responsible for through its purchasing decisions, i.e. such as purchasing or not purchasing renewable energy.
- **Scope 3 emissions** includes all other indirect emissions that occur in our value chain such as carried cargo, employees commuting to work and business travel.

SEAI Sustainable Energy Authority of Ireland

Single European Sky (SES) A proposal to harmonise and defragment air traffic management across Europe.

Skytrax International air transport rating organisation

Sustainable Aviation Fuels (SAF) There are many different types of SAF which are broadly categorised into three generations:

- **First generation SAF** is made from HEFA (Hydrogenated Esters and Fatty Acids) – the current commercial scale process for producing the fuel. In the UK and EU, HEFA is made from waste oils and fats which are in short supply and also in demand for the production of non-crop-based biodiesel and renewable diesel for road transport. There is therefore a need to develop SAF with a greater diversity of feedstock types.
- **Second generation SAF** is made from other carbon-containing sustainable feedstocks and includes the conversion of waste into syngas and the conversion of flue gases and waste/residues from biomass feedstocks into ethanol and then to SAF. These technologies are either ready, but not yet deployed at commercial scale, or are very close to maturity.

Third generation SAF is known as an “e-fuel” or PtL (Power to Liquid), a fuel made from chemically combining green hydrogen with CO₂ taken directly from the atmosphere or captured from industrial emissions using Direct Air Capture (DAC) technology. Although the production process is well understood the first commercial plants are critically dependent on the emergence and deployment of the efficient large-scale electrolysis and DAC capacity required for its production.

Task Force on Climate-related Financial Disclosures (TCFD) Body created by the Financial Stability Board to improve and increase reporting of climate-related financial information.

