Environment

Our ambition is to be
Net Zero carbon by 2050.

We are playing our part in our industry's transition through building a more sustainable fleet, utilising sustainable finance and supporting SAF development.

Average Fleet age today **5.4** years

54% **new generation aircraft in fleet at end of 2024** (up from 50% in 2023)

12% Reduction in **CDB Aviation relative CO_2 emissions** since 2018

60% Target proportion of new generation aircraft by **end of 2025**

130 **new generation aircraft** ordered from **Airbus** and **Boeing**

67 grams CO_2/ASK (down from 77 grams CO_2/ ASK in 2018)

30 Aircraft **scheduled for delivery in 2025** (including aircraft under direct OEM orders, sale-lease-back and portfolio acquisition)

'Sustainability Aircraft Lessor of the Year' and **'Sustainability Aviation Debt Deal of the Year'** at the 2024 Airline Economics Awards

Sustainable Fleet

Why It Matters?

Tackling fleet emissions is the key challenge in aviation's transition to a net zero carbon future. Our sustainability strategy is built around managing a transition to a more sustainable fleet over time with a focus on a planned multi-annual investment in next-generation, fuel efficient aircraft, and to promote SAF and adopt new propulsion technologies as they are developed and commercialised.

Key Targets:

- Achieve 60% new-generation aircraft in our portfolio by end of 2025 and 80% by 2030
- Achieve net zero fleet emissions by 2050

Key Actions for 2025:

- Reach our first milestone of 60% new-generation aircraft by the end of 2025
- Achieve the milestones set out in our net zero roadmap and the environmental targets associated with our Sustainability Linked Loan
- Continue to collaborate with other lessors on building a unified approach to sustainability reporting to promote greater transparency and comparability

CDB Aviation has set a ***2030 target to have 80% of our fleet comprised of the most fuel-efficient and lowest-emissions aircraft.*** Providing a pathway to the ultimate goal of Net Zero, a significant transformation of our fleet this decade is well underway as part of our Sustainable Fleet Initiative and is being supported by our Sustainable Finance framework which is designed to fund our plans in the most effective way.

Sustainable Fleet Initiative

We launched our Sustainable Fleet Initiative in 2022 to guide us as we invest in next-generation aircraft and progress the decarbonisation of our portfolio in the period to 2030. Since then, we have worked towards achieving a 60% share of the most fuel-efficient, lowest-emission aircraft types by end of 2025, with a longer-term target of 80% by 2030.

In 2024, we further advanced our progress through the addition of 22 new-generation aircraft, raising the proportion of new-generation types in our fleet from 50% in 2023 to 54% in 2024. We now have 169 new-generation aircraft in the portfolio. These models, which include the Airbus A320neo Family, A330neo, A350, Boeing 737 MAX, and 787, offer 20–25% greater fuel efficiency and lower CO_2 emissions per seat compared with current generation aircraft.

They are also quieter and emit fewer air pollutants. Together these new-generation aircraft now represent 60% of CDB Aviation's lease and finance income.

In September 2024, we placed new orders for 130 narrowbody aircraft from Airbus and Boeing, including 80 Airbus A320neo family planes. As Figure 1 shows, these new-gen aircraft are the most efficient aircraft available on the market, with significantly lower carbon emissions than current generation planes. CDB Aviation's substantial investment in new-gen narrowbody aircraft demonstrates our determination to continue to secure the most fuel-efficient assets available. We ended the year with a total of 521 owned and committed assets, including 307 aircraft under operating lease and four under finance lease.

While supply chain delays at Airbus and Boeing continue to affect the broader industry and our own ability to quickly expand the new-generation segment of our fleet, we remain on track to reach our target of 60% by 2025. Beyond this, recent momentum in the industry is beginning to put pressure on our long-term targets both in terms of fewer new aircraft deliveries from Airbus and Boeing and lower availability of SAF.

Figure 1: Emissions intensity of CDB Aviation's portfolio in 2024 by aircraft category.

Aircraft Type	Average CO_2/ ASK (grams)
Newgen Narrowbody	58
Newgen Widebody	72
Current Narrowbody	72
Current Widebody	78
Current Regional Jet	121

Sustainable Investing Metrics

Starting in 2023, CDB Aviation formally integrated sustainability metrics into our investment papers and investment decision-making. This has helped to embed the sustainability mindset into our business-as-usual and ensure that our daily business activities align with our net zero goals and roadmap. The metrics, which include the CO_2 emissions intensity of the aircraft, and whether they are current or new generation, also helps us to track how we are performing against the KPIs in our Sustainability Linked Loans (SLLs). Each potential investment is rated on a scale from High CO_2 (brown investments) to Low CO_2 (sustainable investments), giving the Investment Committee a clear indication of the sustainability performance of the asset(s). Mitigation actions are recommended if the investment does not meet ascribed goals.

Our Net Zero Roadmap

In 2023, CDB Aviation launched its first Net Zero Roadmap, with an aim to set challenging short-term targets, while laying out a path to net zero by 2050. The roadmap is high-level, but it enables us to convey our intention and the direction of travel in terms of reducing our emissions. It shows that even as we invest in more efficient aircraft, our absolute CO_2 emissions are likely to rise through 2030 due to the continued expansion and growth of our fleet, and the limited availability and usage of SAF by airlines during this period.

Beyond 2030, absolute emissions should start to decline, and the emissions intensity of our fleet should improve as more SAF comes on stream and newer aircraft technologies enter service. However, we anticipate that gains may plateau once the fleet reaches nearly 100% new-generation aircraft without a substantial increase by the industry in SAF production and use.

CDB Aviation has performed detailed modelling to forecast how our fleet will develop over the next five years and the profile of carbon emissions linked to that fleet development. We believe that the transition to net zero by 2050 hinges on two key factors. The first is a global expansion in SAF production, which should accelerate towards the end of this decade. The second is the emergence of new propulsion technologies, including hybrid-electric and hydrogen-powered aircraft, likely to become more viable for larger aircraft after 2040.

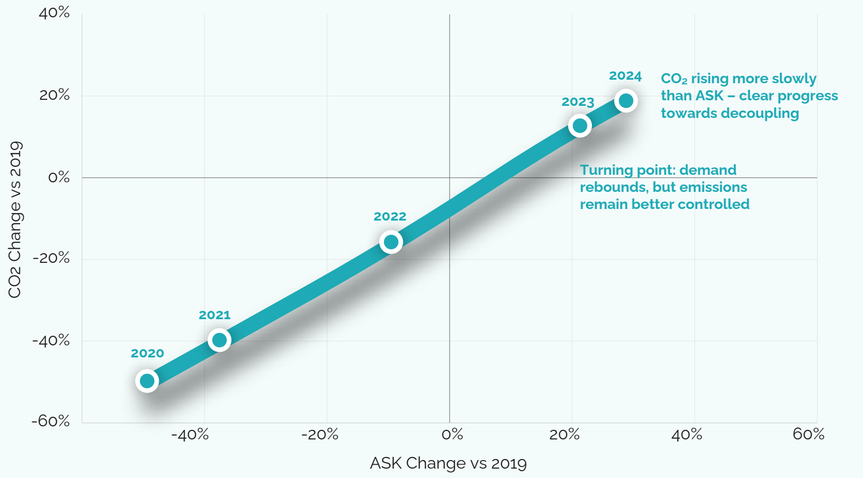
We are optimistic about innovative engines like GE / Safran's RISE, which could cut narrowbody fuel burn by around 15% from the mid-2030s onward.

The ultimate goal is to decouple growth in the aviation industry from growth in carbon emissions, so that aviation can continue to connect people and facilitate global trade, without increasing emissions.

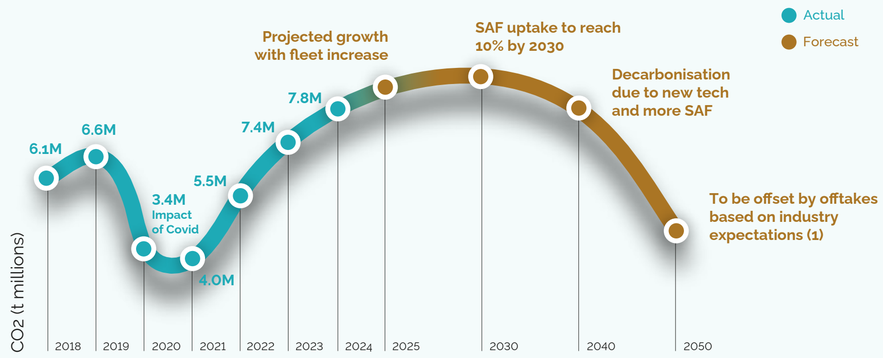
CDB Aviation fully supports the idea of a unified and standardised emissions reporting framework that can be used by everyone in the industry from airlines to lessors and banks, such as the one proposed by the global body Impact on Sustainable Aviation.

Such a framework would facilitate transparency and comparability across the industry. We believe transparency and comparability encourages greater accountability which in turns encourages greater levels of action.

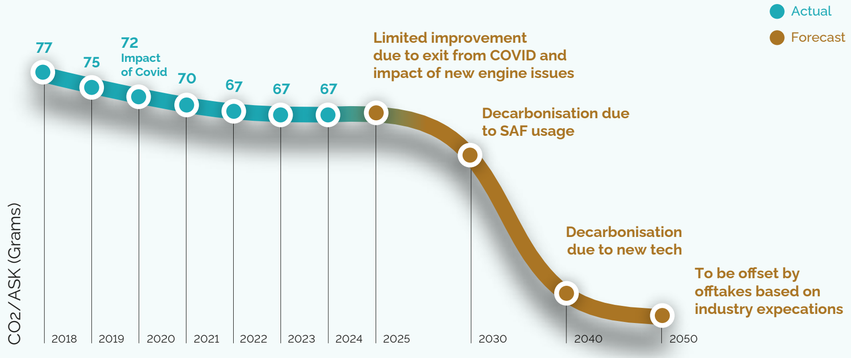
Progress on Decoupling



CDB Aviation's Fleet Emission Roadmap



CDB Aviation's Fleet Emission Intensity Roadmap



(1) Based on IATA NetZero 2050 with 19% of 2050 reductions coming from offsets and carbon capture

Our Net Zero Roadmap

	2019	2020	2021	2022	2023	2024	2025	2030	2040	2050
Absolute CO2 (t)	6.6M	3.4M	4.0M	5.5M	7.4M	7.8M	Increase vs 2023	Increase vs 2025	Decrease vs 2030	Net Zero when including offsets
Proportion of new generation aircraft in fleet	22%	30%	41%	46%	50%	54%	Target: 60%	Target: 80%	Target: 100%	Shift to Next Generation
CO2 intensity of fleet (gCO2/ASK)	75g (baseline)	72g	70g	67g -10%	67g -10%	67g, -10%	Target: -9%	Target: -9%	Target: -60%	Target: -90%
Use of Sustainable Aviation Fuel (SAF)					Explore strategies regarding use of SAF	Supporting ALI SAF research				
Carbon offsetting										Offset residual emissions Target: max. 20-25% of total emissions

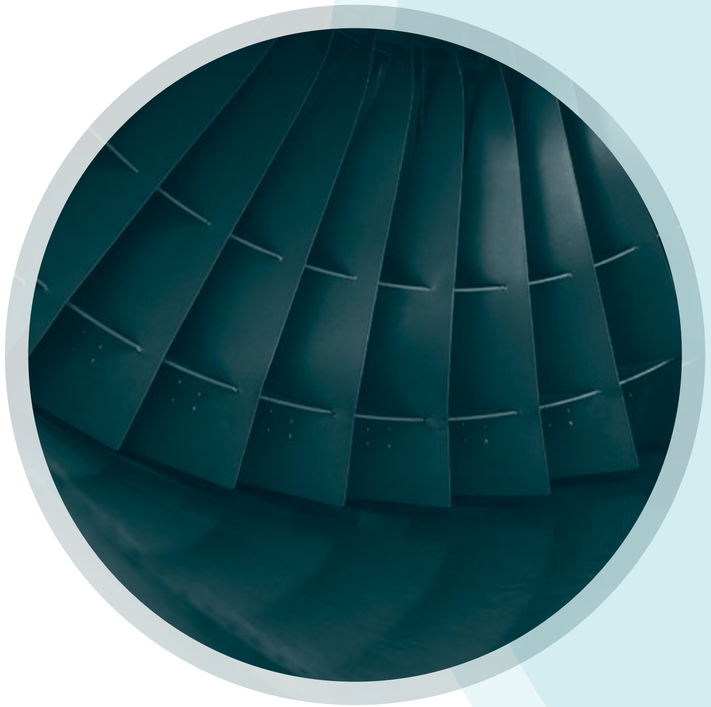
Measuring the Carbon Footprint of our Fleet

In 2024, Scope 3 emissions from our fleet were 18% higher than our baseline year of 2019 and 5% up on our 2023 emissions. This increase was due to the continued expansion of our fleet and the renewed growth globally in rates of air-travel.

Compared to 2019, CDB Aviation's portfolio flew 28% more kilometres (ASKs) but we had an 18% increase in CO_2 emissions. This difference was directly linked to the improved emissions intensity profile of our fleet over the last few years, as a result of our strategy of adding more efficient, new-generation aircraft to the portfolio. The average emissions intensity of our fleet reduced by 0.6% between 2023 and 2024.

A true decoupling of growth in air traffic from growth in emissions will only be possible when there is sufficient commercial supplies of SAF available on the market, in addition to another next-generation leap forward in aircraft technology. In line with CDB Aviation's net zero roadmap, we expect our portfolio and the aviation industry more broadly to begin to achieve this decoupling by the end of the 2030s as SAF becomes more widely and readily available.

For full details on our carbon emissions across Scopes 1, 2 and 3, see Sustainable Operations page 22 and Appendix page 65.

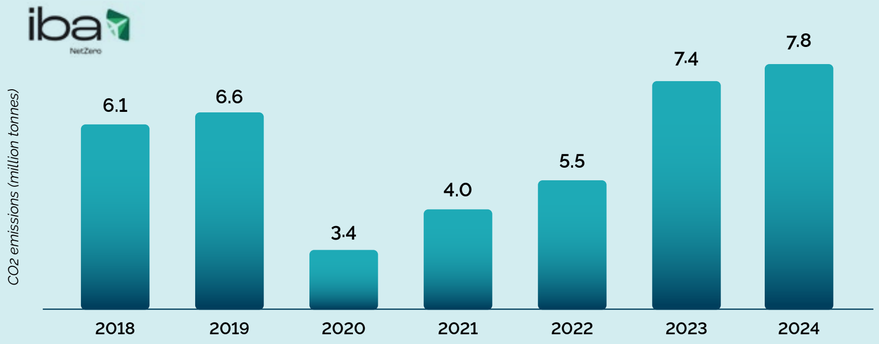


Comparison of CDB Aviation fleet emissions data in 2019, 2022 and 2023

	2019 (base)	2022	2023	2024
Aircraft	236	269	293	311
Flights	313,000	277,000	352,000	354,000
CO2 per ASK	75 grams	67 grams	67 grams	67 grams
Total CO2	6.6m tonnes	5.5m tonnes	7.4m tonnes	7.8m tonnes

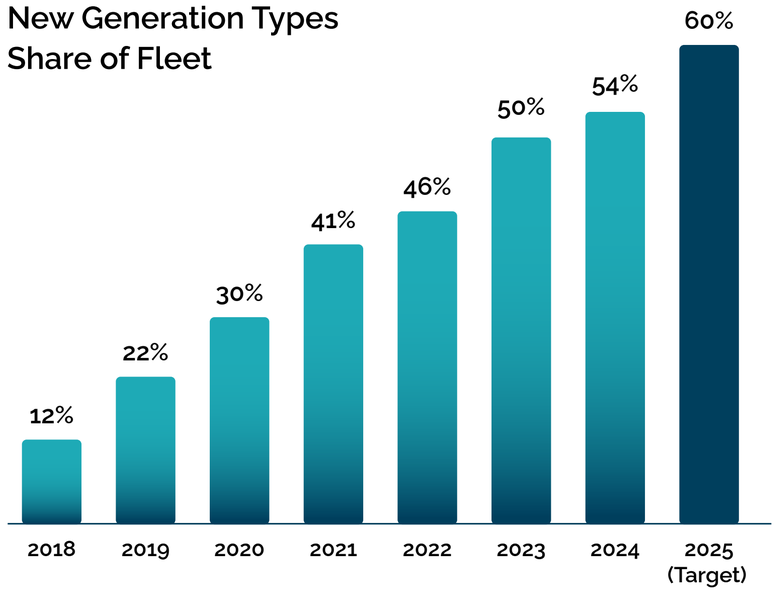
Absolute fleet CO2 emissions from 2018 to 2024

Fleet productivity from 2020 to 2022 was heavily influenced by Covid-19 pandemic



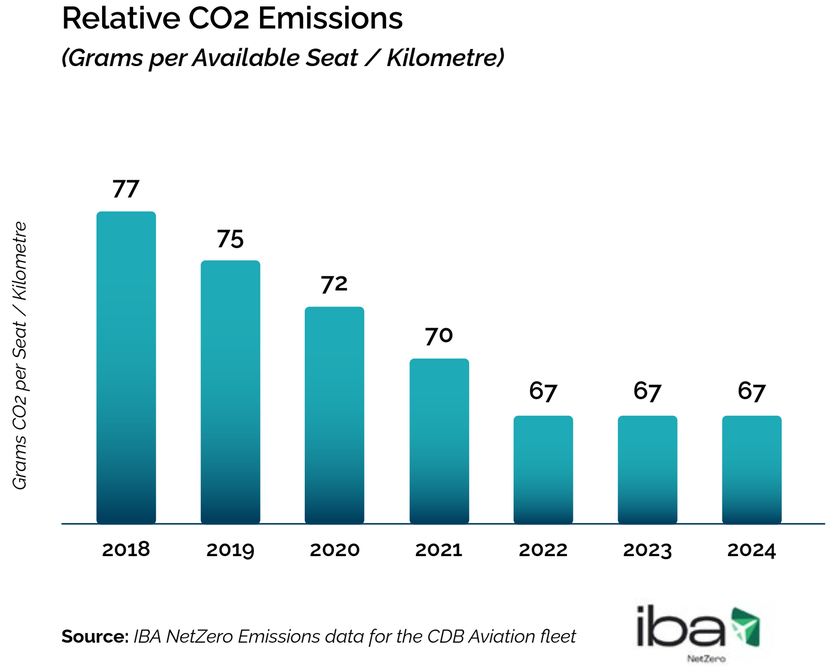
CDB Aviation's total CO2 emissions *(million tonnes)*

CDB Aviation Newgen Types – up from 12% in 2018 to 54% in 2024



Note:
In the interest of transparency, Newgen share is by aircraft count and not asset CMV

CDB Aviation CO_2 Emissions Improvement 2018 to 2024 -12%



Source: *IBA NetZero Emissions data for the CDB Aviation fleet*

Sustainable Aviation Fuel

CDB Aviation, our airline customers, and the entire aviation industry is counting on SAF to deliver most of the decarbonisation needed by the sector. Some initial progress has been made and currently CDB Aviation's fleet of Airbus, Boeing and Embraer aircraft are certified to operate on a blend of up to 50% SAF. The OEMs are working to increase the approved and certified proportion to 100% by 2030. However, the current major challenge faced by the industry is the lack of production and availability of SAF on the scale needed to address the problem.

In 2024, global SAF production volumes were 1 million tonnes (or 1.3 million litres).[1] This represented just 0.53% of total jet fuel consumption[2], which is the equivalent to a can of soda's worth of fuel in an average passenger motor car's fuel tank (290ml in a fuel tank of 55 litres), or an immaterial level at this point in time. Looking at immediate future capacity potential, if all the SAF facilities that are currently under construction are taken into account, the amount of SAF production capacity in 2030 could reach just 3.5 million tonnes.

As part of our role in leading a transition and to explore whether Ireland could play a role in this emerging global industry, CDB Aviation, along with a group of our lessor peers from Aircraft Leasing Ireland (ALI), is helping to fund a research and innovation project looking into potential avenues for manufacturing SAF in Ireland. The project has seen stakeholders from industry, academia and the Irish State collaborate to seek to solve this fundamental problem.

The four-year project is a university collaboration between Trinity College Dublin and the University of Limerick. It began in September 2024 and is focused on identifying how Ireland could establish a sustainable and viable supply chain for SAF raw materials, while also proposing scenarios in which a substantial quantity of SAF could be produced efficiently and at scale on the island. A number of PhD students have been appointed, and the initial research is now underway. CDB Aviation will be monitoring the progress of the research closely over the coming years, given how critical SAF is to the future of our business and industry.

University of Limerick, Ollscoil Luimnigh

Trinity College Dublin, Coláiste na Tríonóide, Baile Átha Cliath, The University of Dublin

Aircraft Leasing Ireland, Ibec

[1] *International Air Transport Authority (IATA) press release, December 2024:* https://www.iata.org/en/pressroom/2024-releases/2024-12-10-03/

[2] *European Union Aviation Safety Agency (EASA) article on the SAF Market:* https://www.easa.europa.eu/en/domains/environment/eaer/sustainable-aviation-fuels/saf-market

Supporting The Advancement Of New Technologies

CDB Aviation is committed to supporting the advancement of next-generation aircraft technologies and new market entrants that contribute to a more efficient and sustainable global fleet.

Championing COMAC and the C919's Role in Sustainable Aviation

In 2024, we were encouraged by the remarkable progress made by the Commercial Aircraft Corporation of China (COMAC). The C919, COMAC's narrowbody aircraft designed to compete with the Boeing 737 and Airbus A320 families, represents a significant milestone in diversifying the global airframe market. By offering an alternative solution for airlines, COMAC has the potential to enhance fleet flexibility, improve supply chain resilience, and drive competition that fosters continuous technological advancements across the sector. COMAC's participation in the OEM market can also influence some of the near-term supply challenges facing the aviation sector.

As a global Chinese-owned lessor, CDB Aviation recognises that the C919 program provides COMAC with a unique opportunity to emerge as a key player in the global aviation industry. With an emphasis on fuel efficiency, cutting-edge avionics, and enhanced passenger experience, the aircraft is well-positioned to support airlines in their sustainability and fleet modernisation goals. Furthermore, COMAC's development of the C929, a next-generation widebody aircraft, underscores the company's long-term commitment to innovation and global market competitiveness.

CDB Aviation's shareholder, CDB Leasing, currently holds 70 non-binding entitlements with COMAC, comprising 50 C919 aircraft and 20 C909 aircraft, reflecting its strong confidence in COMAC's future potential.

Positioning For Success

CDB Aviation firmly believes that COMAC is positioned for success in the evolving aviation landscape. By fostering strong collaborations with these companies, we aim to encourage and enable greater competition and innovation across the wider industry while advancing the industry's transition to a more sustainable future.

> **We aim to drive greater competition and innovation across the industry**

Sustainable Operations

Why It Matters?

CDB Aviation is embedding sustainability principles and practices across our business, including actively seeking to make further progress in reducing the environmental footprint of our operations. While the overall impact here may be relatively small compared to the need to decarbonise our fleet, many of the actions required in our business operations are within our own control and are yielding positive results.

Key Targets:

- Continue to improve energy and water efficiency and reduce waste in our offices, year-on-year
- Continue to reduce the carbon footprint of our operations, year-on-year

Key Actions for 2025:

- Implement measures to reduce energy use, water use and waste in our offices
- Measure and report our total carbon footprint across Scopes 1, 2 and 3

To help build a more sustainable organisation and culture, we pursue a range of measures to drive sustainability objectives and performance through our operations and supply chain, whilst also delivering more sustainable workplaces. Environmental regulations and standards are driving higher performance in the built environment and in other business areas which is helping us to optimise our operations for improved sustainability.

> **Driving sustainability across our operations, supply chain and workplaces**

Greening Our Operations

In 2024, we took various steps to improve the environmental sustainability performance across our operations. Key highlights include:

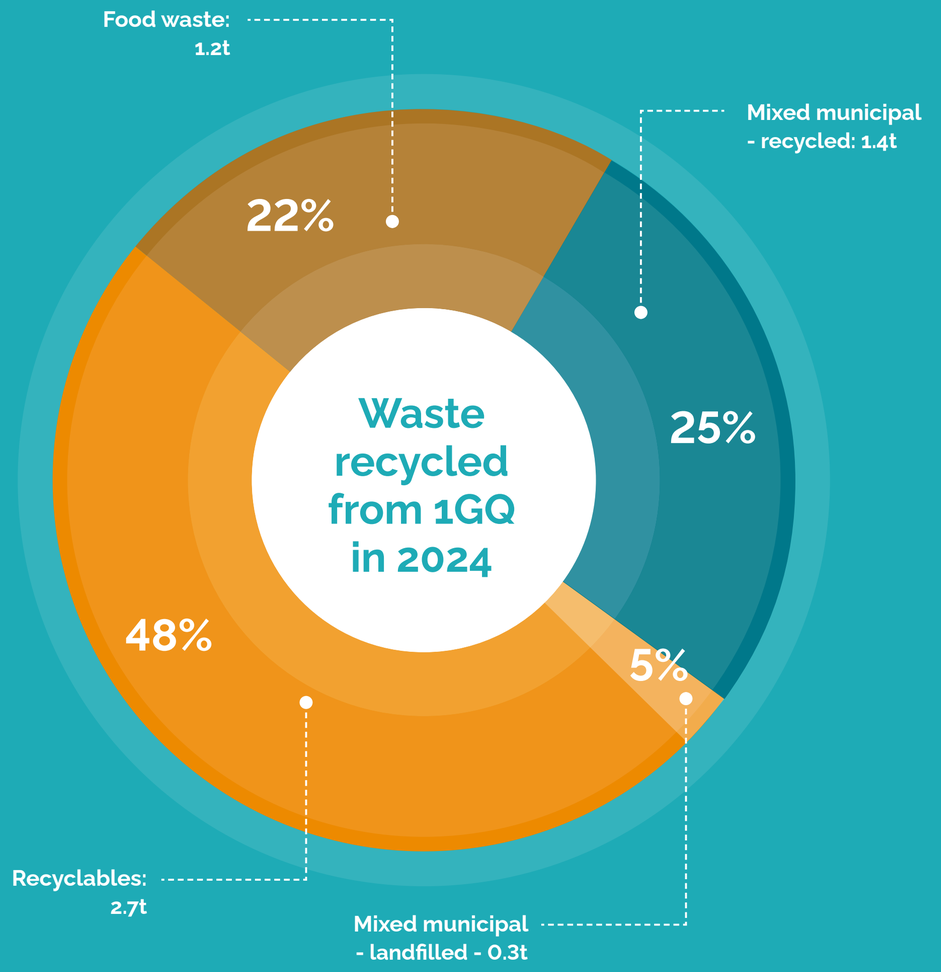
Energy:
Following the installation of LED lighting in our Hong Kong office, we saw an immediate energy saving and reduction in our energy bill. In 2024, energy consumption in our Hong Kong office was 78,089kWh and in our Dublin office was 142,569kWh, giving a total of 220,658Wh – a decrease of 4.4% versus 2023.

Waste:
Across both our offices we have facilities to recycle paper, plastic, metals, coffee capsules, batteries and food waste. The breakdown of our waste streams can be seen in the chart on the right. In 2024, all of our Hong Kong staff received a reusable water bottle and coffee cup to help reduce single use waste. In our Dublin office, we began taking part in the national recycling Deposit Return Scheme to collect cans and bottles. Collections are made once a month and all funds raised though the scheme go to a local children's charity. We also recycled our old laptops and mobile phones by selling them to staff and their families for a nominal cost.

In 2024, CDB Aviation recycled 542 kg of old IT-related hardware. This included computers, tablets, cables, and printers, all of which were recycled appropriately by our specialist IT recycling partner.

Water:
We recognise the importance of minimising water use at our sites to limit our impact on this vital resource. In 2024, we continued to benefit from the rainwater harvesting system in place at 1GQ Dublin, where we also have water efficient fixtures in place. In 2024, CDB Aviation used 755m³ of water in our Dublin office, a slight increase on last year's consumption (2023: 738m³. (Data was not available for our Hong Kong office).

Biodiversity:
As part of our commitment to biodiversity, we have recognised the importance of pollinators in our ecosystem. In partnership with the Federation of Irish Beekeeping Association, we maintain four beehives – the CDBees – on the roof of our Dublin office building. The association manages the hives on our behalf, which are home to approximately 120,000 bees whose excess honey is enjoyed by CDB Aviation staff members during the year.



Business Travel:
Minimising our carbon footprint is a company policy which we actively manage in conjunction with our travel partners to reduce our air and road miles.

Staff members are supported in their efforts to reduce their personal carbon footprints by the city centre location of our offices in Dublin and Hong Kong, which both enjoy strong public transport links (train and / or bus). We also support active travel such as walking, running and cycling to work through the provision of top-class shower and changing facilities, bicycle storage areas, and the State sponsored tax efficient cycle-to-work incentive scheme.

Green Performance Pledge:
In 2024, our Hong Kong office signed up to the 'Green Performance Pledge' (GPP), a performance-based landlord-tenant partnership organised by our landlord, Swire Properties, with the aim of increasing environmental sustainability. CDB Aviation is proud to be part of the 'Sustainable Office Operations' scheme, which focuses on creating a significant impact in terms of a reduction in energy, water and waste.

The scheme encourages data monitoring and sharing across these three areas and 'Green Points' are awarded to tenants who reach specific performance levels, such as electricity-use intensity. At the end of the year, tenants are then awarded for their progress on sustainability, achieving either a diamond, gold or silver award. CDB Aviation was delighted to gain the silver award for its efforts in 2024.

As part of the GPP, our landlord also runs workshops on ESG and waste management, as well as hosting shrubbery planting sessions on the rooftop garden. In 2025, the CDB Aviation team plans to participate in these sessions and is aiming to achieve the gold award.

120,000

bees whose **excess honey** is enjoyed by CDB Aviation staff members

Recycled 542 kg of old IT-related hardware

CASE STUDY

A win-win for operational performance and sustainability

In 2024, as part of a strategic review of its Information Technology approach and infrastructure, CDB Aviation took the decision to adopt a 'Cloud First IT Strategy'. The primary driver for this was enhanced IT security and operational performance, but it also delivered co-benefits for the environment.

The project was implemented in three stages:

STAGE 1

Powered off **10 in-house servers** and two large storage devices across the Dublin and Hong Kong offices, transitioning over to **more energy efficient cloud-based servers.**

STAGE 2

Replaced **60 older laptops** across the Dublin and Hong Kong offices with the latest generation Microsoft Surface laptops which are **more energy efficient** and made with recycled materials.

The old laptops and some **older iPhones were sold** to colleagues and their families for nominal fees, giving them a **'second life'.**

STAGE 3

Reduced the number of network switches across the Dublin and Hong Kong offices from **24 to 6**. This was made possible by the removal of all desk phones as **CDB Aviation transitioned fully onto Microsoft Teams and Zoom** for all calls and meetings.

Co-benefits for the environment include:

Lower carbon emissions: compared to on-site servers, cloud servers are typically run from energy efficient data centres which, in many cases, are powered at least in part by renewable energy. We estimate that in total, around 30 tonnes of CO_2 per year has been saved by moving to the cloud.

Responsible disposal and recycling: CDB Aviation partnered with Kefron, a certified IT Asset Disposal (ITAD) service in Ireland, to ensure old hardware was deposited in a safe, secure and environmentally responsible way. Where possible, hardware was refurbished, stripped and recycled.

Commenting on the project, Eric Reid, Infrastructure Director – Information & Communication Technology, said:

"Operational efficiency and sustainability can go hand in hand and the move to our new IT infrastructure demonstrates this. It has helped us maximise our security and performance while staying true to our commitment to reducing our environmental impact."

Measuring Our Carbon Footprint

Measuring our carbon footprint CDB Aviation measures the carbon emissions from our business annually, with our Scope 3 emissions from our portfolio tracked on an ongoing basis. We selected 2019 as our baseline year. CDB Aviation's carbon emissions across Scopes 1, 2 and 3 in that year were 6.6 million tonnes of CO_2e.

In 2024, our total emissions were 7.8 million tonnes of CO_2 emissions, which is an 18% increase versus our 2019 baseline. The emissions from our fleet grew in 2024 due to an increase in the number of aircraft in our portfolio (See full details in 'Measuring the carbon footprint of our Fleet'). A full breakdown of our emissions can be found in the Appendix on page 65.

The graphic on the right depicts the scale of the various sources of carbon emissions across CDB Aviation's value chain in 2024. It illustrates the vast difference between our operational emissions and the emissions related to our fleet.

It highlights clearly why increasing the proportion of new generation aircraft in our fleet and using our influence to help advance progress on SAF and new propulsion technologies is of paramount importance, as well as working to continually reduce emissions from our own operations.

	2019	2022	2023	2024
Scope 1 tCO2e	499	183	1,301	495
Scope 2 tCO2e	50	95	88	84
Scope 3 tCO2e	6,602,209	5,505,807	7,425,201	7,817,094
Total	6,602,759	5,505,086	7,426,590	7,817,674

Note 1: the emissions data in the above table relates to our Dublin HQ office, our Hong Kong office, and our portfolio of aircraft.

Note 2: some of the historic data in the above table (i.e. for 2019 – 2023) has been re-stated this year versus what was published in our last sustainability report. This is due to the availability of more accurate Emissions Factors which have now been applied in the calculations.

Sustainable Finance

Why It Matters?

Sustainable finance is about including ESG considerations in investment decisions, helping to deliver the transition and decarbonisation of our industry. We are embracing sustainability linked loans and leases to fund the replacement of traditional carbon-intensive aircraft with more modern aircraft which emit less emissions.

Key Targets:

- Develop sustainability linked leases and other innovative sustainable finance products

Key Actions for 2025:

- Continue to engage with finance providers to offer new sustainable finance instruments
- Actively engage with airline customers to explore the introduction of sustainability linked leases and innovative finance products that encourage lower emissions outputs

Completed two sustainability-linked financings totalling $1.2 billion

In 2024, CDB Aviation completed two sustainability linked financing transactions for a total amount of $1.2 billion, bringing our accumulated sustainability linked financing to date to $1.8 billion. It followed the completion of our inaugural Sustainability Linked Loan (SLL) in December 2023 involving a $625 million syndicated three-year term loan facility – a landmark transaction at the time as the world's first syndicated SLL in the aviation leasing industry.

A key consideration in planning our inaugural SLL in 2023 was our desire to create a framework that could be replicated and reused in future years. The completion of our second and third sustainability linked loans in 2024 by following the original framework was testament to the success and robustness of this approach.

We were pleased to announce during the year that CDB Aviation had won the 2024 Airline Economics 'Sustainability Aviation Debt Deal of the Year' and 'Sustainability Aircraft Lessor of the Year' awards, building on prior awards received the company.

In 2024, CDB Aviation met all three of the above KPIs set out in the inaugural loan and we are confident that we will continue to meet them in 2025.

In parallel with our SLLs, we continue to engage with our airline customers to understand how we can support them to improve their ESG performance.

CASE STUDY

Engaging The Global Industry

As an advocate for a more sustainable industry, CDB Aviation plays a leadership role in seeking greater collaboration from across aviation's supply chain. As part of these efforts, we were one of the key organisers and sponsors of the third Aircraft Leasing Ireland (ALI) Global Aviation Sustainability Day (GASD) in Dublin in November 2024. The theme of the annual conference was, 'Sustainability: Is Reality Biting?'.

The conference was designed to facilitate a conversation between industry players on the opportunities and challenges that the sustainability agenda currently represents and looking to the future within aircraft leasing and the wider aviation industry. It attracted a large number of prominent speakers from across the aviation ecosystem and related industries including academia, finance and politics. The event presented a range of thought leadership and insightful questions that facilitated discussion amongst attendees and provided valuable perspectives for future consideration. Among the topics discussed were: Sustainable Aviation Fuels, the evolution of new technology aircraft by OEMs; and evolving regulations in the industry.

CDB Aviation sponsored the panel discussion 'Financing the Future: Fuelling Aviation's Green Transition'. The panel was moderated by Glen Morgan, Partner at Clear Sky Fund and included panellists from SMBC Group, HSBC and MUFG. The panel examined in some detail how important sustainable finance is to the aviation sector, what we can expect to see from financial institutions in this space and whether there is a debt valley between venture capitalists and traditional financing in the sector.

The ALI conference also hosted a panel discussion on the important topic of Artificial Intelligence (AI) and its impact on the industry. In the ESG framework, AI is categorised under the Social (S) pillar. The panel discussion, 'AI Revolution: Transforming the Future of Work in Aircraft Leasing', was moderated by Claire O'Brien, a Senior Associate at DLA Piper and saw contributions from panellists from AI Ireland, Alldus, DAE and Microsoft.

Driving industry-wide collaboration

Photo from ALI LinkedIn