

INTRODUCING EUROPE'S GREENEST AIRLINE

1ST
AIRLINE
to commit to going

PLASTIC FREE



OUR ENVIRONMENTAL POLICY

 **RYANAIR**
LOW FARES. MADE GREENER.

I. ENVIRONMENTAL POLICY STATEMENT

Europe's Favourite Airline

Next year Ryanair will carry over 130m passengers throughout Europe at lower fares than any other airline. Ryanair has made the free movement of people throughout Europe a reality, creating affordable travel for tourism, business, commuting, study and for visiting friends and relatives. I believe we have done more to integrate European society than any other business.



Ryanair provides high-quality jobs, competitive remuneration, world class training, job security, promotion opportunities, industry-leading rosters, mobility, and many other benefits to over 13,000 aviation professionals. We operate in 33 countries, from 87 bases and serve over 200 airports. Our workforce includes citizens from every EU Member State. Ryanair's traffic supports circa 90,000¹ direct airport jobs and generates enormous economic activity and jobs in the EU, especially its regions, many of which suffer low levels of economic development and high regional unemployment.

Europe's Cleanest Greenest Airline

Over the first years of our 'Always Getting Better' programme, Ryanair has changed more than any other airline, as we rolled out a series of digital and customer experience improvements.

As well as being Europe's favourite airline, with the best customer service, Ryanair is also Europe's cleanest, greenest airline. We are committed to managing the demands and impacts that our business activities place on the environment, and we are publishing this document to highlight our outstanding environmental achievements to date and our ambitious environmental targets for the future.

Aviation is the most efficient form of mass point-to-point transport, accounting for just 2% of EU man-made CO₂ emissions. (Road transport is 26%). The fuel burn per passenger km for a Ryanair aircraft is 0.019l, 44% less than the fuel burn per passenger km of a typical family car² of 0.034l. Nevertheless, as a very small part of a big problem, aviation must play its role in addressing climate change; and Ryanair, as Europe's largest and most successful airline, is committed to leading the way. We support the Paris Agreement to limit global temperature rise to less than 2°C above pre-industrial levels. We support IATA's 2050 target of an aviation sector that emits a net 50% less CO₂ against 2005 levels.

Priorities

Ryanair is committed to minimising our environmental impact. Through a process of continuous improvement, we will:

- Continue to comply fully with the environmental rules, regulations, standards, and codes of practice that apply to our sites, our people and operations;
- Limit the impact of aircraft noise on local environments; Our new Boeing 737-MAX-200 arriving in spring 2019 will further reduce noise by up to 40% per seat;
- Minimise fuel and energy consumption to limit our emissions of greenhouse gases and pollutants impacting air quality;
- We hereby commit to achieving an emissions rate of 61.4 grams of CO₂ per passenger km by 2030, which is 8% lower than our current rate and 31% lower than the average of the four other biggest European airlines;
- Offer our customers an easy-to-use voluntary mechanism to offset the carbon cost of their journeys.
- Work to remove all non-recyclable plastics from our operations over the next 5 years.

Governance

Our Chief Operations Officer has direct accountability for environmental risks and impacts. The COO will report directly to the Board on issues related to our environmental policy.

Accountability and Reporting

Ryanair management is responsible for implementing our priorities, including those that ensure compliance, enable the achievement of our targets, and manage environmental risk. The Board of Ryanair has oversight to ensure management fulfils company policy, including environmental policy.

Our environmental performance will be published annually on our website and in our annual report.

Others' Responsibilities

Environmental regulation has to be well designed and fair in order to support a competitive market place. Regulation of other aspects of industry can produce significant environmental benefits. For instance real action by Member States and the European Commission to tackle, at European level, the fragmentation and inefficiency of Air Traffic Management could produce an enormous environmental benefit through enabling efficient routing and reduced fuel burn and emissions. Ryanair will continue to push for these reforms.

Michael O'Leary
Chief Executive Officer

¹ As per benchmarks in Intervistas' 2015 report 'Economic Impact of European Airports' (commissioned by ACI)

² A Ryanair 737 burns 0.019 litres per passenger km (RPK). An average family car burns 0.054l per km, divided by a typical occupancy of 1.6 gives 0.034 per passenger per km (Source = Ryanair calculation based on Ryanair and UK Department of Transport data).

2. EUROPE'S GREENEST AIRLINE

Our business model means Ryanair is Europe's greenest, cleanest airline, as we:

Operate only point-to-point routes with industry-leading load factors (94% p.a.)

Continuously invest in fuel-efficient new aircraft and improved engine technology

Conduct the most efficient operational procedures in the industry

Deliver a CO₂ per passenger km value which is 25% lower than the average of the four other big European airlines and 39% lower than the average of 21 airlines tracked globally by MSCI, independent investment analysts (2016)

Reduce our noise footprint by 86% with the introduction of the 737-800 and will reduce it by 93% with the introduction of the 737-MAX

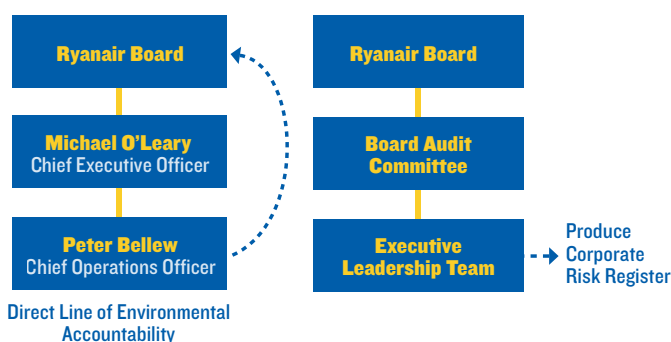
To emphasize our continuing commitment to our industry leading environmental performance and to highlight our ambition to do more, in 2017/18 Ryanair is publishing:

- Our new Environmental Policy, incorporating our commitment to address climate change
- Our objectives of reducing our global impact (greenhouse gas emissions) and our local impacts (aircraft noise and emissions affecting air quality)
- Our commitment to achieving an emissions rate of 61.4 grams of CO₂ per passenger km by 2030, 8% lower than our current rate and 31% lower than the average of the four other biggest European airlines
- Our commitment to IATA's 2050 climate target, that the aviation sector will deliver a 50% net reduction in CO₂ emissions by 2050 against 2005 levels.

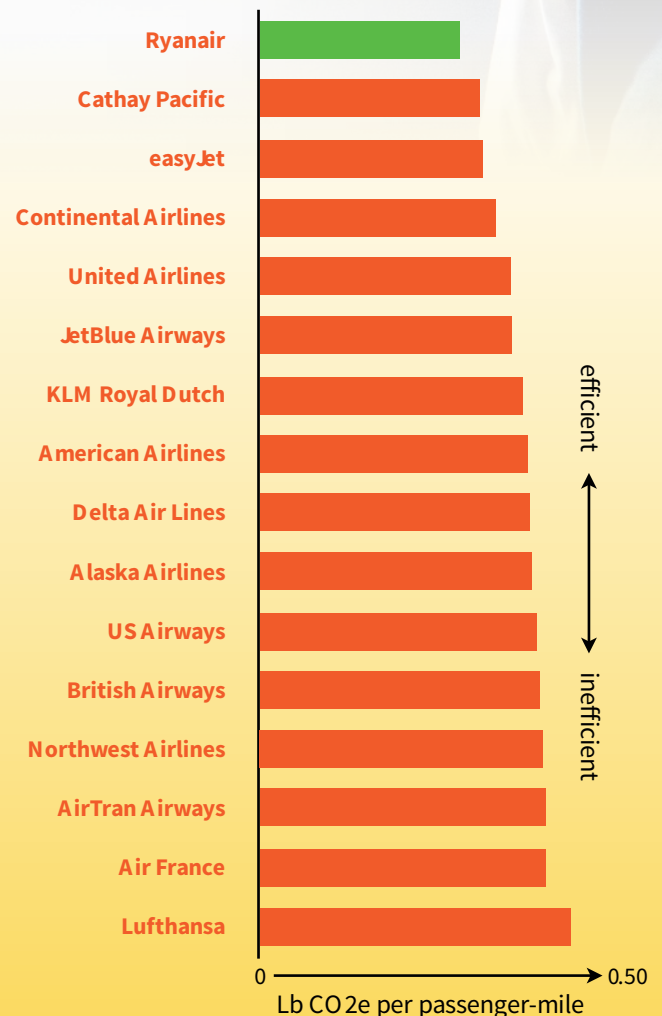
3. ENVIRONMENTAL POLICY GOVERNANCE

At Ryanair our Chief Operations Officer, Peter Bellew, has direct accountability for environmental risks and impacts. The COO reports directly to the Board on issues of environmental policy or risk.

The Board of Ryanair has oversight to ensure management fulfils company policy, including environmental policy.



AIRLINE EFFICIENCY RANKINGS



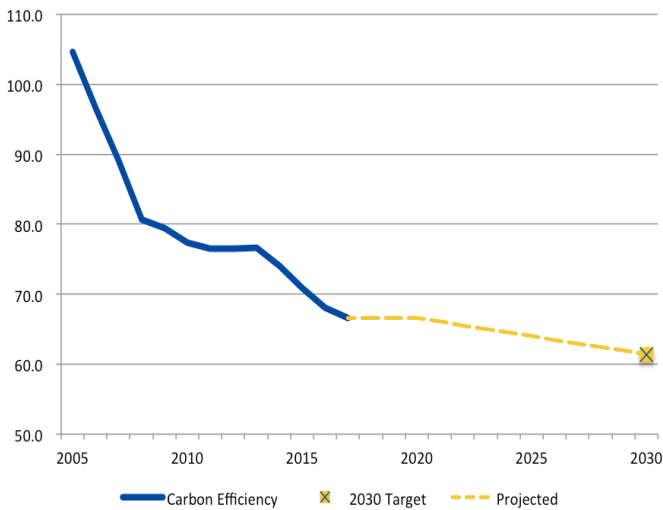
Source: Brighter Planet Air Travel Carbon and Energy Efficiency Report

4. OUR CLIMATE TARGETS

To deliver on our environmental commitment, Ryanair is announcing a 2030 carbon efficiency target and an absolute climate target for 2050:

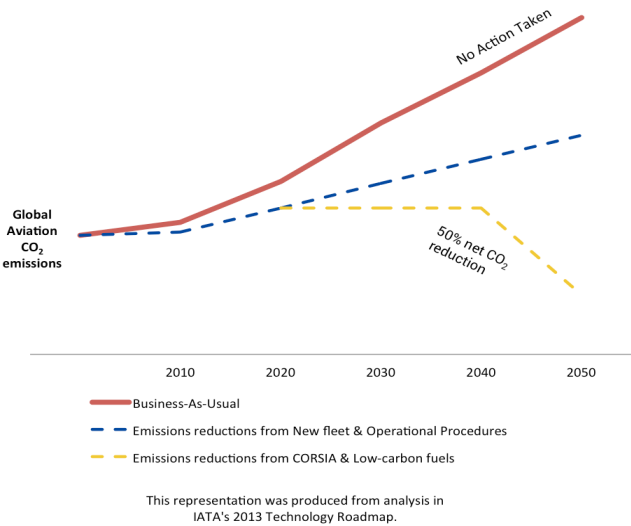
2030 CARBON EFFICIENCY TARGET

We aim to reduce our CO₂ per RPK by 66% to 61.4 g CO₂ per RPK against 2000 levels.



2050 INDUSTRY CLIMATE TARGET

In line with IATA's 2050 Climate Target, we commit to help the aviation industry deliver a net 50% reduction in CO₂ by 2050 against 2005 levels.



5. OUR FRAMEWORK FOR ADDRESSING GREENHOUSE GAS EMISSIONS

Avoiding GHGs

Our business model delivers direct, point-to-point flights with very high load factors. This reduces total flying relative to traditional hub-and-spoke models, which involve multiple journeys and numerous indirect flights. Increasing our load factors from 83% to 94% has reduced per passenger emissions by 13% in the last 4 years.

Reducing GHGs

We are industry leaders in fuel efficiency. We operate the youngest fleet of any major airline with an average age of 6 years. We deliver an industry-leading CO₂ per passenger-km metric, which is 25% lower than the average of the other four largest European airlines and 39% lower than the average of 21 airlines tracked globally by MSCI (2016).

Substituting GHG Sources

Like many airlines, we do not purchase low-carbon alternative fuels (LCAF) due to their high cost and the lack of consensus on sustainability criteria (see our principles on page 5). We commit to move to 100% LCAF when cost-competitive alternatives meeting globally-agreed sustainability criteria become available.

Market Based Measures

Ryanair has participated in the EU Emissions Trading System (ETS) since 2012. Ryanair will continue to comply fully with current and future emissions regulations.

As a short-haul airline operating almost entirely within the EU, 87% of Ryanair's emissions are subject to the EU ETS. This is a much higher proportion than legacy carriers, due to the EU's decision to suspend the operation of the ETS on flights to/from non-EU countries.

We believe that a single global market-based mechanism is the best way to govern emissions across the entire aviation industry. Accordingly, we support the replacement of ETS with ICAO's CORSIA, which represents an historic breakthrough in global carbon emission regulation.

6. OUR PRINCIPLES FOR THE USE OF ALTERNATIVE FUELS

- Alternative fuels are an opportunity for the aviation sector due to their potential to reduce lifecycle greenhouse gas emissions.
- Governments and fuel suppliers must prioritise the development of alternative fuels that deliver significant lifecycle CO2 savings.
- Alternative fuels in aviation should be regulated by one set of global rules that treat all airlines equally.
- The methods of quantifying lifecycle CO2 savings from alternative fuels should apply uniformly to all airlines.
- The CO2 savings from an airline's use of alternative fuels must be traceable and verifiable.

7. ENGAGING SUPPLIERS ON THE FUEL EFFICIENT DESIGN OF NEW AIRCRAFT

To deliver on ambitious climate targets, the next-generation of aircraft must deliver a step change in fuel efficiency. To reinforce this requirement, Ryanair will advocate the development of ambitious, low-emissions aircraft designs from major aircraft manufacturers as part of our procurement process.

8. CARBON OFFSET SCHEME

We will start in 2018 to offer a voluntary option within our booking process which allows customers to make a donation to offset carbon emissions. The funds raised from these voluntary guest donations will be distributed annually to environmental charities and NGO's as selected by our people.





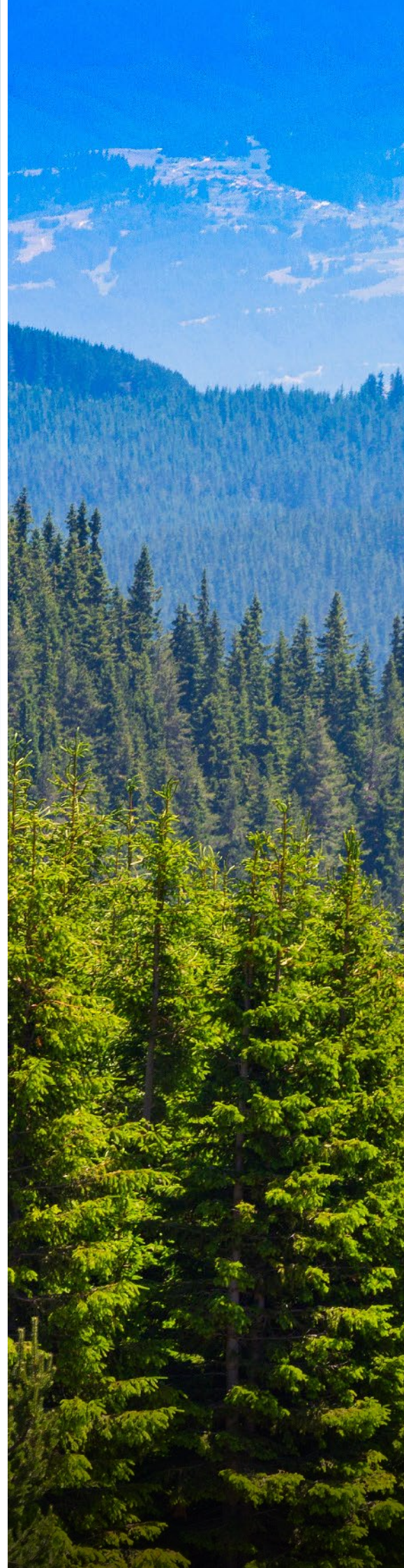
9. RYANAIR'S FIVE-YEAR PLAN TO ELIMINATE PLASTIC

Plastic pollution can unfavourably affect lands, waterways, oceans, animals and humans; and is one of the most significant threats to the environment.

Ryanair is committed to minimising our environmental impact, and over the next five years, Ryanair will work to eliminate all non-recyclable plastics from our operations.

We will work with our suppliers to replace our current non-recyclable plastics with environmentally friendly alternatives such as bio-degradable cups, wooden cutlery & paper packaging

We will roll out our plastics-free policy across our entire operation – ground operations, engineering, inflight, at our bases and at our Head Office over the next 5 years.





ENVIRONMENTAL PRINCIPLES OF THE UN GLOBAL COMPACT

1. Businesses should support a precautionary approach to environmental challenges;
2. Businesses should undertake initiatives to promote greater environmental responsibility;
3. Businesses should encourage the development and diffusion of environmentally friendly technologies.

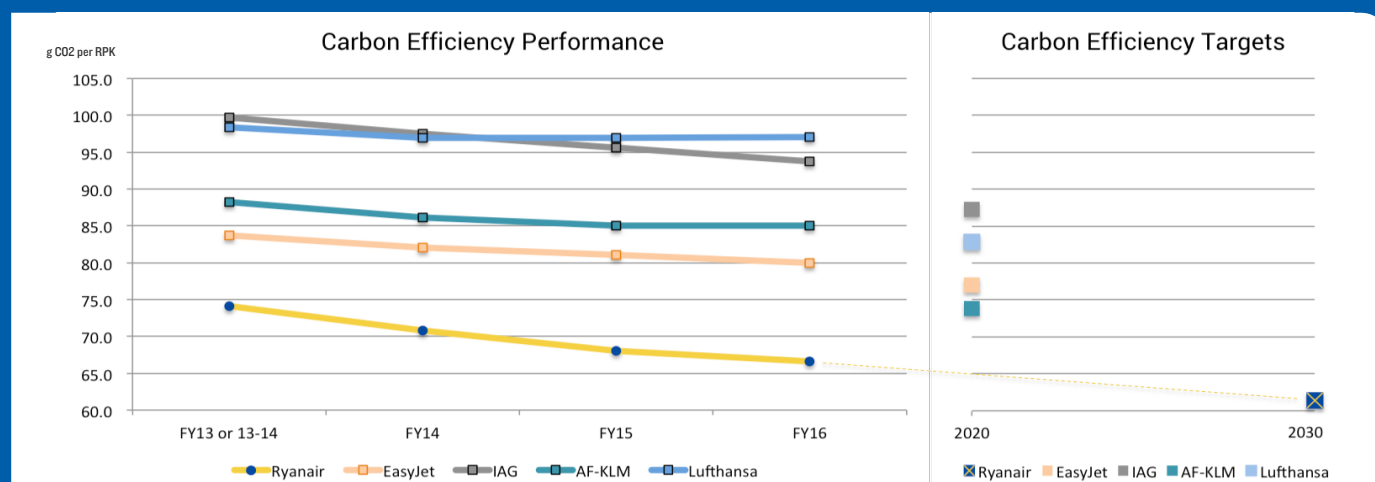


WE SUPPORT



10. PERFORMANCE VERSUS OUR COMPETITORS

Our 2030 efficiency target level is 31% lower than the current average performance of the four other large EU airlines. Ryanair will seek to achieve this target in advance of 2030.



Data sourced from (1) EasyJet website, (2) IAG Annual Report and Accounts 2015 and 2016, (3) Air France-KLM CDP responses, (4) Lufthansa 2016 Balance Report

INDEX: EU airlines' fuel burn per RPK relative to Ryanair

Airline	FY13	FY14	FY15	FY16
Ryanair	1.00	0.96	0.92	0.90
EasyJet	1.13	1.11	1.09	1.08
IAG	1.35	1.32	1.29	1.27
AF-KLM	1.19	1.16	1.15	1.15
Lufthansa	1.33	1.31	1.31	1.31

11. FUEL EFFICIENCY ACROSS DEPARTMENTS

ROUTE NETWORK



POINT TO POINT FLYING AVOIDS THE EXCESS EMISSIONS AND NOISE PRODUCED BY INDIRECT TRANSFER FLIGHTS

FLEET PLANNING



NEW FUEL EFFICIENT, QUIETER AIRCRAFT AND ENGINE DESIGNS

WINGLETS THAT SAVE FUEL BY REDUCING DRAG

AIRCRAFT OPERATIONS



SINGLE ENGINE-TAXIING BETWEEN RUNWAY AND TERMINAL

CONTINUOUS DESCENT AND LOW-DRAG LANDING APPROACHES MINIMISE EXCESS NOISE AND FUEL CONSUMPTION

CABIN DESIGN



THE HIGH-DENSITY SEATING DESIGN OF AN ALL ECONOMY CLASS & HIGH LOAD FACTORS MAXIMISE TOTAL PASSENGERS PER FLIGHTS

STRONG, LIGHT-WEIGHT COMFORTABLE SEATS SAVE FUEL BY REDUCING WEIGHT

12. FUEL & ENERGY EFFICIENCY – FAST FACTS

1	MSCI Research listed Ryanair's emissions intensity (g CO ₂ per RPK) as "best among 21 MSCI World airlines" and 39% lower than the average metric for these 21 airlines (2016).
2	Our new Boeing 737-MAX-200 arrive in spring 2019 and will reduce fuel consumption by up to 16% per seat, reducing CO ₂ and NO _x emissions.
3	Winglets reduce our fuel burn and CO ₂ emissions by 4%, and our light-weight seats reduce fuel burn by an additional 1% per aircraft.
4	We have invested over €500,000 in all LED lighting projects across all our office and hangar sites.
5	We are committed to maximizing solar power usage at all our facilities.
6	Our use of secondary and regional airports reduces time/fuel spent in holding patterns and taxiing, reducing noise and emissions.
7	Our single-engine taxiing between the runway and terminals reduces unnecessary noise and emissions – 79% of arrival taxiing 2017 YTD was single-engine taxiing, which was a 39% improvement on the 2015 performance.
8	Our use of Ground-Power Units during turnarounds – instead of the aircraft's Auxiliary Power Unit – is more fuel-efficient, saving approx. 30kg per turnaround and improving local air quality.
9	Ryanair's paperless cockpit, using electronic flight bags, reduces paper by 15 kg of manuals per cockpit, approx 6 tonnes of paper per year.
10	Our new green HQ in Dublin promotes paperless practices, equipment and consumables recycling, cycling to work and a healthy lifestyle.



13. ADDRESSING OUR LOCAL IMPACT - NOISE AND AIR QUALITY

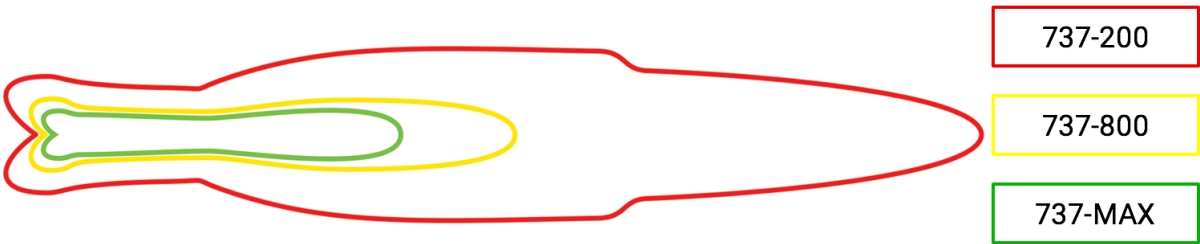
Ryanair is committed to reducing emissions and noise through (i) investments in “next generation” aircraft and engine technologies and (ii) the implementation of operating and commercial processes that help minimise the environmental impact.

STRATEGIC IMPROVEMENTS – THE NEXT GENERATION OF AIRCRAFT

As new fuel-efficient, quieter aircraft join our fleet, our impact on local noise and air quality will continue to shrink.

- Our new Boeing 737-MAX-200 arrive in spring 2019 and will reduce noise by up to 40% per seat.
- The transition from 737-200s to 737-800s reduced our take-off noise footprint per passenger by 86%. The upcoming 737-MAXs extend these reductions to 93%.

TAKE-OFF NOISE FOOTPRINT BY AIRCRAFT TYPE



Aircraft Type(Passengers)	Reduction Per Passenger
737-200 (126)	Baseline
737-800 (189)	-86%
737-MAX (197)	-93%

NOISE AND EMISSIONS COMPLIANCE

100% of Ryanair aircraft meet ICAO Environmental Protection NOx Standard (Chapter 6)
100% of Ryanair aircraft meet ICAO Environmental Protection Noise Standard (Chapter 4)

NOISE RECOGNITION AWARDS

Ranked #1 of 30 airlines for Noise Abatement Compliance at London Stansted Airport (99.6%)
Ranked #1 for Continual Descent Arrival at 7 UK airports

“Ryanair topped the tree once again for noise abatement compliance, and have every year since 2012. Ryanair’s CDA compliance was an incredible 98.8% . . . especially as this figure includes non CDAs that were beyond the control of Ryanair flight crew . . .”

London Stansted Airport, 2017



14. ACTION PLAN

Environmental policy is an integral part of Ryanair's business, not a stand-alone issue. Our Environmental Policy Action Plan is, therefore, central to what we do. As part of our Action Plan we undertake to do the following:

1. Report our progress toward the 2030 climate target at least annually;
2. Report our emissions from jet fuel at least annually, with a view to incorporating additional emissions categories in future (e.g. from electricity consumption);
3. Procure fuel-efficient new aircraft that deliver improvements in our fleet's fuel efficiency;
4. Deliver fuel efficient operations and report on the savings from these activities;
5. Engage aircraft manufacturers on the need for ambitious low-emissions aircraft designs;
6. Monitor the opportunities and risks posed by the emerging low-carbon aviation fuels market;
7. Monitor the opportunities and risks posed by the implementation of the ICAO CORSIA system;
8. Include in our corporate risk register a full set of climate-related and environmental risks, including weather and physical events (e.g. volcanic activity), and geopolitical disruptions.
9. Offer our customers an easy-to-use transparent mechanism to offset the carbon cost of their journeys.

In conclusion, it is important that Ryanair contributes to tackling climate change and I am proud that Ryanair is launching this forward-looking environmental policy. It is also important that our outstanding environmental performance with significant reductions in CO₂, NO_x and noise emissions continues, and our ambitions for the future are delivered upon in a timely manner.

We will continue to push for positive environmental regulatory changes and are asking all our employees and suppliers to recognise the role they play in reducing the environmental impact of our operations. By bringing environmental awareness to day to day decisions without impacting the safety of our crew or passengers, we can maximize our contribution to addressing the climate challenge that faces all of mankind.



Peter Bellew

Chief Operations Officer

