

Becoming a

net zero airport

Our roadmap to reduce
carbon emissions

Accepting the climate emergency challenge



Dave Lees
CEO, Bristol Airport

Climate change is the greatest challenge of our time. Keeping temperature change within 1.5 degrees by the end of the century will require significant changes to our society, including the way we travel.

At Bristol Airport we are responding to this challenge by reviewing every aspect of the way we do business. We have already taken steps towards a low carbon future, and this roadmap sets out in more detail how we will navigate the next steps of this journey.

Whether this is through direct action to introduce electric vehicles to our fleet or by harnessing solar energy to power our terminal, these measures are delivering results today.

But we accept that we need to show even more ambition to play our part in achieving the UK's target of 'net zero' by 2050. That is why we were among the first European airports to sign up to this commitment.

By accepting this challenge and sharing our plans with the public we hope to demonstrate how continued access to the global connections which air travel brings need not be at the expense of our planet's future.

We accept some will be sceptical about an airport decarbonising. But we are already making strides in reducing our direct emissions. Completely removing emissions from flights will take longer but we serve a region with a rich tradition in technological ingenuity. The latest generation of aircraft are already delivering significant reductions in emissions. Future advances in engine and aircraft design will make further gains in environmental performance.

This roadmap will help us to navigate towards the low carbon future we all want. I hope you will join us on this journey.

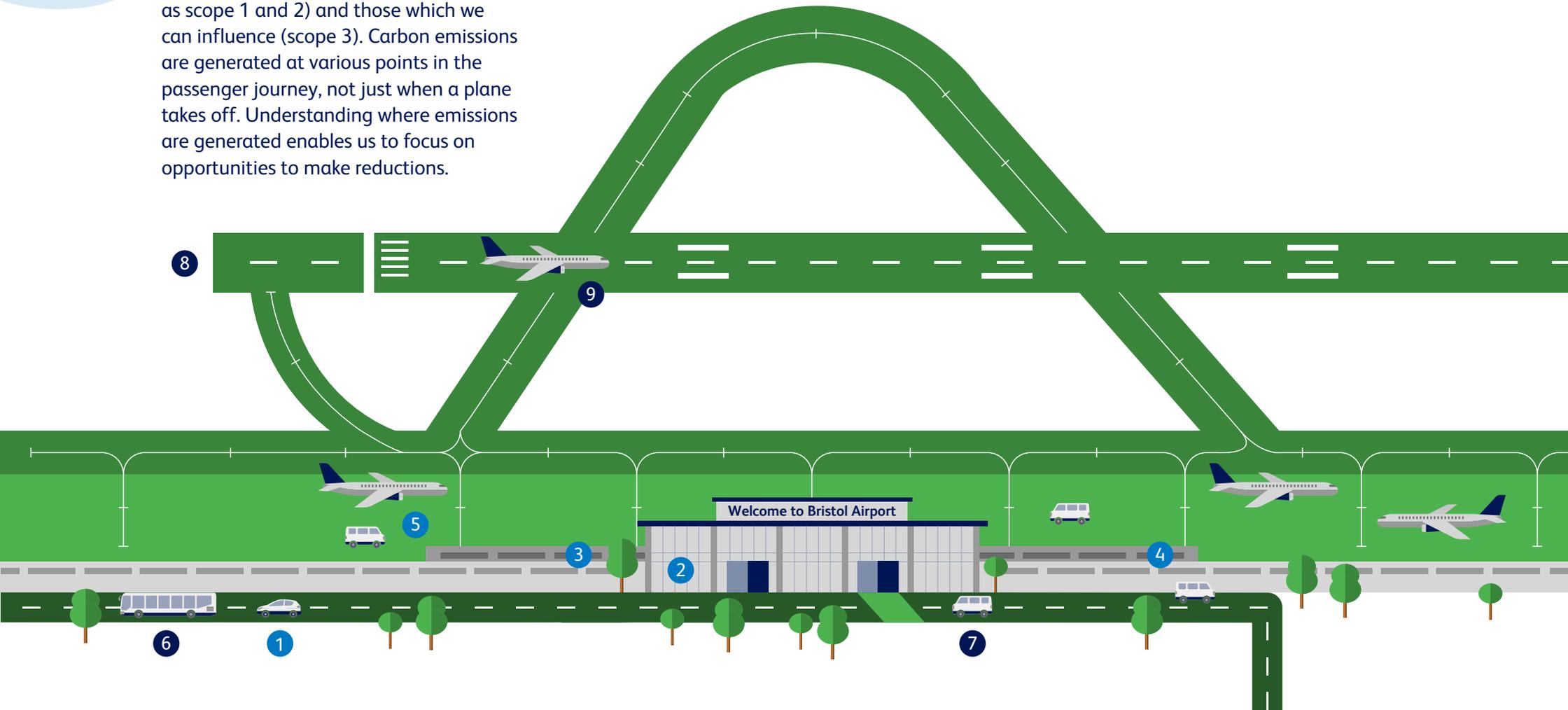


Where are we now?

Before we set our compass to a destination it is important to know where we are starting from. Our carbon footprint consists of emissions in our direct control (known as scope 1 and 2) and those which we can influence (scope 3). Carbon emissions are generated at various points in the passenger journey, not just when a plane takes off. Understanding where emissions are generated enables us to focus on opportunities to make reductions.

CO ₂ e by activity in kilotonnes (kt)	
Scope 1 and 2 emissions Bristol Airport controls	
Scope 3 emissions Bristol Airport influences	

- 1 Our business travel – 0.004 kt
- 2 Heating and Generators – 0.21 kt
- 3 Gas – 0.65 kt
Refrigerants – 0.11 kt
- 4 Electricity – 4.63 kt
- 5 Our vehicles – 0.81 kt
- 6 Employee travel to and from our airport – 7.4 kt
- 7 Passenger travel to and from our airport – 184.4 kt
- 8 Aircraft cruise and descent to destination – 630.6 kt
- 9 Aircraft landing and taking off up to 3000ft (LTO) – 116.2 kt



How far have we come?

We started our journey to reduce emissions in 2014 when our carbon management plan commenced. Since then we have reduced carbon emissions under our control by 12 per cent over past four years. This is despite having grown passenger numbers by 36.5 % in that time. When considered on a per passenger basis, that is a 37 per cent reduction, showing we have successfully decoupled growth in passenger numbers from emissions.

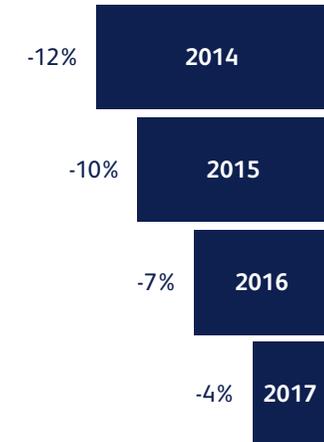
Since then we have reduced carbon emissions in our control by

12%

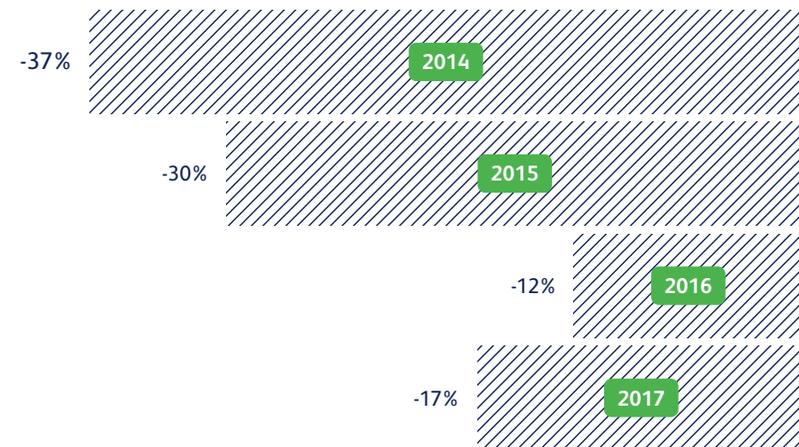
over the past **4** years.

Our success so far

Reduction in absolute CO₂e emissions for scope 1 and 2 – 2018 compared to previous years



Reduction in CO₂e emissions per passenger for scope 1 and 2 – 2018 compared to previous years



What changes have we made?

These reductions have been achieved by focusing on our energy use – cutting it where we can, using it more efficiently where we need it, and generating it ourselves if we can.



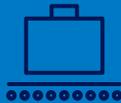
Solar panels



Fixed Electrical Ground Power for aircraft



Low energy LED lighting



Energy efficient baggage handling system



Electric vehicle fleet



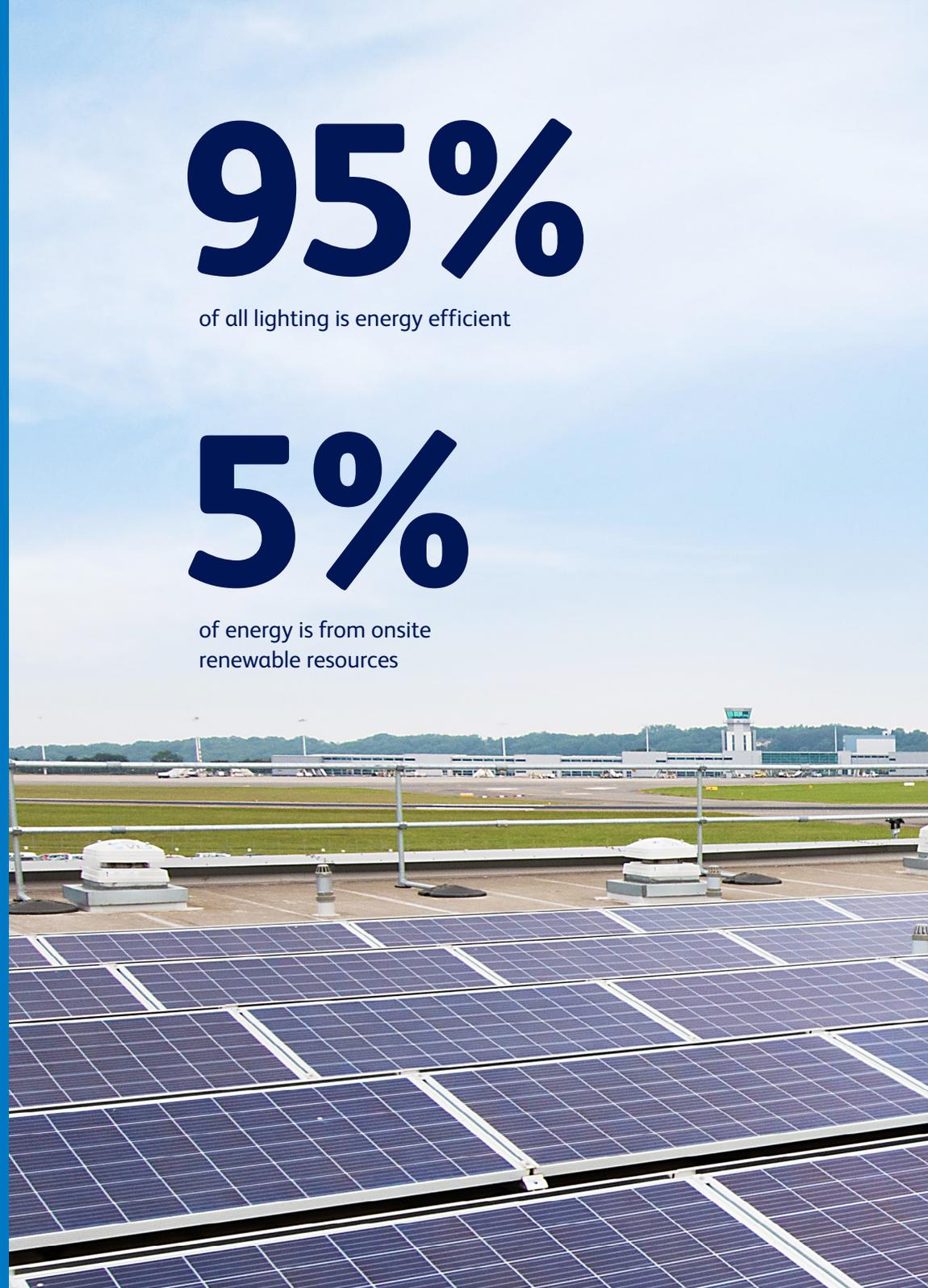
Low energy buildings

95%

of all lighting is energy efficient

5%

of energy is from onsite renewable resources



What about emissions from flights?



The Carbon Offsetting and Reduction Scheme for International Aviation – or CORSIA – is a global agreement to address emissions from flights. It is the first time a single industry sector has come together to tackle climate change in this way. An international approach avoids a patchwork of uncoordinated national measures which could create the unintended consequence of simply shifting carbon emissions across borders.

Offsetting is not intended to replace efforts to reduce carbon emissions, but rather to complement continued advances in technology.

Offsetting by the aviation sector will fund reductions in other sectors of the economy,

The latest generation of aircraft are already delivering emissions reductions. For example, the Airbus A320 Neo is

15% more fuel efficient than its predecessor. At Bristol Airport around 3,000 flights were operated by Neo aircraft in the first six months of **2019**.

where opportunities to decarbonise may be more readily available. However, it is important that offsets incentivise additional activity not just business as usual, and that reductions they make possible are permanent.

CORSIA aims to stabilise net carbon emissions from international aviation at 2020 levels. It is forecast that around 2.5 billion tonnes of CO₂ will be mitigated by 2035, generating more than \$40 billion in climate finance.

CORSIA will be implemented in phases, starting with a pilot in 2021. All international flights will be subject to offsetting requirements from 2027.

We work with airlines to encourage the introduction of the latest, most efficient aircraft. Fleets operating at Bristol Airport are among the youngest in Europe.

What are our ambitions for the future?

We want Bristol Airport to be the sustainable international gateway to South West England and South Wales. To achieve this ambition we will:

For emissions in our direct control (scope 1 and 2)

- **Be carbon neutral** by 2025
- **Be net zero** by 2050

For emissions which we can influence (scope 3)

- **Be carbon neutral by 2020** for journeys to and from the airport
- **Stabilise net carbon emissions from flights at 2020 levels** through implementation of CORSIA



How will we get there?



Our carbon reduction journey

Our ultimate ambition is to become a net zero airport. The timeline below shows some of the key milestones we will pass as part of this journey. We will report on our progress in our Annual Monitoring Report and set out our plans in more detail in our forthcoming Sustainable Growth Strategy.





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