



Sustainability Report 2019

# Taking Action for a Greener Airport





# CONTENTS

<b>TAKING ACTION</b>	<b>2</b>
Introduction	4
Our Sustainability Plan	6
Regulation and Policy	6
Global Level	8
European Union Level	8
National Level	8
Local Level	9
<b>INTRODUCING OUR SEVEN PRIORITIES</b>	<b>10</b>
1. Carbon	12
2. Energy	16
3. Low Emission Vehicles (LEV)	20
4. Plastics & Waste	24
5. Water	30
6. Air Quality, Noise and Surface Water	34
7. Green Procurement	40
<b>CASE STUDIES</b>	<b>44</b>
FEGP at Dublin Airport	46
Potable Water Leak Detection Technology	48
Terminal and Office Bins Update	50
Hydration Stations	52
Community Fund Case Study	54
Difference Day Programme	56
Staff Charity	56



# Taking

**Fixed Electrical Ground Power  
at Dublin Airport**





# Action

Welcome to our 2019 Dublin Airport Sustainability Report which highlights the key initiatives delivered in 2019 and lays out our priority plans for the future.

In June 2019, Dublin Airport signed a landmark commitment to become net zero for carbon emissions from our operations by 2050 at the latest. This is a long term and ambitious commitment which requires significant aerospace industry investment, research and development to deliver greener energy for aircraft to replace carbon emitting fossil fuels. In 2019, Dublin Airport began its investment in Fixed Electrical Ground Power on the airfield, which has improved air quality due to reduced diesel fueled power units and emission of other exhaust gases and particulates.

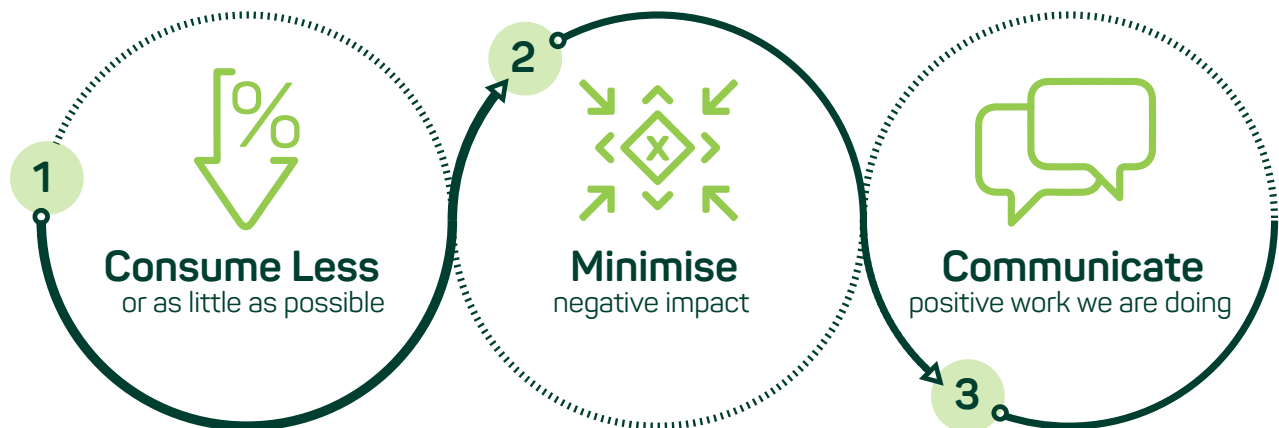


## Introduction

In recent years, passengers, our partner airlines and other stakeholders, have become increasingly aware of the need to ensure that our business operates as sustainably as possible. To ensure these concerns are addressed, daa has embedded sustainability into its corporate strategy, identifying it as being a critical enabler for future growth.

For the last decade, a sustainability strategy has been in place at daa's airports. This strategy has been updated to reflect the quickly changing environment airports operate in and to create dynamic targets that airport staff can deliver together. daa's commitment is that, as we grow, we will strive to:

- › Minimise negative impacts on the environment;
- › Consume as few resources as possible;
- › Communicate what we are doing to staff, the wider community and passengers.





Key priority areas have been identified under each of the following two strands of the strategy:

#### Minimise negative impacts on the environment

- › Carbon
- › Air Quality, Noise and Surface Water
- › Green Procurement

#### Consume as few resources as possible

- › Energy
- › Low Emission Vehicles
- › Plastics & Waste
- › Water

Underpinning these two strands is **communication** which plays an essential role in ensuring the overall delivery of the strategy.

Since the inception of the strategy, various commitments and initiatives have been identified for delivery under each of the priority areas, with some initiatives already delivered while others remain an ongoing effort.

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## Seven Priority Areas

1	CARBON	See page 12
2	ENERGY	See page 16
3	LOW EMISSION VEHICLES (LEV)	See page 20
4	PLASTIC & WASTE	See page 24
5	WATER	See page 30
6	AIR QUALITY, NOISE AND SURFACE WATER	See page 34
7	GREEN PROCUREMENT	See page 40



## Our Sustainability Plan

Sustainability is a critical pillar within the overall daa strategy. Our sustainability plan is simple, clear and consists of three strands, encompassing key priority areas which impact how we operate and interact with our environment both now and in the future.

Coordinated by the Health, Safety, Sustainability and Environment (HSSE) department, dedicated workstreams consisting of employees across Dublin Airport have been brought together and are tasked with identifying the most appropriate commitments for each of the priority areas.

These range from short term actions on issues such as low emission vehicles and plastics and waste, to longer term actions on issues like carbon and energy management. Progress on the long term issues will be less obvious to our passengers, staff and the wider community but are critical to delivering substantive changes to our overall environmental impact, particularly in relation to addressing the carbon and energy footprint of the airports. It was also recognised that in many cases the former would require relatively little capital investment. In contrast, long term measures will require substantial capital investment, as well as considerably more communication and planning.

In recent years, some of these workstreams have evolved leading to the need for additional task specific groups e.g. Procurement and Communications, the Cork Airport Sustainability Group and Single Use Plastics. A steering group meets regularly to assess progress and provide monthly updates to the daa CEO and Executive Committee and to the daa Executive Safety Review Group, which means that the progress of our sustainability strategy is continually communicated at the highest level.

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## Regulation and Policy

Airports operate in a highly regulated industry and are influenced by policy decisions implemented at all levels of society. Policy makers have increasingly become focused on the area of sustainability, spurred on by the worldwide movement around climate change. In recent years this has led to implementation of various regulations and policies to which daa must adhere and which impact how the company delivers its core function as an airport operator. It is expected that there will be further developments of such policies in the future.







## Global Level

The 2030 Agenda for Sustainable Development, adopted by all United Nations member states in 2015, aims to provide a shared plan for peace and prosperity for people and the planet, now and into the future. It is predicated on 17 Sustainable Development Goals (SDGs), where urgent action is required to deliver progress at societal and environmental levels. Although daa is supportive of the all 17 SDGs, there are three which have been identified as being most closely aligned with our activities:

- › Affordable and clean energy – ensure access to affordable, reliable, sustainable and modern energy for all.
  - › Industry, innovation and infrastructure – build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.
  - › Climate action – take urgent action to combat climate change and its impacts.
- 

## European Union Level

At the Paris Climate Conference (COP21) in December 2015, 195 countries adopted the first ever universal legally binding global climate deal. It set out a global action plan to put the world on track to avoid dangerous climate change by limiting global warming to well below 2°C and pursuing efforts to limit it to 1.5°C. European Union (EU) countries have endorsed the objective of achieving climate neutrality by 2050 in line with the Paris Agreement.

To achieve the targets set, the EU has defined emissions targets for key sectors of the economy including transport, and has implemented regulatory instruments and strategies such as the 2020 energy and climate package, the 2030 energy and climate framework and the 2050 long term strategy.

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## National Level

There has been a notable increase in both political and public awareness of climate change and sustainability issues in recent years. We are now seeing the implementation of EU policy development and regulation at a national level which will have a direct impact on the way daa will continue to operate its business:

- › The Climate Action and Low Carbon Development Act 2015 provided the basis for the establishment of a national framework with the aim of achieving a low carbon, climate resilient and environmentally sustainable economy by 2050.
- › Arising from the above mentioned Act, was the publication of Ireland's first National Mitigation Plan in 2017, which sets out the pathway to



achieving the level of decarbonisation required and includes plans mitigating measures for several industries including transport.

- › The Climate Action Plan 2019 sets out an ambitious plan of how Ireland can reduce its carbon emissions by 30% between 2021 and 2030 and lay the foundations for achieving net zero carbon emissions by 2050.
- › The National Aviation Policy 2015 outlines Ireland's commitment to the development of a sustainable, resource efficient aviation sector. This policy is set to be reviewed in 2020/2021.

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## Local Level

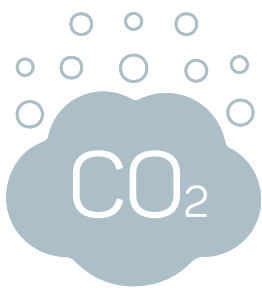
Policy decisions made at both EU and national level influence local policies. For daa, two developments which have a direct impact on our sustainability activities are:

- › Dublin Airport Local Area Plan which was adopted in late 2019 by Fingal County Council and focuses on the sustainable growth and development of Dublin Airport over the next six years.
- › Climate Change Action Plans which all local councils across Ireland are required to deliver. These plans contain key actions that local councils can undertake and implement to make local communities climate resilient.



## INTRODUCING OUR

# Seven priority areas impacts and to con

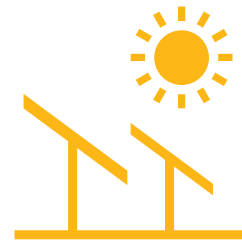


# 1

### Carbon

We will continue to reduce airport carbon emissions.

# 2



### Energy

Incorporate energy efficient infrastructure and equipment. Ensure that we use renewable energy wherever possible.



# 5

### Water

By 2020, we will reduce water usage by 10% based on the 2016 baseline.



# 6



# to minimise negative sume less resources

3



## Low Emission Vehicles (LEV)

We will implement the transition to a LEV fleet wherever possible.

4



## Plastics & Waste

We will implement the objectives of our waste policy to achieve 50% recycling waste by 2020.

## Air Quality, Noise and Surface Water

We aim to increase awareness of our impact on surface water quality, monitor air quality and undertake active noise management.

7



## Green Procurement

We will implement our Green Procurement Policy in all procurement decisions.



TAKING ACTION FOR **CARBON**

Towards



# Net Zero

In a continuous effort to reduce airport carbon emissions Dublin Airport will achieve carbon neutral status in 2020 under the Airport Carbon Accreditation Scheme.

Achieve Level 3+  
Airport Carbon  
Accreditation

at Dublin  
Airport  
by 2020

30%

Absolute reduction  
in CO<sub>2</sub> emissions  
by 2030

CO<sub>2</sub>

Net zero carbon  
emissions  
by 2050



## Carbon

The increasing focus at international and national level on climate change, and the need to mitigate and adapt to its impacts, is inevitably driving commercial enterprises to make significant changes to their growth and development strategies.

The transport sector contributes about 23% of global Greenhouse Gas (GHG) emissions. Aviation related activities contributes about 3%. However, a critical challenge for aviation is that it is forecast to grow substantially, which, in the absence of technological or other changes, would lead to increased carbon emissions. This, coupled with the fact that other industrial sectors and transport modes are looking to substantially reduce their carbon footprint, makes it important for aviation to focus on carbon reduction initiatives.

Airports are the visible intersection of ground and air modes of travel and therefore airport operators need to consider both the global resolution of the carbon challenges associated with aviation and the local impact of operations at their own airports. The first step for daa is to accelerate decarbonisation plans across its operations.

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## Carbon Commitments

**daa has made two specific and meaningful commitments on carbon:**

- › Dublin Airport is a member of the Airport Carbon Accreditation (ACA) programme which is the voluntary European standard for carbon management and emission reduction at airports. Launched in June 2009, the programme has four levels of accreditation: Mapping, Reduction, Optimisation and Neutrality. Dublin is currently accredited at Level 2, Reduction, which means that an independently verified carbon footprint for Dublin Airport has been compiled and that the airport has successfully reduced its overall emissions and its carbon footprint year on year. Dublin Airport is committed to achieving carbon neutral status (Level 3+) in 2020.

In order to do this, it must:

- › Off-set remaining emissions (after reducing the footprint as much as possible) to achieve carbon neutral operations for all emissions arising from its own operations.
- › Widen the scope of carbon footprint to include third party emissions – engage with these third parties at and around the airport e.g. airlines.
- › Net zero by 2050 - in June 2019 Dublin Airport signed a landmark commitment to become net zero for its carbon emissions by 2050



at the latest. The commitment was made by 194 airports across 24 countries as part of a resolution made by the Airports Council International (ACI) - Europe. The pledge marks a significant step change in the climate action ambitions of the airport industry and is one which Dublin Airport is confident that it can deliver through research and investment, knowledge exchange and partnership.

The two commitments set out above will only be achieved through work being undertaken across the remaining six priority areas. The most important enabler of the decarbonisation agenda will be in the area of energy management.

## Key targets – short and long term

### CARBON

We will continue to reduce airport carbon emissions, and, in 2020, we will achieve carbon neutral status under the Airport Council International Airport Carbon Accreditation scheme.

COMMITMENTS	TARGET DATE	2019 PROGRESS
Achieve Airport Accreditation 3+	2020	Project developed in line with plan for CAP 30% by 2030
Achieve Net Zero Carbon Emissions	2050	In progress
30% absolute CO2 reduction by 2030	2030	In progress



TAKING ACTION FOR **ENERGY**

Power for



# the Future

In 2019, we installed a 109 kWp pilot solar photovoltaic array beside Dublin Airport's reservoir, which has provided 60% of the energy required to power the reservoir operation. Energy efficiency projects have had a direct impact on reducing our energy and carbon foot print.

**44%** improvement

in energy efficiency per  
sqm compared to the  
2006–2008 baseline

by 2020

**Part L/  
NZEB** Policy

to be developed  
and implemented

approved 2020

**Implement  
Renewable  
Energy**

solutions  
on site

by 2050

## Energy

From an energy and carbon perspective, the best route to decarbonisation will be to reduce resource demand by building and installing energy efficient infrastructure and equipment. Where the energy footprint has been minimised, we can then try to ensure that we use renewable energy to reduce the GHG impact of our consumption. Embedding such developments will require a substantial change to traditional design and build processes in daa. Specifically during the construction and operation of new buildings and the refurbishment of existing buildings. daa has identified that such change is critical although it will take some time to implement.

One of the biggest challenges facing daa is the level of investment required, particularly given the recent decision by the Commission for Aviation Regulation (CAR) to reduce airport charges. Investment in higher specification features and facilities to achieve energy efficiency is likely to entail higher capital investment at construction stage, even though on a life cycle basis there may be savings, and/or carbon emissions might be significantly reduced. There is also a huge focus at national level on increasing the use of renewable energy which poses its own challenges both from a cost and infrastructure perspective. It follows that substantial effort will be required in this area over the coming years.

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## Energy Achievements

Dublin Airport has made substantial improvements in recent years in this area with an overall improvement in energy efficiency of 44% in September 2019 per square metre over the baseline in 2006-8. This was achieved through close inter-departmental relationships and also by working in close collaboration with the Sustainable Energy Authority Ireland (SEAI).

Many projects have been undertaken in this area, which has had a direct impact on reducing our energy and carbon footprint including:

- › Installation of a 109 kWp pilot solar photovoltaic array beside the airport's reservoir, which in 2018 provided circa 60% of the energy required to power the operation of the reservoir mains water pumping systems and controls.
- › Undertaking specific energy efficiency projects such as lighting and control upgrades and thermal equipment and distribution system replacements. The use of such energy efficient design principles and the implementation of innovative solutions has ensured energy savings of up to 76% on these projects.
- › Implementing and maintaining ISO 50001 energy management certification.



## Key targets – short and long term

### ENERGY

- We will incorporate sustainable planning, design and construction into projects, and will meet the commitments in our Near Zero Energy Buildings (NZEB) policy.
- By 2020 we will reduce primary energy usage per square metre by 33% compared to the 2006-8 baseline.
- By 2030 we will reduce primary energy usage per square metre by 50% compared to the 2006-08 baseline.

COMMITMENTS	TARGET DATE	2019 PROGRESS
Part L/NZEB Policy to be developed and implemented.	2020	Policy approved.
Improve energy efficiency per square metre by 33% compared to the 2006-8 baseline.	2020	Identifying and prioritising buildings to model efficiencies to further reduce carbon emission targets.
Reduce primary energy usage by 50% (from 33%) between 2020 and 2030 versus the average compared to the 2006-8 baseline.	2020	In progress.
Implement renewable energy solutions on site.		Solar Farm identified as renewable energy solution; capital project developed. Battery storage and Microgrid project to facilitate the use of Distributed Energy Resources and increased self-generation: capital project developed.



TAKING ACTION WITH **LEV**

# Driving





# Innovation

We will implement the objectives of our Low Emission Vehicles (LEV) policy to transition to a LEV fleet wherever possible, and as soon as possible, and will encourage other operators on site to do the same.

**Conversion of  
bus operators to  
low emission fleet**

Dublin Airport will convert  
its bus operations

by 2022

**LEVs will be  
mandated**

for all airside  
operators

by 2022

**LOW EMISSION  
fleet**

across Dublin  
Airport

by 2024



## Low Emission Vehicles

The decarbonisation of ground transportation is identified at EU level as an important step to mitigating further climate change. The Irish Government has already set a target as part of Ireland's 2019 Climate Action Plan of increasing the number of electric vehicles in Ireland to 965,000 by 2030.

For daa, the introduction of Low Emission Vehicles (LEVs) has been an area of interest for some time, with the first electric vehicle introduced in October 2012 at Dublin Airport. However, given daa's commitment to decarbonisation, along with the increasing concern in our local communities around this issue and the Government's targets in this area, daa will further improve its performance over the coming years.

Prioritising LEV usage would assist daa with fulfilling the aims of its sustainability strategy by:

- › Addressing concerns articulated by the local community in relation to improving air quality emissions on and in the vicinity of the airport.
- › Reducing carbon emissions from ground transportation both for daa and other operators.
- › Reducing the level of noise from ground transportation.
- › Enabling daa to play an important role at national level, particularly in light of Dublin Airport's position as the largest coach and bus park in the country. daa will demonstrate a proactive attitude to carbon management and air quality management thus improving our reputation in this area.

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## LEV Achievements

The introduction of low emission technologies at the airports is not something that can be achieved over a short period of time, however daa has been making gradual but significant progress in this area:

- › daa has converted 22% of its light commercial fleet at Dublin Airport to low emission vehicles.
- › In 2019, it became standard policy that the use of LEVs would be specified in procurement processes for daa service providers who operate vehicle fleets.
- › daa has been working to influence public transport operators, the taxi regulator and the Department of Transport, Tourism and Sport (DTTaS) to convert to LEVs at Dublin Airport.
- › Fixed Electrical Ground Power (FEGP) units have replaced diesel generators on Piers 2, 3 and 4 at Dublin Airport.



## Key targets – short and long term

### LOW EMISSION VEHICLES (LEV)

We will implement the objectives of our LEV policy to transition to a LEV fleet wherever possible, and as soon as possible, and will encourage other operators on site to do the same.

COMMITMENTS	TARGET DATE	2019 PROGRESS
daa will seek to influence public transport and taxis to convert to LEV at Dublin Airport.	2024	Engagement ongoing.
The use of LEVs will be specified in procurement processes for daa service providers who operate vehicle fleets.	2020	Tender scoring in progress, stakeholder engagement underway.
The use of LEVs will be mandated for airside operators.	2022	Engagement commenced.
Dublin Airport will convert its bus operations to a low emission vehicle fleet.	2022	Trial completed beginning 2019. Tender currently being developed to include sustainability and environmental criteria.
daa will install Fixed Electrical Ground Power (FEGP) units to replace diesel generators on all contact stands.	2024	FEGP delivered on Piers 1 and 3 in 2019 as a phase 1, all contact stands by 2024.
Dublin Airport will fully convert to all LEV.	2024	Currently 22% of the daa light vehicle fleet is LEV which is in line with targets.



TAKING ACTION FOR **PLASTICS & WASTE**

# Zero Waste







# Policy

We will implement the objectives of our waste policy to minimise waste generation and achieve 50% recycling waste by 2020.

## Zero Waste to Landfill

certification maintained for Dublin Airport

ongoing

## COMPOSTABLE Packaging

to be ensured by all Food & Beverage outlets within Dublin Airport

by 2023

## 50%

reduction overall in waste

by 2025



## Plastics & Waste

daa has committed to ensuring that the level of waste generated by its activities is minimised, and whatever waste is produced is managed correctly.

An important aspect of waste policy development is engagement with third parties, particularly with the food and beverage retailers operating within the terminals. Proactive and positive engagement is only achieved through strong inter-departmental cooperation, with procurement playing a particularly central role. They are delivering behavioural change through the review of contracts and ensuring that more sustainable policies are incorporated in third-party activities.

daa is also aware of the fact that it needs to provide the infrastructure that will enable operators to manage and store different waste streams easily and effectively. Specifically, the design of terminal and service areas is critical to ensure that adequate storage and management areas for the various waste streams are available in order to deliver a more sustainable outcome.

One of the leading areas of focus on both a national and global level is the use of Single Use Plastics (SUPs). Because of the intensified focus, and the ability of daa to make huge improvements in this area, reducing the level of usage of SUPs is one of the top priorities for the organisation.

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## Single Use Plastics

daa identified a number of areas for focus in relation to Single Use Plastics (SUPs) including the use of SUPs in plastic bags in The Loop retail operations, the use of SUP cups at water stations in staff and visitor areas, and the opportunities to provide passengers and staff with alternatives to plastic water bottles.

One of the initiatives undertaken to date was eliminating the use of plastic cups at water stations in office areas across the Dublin Airport campus and successfully encouraging staff members to use reusable bottles or glasses as an alternative.



# Plastics & Waste Achievements

Some significant improvements in the area of waste management have been made, particularly in terms of reducing the use of SUPs across the airports:

- › Dublin Airport has a 'Zero Waste to Landfill' certification, and since 2013 recycling figures have increased substantially from 11% in 2013 to 37% in 2018.
- › In 2019, centralised recycling stations were installed in staff areas and all individual desk and office bins were removed.
- › Only compostable cups are now provided at mobile water fountains in staff areas.
- › 27 Hydration Stations have been installed in the terminal buildings in Dublin Airport, which allow passengers to refill their own water bottles.
- › Successful negotiations have taken place with food and beverage operators on the elimination of SUP materials in airport restaurants and shops, and the replacement of these materials with compostable equivalents. The first operators commenced with compostable only materials in February 2020 and by 2022, all contracts will require the sole use of compostable consumables.
- › Additional adequate recycling stations and compost waste bins have been provided in the passenger terminals.



## Key targets – short and long term

### PLASTICS & WASTE

We will implement the objectives of our waste policy to minimise waste generation and achieve 50% recycling waste by 2020.

COMMITMENTS	TARGET DATE	2019 PROGRESS
Dublin Airport will communicate with staff and third parties to promote a positive waste culture and drive staff awareness training to improve waste prevention and recycling in addition to supporting national initiatives and campaigns.	Ongoing	Regular communications with staff and suppliers in place. Centralised bins across both terminals with clear waste identification installed.
In line with Dublin Airport's Green Procurement Policy, we will seek to reduce waste generated across the campus and as far as possible purchasing recyclable material and requesting zero packaging from suppliers.	Ongoing	SUP water bottles removed from staff areas. F&B contracts require consumables to be compostable from Jan 2020. Phase 1 contract awarded.
Dublin Airport will drive responsible waste behaviour with staff through the provision of centralised recycling stations in staff areas to facilitate the removal of all individual desk and office bins.	2019	Individual desk bins have been removed and centralised bins with clear waste identification have been installed.
Implement sustainable and environmentally friendly alternatives to current Single Use Plastic Plane Water bottles.	2020	



COMMITMENTS	TARGET DATE	2019 PROGRESS
Dublin Airport will ensure that all new projects within the campus plan for best practice waste management and that adequate waste segregation locations are integrated into their design.	2020	Tender awarded with specific requirement for waste segregation.
Maintain certification that Dublin Airport is a zero waste to landfill site.	Ongoing	Certification maintained in 2019.
Increase the overall recycling figures to 50% of total waste volume from 2016 figure of 26%.	2025	2019 recycling at 42% - increase of 4% on 2018.
Reduce the overall general waste figures to 50% of total waste volume from 2016 figure of 74%.	2025	2019 general waste at 58%.
Reduce the average volume of general waste per 100 passengers to 7.65kgs from 2016 figure of 11.3kgs.	2025	2019 passenger general waste at 8.7kg per passenger.
Dublin Airport will drive responsible waste behaviour through the provision of adequate recycling stations in passenger terminals including the roll out of compost waste bins.	2019	Centralised bins including compost waste bins across both terminals with clear waste identification installed.
Dublin Airport will ensure all F&B operators use compostable packaging.	2023	
Implement a sustainable and environmentally friendly alternative to the current Single Use Plastic Loop and Liquid, Aerosol and Gels bags.	2020	



TAKING ACTION FOR **WATER**

# Reduced



# water usage

In 2018, Dublin Airport water consumption per passenger fell to 13.8 litres compared to 46 litres per passenger in 2009. In 2019, Dublin Airport's water consumption per passenger fell to 12.4 litres, a further 5.3% reduction compared to the 2016 baseline. In 2020, we will reduce water consumption by a further 10% by continued implementation of water saving technologies.

# 10%

reduction in water  
usage across campus

by 2020



## Water

Reducing water consumption across the business is a target for daa and in particular for Dublin Airport, given the volume of passenger traffic using its facilities on a daily basis. The high operational demand means that a significant volume of water is consumed right across the campus. The water network at the airport consists of over 25 kilometres of water pipework providing water to over 160 buildings, including passenger terminals. Maintaining and improving this network through the implementation of more efficient operational and control equipment, as well as improved leak detection, has been key to achieving reductions in water consumption.

## Water Achievements

- › In 2018, at Dublin Airport water consumption per passenger fell to 13.8 litres compared to 46 litres per passenger in 2009.
- › In 2019, Dublin Airport's water consumption per passenger fell to 12.4 litres, which is a 5.3% reduction compared to the 2016 baseline. This has been achieved through the implementation of more efficient operational control equipment at the airport's services as well as improved leak detection.

## Key targets – short and long term

### WATER

**By 2020, we will reduce water usage by 10% based on the 2016 baseline by implementing water saving technologies.**

COMMITMENTS	TARGET DATE	2019 PROGRESS
We will reduce water usage by 10% based on the 2016 baseline by implementing water saving technologies.	2020	+6.2% increase between 2016 and 2019, however consumption fell by 12.4ℓ per passenger in 2019.







TAKING ACTION FOR  
**AIR QUALITY, NOISE AND SURFACE WATER**

# Managing



# our Impact

We aim to increase awareness of our impact on surface water quality, monitor air quality both on campus and within local communities, and undertake active noise management.

Develop a  
**Biodiversity  
Plan**

with local community  
stakeholders

by 2020

Active  
**Noise  
Management**

and implement  
noise requirements

by 2021

Develop a  
**Wildflower  
Habitat**

in accordance  
with the pollinator  
programme

by 2021



## Environmental Management

It is daa's intention to have a positive impact on the communities around Dublin Airport and in this context, in addition to the positive economic and social impact, we are working on carefully managing and reducing the environmental impact of our activities. Three areas that we are continually working on are air quality, noise and surface water quality.

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## Air Quality

daa understands that air quality is an important consideration in relation to public health. Both Dublin and Cork Airports undertake voluntary ambient air quality monitoring programmes. At Dublin Airport, equipment measures a range of parameters on a continuous basis on-site and on a monthly basis at 11 locations in surrounding communities, while monitoring is undertaken at four locations within the Cork Airport site. Dublin Airport publishes quarterly reports containing the results of the monitoring activity.

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## Noise

Both Dublin and Cork Airports are important gateways to Ireland, an island nation. However, airport activity inevitably creates noise which can sometimes have an impact on surrounding communities. daa is committed to minimising the impact of aviation-related noise and implementing mitigation measures for those most affected. At Dublin, these measures include insulation schemes, a voluntary dwelling purchase scheme and a €10 million community fund.

In 2019, new legislation was introduced establishing a competent authority for noise for Dublin Airport. As the appointed competent authority, Fingal County Council is responsible for ensuring that noise generated by aircraft activity at Dublin Airport is assessed in accordance with EU and Irish legislation, and for the application of the balanced approach to aircraft noise management where a noise problem or potential noise problem at the airport is identified. The balanced approach was developed by the International Civil Aviation Organisation (ICAO) to facilitate airport development and expansion in a way that minimises, as far as practicable, the noise impact of that expansion.

The introduction of this legislation marks an important step-change in how all stakeholders are engaged around the issue of airport noise and daa is committed to working closely with the competent authority and local communities.



# Surface Water Quality

At a national level, there has been an increased focus on maintaining and improving water quality at many locations around the country. As there are seven watercourses running through Dublin Airport, surface water quality is an important environmental indicator for daa, as these ultimately drain into the local Sluice, Santry and Mayne rivers.

One of the biggest risk factors to water quality on the airport campus is the use of de-icing and anti-icing chemicals which are required to reduce the risk of a safety incident on take-off in poor weather conditions. A pollution control facility diverts water which contains de-icing materials to a sewer for treatment which substantially mitigates this risk. However, daa is conscious that as the airport expands, it is important to ensure that water quality does not deteriorate but improves in line with the local River Basin Management Plan.

Surface water quality is regularly monitored at the airport and results are reported to the public through the Dublin Airport Environmental Working Group (DAEWG). The entire water drainage system at the airport is currently being reviewed and a Drainage Masterplan will be drafted in 2020 which will address the need for improved drainage at the airport, in line with best practice, and taking account of planned future development.



## Key targets – short and long term

### Air Quality, Noise and Surface Water

- We will maintain zero breaches of national air quality limit values and will continue to monitor air quality on campus and within local communities.
- We will undertake active noise management and report on key performance indicators as outlined in the Dublin Airport Noise Management Plan.
- We will increase awareness amongst airport operators of the potential impact of their activities on surface water bodies and we will continue to monitor surface water and report on key pollutants.

COMMITMENTS	TARGET DATE	2019 PROGRESS
Develop Drainage Masterplan by the of end 2020 to protect surface water quality at Dublin Airport as traffic levels increase.	2020	Project underway.
Further improve air quality from ground sources at the airports through encouraging improvements in surface access, mobility management and energy use within the airports.	Ongoing	FEGP installed on Piers 1&3 and LEV policy being implemented.
Continued transparency in relation to air quality results at the airport.	Ongoing	New monitoring point in the coach park - additional signage in area. Monitoring points reviewed and altered in line with EPA recommendations.
Develop a noise management plan.	2020	Developed, implementation underway.
Review environmental charging options for aircraft.	2021	Ongoing, for implementation by the end 2021.



COMMITMENTS	TARGET DATE	2019 PROGRESS
Implement regulatory noise requirements once defined by regulator.		Will be implemented once defined by regulator.
Review policy of fertilising grassed areas to reduce as far as possible.	2020	
Develop and implement a biodiversity plan. Engage with local community stakeholders to develop biodiversity plans.	2020	To be developed in 2020.
Increase pollination and pest control and support biodiversity in the airport's gardens by building additional insect hotels.	2021	In 2020 locations will be identified and an ornithologist will verify suitability.
Develop a wildflower habitat for the protection of meadow breeders and butterflies, in accordance with the pollinator programme approach..	2021	In 2020 we will identify locations to build insect hotels.



TAKING ACTION WITH  
**GREEN PROCUREMENT**

# A Shared



# Commitment

We will implement the objectives of our Green Procurement Policy by including environmental and whole life cycle considerations in procurement decisions.

type 1 ecolabel

must be on all  
cleaning chemical  
labels

ongoing

Design to  
ISO50001

when designing  
new or retro-fitting  
old buildings

ongoing

Purchase  
supplied  
electricity

from renewable  
energy sources  
only

ongoing



## Green Procurement

Procurement has, and will continue to be, a key enabler for changing behaviours in relation to sustainability. As a semi-state organisation, daa must comply with public procurement guidelines as of July 2019, every public body must adhere to a climate mandate as laid out under the Government's Climate Action Plan. The Plan specifically refers to public procurement as a vehicle to deliver change in this area through actions such as the inclusion of green criteria in all procurements using public funds.

daa takes its responsibilities in this area seriously, and in 2018 developed its first Green Procurement Policy which focuses on areas where procurement could best assist in reducing emissions and reducing waste. Areas of action identified included the procurement of LEVs, equipment replacement, chemicals and printer paper, as well as the procurement of services relating to infrastructure development. The policy sets the standard for procurement of goods across the organisation.

### Key targets – short and long term

#### GREEN PROCUREMENT

**We will implement the objectives of our Green Procurement Policy by including environmental and whole life cycle considerations in all procurement decisions.**

COMMITMENTS	TARGET DATE	2019 PROGRESS
All tenders shall include environmental sustainability in the evaluation criteria.	Ongoing	There is a greater focus on sustainability and work is ongoing to develop a standard sustainability/ innovation clause for all tenders.
All new or replacement equipment purchased by daa will be of best-in-class energy efficiency standard.	Ongoing	Ongoing – implemented for key energy/heating/ lighting purchases.
When designing new buildings/ retro-fitting old buildings, design consultants must design to ISO50001.		Methodology not yet agreed.



COMMITMENTS	TARGET DATE	2019 PROGRESS
Purchase supplied electricity from renewable energy sources.	Ongoing	Certified by Electric Ireland from April 1, 2019 to March 31, 2021.
All new cleaning chemicals procured must carry relevant Type I1 Ecolabel.		All cleaning materials purchased carry the relevant Type 1 Ecolabel.
All office paper elementary chlorine free and manufactured, from 100% recovered paper fibres or certified sustainably harvested sources.	2019	Recycled office paper trialled and in use from the end of 2019.
Achieve Net Zero Carbon by 2050, when designing new buildings/retro-fitting old buildings; we will routinely design in energy efficiency and/or low embodied carbon to a recognised level on all projects.	2050	

# Case



# Studies



This section showcases some of the initiatives delivered in 2019 in more detail.

## Case Study One

### FEGP at Dublin Airport

In 2019, Dublin Airport began the process of installing new Fixed Electric Ground Power (FEGP) units at aircraft parking stands as part of daa's overall sustainability programme. FEGP is an environmentally friendly ground power system that allows aircraft to plug directly into a fixed electricity powered energy source while they are parked on the airfield. Previously, aircraft had to plug into small, diesel-powered vehicles that produce significant fumes and noise.

FEGP units have been installed on Piers 1 and 3 at Dublin Airport. Dublin Airport currently has 46 FEGP units installed and operational on the airfield. By 2024, Dublin Airport has a target of converting all contact stands to use FEGP.

By using FEGP units, Dublin Airport has reduced the level of airside traffic thus reducing congestion on the ramp. Less equipment reduces the safety risk for staff on the airfield and also frees up space for the other ground handling equipment. Air quality has also improved due to reduced requirement for diesel fueled power units, resulting in reduced emission of particulates and other exhaust gases. FEGP units consume less energy than Auxiliary Power Units (APUs) or Ground Power Units (GPUs) and therefore emit less carbon, with a reduction of circa 600,000kg CO<sub>2</sub> emissions in 2019 alone.

The sharp increase in demand from customer airlines for Dublin Airport to provide FEGP necessitated the review of infrastructure (communications and electrical ducting) already in place to facilitate the introduction of FEGP at Pier 1 and Pier 3. The feasibility study and experience gained from FEGP at Pier 400 meant that the operational efficiency and environmental benefits were well understood.





#### These include:

- › Reduced cost of Ground Supply Equipment (GSE) for airlines and handlers. FEGP reduces the movement of mobile Ground Power Units (GPUs) and eases the pressure for parking GSE on the airfield.
- › Reduced GSE parking requirement. The head of stands (particularly on Pier 3 due to the wedge shape of the stands) are very space constrained. Retro-fitting of FEGP to the airbridges will reduce equipment required at the head of stand and on the Piers in general.
- › Reduced level of airside traffic.
- › Air quality improvement benefit for staff, passengers and the wider locality.
- › Noise reduction benefits.
- › Will assist airlines in reducing their carbon footprint (more efficient).
- › Community/ Reputational benefits – FEGP has been welcomed by local communities as a means of improving local air quality and comes up regularly at meetings as a demand for Dublin Airport.

## Case Study Two

# Potable Water Leak Detection Technology at Dublin Airport

daa is continually seeking new ways to manage its water consumption through a combination of proactive installation and monitoring of water usage and conservation systems. Consequently, it has expanded water metering and is continuously undertaking an aggressive approach to early leak detection. This allows for timely repairs as part of the overall water saving priority.

Some of the specific processes include the purchase of audible leak detection equipment, the installation of automatic acoustic listening pods, regular large and small scale leak detection surveys, and the appointment of a Utilities Infrastructure Manager and a specific leak detection technician, between them, have the responsibility of addressing water conservation and consumption.

The deployment and use of leak detection equipment has increased Dublin Airport's ability to complete both preventative and reactive maintenance on the potable water network. The extensive training of staff and investment in modern technology will support Dublin Airport in maintaining this performance into the future.

Previously, a water main leak which was not readily visible or easily accessible could have taken several days to locate, control and repair. With upgraded technology and processes, a water leak alarm is activated by DMA telemetry and the designated personnel are notified through a SMS text alarm. The leak detection team are deployed to investigate the area and once found; the leak is corrected. Water leaks can now be found and fixed rapidly which delivers economic savings and increased convenience for the airport's passengers and staff.

Asset Care staff have recently completed the Water Stewardship certificate, a new initiative by Irish Water that supports their customers on lowering water consumption and reducing operating costs while protecting the environment.





## Case Study Three

## Terminal and Office Bin Upgrades

Dublin and Cork Airports combined had over 35 million passengers in 2019. The growth in passenger numbers has unsurprisingly seen an increase in the amount of waste generated at the airport. However, recycling figures have increased substantially, from 11% in 2013 to 42% in 2019.

The growth in recycling figures has been facilitated by promoting a positive waste culture through engagement with staff and third-party operators and supporting national campaigns that drive waste prevention and recycling. In 2018, daa set a target to achieve 50% recycling of waste by the end of 2020; in 2019 daa undertook key steps in order to achieve this target.

### These include:

- › The rollout of new recycling stations, and updating signage to 85 existing recycling stations in offices and breakrooms.
- › Up to 1,000 desk bins have been removed and replaced with 229 communal recycling stations as these allow for waste segregation at source.
- › The modification of 75 existing passenger facing terminal bins so that they could accept compostable packaging such as coffee cups. This is in line with our Food and Beverage (F&B) partners commencing the roll-out of compostable packaging in their grab and go offerings.
- › Over 8 million single use coffee cups were disposed of across campus in 2019 through the modification of existing bins, as well as encouraging F&Bs to provide compostable packaging.
- › Together with waste management training with our F&B partners, the centralised bins enable easier waste segregation and improved recycling.





## Case Study Four

### Hydration Stations

The introduction of Hydration Stations in Dublin Airport is part of daa's drive to reduce the level of single use plastic. This initiative was developed as part of the strategy to implement, foster and communicate the principles of sustainability throughout the company. During 2018, to assist in the reduction of single use plastics, daa upgraded 22 water fountains in Terminal 1 for passengers to re-fill personal water bottles. In 2019, daa metered the entire network and increased the number of Hydration Stations to 27.

In 2019 From May to December 31, these Hydration Stations delivered over 385,000 litres of free chilled water to passengers. This is the equivalent of 770,000 standard 500ml bottles. The busiest Hydration Station is the unit directly opposite security screening in T1 with over 5,000 litres a day dispensed.

#### About our Hydration Stations:

- › Dublin Airport upgraded its water fountains and retro-fitted them with new taps to make it easier to refill water bottles, while also making them more visible by re-branding with new Hydration Station signage in response to customer feedback.
- › Hydration Stations can be found on the Mezzanine level in Terminal 1, in the Arrivals Hall of Terminal 1, Departures areas in Terminals 1 and 2, immediately after security screening in Terminal 1, in all passenger boarding areas and in both baggage halls. The revamped water fountains offer passengers a single use plastic free alternative to purchasing bottled water.
- › New wall mounted chilled units with bubbler tap and bottle fill options with reduced mobility activation buttons have been installed.
- › Existing units have been retro-fitted with swan neck glass filler taps and existing Haws basin type units have been retro-fitted with auto fill bottle fillers.
- › Dublin Airport's website hosts a Location Map highlighting all our Public Facing Hydration Stations.





## Case Study Five

## Community Fund

Dublin Airport wants to make a positive contribution through economic, social and environmental activities in our local and regional communities.

In 2017, Dublin Airport launched a €10 million Community Fund, with €400,000 available every year for 25 years to support local communities. Support is focused on areas such as environment and sustainability, sports and recreation, social inclusion and community development, health and wellbeing, and culture and heritage. This is in recognition of the crucial role that local communities play in the success of Dublin Airport and the almost 80 year relationship Dublin Airport has with local communities. A full list of recipients can be found on Dublin Airport's website.

In November 2019, Dublin Airport helped a variety of local community projects as part of the Community Fund including Lambay Singers who received a contribution towards the purchase of a digital piano and Ballymun Kickhams GFC who bought new goalposts with the contribution they received from Dublin Airport.

Another recipient from 2019, Portmarnock Senior Men's Initiative, works with men who are most at risk of isolation and encourages men to come together for friendship and camaraderie. In 2019, the group visited Glencree Centre for Peace and Reconciliation, Glendalough where they viewed a demonstration of Irish working sheepdogs and finished up with a group dinner. This trip was a chance for the Senior Men of Portmarnock to come together in friendship and was made possible due to the contribution of Dublin Airport's Community Fund.





## Case Study Six

### Difference Day Programme

daa has launched a Difference Day Programme which sees members of staff volunteer their time and expertise to undertake major renovation/upgrade works for local schools and clubs.

In May 2019, over 70 members of Dublin Airport's Asset Care team undertook a major renovation project of the outdoor recreational areas for St. Paul's Special School in Beaumont Woods. The renovation focused on restoring an existing gazebo, designing and building picnic and relaxation benches and additions such as trampolines, swings and pathways

## Case Study Seven

### Staff Charity

Throughout 2019, daa staff took part in and hosted a number of events and initiatives in an effort to raise funds for the Staff Charity of the Year programme.

Three charities are picked by staff every year to receive the money raised. In 2019, daa staff, with support from passenger donations, raised €330,000 which was split between Debra Ireland, the Gary Kelly Cancer Support Centre and Spina Bifida Hydrocephalus Ireland. Since 2007, daa has raised over €3 million for 27 Irish charities through the help of the staff and passengers that make their way through Dublin and Cork Airports.





## Notes



