

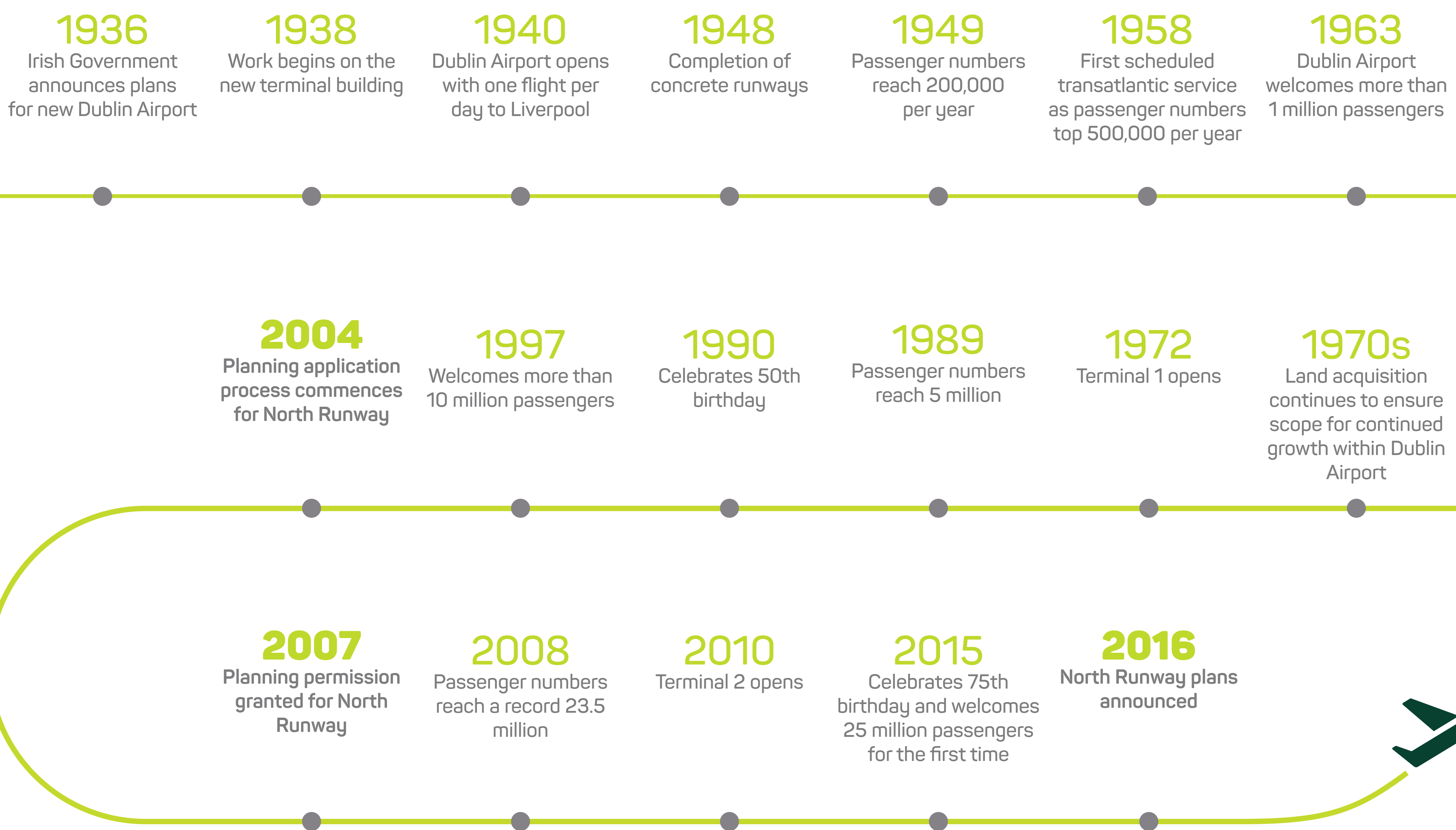


# North Runway

## North Runway

# Dublin Airport – A History of Progress

For over 75 years, Dublin Airport has ensured the connectivity of our island nation and continues to play an important role in securing jobs in our local and national economy.



Terminal 2 during construction



Dublin Airport's original terminal building



## North Runway

# Why do we Need North Runway?

The economic recovery has seen rapid growth in passenger numbers at Dublin Airport. In 2015, Dublin Airport grew by 15% compared to a European average of 4.3%. To facilitate this growth and to enable Ireland to reap the economic and societal benefits of greater connectivity, daa is delivering North Runway.

### ✓ Record passenger numbers

The recovery in the economy has seen passenger numbers reach record levels, with 25 million passengers travelling through Dublin Airport in 2015 to over 180 destinations worldwide, 50 new routes and services, 9 new airlines, 65% growth in long-haul connectivity; 16% increase in short-haul connectivity.

### ✓ Promoting choice and competitiveness

By facilitating new airlines and new destinations, North Runway will promote competition and afford greater choice of routes and airlines for passengers.

### ✓ Connectivity for tourism, trade and Foreign Direct Investment

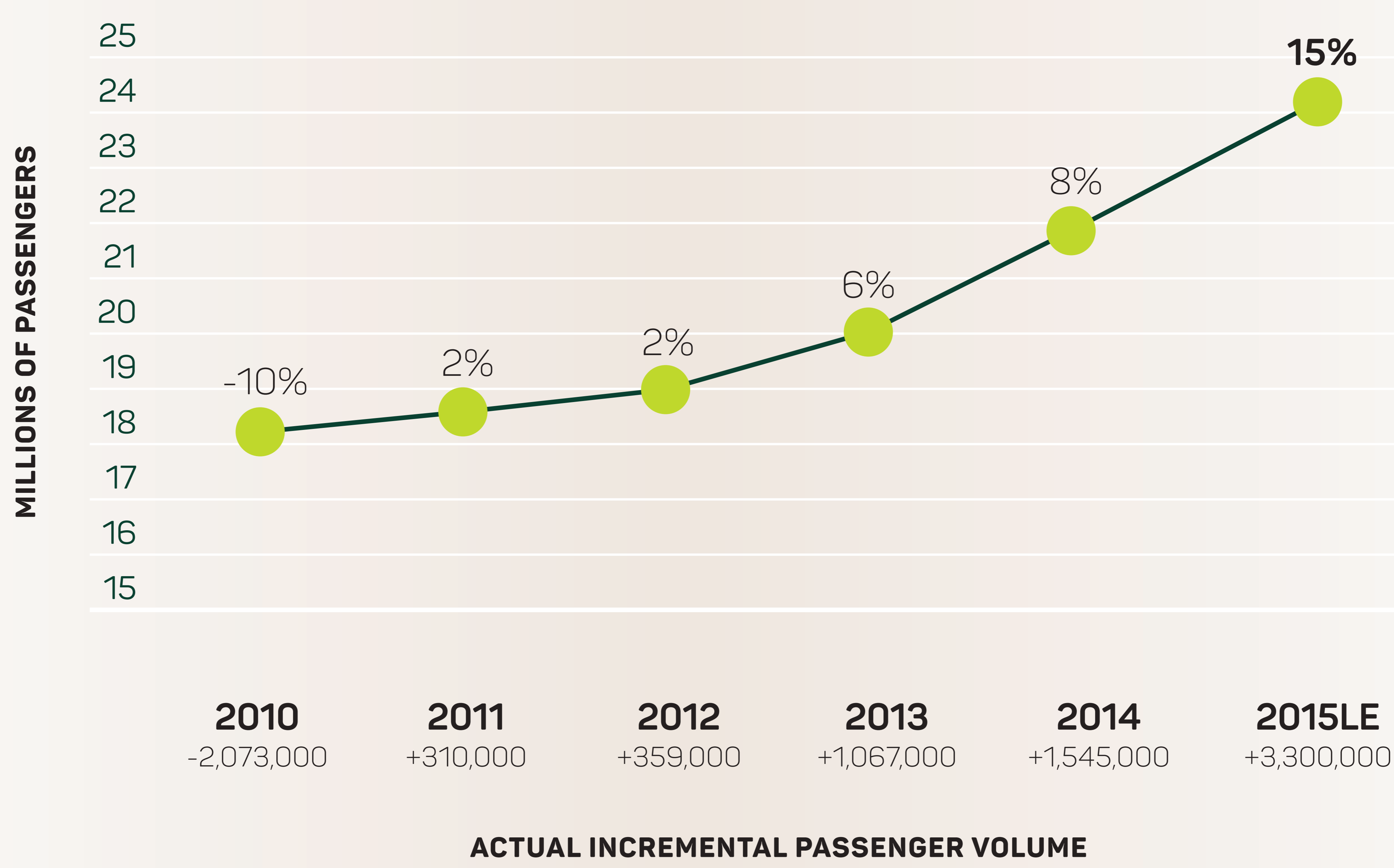
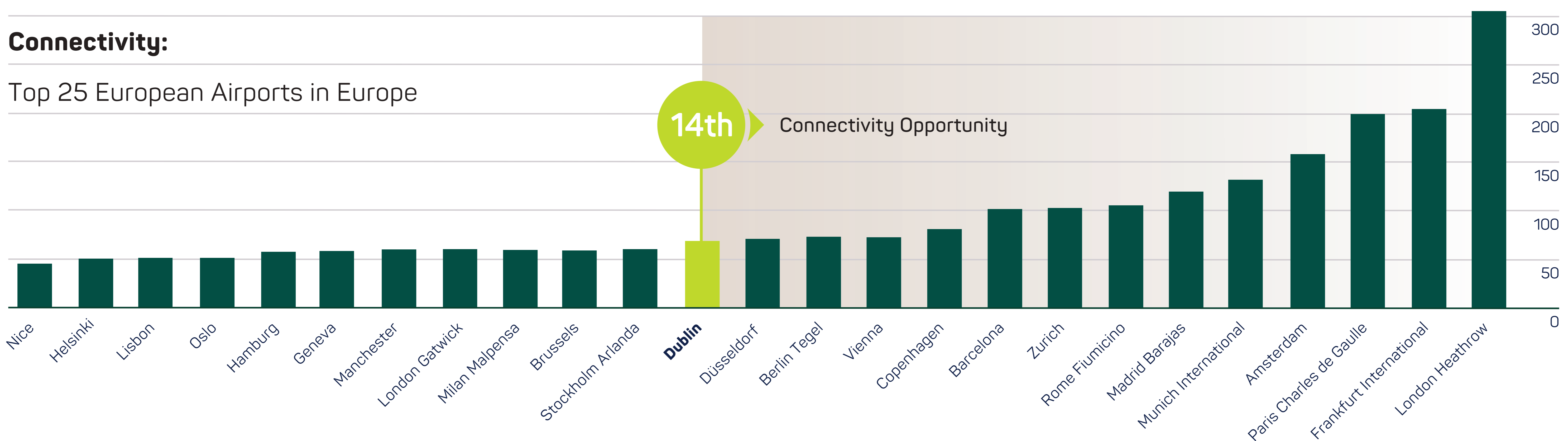
North Runway will provide the capacity to facilitate strong growth in demand for short-haul services to the UK and Europe, creates the potential to further develop Dublin as a key European gateway to North America and greatly enhances Ireland's connectivity to the rest of the world by enabling the development of routes to Asia, South America and Africa.

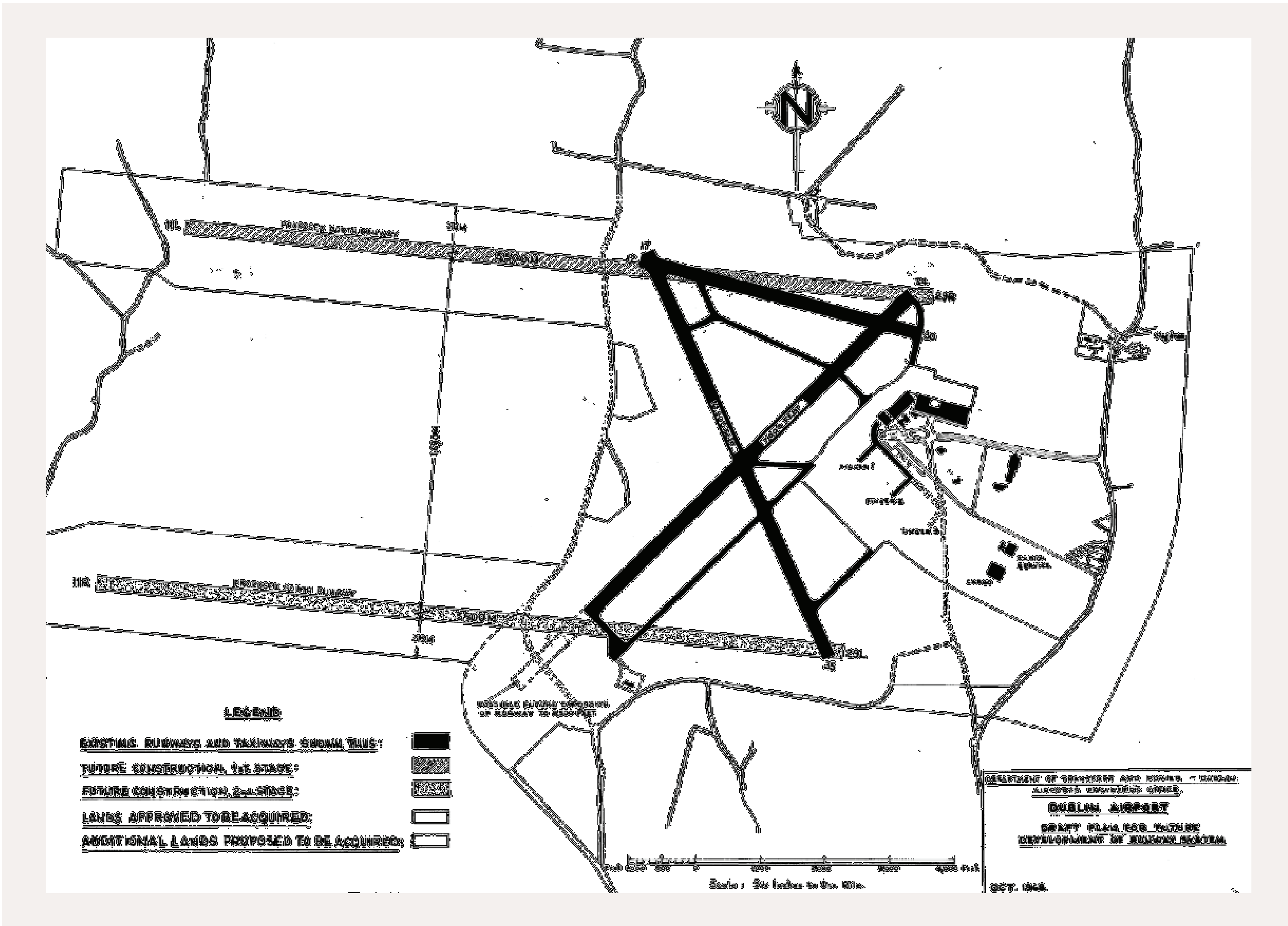
### ✓ Reducing delays and congestion

Passenger growth has reached a level where runway infrastructure is at capacity at peak times. A new runway will minimise delays and ensure sustainable growth.

#### Connectivity:

Top 25 European Airports in Europe





1968 draft plan for future development of Dublin Airport

## North Runway

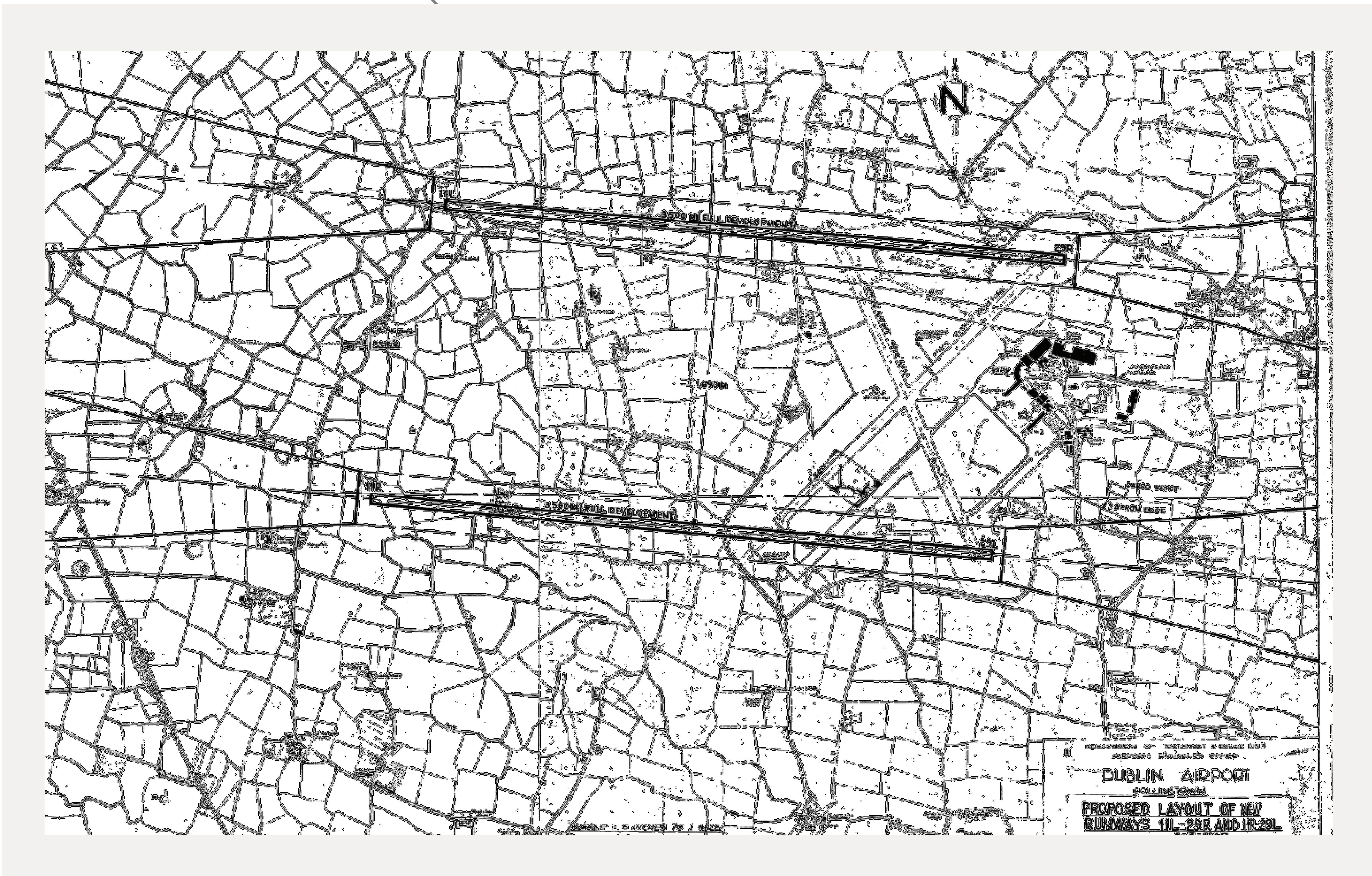
# 40 Years in the Planning

North Runway will be 3,110 metres long and will be built within airport land 1.7km north of the existing main runway. Planning consent was granted in August 2007 and the runway is expected to be operational in 2020.

The requirement for a second runway at Dublin Airport has been recognised since the 1970's and has featured in various plans since then. Previous generations secured lands for a new runway, ensuring that the airport approaches are largely clear of development. North Runway will be built on the airport's own land bank.

daa is implementing Government requirements as set out in the National Aviation Policy which identify the importance of developing the second runway at Dublin Airport to ensure the infrastructure necessary for the airport's position as a secondary hub, and the ability to operate to global markets without weight restrictions, is available when needed.

Plans for a parallel runway system have been in place since 1968



## North Runway

# Delivering Economic and Social Benefits for Ireland

North Runway is a highly significant strategic project for the Fingal area, which has been a major beneficiary of the economic activity at Dublin Airport. The airport makes a €7 billion contribution to the Irish economy and currently supports about 97,000 jobs, one-quarter of which are held by Fingal residents.

North Runway will facilitate the creation of 7,000 jobs by 2023 and 31,200 new jobs over the next 20 years, as well as contributing an extra €2.2 billion to the Irish economy, driving foreign direct investment, increasing connectivity and boosting tourism.

This strategic infrastructure project has the potential to improve the country's international connectivity and underpin economic growth and job creation into the future.

The project will support c.1,200 jobs during its development and generate significant employment opportunities in the local supply chain.

Dublin Airport is essential for Irish tourism, as 82% of those who fly into the country arrive via Dublin Airport. Facilitating tourism growth drives employment in one of our key industries, a sector that delivered €7.3 billion to the Irish economy in 2015.

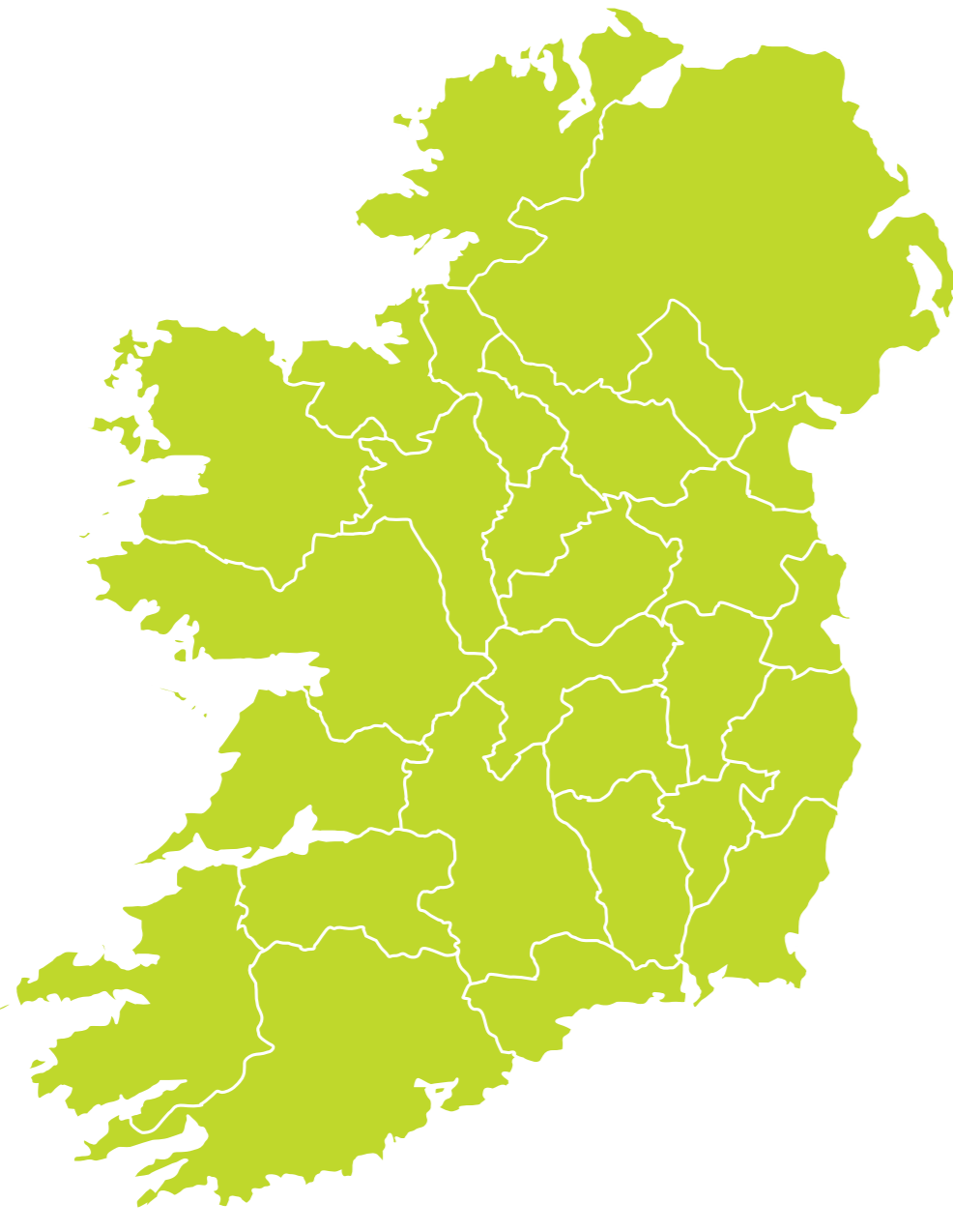


“

*This strategic infrastructure project has the potential to improve the country's international connectivity and underpin economic growth and job creation into the future.*

Ibec

”



### Ireland

97,400 jobs  
€6.9bn GVA  
4% of total GVA



### Dublin

47,170 jobs  
€3.7bn GVA  
5.6% of Dublin GVA



### Fingal

25,150 jobs  
c. €2bn GVA  
c.19% of Fingal GVA



“

*Our proximity to Dublin Airport is of great benefit to our business. We support the ongoing development of Dublin Airport which would help to expand our sources and markets.*

FoodCentral and Keelings

”

Tourist attractions such as Malahide Castle will benefit from the expansion of Dublin Airport





# Delivering North Runway



# Next Steps in the Project

Work is already underway to fulfil the pre-commencement conditions set out in the North Runway planning permission and daa intends to complete this phase before the end of 2016.

## ➤ Pre-commencement conditions

These pre-commencement conditions include;

- Voluntary Buyout Scheme
- School and Home Insulation Scheme
- Changes to Road Layouts and Rights of Way
- Agree Environmental Protection Plan for Construction

## ➤ Key considerations in progressing the Construction Management Plan include:

- Noise & Disruption
- Traffic Management & Access
- Environmental
- Community

## ➤ Construction

The first construction phase will focus on road realignment, relocation of existing services and some other construction elements and will start in late 2016.

The second construction phase will commence in Q2 2017 and will reach completion in 2019 – this will be followed by a period of testing and commissioning of the new infrastructure, before the runway becomes fully operational in 2020.



## Delivering North Runway

# Minimising Construction Impact

Our goal is to build North Runway safely and efficiently, with the minimum impact on our neighbours and the surrounding area.

### ➤ Environmental Protection Plan (EPP) for Construction

The EPP will be agreed with Fingal County Council and made publicly available in advance of the project commencing. The EPP is included as part of the contract of works and all contractors are legally obliged to comply with it in full.

### ➤ Communication

Communication with local stakeholders will be a key element of the project during construction. Our ongoing Community Liaison initiatives will include;

- Community Liaison Personnel
- Text alerts (opt – in)
- Free Phone Number
- Newsletters
- Website

### ➤ Reducing impact and disturbance

A key focus of our plans will be reducing the impact or disturbance caused during the construction process. Among the elements likely to be included in the final plan are the following;

- Environmental management
- Wheel wash units will be operational for vehicles leaving sites
- Road sweeper to maintain public roads / footpaths in the area
- Traffic management plans based on traffic studies
- Designated car parking area - parking on public roads prohibited
- Access Route Signage will be erected along routes and junctions - Designated Access Routes (M50/R108/L3132) + (N2/L3132/R108)
- No bulk deliveries to site during rush hour.
- Range of dust suppression initiatives
- Protocols for demolition work – excavated material will be reused as far as possible
- Waste Management Plan - all wastes will be disposed to licensed waste facilities, full records will be maintained for traceability

#### ● Q4 2016 - Q2 2017

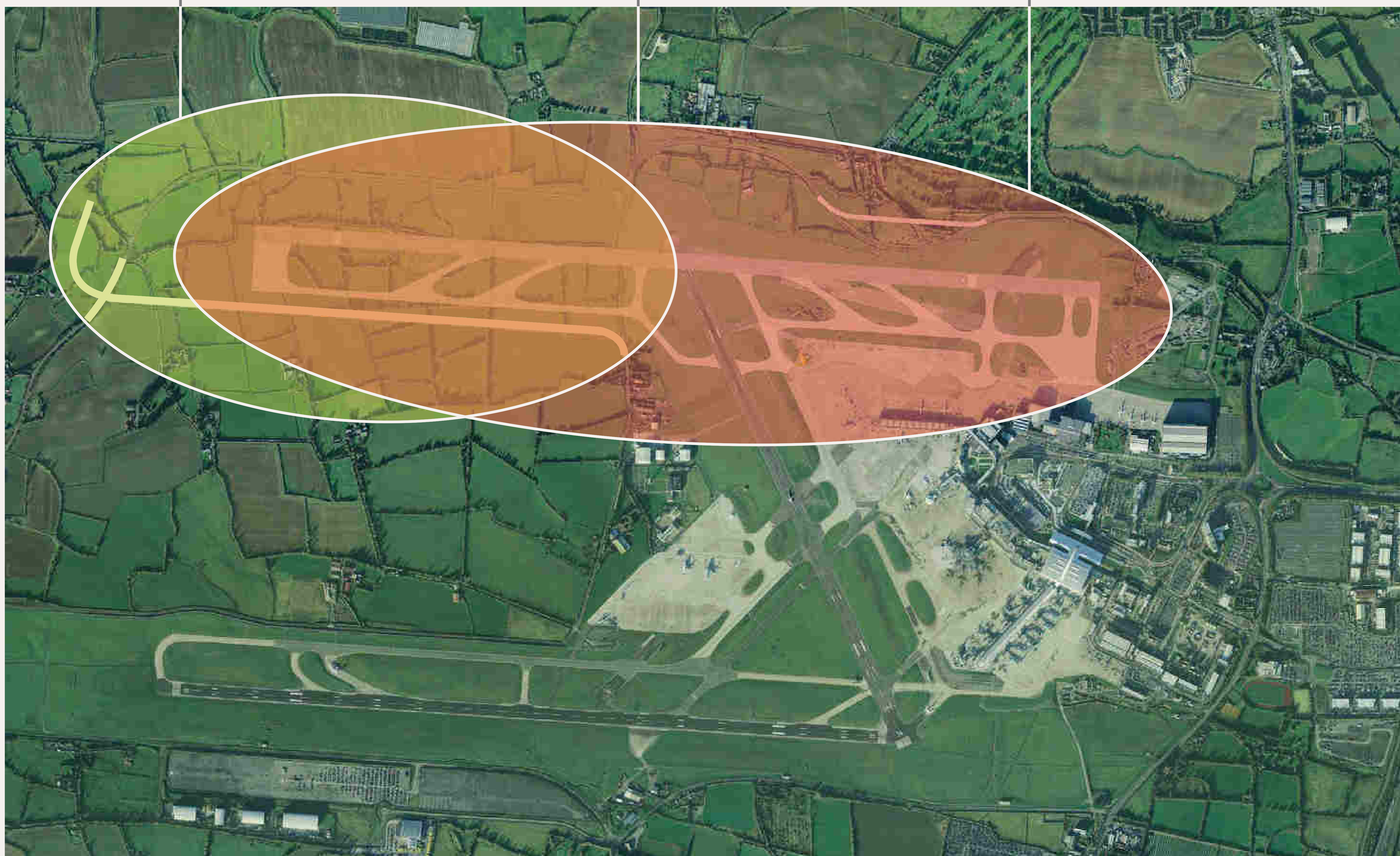
Site clearance/establishment  
Topsoil strip  
Temp fencing/compounds  
Services diversions  
Road realignments  
Engine test relocation  
Other construction elements

#### ● Q2 2017 to Q3 2019

Main runway & taxiway excavations  
Drainage installation  
Pavements construction  
Substation construction  
Airfield lighting installation  
Satellite fire station construction

#### ● Q3 2019 to Q2 2020

Commissioning  
Integration with ATC tower  
Fully operational





# Traffic Management & Access

The location of the new runway means that some existing roads close to Dublin Airport need to be rerouted or re-aligned and certain Public Rights of Way will need to be extinguished.

## Figure 1

The diverted R108 will connect to the St Margaret's Bypass via a new signalised junction. Due to the proximity of the junction with Toberburr Road (between points R13 and R14 on figure 1), a new spur road will be constructed to connect it to the signalised junction. This will permit the closure of the existing staggered (displaced) junction and should make vehicle access onto the St Margaret's bypass from St Margaret's village, Millhead and Kilreesk easier and safer, particularly at peak times.

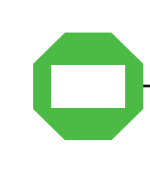


## Figure 2

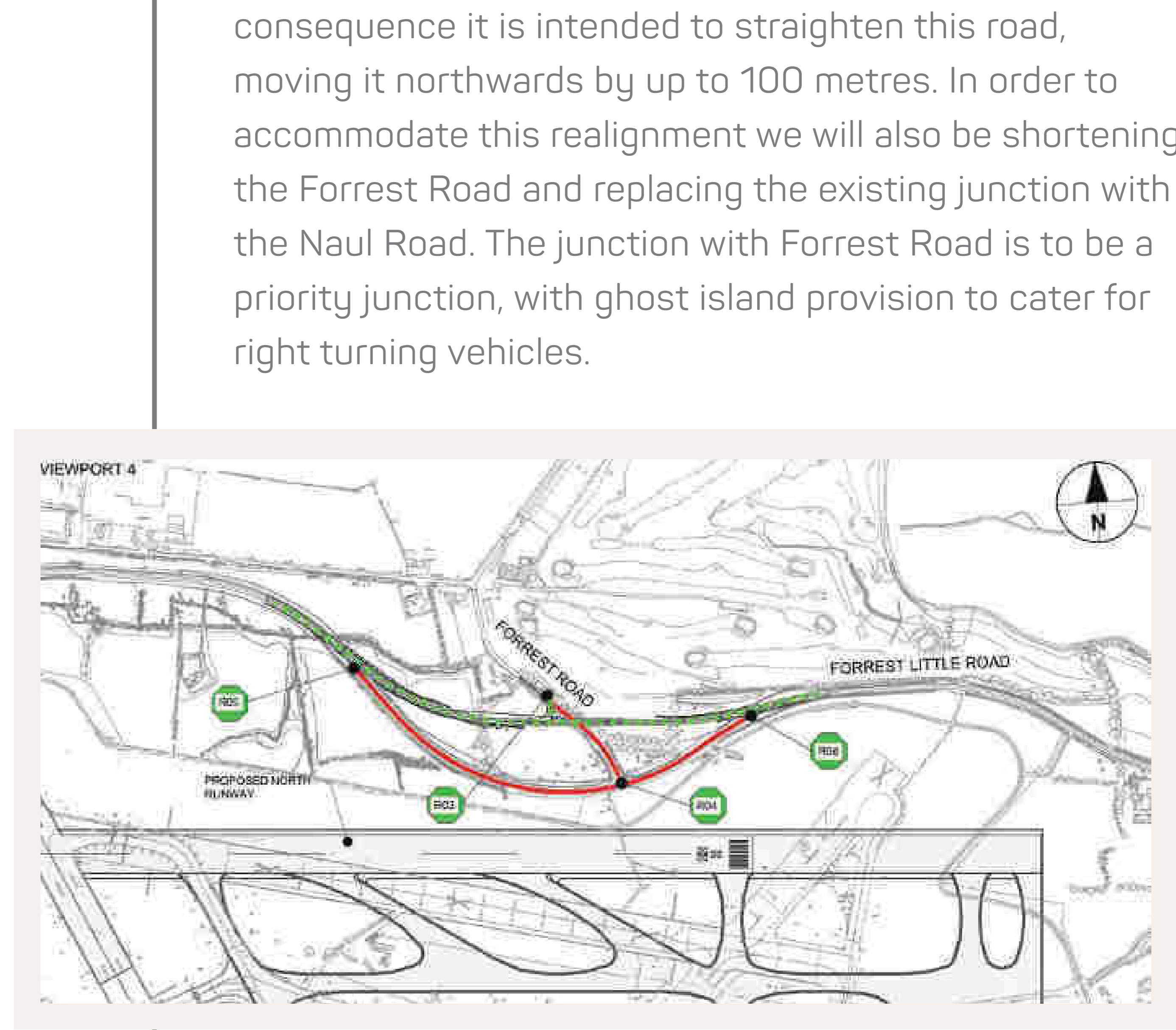
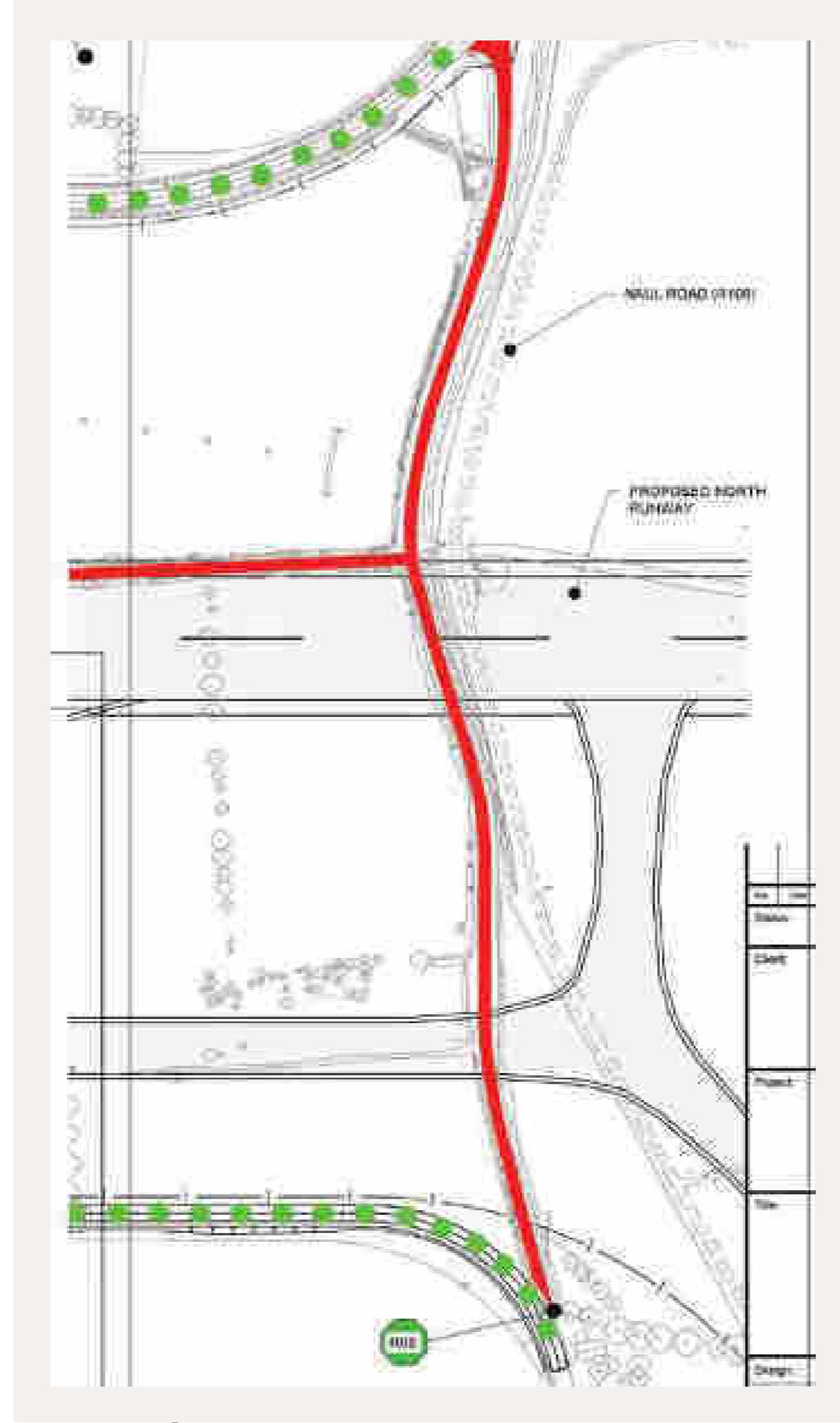
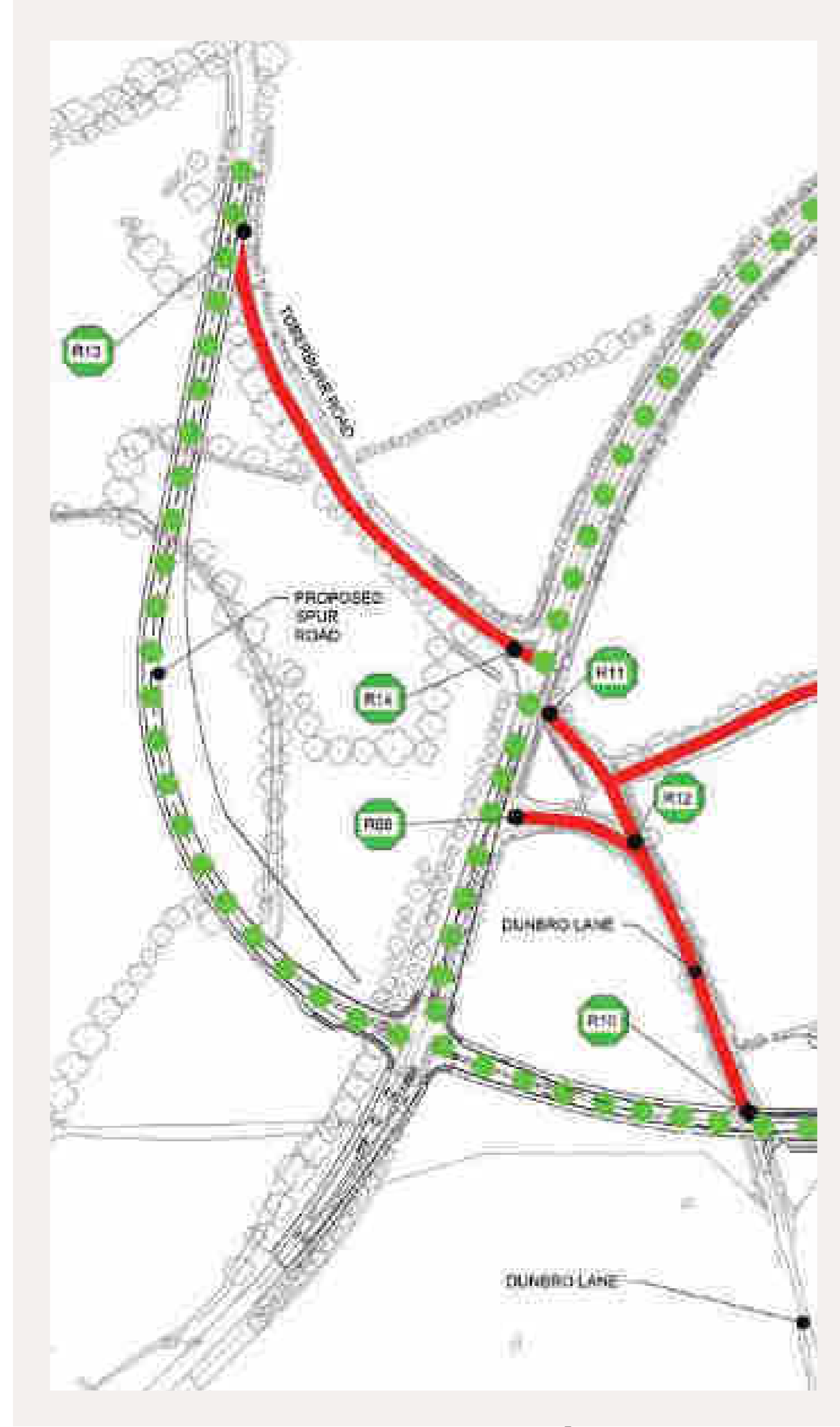
The R108 crosses the footprint on which North Runway will be constructed. This road will be diverted towards the west at a point south of the new runway.

## Figure 3

The current route of the Naul Road would infringe the safety zones in proximity to the runway. As a consequence it is intended to straighten this road, moving it northwards by up to 100 metres. In order to accommodate this realignment we will also be shortening the Forrest Road and replacing the existing junction with the Naul Road. The junction with Forrest Road is to be a priority junction, with ghost island provision to cater for right turning vehicles.

### Legend

-  Right of way to be extinguished
-  Extent of road closure
-  Alternative route



In conjunction with making these changes we are required to extinguish a number of Rights of Way as follows (sections of road marked in red on Figures 1, 2 and 3 above):

- A portion of the Forrest Road (171m between R03 and R04)
- Part of the Forrest Little Road (776m between R05 and R06)
- A portion of Dunbro Lane (274m between R09 and R10, and R11 and R12)
- The portion of the Naul Road (R108) that crosses the runway site (663m between R07 and R08)
- Toberburr Road (253m between R13 and R14)
- Barberstown Lane which will be within the runway site (1815m between R01 and R02)

## Delivering North Runway

# Measuring, Managing and Mitigating Aircraft Related Noise

## How is noise measured?

We understand that noise is very subjective and very personal to each individual. Noise is measured by calculating long-term average noise levels in decibels (dB) and modelling them in noise contours. These contours show a set of closed curves on a map. Each contour shows places where people get the same average amounts of noise from the aircraft. They are similar to the contours on an ordinary map showing points at the same height.

## The following factors are considered in determining noise contours:

- The runway location(s)
- The arrival and departure routes
- The aircraft movements (number by aircraft type)
- The split of the movement amongst the runway(s) and routes
- Airport procedures such as intersection take-offs.

## Insulation & buy-out

63dB is internationally recognised as a threshold for noise mitigation to dwellings whilst 60dB is applied to schools. These thresholds are reflected in the planning conditions attached to the permitted runway. 69dB is the point at which the planning permission stipulates that daa will offer to buy homes.

## Voluntary House Purchase Scheme



## Insulation for homes and schools

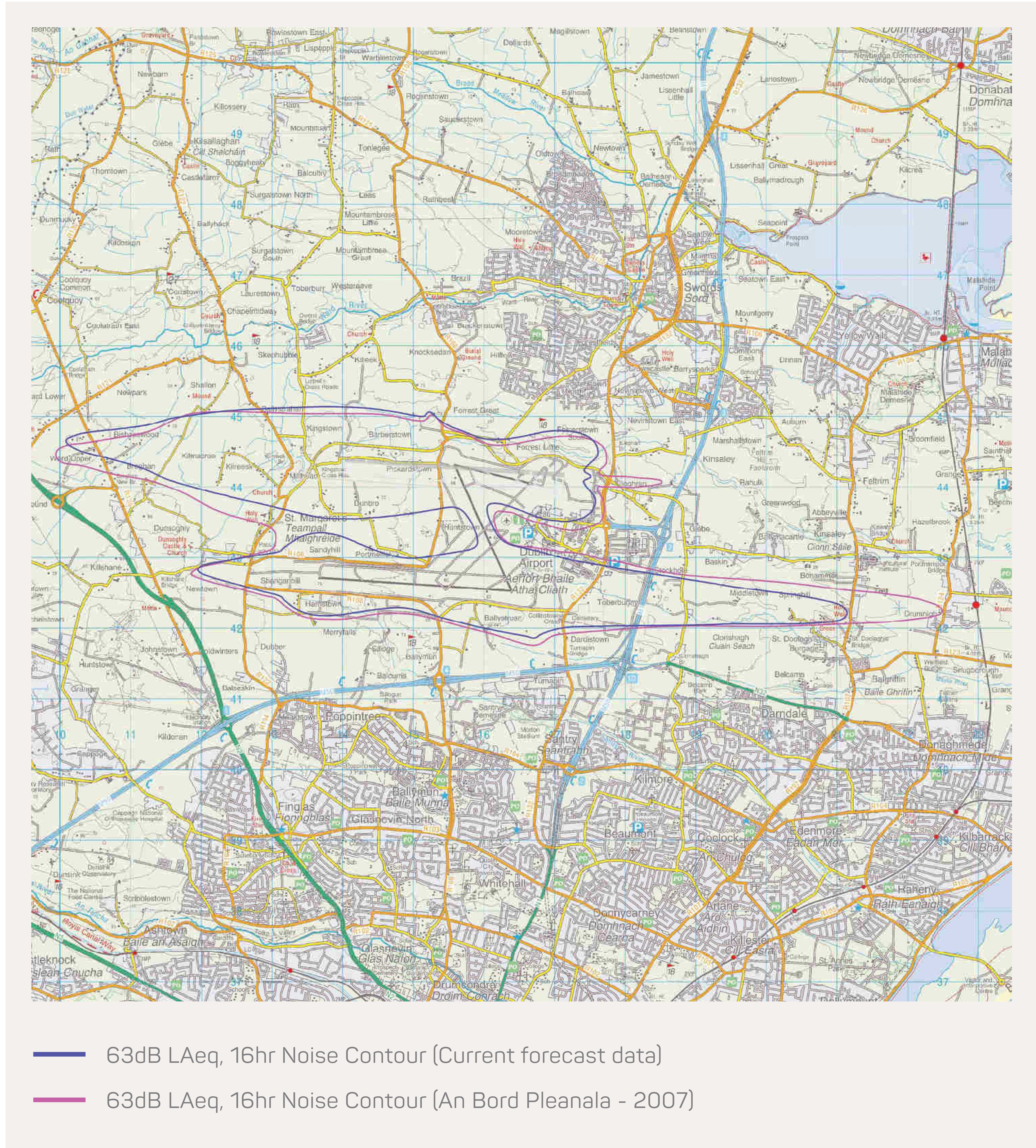


	A home 'sound' insulation scheme	Schools Insulation Scheme
Who?	This measure relates to homeowners specified by An Bord Pleanála as falling within a key noise threshold. All impacted homes will be contacted directly by daa in due course.	Schools and licensed pre-schools within the 60dB noise contour.
What?	Double or secondary glazing for all windows and external doors. Attic insulation as required. Acoustic solutions for vents and chimneys.	High acoustic performance replacement double glazing including secondary glazing where required. Loft insulation in roof spaces as required. Acoustic ventilation units. Ceiling upgrades as required.
When?	Insulation to take place in advance of the opening of the new runway.	All schools would be insulated in advance of the opening of any new runway.

# Noise Contours

## Applicable Contours for the Insulation Scheme:

The amount of noise projected from aircraft movements at Dublin Airport has decreased significantly since the original planning process. This is due to quieter and larger aircraft. As a consequence, based on objective and verifiable modelling, the scope of the 63dB LAeq 16h contour has reduced. However, in consideration of its most immediate neighbours, daa will instead have regard to the noise contours submitted to An Bord Pleanála in 2007. The 2007 contour encompasses a larger area that extends the insulation scheme to more homes. As a result, c.40% more houses will be eligible to benefit from the insulation scheme.



daa will further update the noise contours as part of the application to maintain operational flexibility at Dublin Airport. Following this assessment, the number of homes eligible for insulation may increase further. We will continue to keep residents informed.

## Delivering North Runway

# The Balanced Approach

International best practice on noise management at airports focuses on the Balanced Approach. The four pillars of the Balanced Approach are;

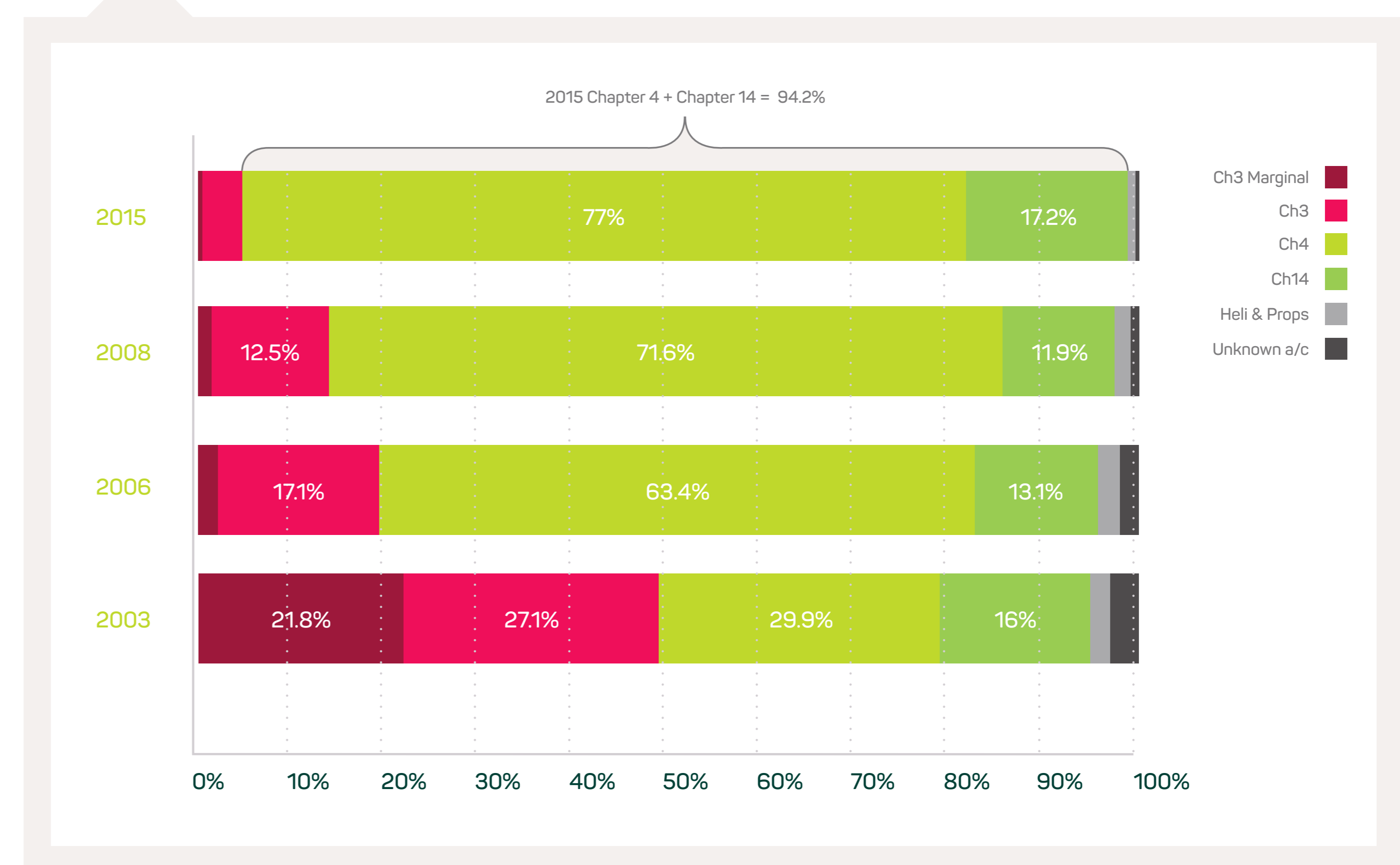
### ● Land-use planning

Dublin Airport has benefitted from a far-sighted planning process that has kept the approaches to the runways largely clear of development. Unlike many other international airports, we have very few people living under our flight paths, which means that land-use planning has been effective to date.



### ● Quieter aircraft

At Dublin Airport we are fortunate to have a large proportion of aircraft that meet the most stringent noise class (Chapter 4). In 2015, almost 95% of aircraft operating here were Chapter 4, the quietest models. There is a ban on the use of the noisiest aircraft (Chapter 2) at the airport.



### ● Operational procedures

Along with our airport stakeholders, we have implemented a wide range of operational procedures to minimise noise. These include flight Noise Abatement procedures for take-off and landing such as selection and compliance with Environmental Corridors, Continuous Descent and restrictions on reverse thrust and ground run-up. North Runway will be operated according to Option 7b, which introduces the concept of a preferred runway to lessen the impact of aircraft noise on local communities.

### ● Operating restrictions

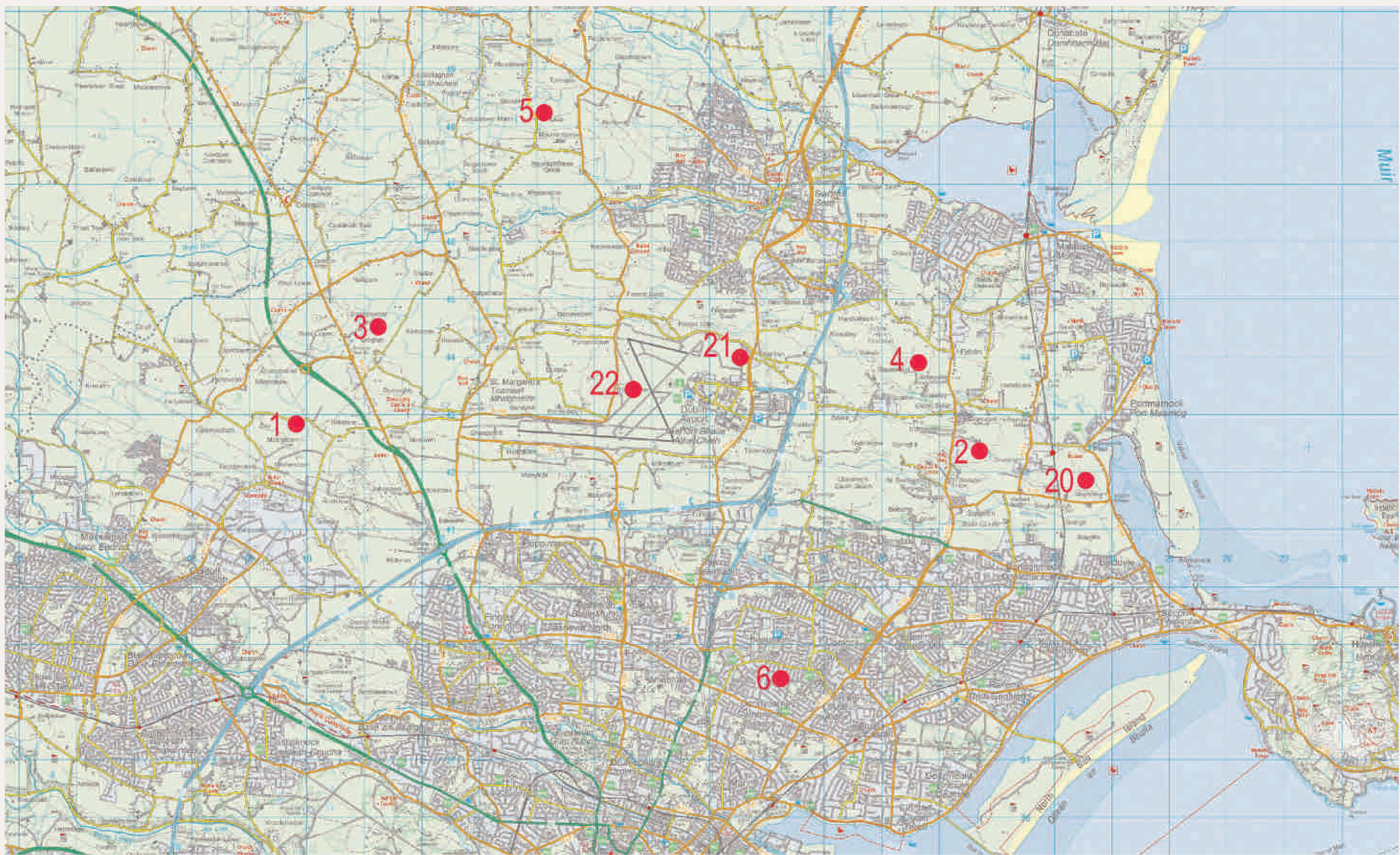
To be applied only as a last resort when other pillars have been exhausted.

Best practice also includes community and stakeholder engagement as part of noise management. According to 2013-2018 Dublin Agglomeration Noise Action Plan (NAP), produced in compliance with requirements of the Environmental Noise Directive, the number of people exposed to the undesirable night time levels above 55 dB(A) from Dublin Airport is c.200 people.

# Tracking Performance

## Monitoring noise:

- There are 9 noise monitoring stations in the community and on site at Dublin Airport, in place for over 15 years
- Noise is measured by these stations and downloaded to a database.
- Flight tracks are monitored and if a complaint is made to Dublin Airport the flight track is reviewed to check whether an aircraft was off-track. 99% of aircraft using Dublin Airport adhere to established routings.
- Access to information is important to our local communities. daa shares data from our Flight Tracking Monitoring System with local and national stakeholders through the independently chaired Dublin Airport Environmental Working Group (DAEWG).



## Delivering North Runway

# Mode of Operation

Flight paths are determined by the Irish Aviation Authority in association with daa and the airlines and put safety above all other considerations. The runway(s) used will take account of the current and expected weather conditions and aircraft movements.

Aircraft on approach will normally be on the extended centreline of the landing runway from 5 nautical miles out. Those landing on North Runway from the east will cross the coast over North Portmarnock and travel inland over predominantly rural areas on their descent into Dublin Airport.

We are currently considering the departure routes from North Runway and expect to be able to share further details of the proposed flight paths and operating procedures with local communities in the autumn.

The separation between the parallel runways at Dublin Airport is sufficient to meet the relevant aviation standards that allow independent departures, which require a minimum 15 degree divergence between parallel runways departure flight paths. At times of peak demand, it is intended that the runways will operate independently.

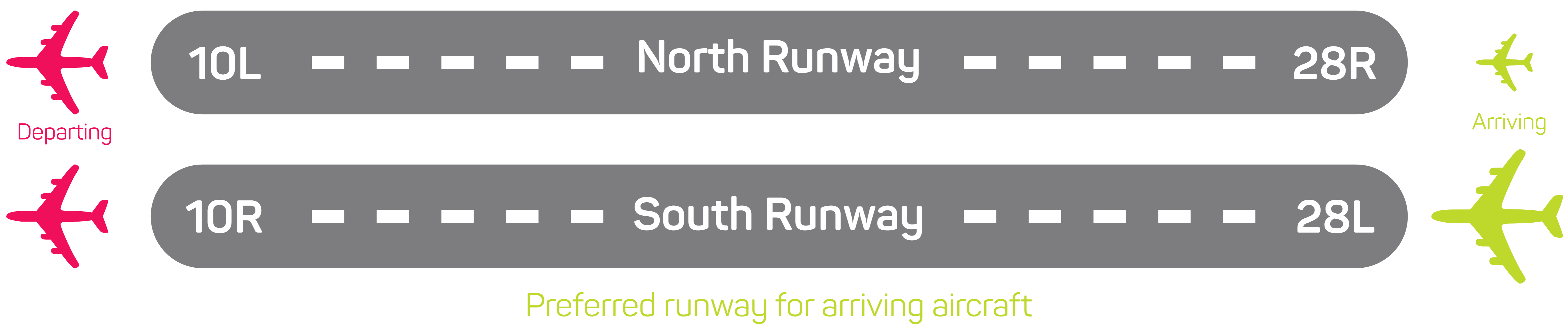
There will be a set of environmental corridors defined either side of the indicative flight paths and aircraft will be required to stay within these corridors on departure, up to an altitude of at least 3000 feet.

## Option 7B

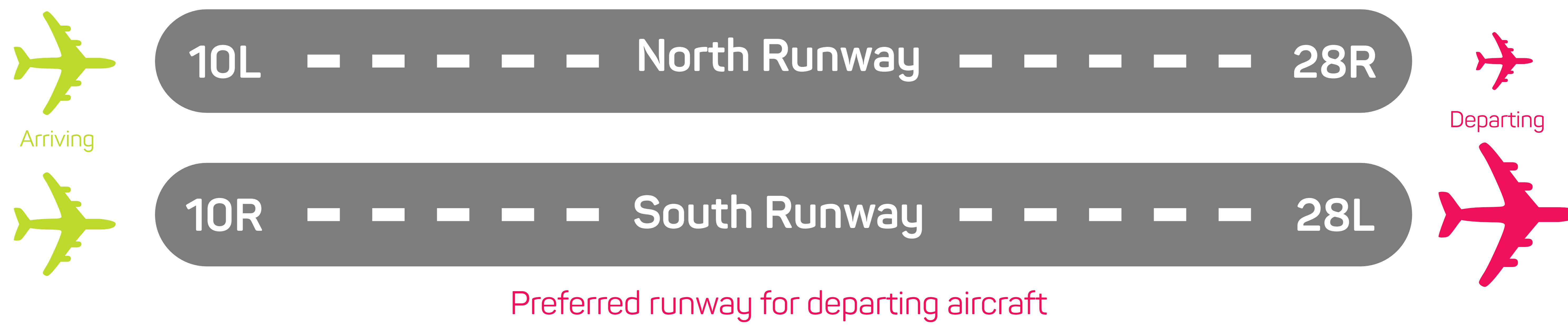
North Runway will be primarily operated according to mode of operation Option 7b (as submitted to An Bord Pleanála in 2007) to lessen the impact of aircraft noise on local communities:

- When winds are westerly, Runway 28L shall be preferred for arriving aircraft. Either Runway 28L or 28R shall be used for departing aircraft as determined by Air Traffic Control.
- When winds are easterly, Runway 10R shall be preferred for departing aircraft. Either Runway 10L or 10R shall be used for arriving aircraft determined by Air Traffic Control.

### Westerly Wind →



### ← Easterly Wind



## Delivering North Runway

# Our Place in the Community

Through the Dublin Airport Stakeholders Forum and now the Dublin Airport Environmental Working Group (DAEWG), daa has been engaging with the community on a regular basis for many years. We hold frequent meetings with local community groups and individual residents and are committed to continuing to engage and listen to their concerns. We are proud of our place in the community and will work to maintain it.

- Existing Community Engagement – Dublin Airport engages with communities on a daily basis and has a dedicated Community Engagement Team
- Dublin Airport Environmental Working Group – Provides regular information on how the airport operates as well as information on its environmental and sustainability performance to local communities and interested bodies
- Community Liaison Group – As part of the North Runway Project we are establishing the St. Margaret's Community Liaison Group
- Existing Community Sponsorship Programmes – Dublin Airport partners with local and national organisations to support cultural and sporting activities
- Community Fund – As part of the development of the North Runway project, a new Community Fund will be established to support projects in the local community



# Ecology, Habitats and Heritage

## Ecological

Any renovation, demolition or construction will be carried out with sensitivity to animals such as badgers, bats, birds, amphibians and any other wildlife which might be present.

## Protecting habitats

daa is committed to providing compensatory habitats for areas impacted by the North Runway project.

## Drainage

Runway drainage systems will ensure that the risk of flooding or pollution is fully managed.

## Sustaining our local heritage

daa is committed to preserving the heritage of the area – we are working with Fingal County Council and the local community to find a new long-term home for the Forest Little Monument.

Detailed archaeological surveys will be undertaken in advance of construction.

## Delivering North Runway

# Managing Emissions

## Main sources of emissions at the airport are from;

- Aircraft on the ground and during take-off and landing
- Airside vehicles servicing aircraft
- Boilers for heating terminals and office buildings
- Vehicles accessing the airport

## Controlling and influencing emissions:

- Providing and operating efficient infrastructure
- Influencing how staff and passengers get to the airport through our Mobility Management Plan
- Increased use of electric vehicles airside and landside

## Reporting

daa shares air quality results with the local community through the Dublin Airport Environmental Working Group and on our website.

Average concentrations in 2015 at all monitoring locations (including stations in St Margaret's and Portmarnock) were well below national air quality limit levels.

## Committing to reductions

daa is committed to reducing emissions under our direct control. We have signed up to achieve 33% efficiency in our own energy use by 2020. Dublin Airport is currently in the process of applying for the ISO 50001 Energy Management Certification.

We are committed to working with airport stakeholders to manage airport operations efficiently to help reduce emissions at the airport.

## Airport Carbon Accreditation Programme

We monitor progress on our carbon footprint and report it through our participation in the Airport Carbon Accreditation Programme – an international voluntary framework to reduce carbon emissions.

## Monitoring

We monitor local air quality ... We have an Air Quality Monitoring programme in place at the airport and in surrounding areas.



Emissions monitoring stations are located on site and around the hinterland of the airport





# Addressing Restrictive Conditions



## Addressing Restrictive Conditions

# Condition 3(d) & Condition 5

Planning permission for North Runway has been granted, however two of the 31 conditions are onerous and limit the potential of the airport to operate, grow and deliver the maximum economic and societal benefit for Fingal, for Dublin and for Ireland as a whole.

### Condition 3(d)

Condition 3(d) would prohibit the use of North Runway for landings and take-offs between the hours of 2300 to 0700.

### Condition 5

Condition 5 states that, on completion of construction of the new runway, the average number of night time aircraft movements at the airport shall not exceed 65 per night (between 2300 and 0700).

daa will be seeking to retain the operational flexibility that currently exists at Dublin Airport. That process will involve the preparation of an Environmental Impact Statement (EIS) to assess any potential impacts arising from those proposed changes.

## Maintaining Operational Flexibility

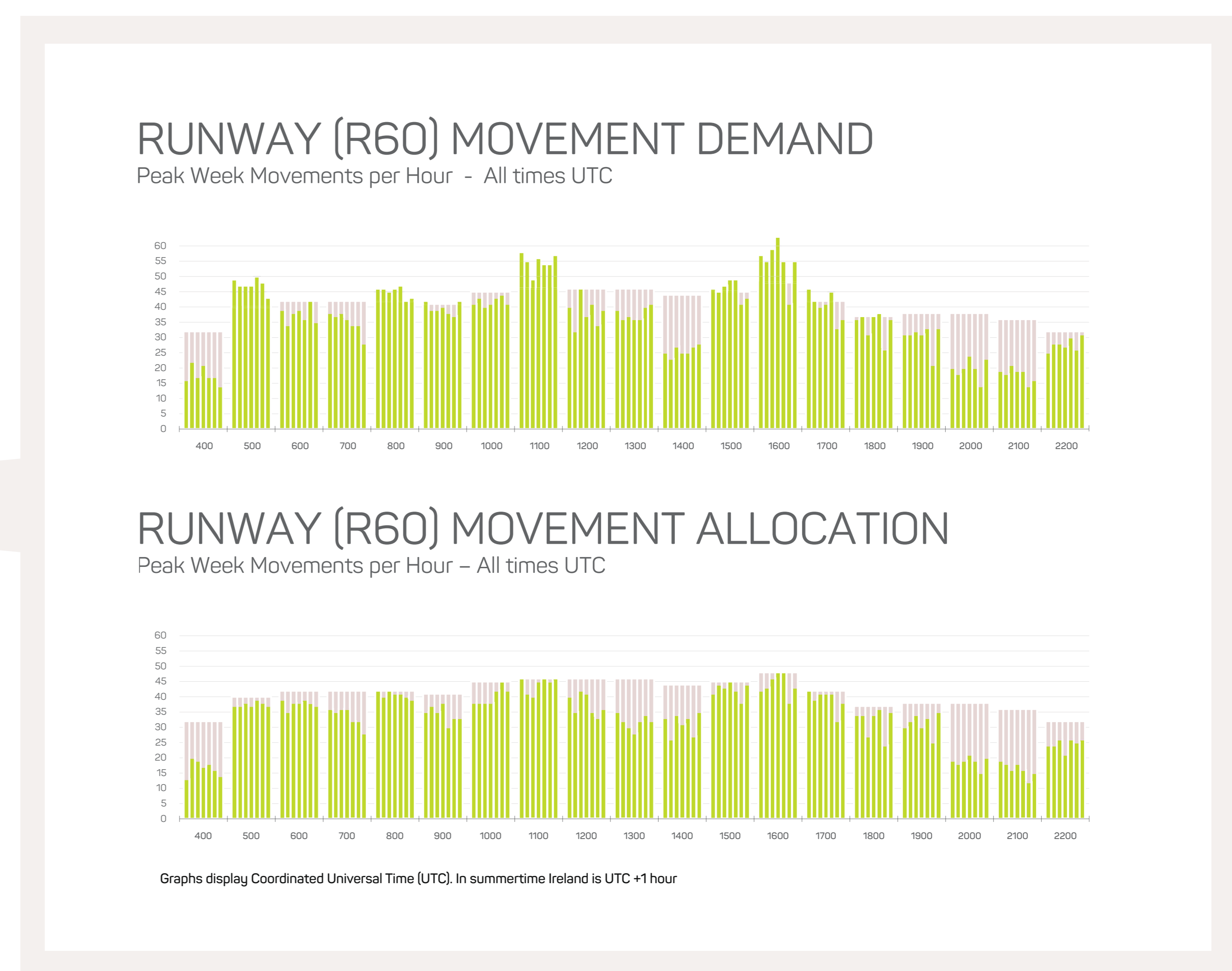
Dublin Airport has seen a return to growth with a record 25m passengers using the airport in 2015. This is due to a combination of almost 50 new routes and services, significant additional capacity on a number of existing routes and nine new airlines operating at Dublin.

### Growth

- Aircraft movements increasing - from 170,000 in 2013 to 180,000 in 2014 to 198,000 in 2015. Strong growth is continuing in 2016, with 14% year on year growth in passengers in the first five months of the year.
- Traffic forecasts indicate potential for passenger throughput figures of up to 36 million by 2022 and up to 50 million by 2037.

### Capacity constraints

- Dublin Airport is already experiencing capacity challenges with demand for some runway slots exceeding capacity.
- Restriction of 65 flights per night is 35 less than the 100 flights on average which are currently using the airport between 23:00 and 07:00.

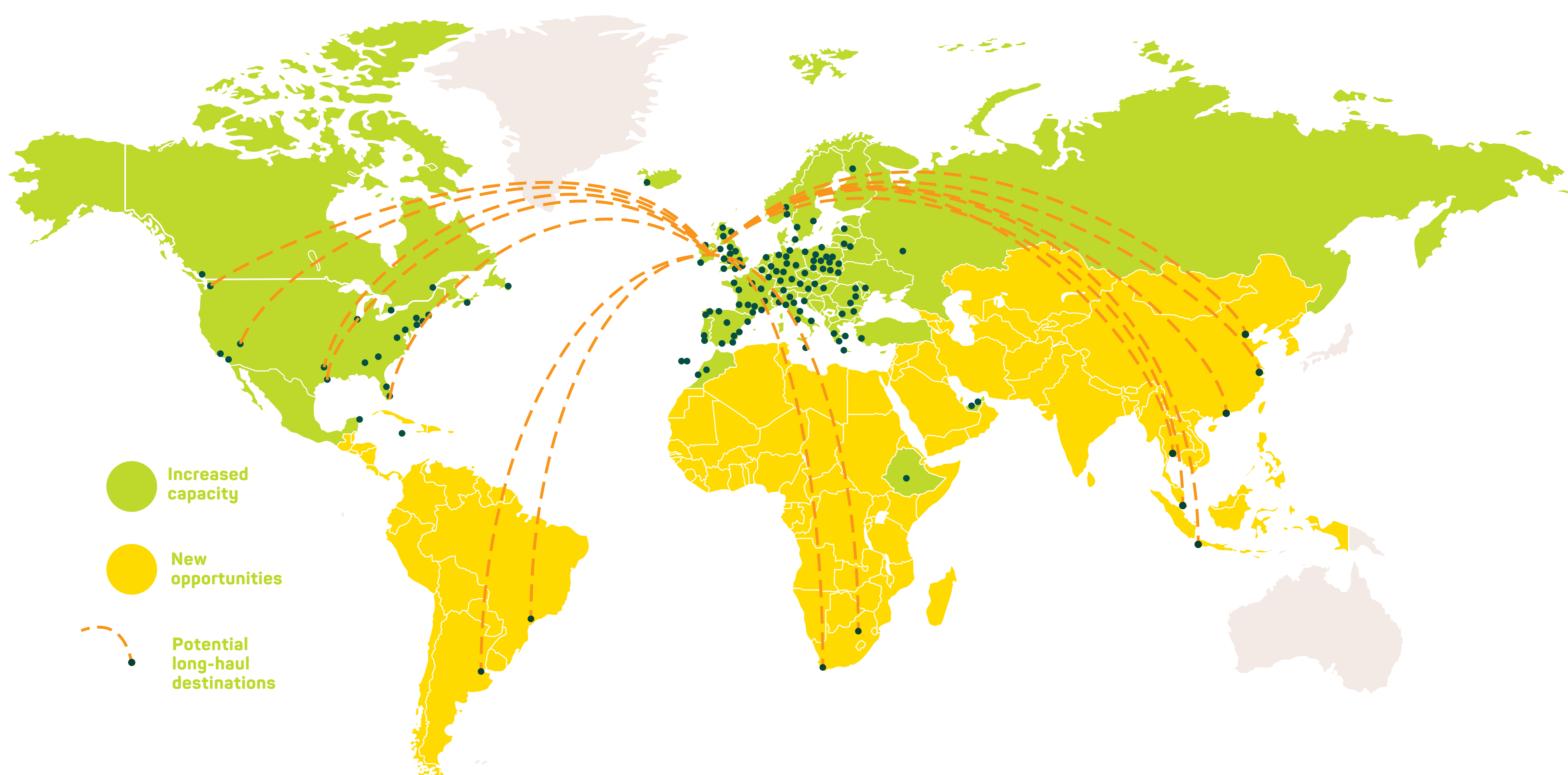


### Based aircraft

The main source of growth at Dublin Airport continues to be from based and network carriers. Based operators have a particular requirement for capacity in the early morning and late evening to get the most efficient use from their aircraft. The one hour time difference between Ireland and continental Europe adds to the need for based aircraft to depart early.

### Developing connectivity - Dublin competes with other European airports

- In 2016, Dublin Airport will be the number five airport in Europe for flights to North America with growth in connectivity of over 65% since the opening of T2 in 2010. The proposed restrictions in the 23:00-07:00 period has the potential to limit the scope for developing those long-haul services to North America.
- At 3110m, North Runway can facilitate flights to the Far East, Asia and South America. Attracting new long-haul services, ahead of other European airports, could be jeopardised by restrictions which impede operational flexibility.
- Connecting passenger numbers increased by 89% from 2013 to 2015. An increasing proportion of long-haul passengers are seeking to connect onto early morning UK and European flights. The proposed restrictions would negatively impact opportunities for flight connections. This reduces the likelihood of new routes being established.
- Changing travel patterns mean that people now want to make same day business trips, requiring more capacity in the early morning and late evening peaks.





# Getting Involved in the Process

## Getting involved in the process

# What is an Environmental Impact Statement?

An Environmental Impact Statement (EIS) assesses the impact that a project will have on a range of environmental factors, in this case the potential impact on the environment of changes to two restrictive conditions relating to operation of the runways at Dublin Airport.

## Why do we need it?

We are conscious of the need to make a rounded assessment of the potential impact of the Proposed Change of Permitted Operations; therefore in addition to considering the economic, technical and planning implications of any change to the hours of operation, it is important to commence engagement on the potential Environmental Impact of any changes, through an EIS process.

## What is the EIS process?

The Environmental Impact Scoping Document, which has been published, gives details of the topics which we propose to consider in developing the EIS. The final issues to be addressed in the EIS are decided in consultation with stakeholders and the general public. Once the scope of the study is decided, consultants will begin the task of assessing the potential impact of the project on those issues.

The potential impact of the change of permitted operations is the only issue being considered under the EIS process. The runway has already received planning permission and is proceeding to construction.

## daa proposes to examine the following topics through the EIS:

- 1 People / population
- 2 Human health
- 3 Hazard
- 4 Traffic and Transportation
- 5 Air Quality
- 6 Climate
- 7 Aircraft noise and Vibration
- 8 Ground noise and Vibration
- 9 Landscape and Visual
- 10 Biodiversity
- 11 Water
- 12 Land
- 13 Soils
- 14 Material Assets
- 15 Cultural Heritage
- 16 Interaction and Cumulative Impact of the above

CO<sub>2</sub>



Getting involved in the process

# How to Make a Submission

The EIS scoping process gives you the opportunity to input into the issues which will be considered in the EIS. This will help shape the direction of the report and is an important consultation opportunity.

## Read the draft EIS Scoping Document

- Online
- In a library
- In civic offices

## Make a submission

- **By post/ by hand**  
North Runway Proposal to Change Permitted Operations,  
North Runway Office,  
Cargo Terminal 1,  
Dublin Airport
- **By email:** northrunway@daa.ie
- **On our website:** northrunway.ie

Make submission by 22nd July  
[Sign up for more Information](#)

## We welcome your feedback

- Views relating to changes to the restrictive conditions that may be specific to you, your immediate community, area, residence or place of work.
- Views re: any broader social / environmental topics that should be considered in the EIS.
- Any other information you feel we should consider.