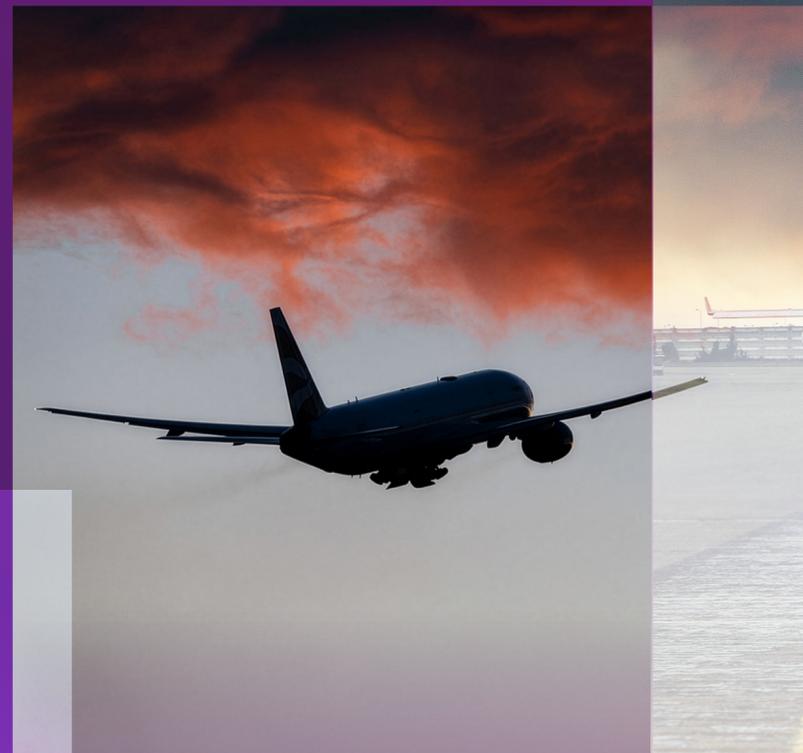


Heathrow

# CLIMATE ADAPTATION STRATEGY

March 2026



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# FOREWORD FROM OUR CHIEF COMMUNICATIONS & SUSTAINABILITY OFFICER

Climate change is the most significant mid to long-term risk facing Heathrow and the wider aviation sector. This is why our priority is delivering a net zero Heathrow and supporting our industry to achieve the same objective. As we, and wider society, navigate the journey toward net zero by 2050, we must also plan for the degree of climate change that is already locked into the system and take action to address the resulting physical impacts to protect our operations and business, which is critical to safeguarding our long-term resilience.

Acting to adapt our airport and operations to physical risks from an already changing climate is a necessity. In many cases our investment in decarbonising Heathrow can also deliver climate adaptation and enhanced resilience at the same time.

As a key global transport hub, we play a vital role in global mobility, enabling connectivity, trade, delivering economic growth and wider societal benefits. Heathrow connects over 200,000 passengers daily. We support over 80,000 jobs and function as the largest single-site employer in the UK. The scale of Heathrow's services means that millions of people are dependent on the resilience of our infrastructure and operational activities.

Adapting to climate risks is critical if we are to maintain our central role at the heart of the British economy.

Adapting to climate change is inherently a risk-based process that considers the evolving nature of climate hazards that we expect to experience and the effectiveness of the controls and mitigations that we have put in place. We complete a physical Climate Change Risk Assessment (CCRA) and prepare an adaptation report every five years which provides the basis on which we assess and plan. We published our latest Climate Adaptation Report in 2024 which forms our submission to the UK Government's Adaptation Reporting Power.

In recent years the UK has experienced several severe weather events which caused disruption to infrastructure owners and operators across the country and tested the resilience of our own operations. Our CCRA shows that even with no further increase in global greenhouse gas (GHG) emissions, we will experience more frequent and longer-lasting extreme weather events, leading to disruption to our services with an associated increase in cost.

This strategy summarises the headline findings from our climate risk assessments and considers how climate change will affect our business now and in the future. Our response to these risks is presented in terms of achieving specific goals 'On the Ground' and 'In the Air'.

These goals are underpinned by a set of action areas with associated actions and targets to deliver adaptation at Heathrow and inform our long-term planning. We have focused on our next two regulatory settlement periods, whilst recognising that adaptation is an on-going process. Our strategy will be reviewed and updated in response to changes to our CCRA.

**NIGEL MILTON**  
Chief Communications &  
Sustainability Officer



# 1.0 THE NEED TO ADAPT

The climate is changing. We are already being tested by extreme weather events, and we know our operations are vulnerable to climate risks.

Heathrow currently experiences a temperate climate, with cool, wet winters and warm, dry summers, and changeable weather that can bring storms and heavy rainfall in summer and winter. Since 2021, we have experienced several severe weather events which have highlighted our vulnerability to climate change - including the heatwave and high winds of 2022 and an extreme rainfall event in 2023. These events have informed our latest CCRA, published in 2024. Adaptation is necessary to continue to deliver the service our customers expect and to maintain global connectivity.

## EXTREME WEATHER AT HEATHROW



**1 High winds, February 2022:** Recorded hourly mean wind speed of 19m/s (43mph) and peak gusts of 31m/s (69mph) on 18th February 2022 during Storm Eunice. The airport experienced extensive disruption across multiple asset types. There were 131 flights cancelled and 367 flights delayed by more than 30 minutes.



**2 Extreme heat, July 2022:** Temperatures reached 40.2°C, placing a strain on our asset base.



**3 Extreme rainfall, June 2023:** 25mm of rain fell in two hours leading to widespread surface water accumulation, exacerbated by high groundwater levels. Reduced headroom in the drainage network meant it was unable to convey water away as effectively.



*The rapid manifestation of physical climate risks from extreme weather events, such as surface water flooding, which has disrupted multiple airports globally in recent years, underscores the urgency of action."*

Heathrow Annual Report & Accounts, 2024

## HOW IS CLIMATE CHANGE AFFECTING THE AVIATION SECTOR?

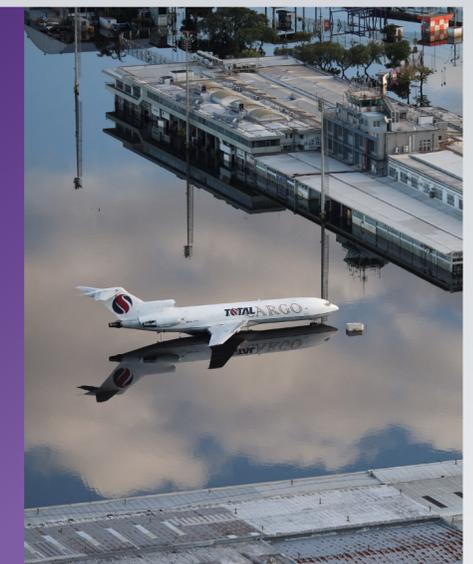
### Dubai International Airport, UAE

In April 2024, an extreme rainfall event led to flash flooding in Dubai. Areas of the airport were flooded, including the apron, causing the immediate cancellation of ~300 flights. Passengers within the airport were subject to extreme delays and experienced difficulty leaving the airport due to road conditions in the surrounding area.



### Salgado Filho International Airport, Brazil

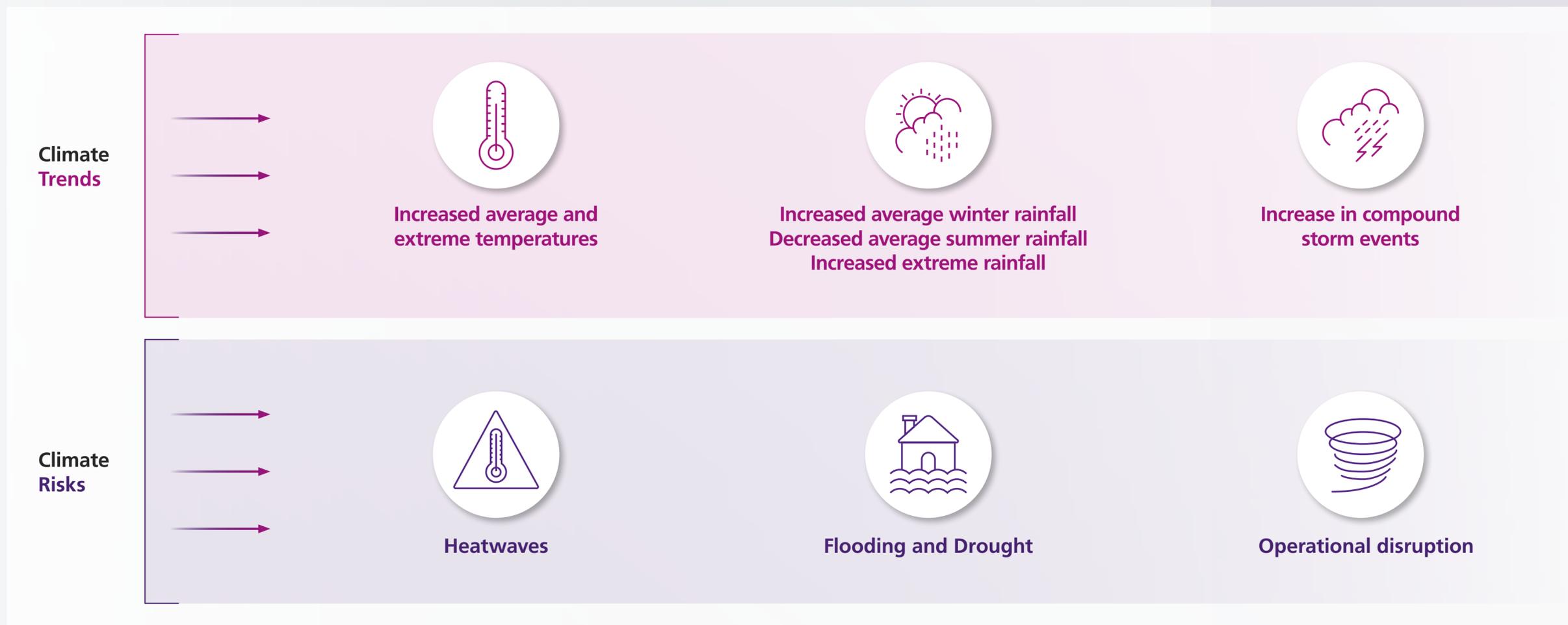
In May 2024, Southern Brazil was subject to extreme flooding from the Guaíba River. Flood waters entered the main terminal and fully submerged the runways and roads. The airport re-opened in October 2024 after being closed for 5 months due to impacts from flooding.



## 1.0 THE NEED TO ADAPT (CONTINUED)

The latest UK climate projections indicate that we will experience a challenging future. These projections are included within our scenario analysis and have informed the climate risk assessment which this strategy responds to (see [Chapter 3](#)). The climate trends and associated risks of most concern to us are shown opposite. Rainfall and flooding are our priority risk.

### THE CLIMATE TRENDS AND ASSOCIATED RISKS THAT WE ARE MOST EXPOSED TO



## 1.0 THE NEED TO ADAPT (CONTINUED)

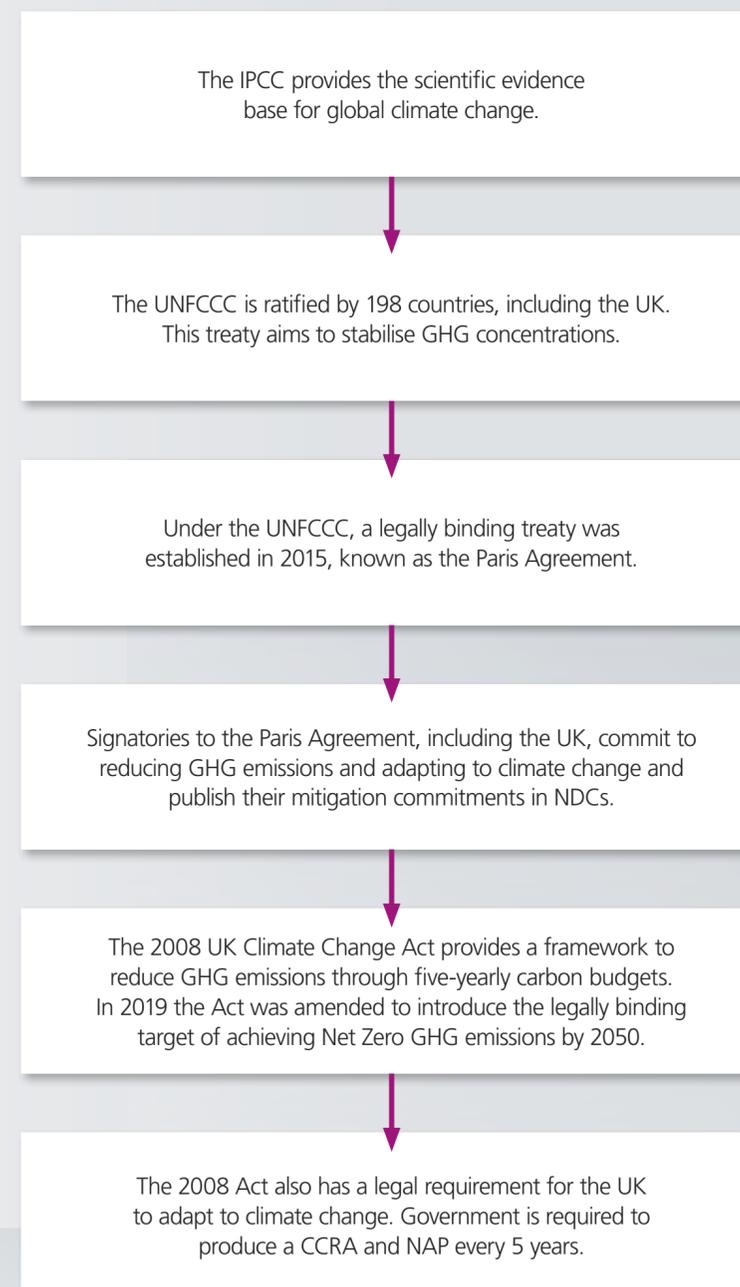
## CLIMATE ADAPTATION AT HEATHROW IN CONTEXT

At the global scale, growing evidence shows our climate is changing. The latest report from the Intergovernmental Panel on Climate Change (IPCC) states that human activities, principally through emissions of GHGs, have unequivocally caused global warming, with global surface temperature reaching 1.2°C above 1850-1900 by 2020. This has come at a cost to natural and human systems, with the World Meteorological Organisation reporting that the cost of extreme weather events in the decade up to 2019 rose to \$1.5 trillion, up from \$184 billion in the 1970s (numbers adjusted for inflation). The IPCC Sixth Assessment Report also concluded that global warming will continue to increase in the near term (2021–2040) under most scenarios modelled.

The global policy response to the threat of global warming is the United Nations Framework Convention on Climate Change (UNFCCC), to which the UK is a signatory. Under the Paris Agreement, the UK is required to prepare, communicate and maintain successive nationally determined contributions (NDCs) that it intends to achieve. NDCs describe the commitments and efforts by each country to reduce national emissions and adapt to the impacts of climate change.

Within the UK, we saw temperatures exceed 40°C for the first time in July 2022, and according to Met Office data, climate change is increasing the chance of extreme heat events occurring in the UK. There is also a similar trend in relation to rainfall. In the last 20 years, the UK experienced five of the 10 wettest years in a series since 1836. UK winters are also projected to be wetter, and summers drier – with rainfall intensity for both seasons projected to increase.

## CLIMATE ADAPTATION AT HEATHROW IN CONTEXT



The UK's policy approach to climate change and to meeting its NDCs under the Paris Agreement is set out in the Climate Change Act. The Act sets out the UK's legally binding net zero target by 2050, as well as successive interim targets (carbon budgets). Our Net Zero Plan aligns with the requirements of the Climate Change Act and projections published by the UK Climate Change Committee, the independent climate advisor to Government, used to inform carbon budgets. The Act also requires the UK Government to publish a national Climate Change Risk Assessment (CCRA) every 5 years with a National Adaptation Programme (NAP) to follow, and includes an Adaptation Reporting Power (ARP), whereby government can request critical national infrastructure owners to report on risks and adaptation progress. We have reported our risks from climate change and the adaptation actions we are taking under the ARP since the first round in 2011, with our latest fourth round submission to government made in 2024.

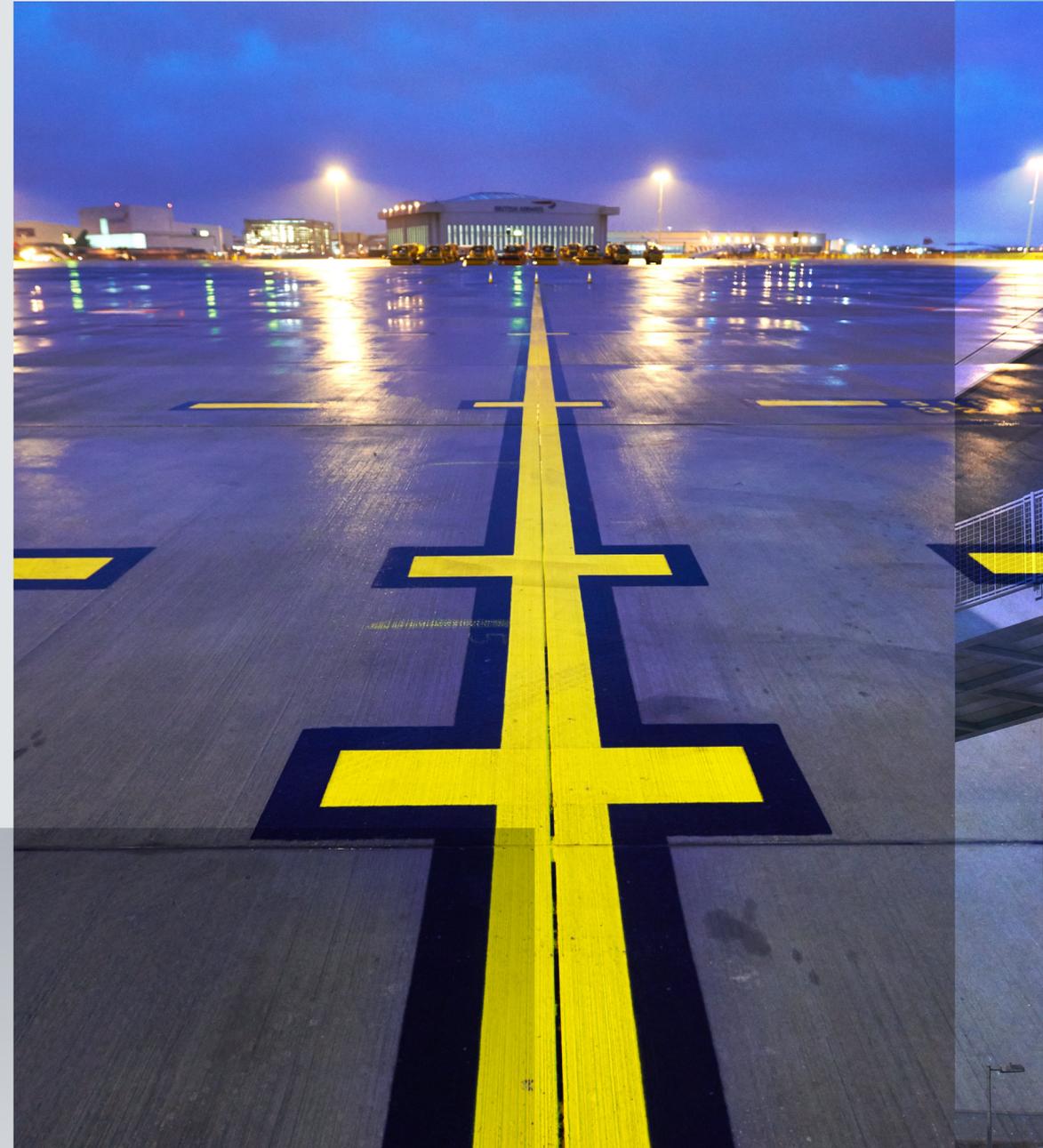
In April 2022, the Companies (Strategic Report) (Climate-related Financial Disclosure) Regulations 2022 amended the Companies Act 2006 and mandated large UK companies to include Climate-related Financial Disclosures ('CFD') as a part of their strategic reporting. These disclosures are aligned with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), which provide a framework for consistent and transparent reporting of climate-related risks and opportunities. We have disclosed our risks from climate change, both transition and physical risks, as part of our annual reporting since 2018.

## 1.0 THE NEED TO ADAPT (CONTINUED)

### CLIMATE ADAPTATION IN THE TRANSPORT SECTOR

At a transport sector level, the impact of climate change is evident, both in the UK and globally. Extreme weather events have led to red weather warnings advising against travel and have damaged transport infrastructure. In response the Department for Transport published an Adaptation Strategy in 2025. The Adaptation Strategy is based around three themes (Culture: Embedding climate risk; Economics: Making the case for adaptation; and Regulatory: Setting the long-term direction), with collaboration underpinning everything. Our Adaptation Strategy reflects the objectives of the sector-wide strategy, and our goals and actions align with the four themes.

Risks from climate change do not affect Heathrow in isolation. We are also exposed to climate risks indirectly through our interdependencies with other organisations, including those in our supply chain, utility providers, surface transport operators and in the global aviation network of which we are a part. Our latest ARP report used a systems mapping approach to identify and assess interdependency risks. This strengthens our broad understanding of how climate change could impact Heathrow.



# 2.0 ALIGNMENT WITH PEOPLE AND PLANET

## STRATEGIC ALIGNMENT WITH OUR NET ZERO PLAN

Our approach to climate change encompasses both mitigation and adaptation strategies that address the climate challenge holistically. Whilst our Net Zero Plan is well-established, we recognise the need to mature our approach to climate adaptation through the publication of this Adaptation Strategy.

**Our climate strategy now consists of two related documents:**



**Net Zero Plan:** Sets out how Heathrow will mitigate its Greenhouse Gas (GHG) emissions and support the aviation sector's pathway to net zero by 2050.



**Climate Adaptation Strategy:** Addresses how we prepare for and respond to the impacts of climate change.

We are consciously taking steps to deliver adaptation through our investment in delivering a net-zero Heathrow and building adaptation into normal asset replacement cycles so we can strengthen long-term resilience cost effectively.



## 2.0 ALIGNMENT WITH PEOPLE AND PLANET (CONTINUED)

### DELIVERING CO-BENEFITS ACROSS OUR SUSTAINABILITY STRATEGY

Our Adaptation Strategy complements other Heathrow strategies. We have taken a systems approach engaging with stakeholders across the business to understand the interactions across different areas of planning, infrastructure development, and operations. This has helped us identify co-benefits and opportunities to deliver adaptation efficiently. These include:

- 1. Net Zero Plan:** Electrification is the foundation of our approach to decarbonising our airport and is reliant on our power and electrical systems being resilient to climate risks. Actions within this Adaptation Strategy consider the interdependent nature of our infrastructure systems. This ensures that future increases in demand and cooling requirements do not impact on our electricity supply, as well as ensuring the wider electricity system is addressing climate risks that may affect our supply.
- 2. Surface Access Strategy:** Delivering climate resilient surface access through adapting our infrastructure and responses will help us to maintain services during extreme weather and continue to increase our public passenger mode share. Understanding our interdependencies with the wider rail and road networks are necessary to manage cascading disruption at Heathrow and improve our response to congestion and air quality impacts.
- 3. Nature Positive Plan:** Working with nature-based solutions to manage flood risk both within the airport boundary and in surrounding catchments is central to our Adaptation Strategy. As well as reducing flood risk, these solutions will also provide nature benefits through improving biodiversity, air quality and carbon sequestration.
- 4. Noise Action Plan:** Severe weather events and hotter temperatures can lead to network delays and impacts on aircraft performance, all of which can lead to scheduling delays and an increase in night flights. We can help to reduce these impacts on local communities through working with other aviation stakeholders to improve our operational response.



# 3.0 MANAGING CLIMATE RISK AT HEATHROW

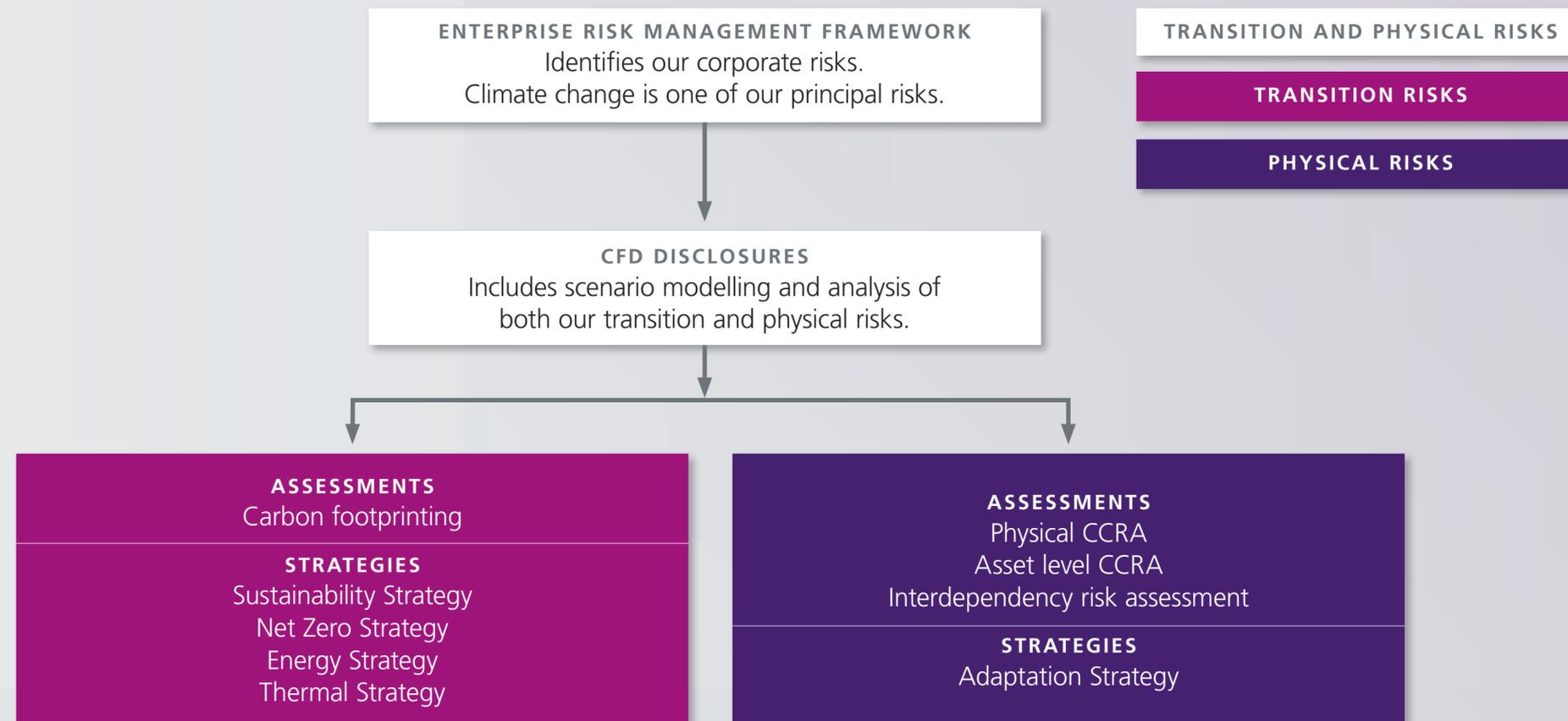
## OUR APPROACH

Adapting to climate change is inherently risk-based. We have integrated climate risks into our Enterprise Risk Management Framework where climate change is considered our most significant mid to long-term risk. To understand the consequences for the business, we use scenario analysis to assess both transition and physical risks and detail these within our Climate-related Financial Disclosures ('CFD').

Physical risks are assessed through our physical CCRA which we update regularly and forms the basis of our submission to the UK Government to meet the requirements of the Adaptation Reporting Power (ARP) under the UK Climate Act. In the latest round of reporting, ARP4, we expanded our assessment to include an interdependency risk assessment that identifies where we may be vulnerable to cascading climate risks. We also undertake more granular asset-level CCRA's which are informed by detailed modelling of climate hazards to understand the resilience of critical assets.



### OUR APPROACH TO MANAGING AND REPORTING ON CLIMATE RISKS



## 3.0 MANAGING CLIMATE RISK AT HEATHROW (CONTINUED)

### OUR RISK PROFILE

#### HEATHROW'S PRIORITY CLIMATE RISK

##### **Our priority climate risk is rainfall and flooding.**

Through our drainage and flood modelling, asset level CCRA, and our latest physical CCRA in 2024, we have consistently assessed flood risk to the airport as high. This is due to the widespread nature of flood risk to our operations, with potential to impact on critical elements of the passenger journey from surface access through to terminal and airfield operations.

**Surface water flooding** can be caused by a number of factors, some of which are outside of our control and form part of our interdependencies with the wider catchment area. For example, the overwhelming of our drainage system can be caused by high groundwater levels across the Colne river catchment, or by discharge restrictions linked to the combined sewer network and storm overflow systems in the external water authority catchment. Critical assets such as subsurface infrastructure (e.g. baggage, road and rail tunnels) and IT assets can be especially impacted by **groundwater flooding** and infiltration.

#### OUR OTHER CLIMATE RISKS

Other climate risks identified in our 2024 physical CCRA include storm events and heat risks.

Compound **storm events** occur when lightning, wind and intense rainfall coincide. This can cause disruption to operations and safety risks to operational staff e.g., from foreign object debris (FOD), or lightning strikes. Storms and high winds can lead to network delays or flow rate restrictions being imposed, which affect our airspace operations. This increases the likelihood of scheduling disruption and increased night flights affecting communities.

Projections for maximum temperature suggest that a 40°C temperature threshold will be exceeded more frequently leading to increased **heat risks**. These high temperatures are exacerbated by the urban heat island effect around Heathrow, where surfaces like runways and buildings absorb and retain heat, making the airport area warmer than surrounding areas. Sustained heatwaves negatively affect passenger experience, civil structures, and the health and safety of staff and contractors. High temperatures can affect the operation of our power and electrical infrastructure and lead to increased cooling demands for equipment and IT assets, such as data centres. Our water supply can also be impacted by higher water temperatures affecting water quality and borehole availability.

Our interdependency analysis shows that we are also vulnerable to **cascading climate risks**. The interdependency analysis highlighted several key risks and interfaces with other organisations, where we have less control in managing, mitigating and responding to climate hazards. This leaves us vulnerable to cascading risk or in-combination impacts which may exacerbate direct risks from hazards such as rainfall and heat. A weather event impacting on critical infrastructure supplying the airport could lead to significant disruption and even closure of the airport. Our priority interdependencies are the impact of catchment management on flood risk at the airport, and the resilience of the electricity supply to the airport to extreme weather.



## 3.0 MANAGING CLIMATE RISK AT HEATHROW (CONTINUED)

## SCENARIO PLANNING

**Climate change risks will increase into the future. How much this happens will depend on future emissions scenarios and our level of adaptation.**

While the effects of climate change and the global response to it are uncertain, well adapting organisations make risk-based decisions on an understanding of the range of potential change they might face. We use scenario planning to understand the level of uncertainty we face and guide our response. This aligns with the recommendations of the CFD. We have developed our climate scenarios in collaboration with Oxford Economics, using their Global Economic Model which integrates climate, energy systems and the global economy, to assess the economic impacts of climate change.

We have used these scenarios - ranging from a Net Zero-aligned 1.6°C pathway to a 2.2°C climate catastrophe scenario - as part of our CFD disclosure on the transition and physical risks summarised within our Annual Report & Accounts. These scenarios reflect varying levels of global climate policy ambition and their projected impacts on temperature rise through to 2050 and associated risks to Heathrow's operations. Our latest physical CCRA is aligned with these scenarios, whilst also incorporating data available from the United Kingdom Climate Projections 2018 (UKCP18) for different Representative Concentration Pathways (RCPs) and time periods.

## HEATHROW'S CLIMATE SCENARIOS

## NET ZERO 1.6°C



This scenario represents our strategic aims and follows our Net Zero Plan. It aligns with the growing body of scientific opinion including findings by the United Nations Intergovernmental Panel on Climate Change ('IPCC') of a slight overshoot of 1.5°C degrees by 2050. As a result, this 1.6°C scenario presents a more cautious outlook for Heathrow, as it anticipates more severe impacts and increased pressures on passenger demand compared to a 1.5°C scenario. By adopting this approach, we aim to ensure a resilient and robust plan for achieving net zero by 2050, safeguarding the business against potential challenges associated with less optimistic climate projections.

Note: Heathrow's 2024 CFD scenarios which closely align with RCPs. Temperature rises for each scenario are at 2050.

## ANNOUNCED POLICY 1.9°C



This scenario acts as a reference point, illustrating the climate pathway under individual country government and global policies, as of March 2024, the forecast reflects the stated policy environment, considering policy commitments that are sufficiently detailed to be realised. It assumes no further policy changes.

## CLIMATE CATASTROPHE 2.2°C



This scenario assumes international governments fail to meet their climate policy pledges and that the concentration of greenhouse gas emissions ('GHG') in the atmosphere intensifies. It assumes higher global warming levels, more extreme temperature volatility and an acceleration of frequent extreme heat events that cause complex physical damage.



# 4.0 IMPACT ON OUR BUSINESS

We have built on our CCRA's by adopting a participatory system mapping process to understand how climate risks will impact on our operations and assets and the linkages to our operational and performance metrics. The outcome of the assessment indicates that without action, climate change will make it harder for us to maintain our standards and deliver on our business strategy. We have mapped climate risks against our business strategy, including our beacons and foundations.

A summary of the mapping is included opposite.

## WHERE WILL THE IMPACTS OF CLIMATE CHANGE BE FELT AT HEATHROW?

### OUR BEACONS



Value for Customers

- Impacts to airspace operations and services we provide can affect the passenger experience.
- Temperature-sensitive cabin conditions impact on-time performance impacting passenger satisfaction.



People and Planet

- Storm events and disruption to our network can affect flight scheduling, increase the number of night flights required and reduce the number of nights without noise.



Winning Team

- High temperatures and severe weather affecting working conditions or access to the airport can impact our colleague engagement scores.



Focus to go Faster

- Extreme weather will lead to impacts across our asset base, increasing operating costs through contingency actions and increased maintenance requirements.



Creating Capacity

- Adapting to flood risk will require us to invest in nature-based solutions and account for green space and flood protection within our Masterplanning.



Digital Future

- Expanding our data collection to account for climate risks is a central part of our strategy. However, our increasing use of data and monitoring technology means that the resilience of our IT assets is increasingly critical to our operations.

### OUR FOUNDATIONS

#### Safety, Security and Compliance

- Severe weather is a particular risk for staff working outdoors and can increase exposure to close call incidents.
- Keeping colleagues safe during periods of extreme heat can result in project delays and compressed programmes.
- Widespread flooding can create safety risks for passengers or staff as part of incident response.

#### Service and Operations

- Our asset base is reliant on the effective operation of our electrical and mechanical assets and IT systems, which can be impacted by heat and flood risks.
- All climate risks affecting our assets and airspace operations can cause network delays and impact on scheduling.

#### Governance and Financial Resilience

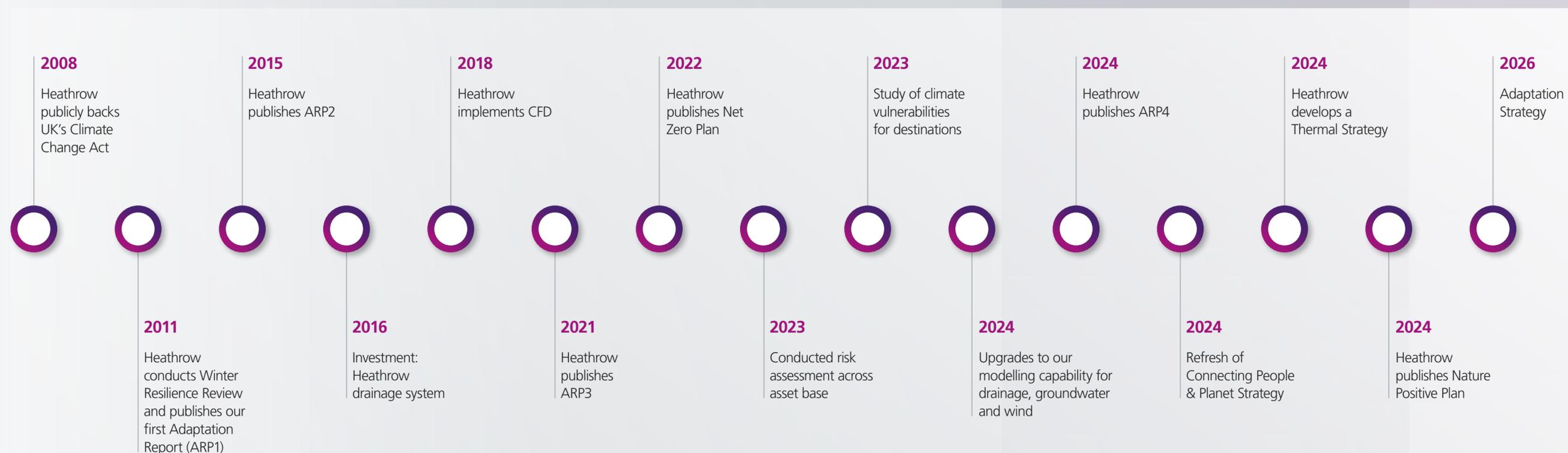
- Climate-related disruptions to operations and project delivery reduce passenger and cargo throughput, directly impacting revenue.
- After a severe weather event, enacting our contingency measures and post-event recovery will drive up costs.

# 5.0 OUR ADAPTATION JOURNEY

## WHAT HAVE WE DONE ALREADY?

We published our first climate adaptation report in 2011 in response to the first ARP of the UK Climate Change Act. We have gone on to issue more comprehensive reports, the most recent in 2024, and enhanced our focus on adaptation in recent years. Our adoption of the recommendations of the TCFD in 2018 strengthened our approach to climate risk, and climate risks are fully embedded within Heathrow's Enterprise Risk Management Framework and considered within our Governance structure. We are now assessing climate risk at a more detailed level, undertaking detailed modelling of the projected effects of climate change on the airport to enable us to understand where to strengthen our risk mitigation and guide our future planning and investment.

## OUR JOURNEY

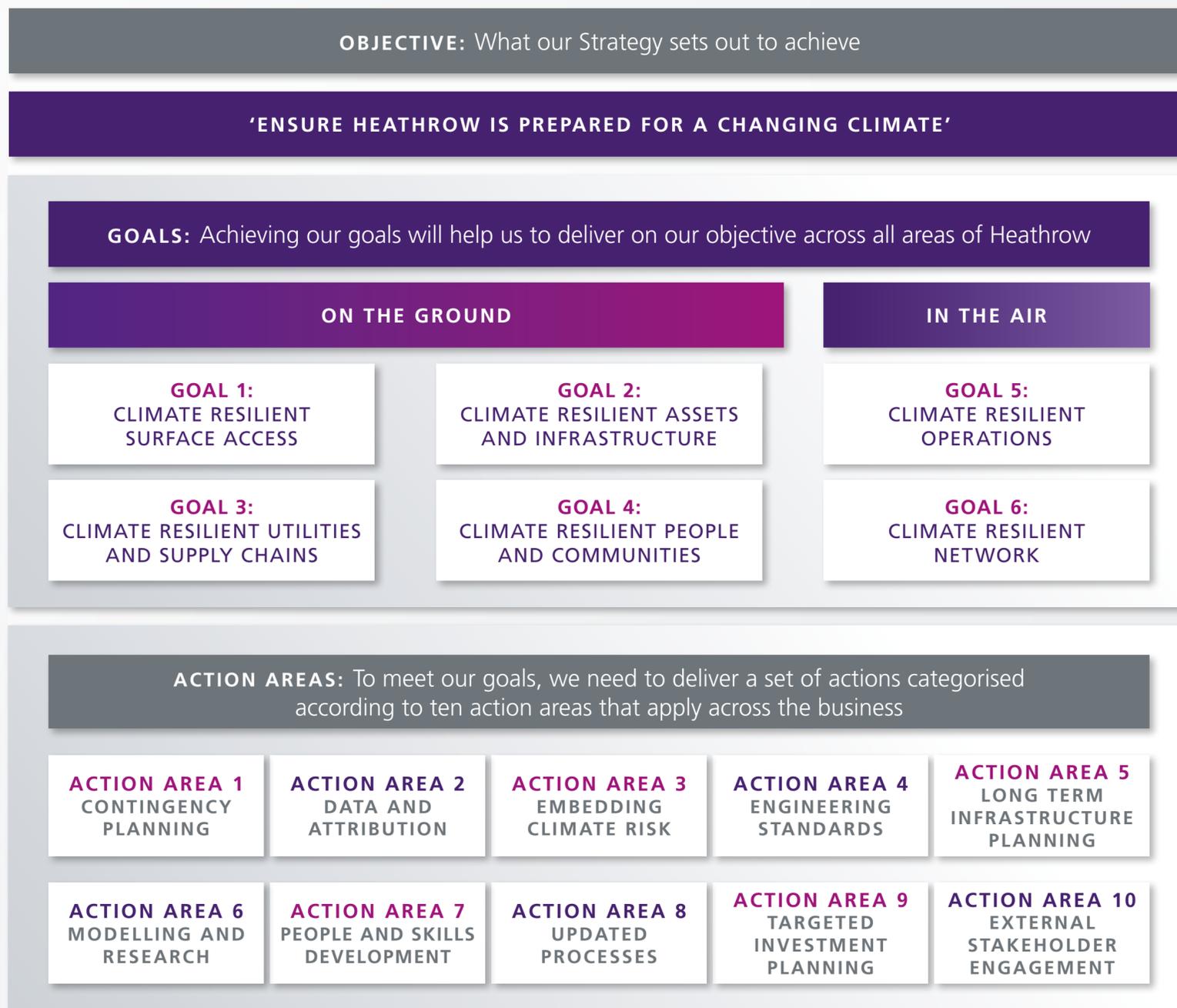


# 6.0 OUR APPROACH TO ADAPTATION

## OUR ADAPTATION STRATEGY

Our first Adaptation Strategy focuses on integrating adaptation into how we run our business so we can make informed decisions that consider the risks and impact of a changing climate and deliver enhanced mitigation where required more cost effectively. Our strategic framework is summarised opposite.

## OUR OBJECTIVES, GOALS AND ACTIONS



Our objective is to 'Ensure Heathrow is Prepared for a Changing Climate'. This will require Heathrow to be a well adapting place which integrates risk-based decision making and scenario planning into our operations and long-term development. This will enable better customer journeys, thriving communities, and global connectivity in a changing climate.

To meet our objective, we must ensure that Heathrow is well-adapted as a system, with specific goals to become climate resilient both **'On the ground'** and **'In the air'**.

To meet our goals, we need to deliver a set of actions categorised according to ten action areas that apply across the business. Actions have been prioritised according to the following criteria:

- **Urgency** - where actions respond to priority risks identified within our CCRA, such as flooding.
- **Achievability** - where actions are largely within our power to achieve or rely heavily on other stakeholders.

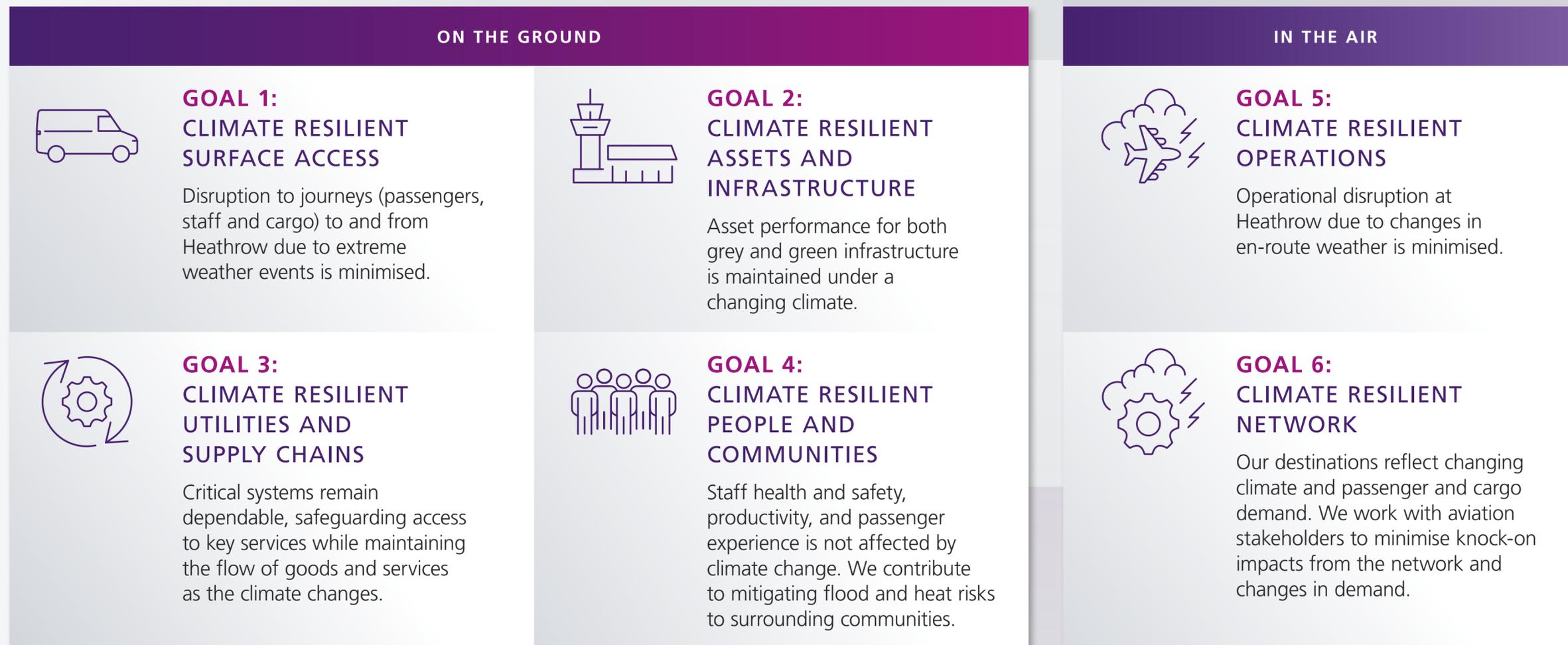
Each action has a time-based target to enable us to monitor and review performance in meeting our goals. Internally, actions are broken down into greater detail with ownership assigned to different business functions to create a clear delivery plan. We will review the strategy regularly to allow us to monitor progress against targets and include updates as we build further understanding and capability. These reviews will consider any changes to our risk profile captured in updates to our physical CCRA, as well as any changes to funding that occur through H7 and into H8.

## 6.0 OUR APPROACH TO ADAPTATION (CONTINUED)

## OUR GOALS AT A GLANCE

Our Adaptation Strategy aims to adapt to climate risks **on the ground** and **in the air**. These aims are split into the six goals opposite, each focusing on a different part of our operations and infrastructure.

## OUR GOALS: ADAPTING ON THE GROUND AND IN THE AIR



## 6.0 OUR APPROACH TO ADAPTATION (CONTINUED)

### OUR ACTION AREAS

To achieve our goals, we must act. Our planned actions fit under 10 action areas. In the following sections, we describe the detailed actions we will take to deliver our goals and our delivery roadmap.

# OUR ACTION PLAN AND TARGETS

## ACTION AREA 1: CONTINGENCY PLANNING

**Our approach:** We currently have loss of asset and adverse weather plans in place as part of our operational resilience response. We need to review these by testing them fully against climate risks and strengthening where necessary – with flood risk as a priority.

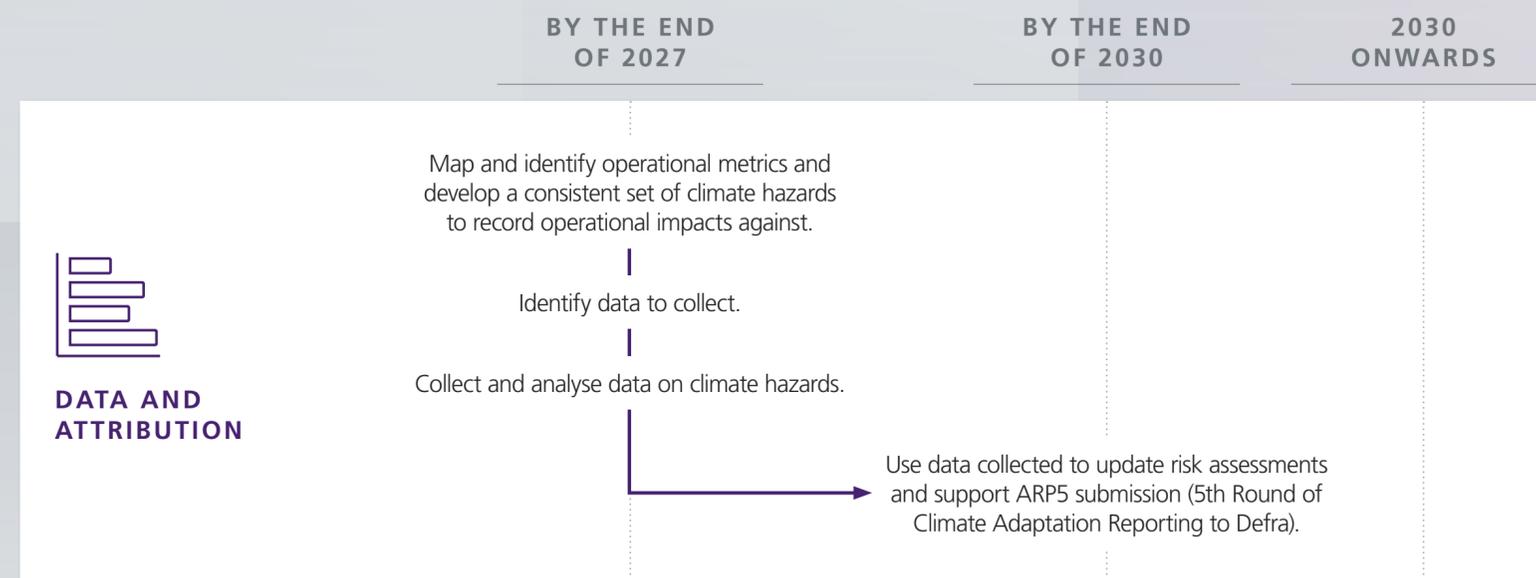
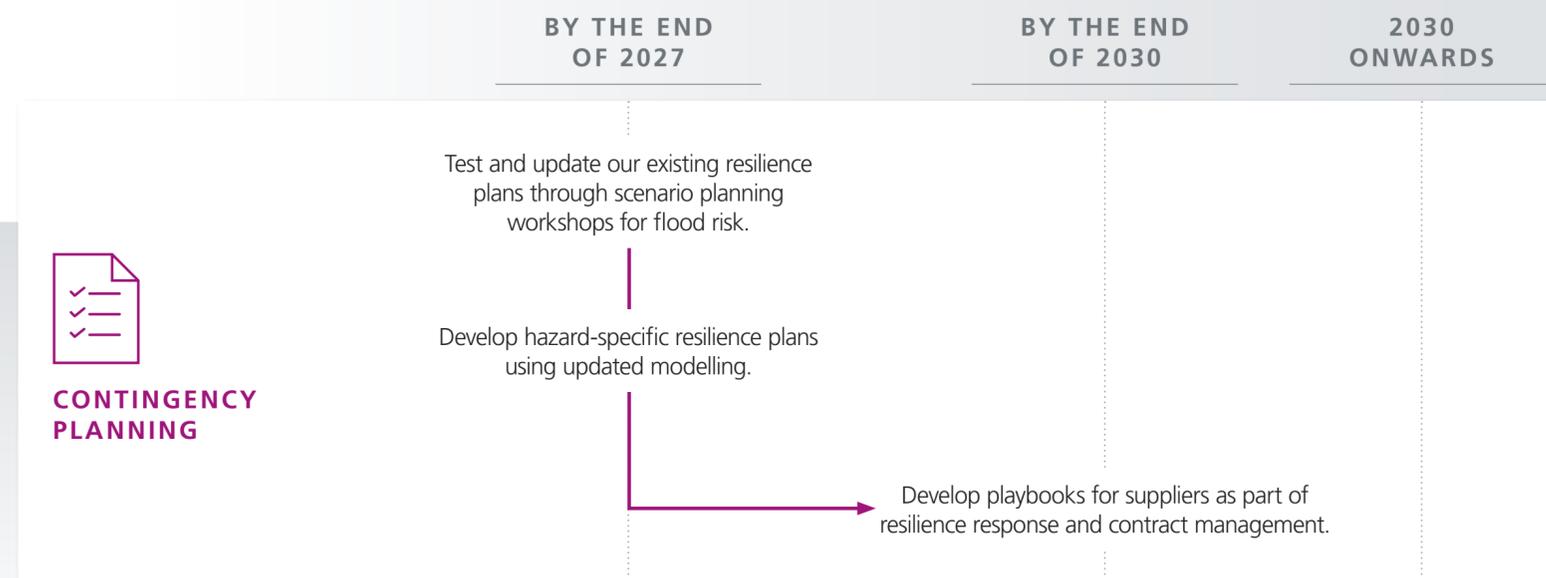
Our resilience plans will be informed by the output from updated flood modelling ([see action area 6](#)). We will also consider other climate risks, such as heat and storm events. Our resilience planning will take interdependency risks identified in our latest ARP4 risk assessment into account and we will look to include climate risk into our contingency planning with providers of critical services identified in our interdependency risk assessment.

## ACTION AREA 2: DATA AND ATTRIBUTION

**Our approach:** Heathrow operational teams collect data that is linked to our key performance metrics and includes system and asset availability and operational airfield performance. Generally, where weather related impacts on performance metrics are required, this is done through root cause analysis, however data collection and usage needs to be more consistent to fully assess and manage climate risks. Improving our data will support our use of climate metrics to inform decision-making and planning.

Our starting point is to create a consistent framework for understanding climate hazards across all our key operational and performance metrics working with our operational and data teams. We will develop and test methodologies to attribute performance trends to climate hazards to help us better understand the impact of climate on our performance and business.

These data improvements will be used to inform our next Adaptation Reporting submission (ARP5) and provide a more mature evidence-base to assess climate risks.



OUR ACTION PLAN AND TARGETS (CONTINUED)

**ACTION AREA 3:  
EMBEDDING CLIMATE RISK**

**Our approach:** We have made significant progress in embedding climate risk management into our business over the last ten years. Our approach is now aligned with the recommendations of the TCFD, now CFD in the UK, and we disclose physical climate risks and transition risks in our Annual Report & Accounts.

As we deepen our understanding of climate impacts on Heathrow, we will embed this knowledge within our Enterprise Risk Management Framework and also update functional risk registers. Progress has already been made in priority areas including a focused risk assessment of our asset base.

**ACTION AREA 4:  
ENGINEERING STANDARDS**

**Our approach:** Engineering standards are used to ensure that our infrastructure assets are resilient to future climate. We will strengthen our existing standards and provide guidance on relevant climate parameters to ensure new assets and infrastructure are designed to operate effectively in the context of changing climate risks. As our understanding of risk matures we will further refine our standards.

For example, by updating our standards to account for projected temperature increases, we can ensure that our surface access infrastructure (e.g. trains and stations), electricity infrastructure and IT infrastructure (e.g. data centres) are resilient to heat risks. Our standards are reviewed in three-year cycles. This process will allow us to gradually incorporate specific adaptation requirements across our asset base.

BY THE END  
OF 2027

BY THE END  
OF 2030

2030  
ONWARDS



**EMBEDDING  
CLIMATE RISK**

Strengthen the incorporation of flood risks within our Enterprise Risk Management Framework.

Continue to embed all climate risks within our Enterprise Risk Management Framework.

BY THE END  
OF 2027

BY THE END  
OF 2030

2030  
ONWARDS



**ENGINEERING  
STANDARDS**

Introduce text on adaptation requirements into standards, including climate parameters.

Set climate design thresholds and develop guidance on climate parameters to use in design of new assets or updates to existing assets.

OUR ACTION PLAN AND TARGETS (CONTINUED)

**ACTION AREA 5:  
LONG TERM INFRASTRUCTURE PLANNING**

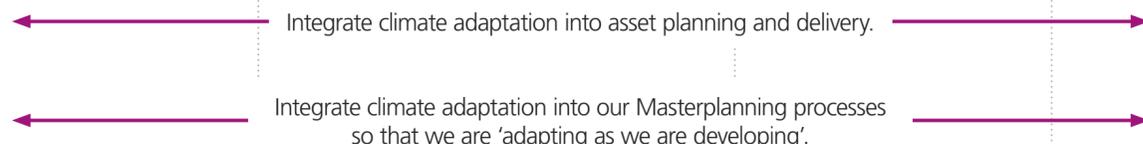
**Our approach:** We will build resilience into our plans to expand and modernise the airport. Our plans will account for the potential increased risk to new assets from hazards such as flooding and heat over their lifespan. They will deliver enhancements that address climate risks, including surface water runoff and flood management interventions such as onsite Sustainable Urban Drainage Systems (SuDS) and landscaping to help increase retention on site. These requirements will be reflected within our asset management strategies, project delivery frameworks and in contracts with our supply chain ([action area 8](#)).

It is important that climate adaptation, biodiversity net gain and nature-based solutions are considered systemically in the planning, delivery, operation, use and end of life of assets. Evaluating them in isolation could risk conflict and unintended consequence across the system or miss opportunities and co-benefits. We will look at opportunities to embed climate risk and adaptation within our overall approach to asset and infrastructure design and delivery, building on our existing efforts to embed carbon management into asset and infrastructure delivery and using our Carbon Management Standard based on the PAS2080 standard. We have already used climate scenarios in the strategy for decarbonising our heating and cooling assets, so solutions are able to meet future projected increases in temperature.

BY THE END OF 2027      BY THE END OF 2030      2030 ONWARDS



**LONG TERM  
INFRASTRUCTURE  
PLANNING**



**ACTION AREA 6:  
MODELLING AND RESEARCH**

**Our approach:** Modelling and research is central to our risk-based approach to adaptation as it helps us refine our understanding of the risks we face and where we need to prioritise action.

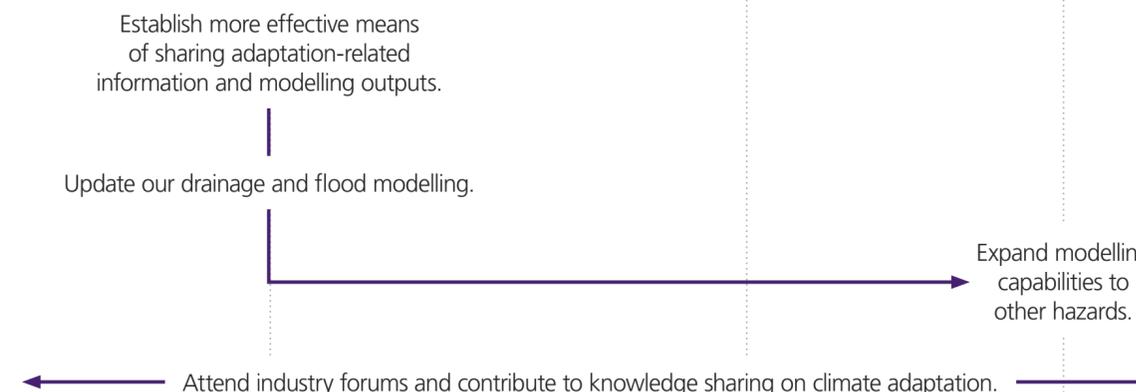
In recent years, we have invested to upgrade our modelling capability which includes improvements to existing drainage models and new groundwater and wind modelling tools. We will create a dedicated forum to share these outputs with key engineering and operations teams to ensure that our understanding of climate risk is developed across the business and is fed into operational resilience planning and updates to our CCRA (see action areas [1](#) and [9](#)).

We are seeking to develop a new online 2D/3D drainage model and integrated surface water and groundwater models to improve our understanding of flood pathways and impacts which our current drainage model is unable to provide. Although flooding is our priority, we will need to expand our modelling capabilities for other climate hazards such as heat and storm events in the future. We will also continue to engage with institutional bodies and industry forums to further expand our understanding of climate risks and learn from best practice in adaptation.

BY THE END OF 2027      BY THE END OF 2030      2030 ONWARDS



**MODELLING  
AND RESEARCH**



OUR ACTION PLAN AND TARGETS (CONTINUED)

**ACTION AREA 7:  
PEOPLE AND SKILLS DEVELOPMENT**

**Our approach:** Across Heathrow, investment continues in enhancing our approach to risk and enhancing our resilience. As our understanding and approach matures, our skills and capability may also need to adapt in response.

An initial priority is to continue to raise awareness and understanding of climate risks for key colleagues and teams. We will undertake a needs assessment to identify gaps in knowledge and competence needed to deliver the strategy and will look for modern, technology-enabled methods to address them.

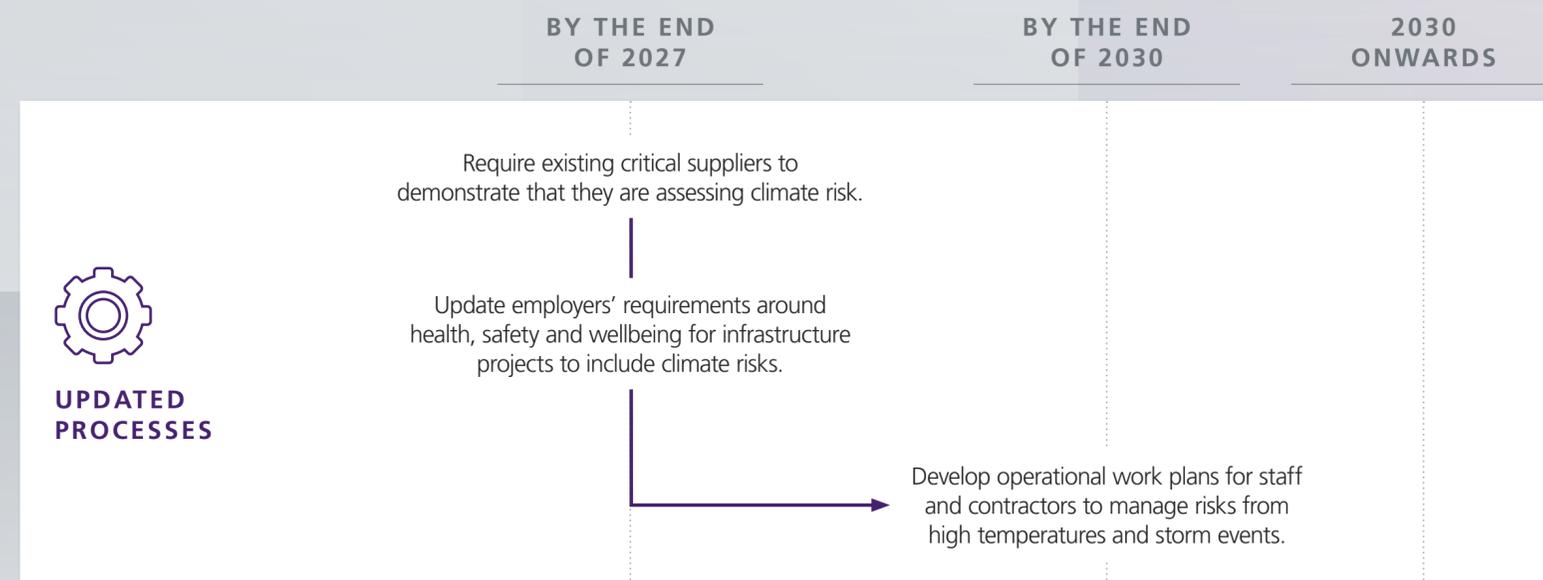
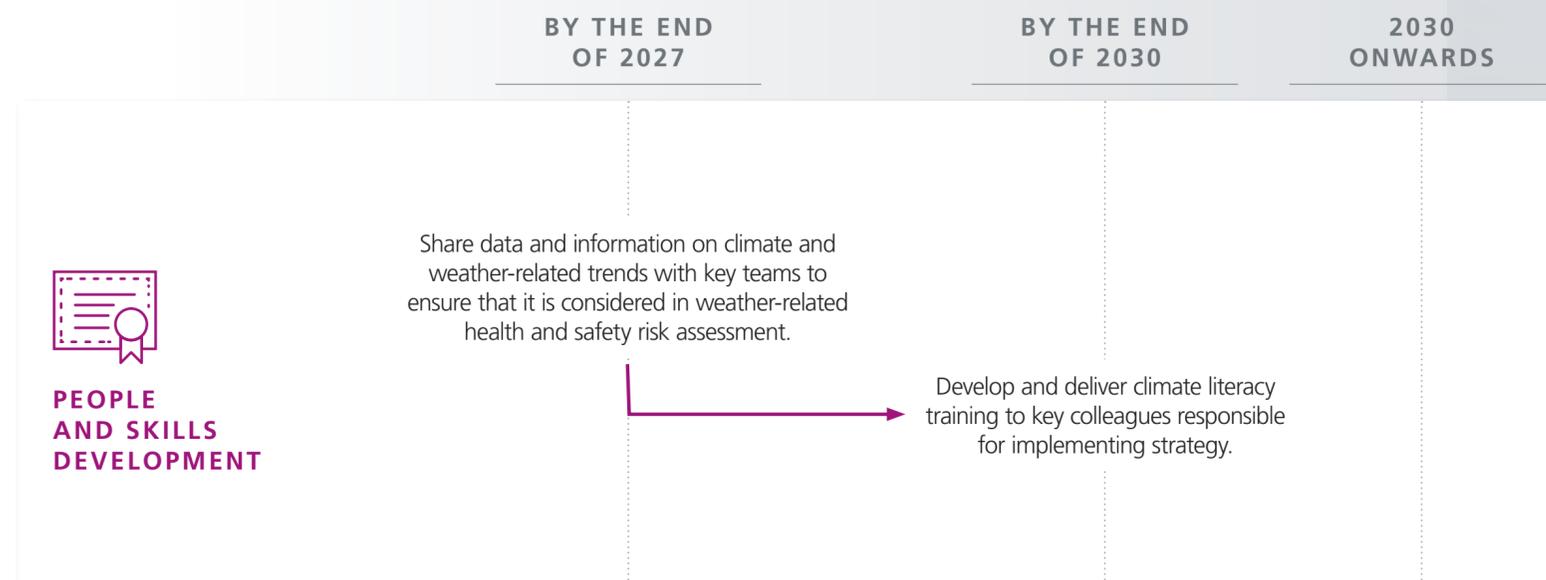
We will develop targeted training materials and other knowledge assets as appropriate, such as the provision of climate data repositories to support staff in implementing updated processes (e.g. standards – [action area 4](#)).

We will share data and information on climate and weather-related trends with key teams to feed into weather related health and safety risk assessment.

**ACTION AREA 8:  
UPDATED PROCESSES**

**Our approach:** We are exposed to many interdependencies and climate risks which are beyond our immediate control. It is important that our processes, including managing our contractors and supply chains, reflect our growing understanding of risks so these can be managed effectively. An initial area of focus is to update supplier resilience profiles to ensure that supplier’s document their approach to climate risk assessment and adaptation planning.

Similarly, we need to ensure project requirements for health and safety take account of climate risks. We already include requirements for contractors to manage health and safety risks from weather by ensuring that outdoor staff are provided with sufficient shading and cooling in high temperatures. However, we need to ensure operational work plans cover multiple climate risks.



OUR ACTION PLAN AND TARGETS (CONTINUED)

**ACTION AREA 9:**  
TARGETED INVESTMENT PLANNING

**Our approach:** We aim to deliver adaptation as part of our normal investment cycles. Where specific investments in climate adaptation are identified they will be included in our business plan which is subject to regulatory approval. Investment need will be guided by our asset and physical CCRA, supported by the data we collect on weather and climate related impacts ([action area 2](#)). We are committed to regularly reviewing and updating our risk assessments and adaptation actions in this strategy as well as our asset level CCRA. For example, we have taken steps since our previous asset CCRA to understand in greater detail how our IT assets will be affected by climate risks.

We have already delivered investment to respond to climate change, for example improving our drainage and water storage capacity in the Southern Catchment programme. By using modelling outputs ([action area 6](#)) to identify critical weather-affected assets, we can identify where we need to strengthen mitigation and build that into investment planning. Where possible, we will target investments which deliver co-benefits to meet other strategic goals within our Nature and Net Zero strategies. We already use wetlands to increase our treatment capacity whilst delivering biodiversity and carbon benefits and there are further opportunities to align investments in green infrastructure with associated benefit to surrounding communities.

**ACTION AREA 10:**  
EXTERNAL STAKEHOLDER ENGAGEMENT

**Our approach:** We will build on our existing engagement with key stakeholders to strengthen contingency planning and address our climate interdependencies. We already work with catchment stakeholders to ensure that our flood mitigation does not impact on communities and maintain compliance with our discharge licenses. We plan to communicate the outputs and share our Adaptation Strategy with our local community.

To mitigate flood risks, we will continue to support catchment management planning through avenues such as the River Basin Management Plan to collaboratively develop catchment-wide solutions.

This aligns with the commitments within our Nature Positive Plan to increase resilience through investments in nature. We will also engage with critical suppliers in power, IT and water and our transport sector stakeholders to understand how climate risks are being addressed and captured in contingency planning.

Similarly, we need to continue working with other aviation stakeholders to improve airspace resilience beyond our direct control, such as through engagement with the ACI Europe led Climate Adaptation Working Group.

BY THE END OF 2027

BY THE END OF 2030

2030 ONWARDS



**TARGETED INVESTMENT PLANNING**

Update our asset-level CCRA to account for asset criticality, as well as climate hazards.

Review the CAA's proposals for Heathrow's next regulatory period, H8, and engage with the CAA and our airline customers to appropriately prioritise investment in adaptation.

BY THE END OF 2027

BY THE END OF 2030

2030 ONWARDS



**EXTERNAL STAKEHOLDER ENGAGEMENT**

Engage with Local Authorities and community groups to share adaptation plan.

Work with critical suppliers to strengthen climate-related contingency planning and manage interdependencies.

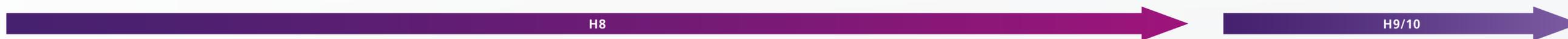
Engage with stakeholders in catchment planning to mitigate flood impacts at Heathrow.

Work with airlines to strengthen climate-related contingency planning and manage interdependencies.

OUR ACTION PLAN AND TARGETS (CONTINUED)

SUMMARY OF ACTIONS

Our roadmap highlights the path that we will take to deliver the Adaptation Strategy. All of our action areas work together to enable us to achieve our goals.



ACTION AREA	CCRA4 SUBMISSION		ARPS SUBMISSION	
	BY THE END OF 2027		BY THE END OF 2030	2030 ONWARDS
 CONTINGENCY PLANNING	Test and update our existing resilience plans through scenario planning workshops for flood risk.	Develop hazard-specific resilience plans using updated modelling.	Develop playbooks for suppliers as part of resilience response and contract management.	
 DATA AND ATTRIBUTION	Map and identify operational metrics and develop a consistent set of climate hazards to record operational impacts against.	Identify data to collect Collect and analyse data on climate hazards.	Use data collected to update risk assessments and support ARPS submission (5th Round of Climate Adaptation Reporting to Defra).	
 EMBEDDING CLIMATE RISK	Strengthen the incorporation of flood risk within our Enterprise Risk Management Framework.	Continue to embed all climate risks within our Enterprise Risk Management Framework.		
 ENGINEERING STANDARDS	Introduce text on adaptation requirements into standards, including climate parameters.		Set climate design thresholds and develop guidance on climate parameters to use in design of new assets or updates to existing assets.	
 LONG TERM INFRASTRUCTURE PLANNING	<p>← Integrate climate adaptation into asset planning and delivery. →</p> <p>← Integrate climate adaptation into our Masterplanning processes so that we are 'adapting as we are developing'. →</p>			
 MODELLING AND RESEARCH	Establish more effective means of sharing adaptation related information and modelling outputs.	Update our drainage and flood modelling. Attend industry forums and contribute to knowledge sharing on climate adaptation.		Expand modelling capabilities to other hazards.
 PEOPLE AND SKILLS DEVELOPMENT	Share data and information on climate and weather-related trends with key teams to ensure that it is considered in weather related health and safety risk assessment.		Develop and deliver climate literacy training to key colleagues responsible for implementing strategy.	
 UPDATED PROCESSES	Require existing critical suppliers to demonstrate that they are assessing climate risks. Update employers' requirements around HS&W for infrastructure projects to include climate risks.		Develop operational work plans for staff and contractors to manage risks from high temperatures and storm events.	
 TARGETED INVESTMENT	Update our asset level CCRA to account for asset criticality, as well as climate hazards. Ensure required adaptation investment is included in business plans for regulatory settlement periods.			
 EXTERNAL STAKEHOLDER ENGAGEMENT	Engage with Local Authorities and community groups to share Adaptation Strategy. Work with critical suppliers to strengthen climate-related contingency planning and manage interdependencies. Engage with stakeholders in catchment planning to mitigate flood impacts on Heathrow. Work with airlines to strengthen climate-related contingency planning and manage interdependencies.			

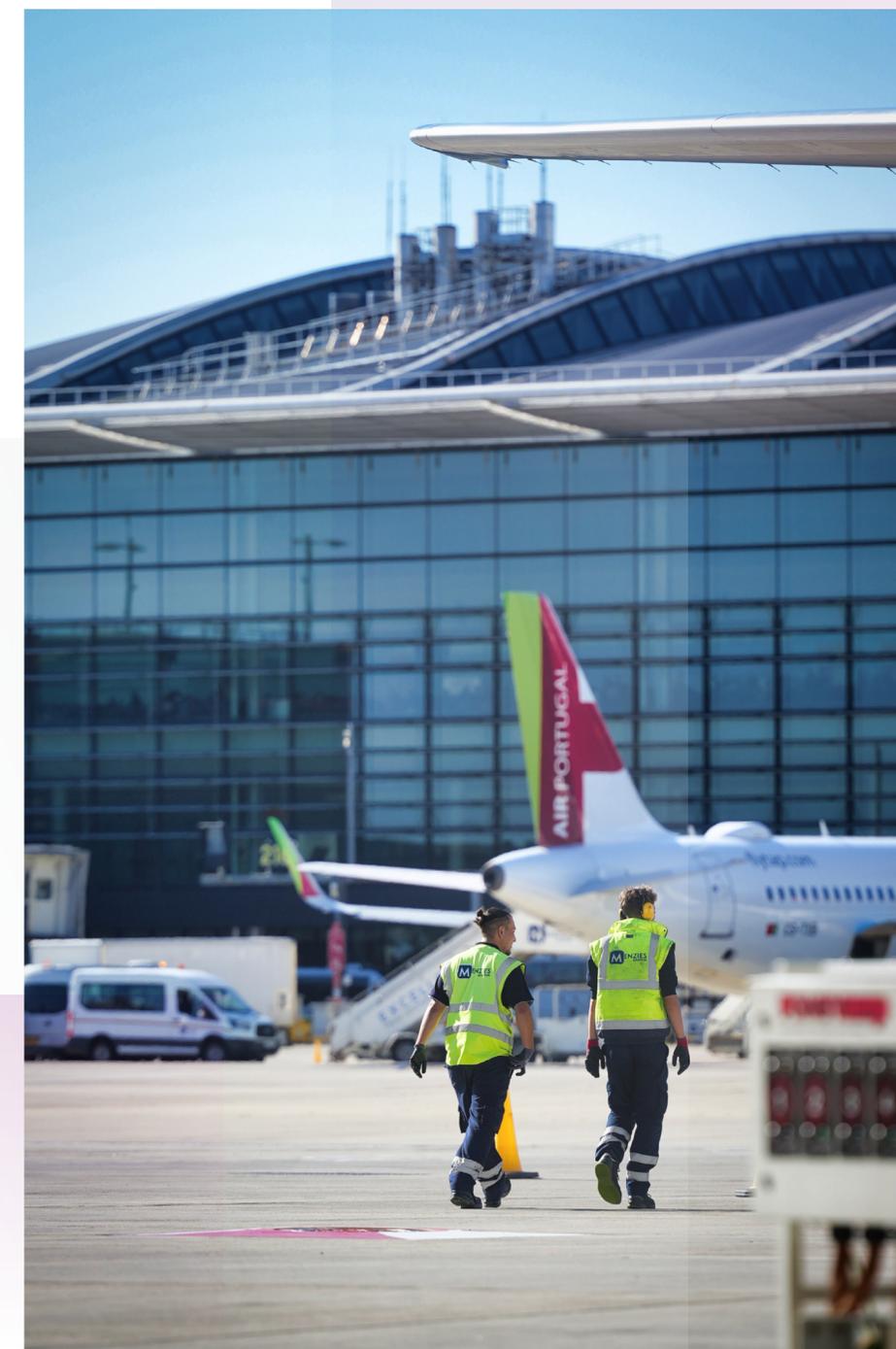
## 7.0 KEY ENABLERS FOR ADAPTATION – GOVERNMENT ACTION AND EFFECTIVE REGULATION

While we are committed to playing our role in adapting to climate change, the Government should continue its leadership on climate change adaptation, both in the UK and internationally. Government should look to provide guidance to ensure that climate risk and adaptation are not standalone issues but instead are embedded as business as usual for airport operators. We believe that we are aligned with the Government's position on climate risk and have taken steps to progress adaptation within the UK aviation sector. The following are important areas of focus:

**Regulation** - There is an essential role for regulators – the Civil Aviation Authority (CAA) in airports' case. Regulators have a unique opportunity to embed climate resilience efficiently through their day-to-day policy delivery and to ensure that necessary investment is supported through economic regulation of airports including Heathrow. Climate change could pose risks to passengers through disruption and more expensive adaptation investment costs if early investment is not permitted.

**Interdependencies** - As we continue to develop our Adaptation Strategy and planning, we need collective action to manage risks from infrastructure interdependencies. Heathrow's resilience is heavily reliant on the resilience of other sectors (for example utility providers, including energy and water). A systemic approach is essential to avoid weak links, and more detailed data and joined up modelling and assessment is a core foundation for planning and action. We fully support alignment with DfT's Adaptation Strategy to encourage sharing of data, information and learnings across organisations, and the proper management and mitigation of interdependencies within and beyond the transport sector. This need for a systems-based approach is echoed within the London Climate Resilience Review, which highlights the cascading risks posed by interdependent infrastructure systems.

**Global aviation** - Whilst the DfT's Adaptation Strategy is UK focused, it is essential that consideration is given to the international aviation system and the resilience of the UK's international transport links which are vital for connectivity – both people and supply chains. Insufficient progress on adaptation across the UK's key international destinations and transport corridors will impact the movement of people and goods to and from the UK. We are eager to contribute to initiatives to improve information sharing and interdependency analysis within the aviation sector internationally and with our interdependent partners.



# FURTHER READING

## OUR SUSTAINABILITY REPORTING

[Connecting People & Planet \(Heathrow 2.0\) – 2024 update](#)

[Heathrow Annual Report & Accounts](#) including our CFD p52-72

[Heathrow Climate Change Adaptation Report](#) – We regularly review the risks climate change poses to the airport and publish our progress and actions in our Adaptation Reports.

[Heathrow Nature Positive Plan](#)

[Heathrow Net Zero Plan](#)

[Heathrow Noise Action Plan](#)

[Task Force on Climate-Related Financial Disclosure \(TCFD\)](#)

## GOVERNMENT GUIDANCE ON CLIMATE RISKS IN THE INFRASTRUCTURE AND TRANSPORT SECTORS

[DfT Adaptation Strategy](#)

[DfT Climate Risk Assessment Guidance for the Transport Sector](#)

[DfT Climate Risk Assessment Guidance for the Transport Sector \(non-technical summary\)](#)

[UK Climate Risk Independent Assessment \(CCRA3\) Technical Report, Chapter 4: Infrastructure](#)

[Oxford University Report – Systemic Resilience to Cascading Climate Risks](#)

[ICE Policy Paper: 4 ways to improve UK infrastructure resilience](#)

[London Climate Resilience Review](#)



# GLOSSARY

## CAA

Civil Aviation Authority, overseeing and regulating civil aviation in the UK.

## Carbon

‘Carbon’ is used as shorthand for carbon dioxide equivalent (CO<sub>2</sub>e) – meaning all greenhouse gases.

## Climate Change Committee

The UK Government’s independent advisor on Climate Change, the Climate Change Committee (CCC) set out their recommendations for each carbon “budget” period, setting out the UK’s trajectory to achieving Net Zero emissions by 2050. Within their modelling, the CCC utilise several pathways.

## Compound storm events

Compound storm events occur when lightning, wind and intense rainfall coincide.

## Green infrastructure

Green infrastructure refers to systems that use natural processes to manage water and create healthier urban environments. This includes parks, green roofs, and rain gardens.

## Grey infrastructure

Grey infrastructure involves traditional engineered constructions like roads, bridges, sewers, and tunnels.

## H7 and H8

Heathrow is regulated by the Civil Aviation Authority. The five-year regulatory periods are each given a code. The current period ending in 2026 is called H7.

## Interdependency risks

Processes or organisations which if impacted by climate hazards will impact on Heathrow.

## NBS

Nature based solutions (NBS) are approaches to challenges such as water management, biodiversity and climate change that use natural processes and ecosystems.

## Physical risks

Risks of damage to physical assets from climate-induced extreme weather events (i.e. extreme precipitation, flooding, extreme temperature, storms, etc).

## Sustainable Aviation

A UK coalition of airlines, airports, manufacturers, air navigation service providers and others, that sets out the collective approach of UK aviation to tackling the challenge of ensuring a cleaner, quieter, smarter future for the industry.

## SuDS

Sustainable Urban Drainage Systems (SuDS) refer to a set of water management practices designed to sustainably manage surface water runoff (e.g. permeable surfaces, swales, green roofs, constructed wetlands). SuDS aim to mimic natural drainage processes by slowing water flow, improving water quality and improving biodiversity.

## Team Heathrow

All of our partners, working collaboratively and in partnership, to ensure the day-to-day running of the airport. Team Heathrow is made up of 100’s of organisations and 1000’s of people.

## Thermal Strategy

Heathrow’s strategy for decarbonising and modernising our heating and cooling systems.

## Transition risks

Risks that may result from regulatory changes, government incentives and guidance, investor demands or shifting consumer preferences due to a global shift towards a more sustainable, net-zero economy.

# FIND OUT MORE

Visit our website for more on our sustainability approach and reporting, including:

## APPROACH:

- Connecting People and Planet Sustainability Strategy
- Issue-specific strategies and plans
- Policies and statements

## REPORTING:

- Annual Report
- Sustainability Performance Data Book
- Reporting on specific issues

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