

# DECARBONOMICS™

## Airports



Engineering  
Net Zero™

# Future proofing airports cost effectively with Decarbonomics™ Airports

## The Challenge

An immediate challenge includes delivering energy security at the advent of a substantive energy transition, while also planning to decarbonise both ground and air operations. The challenge of achieving decarbonisation whilst the industry seeks a sustainable economic platform post COVID to drive growth compounds the complexity of securing and allocating financing. To stand up to these challenges while maintaining uninterrupted services, a whole life system thinking approach is needed.

## The Opportunity

Although Airports contribute only 2.5% of all aviation emissions, they stand at the vanguard of the transition, because decarbonising aircraft emissions is not possible without the right infrastructure and systems in place on the ground. As such, both air and ground components of the aviation ecosystem need to be moving forward in lockstep. Airports are in a privileged position to lead this collaboration across stakeholders, navigate transition risks and act as a catalyst for aviation decarbonisation.

## Decarbonomics Airports – Our Solution

The Decarbonomics™ Airports concept is an emergent solution based on our award winning<sup>1</sup> Decarbonomics™ Buildings platform that can provide a data-driven, systems level approach to enable decarbonisation of your existing assets and ground fleet, whilst futureproofing your infrastructure decision making for ongoing and future works through the development and implementation of cost and programme optimised net zero pathways that are informed by pragmatic delivery experience and expertise.

And as an established Net Zero Strategic Delivery Partner for a range of complex building and infrastructure programmes we can support delivery across the whole life of a net zero programme.



## Key Benefits



Cost effective decarbonisation



Systems level reporting



Future proofing complex assets



Robust investment case

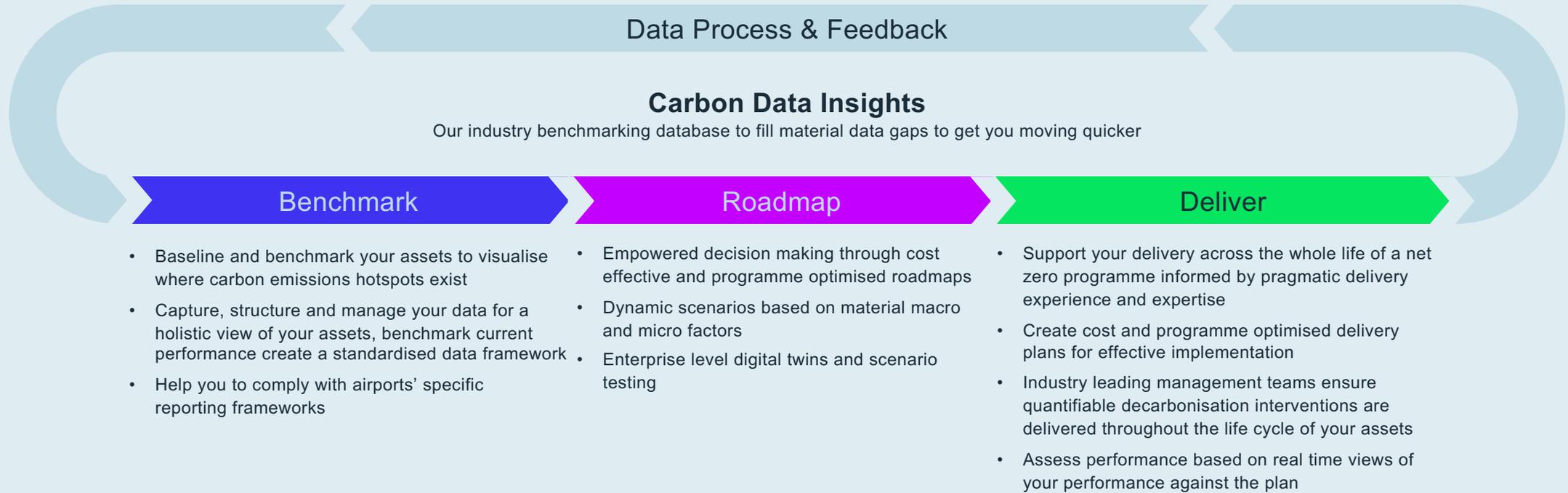


Empowered decision making



Operationalising strategic intent

# Decarbonomics™ Airports – Systems thinking solution enabled by our people, data, and technology



## Interventions & Solutions

Using a systems based approach to appraising and optioneering the optimal configuration and programming for a wide range of interventions and infrastructure solutions. Decarbonomics™ provides industry leading insights, expertise and data on the following established and emergent airside and landside facility solutions:

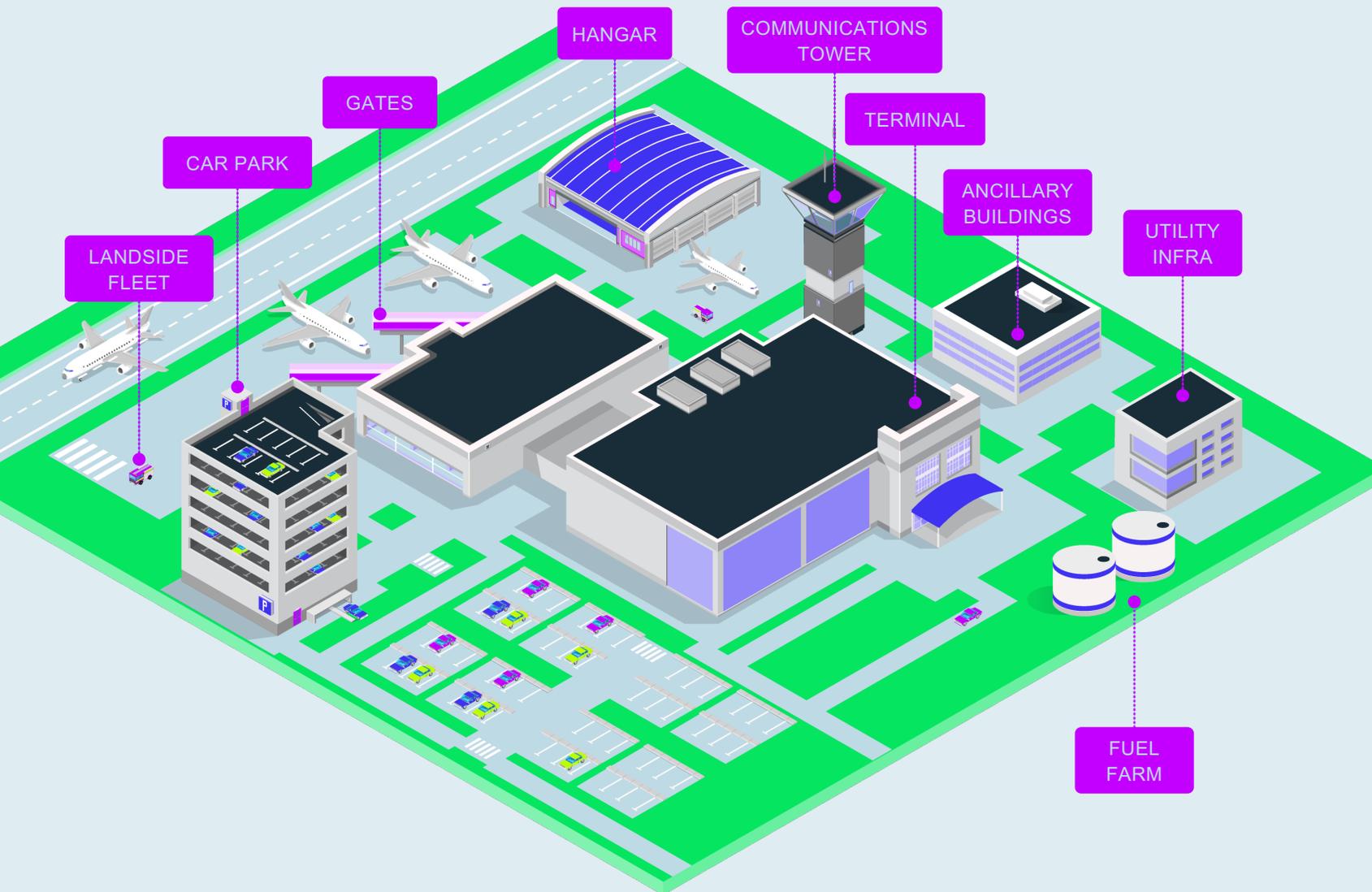
### Airside Interventions & Solutions

- Air Traffic Control
- Aircraft Ground Support Fleet & Equipment
- Aircraft Fuelling – Infrastructure Transitions

### Landside Interventions & Solutions

- Ground Transport
- Energy Supply
- Terminal Buildings
- Airport Equipment

# Decarbonomics™ covers...



- Buildings**
- Fabric improvements
  - Lighting Strategies and Improvements
  - HVAC Optimisation
  - Building Management Systems
  - Heating and Cooling Supply Decarbonisation
  - Portfolio Optimisation

- Landside**
- Ground Transport
  - Energy Supply
  - Terminal Buildings

- Airside**
- Air Traffic Control
  - Aircraft Ground Support Fleet & Equipment
  - Aircraft Fuelling – Infrastructure Transitions
  - Airport Equipment

- Utility Infrastructure**
- Renewables Including PV
  - On-Site Generation
  - Off-Site Renewable Energy Procurement
  - Water and Waste
  - Microgrids
  - Sustainable Aviation Fuels Infrastructure
  - Grid Decarbonisation Trends & Impacts

- Scope 3**
- Net Zero Surface Access
  - Passenger & Colleague Travel
  - Supply Chain Engagement & Decarbonisation

# DECARBONOMICS™

## Airports

Decarbonomics™ Airports is an end-to-end service, providing whole life support across three core areas of benchmarking, road mapping and delivery.



Our innovative solution combines people, data and technology to provide:

- A real time systems level view of your carbon baseline.
- Net zero roadmaps with macro scenario modelling capability.
- Industry leading programme management systems to create cost and programme optimised delivery plans and the ability to track performance.
- Proxy carbon, cost and asset data to fill material data gaps.
- End-to-end expertise and advice on the wide array of interventions and options for optimising your decarbonisation journey.
- Industry leading programme management and assets management tools and processes, integrated into an unprecedented decarbonisation platform.
- A simple and fully dynamic end-to-end dashboard enabling you to measure assets performance at any stage of your journey.

Decarbonomics™ Airports provides robust investment cases to help our clients secure the necessary finances and funding needed to deliver a net zero future.

## Case History

### Government Property Agency

Atkins Réalis are the strategic net zero partner for the UK's government property agency which deployed Decarbonomics™ to assess 500 buildings, achieve €340m+ annual savings and save 351 tCO2 and bring the estate towards net zero carbon.

### UK Defence Client

As the strategic delivery partner Atkins Réalis, deployed Decarbonomics™ on the client's estate, providing a clear and actionable path to net zero while working within sensitive survey requirements and specific site conditions resulting in 54 tCO2 reduced and \$11m+ in savings.

### Department for Work & Pensions

Atkins Réalis are piloting on 850 properties focusing on decarbonisation of heat as well as lighting, HVAC, BMS and PV.

### Heathrow Airport Ltd

Atkins Réalis works in partnership with Heathrow to deliver the airport's strategic target to be zero-carbon by 2050 which has led to seven pilot projects across their capital value Asset Management Programme.

### John F. Kennedy International Airport

Systems level delivery looking at departure's curbside, updated utilities, and a multimodal passenger facility in the current location of the existing Terminal.

# THANK YOU

**Get in touch for more information.**

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