

P R A G M A

# Airports

**The Diversification and  
Development of Airports**



# Pragma View

Ed Newton Director, Travel

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No industry has been harder hit by Covid-19 than aviation. During 2020 the pandemic resulted in passenger numbers falling by over 60%, and a reduction in airport revenues of almost \$125bn compared to the Airports Council International pre-Covid-19 baseline forecast.

With almost all revenues at airports being passenger dependent, many airports are now looking to diversify and introduce new revenue streams that are less sensitive to passenger traffic, and thus better equipped to withstand future shocks.

However, with each airport having such a unique set of circumstances built up by a combination of its size, location, and connectivity - as well as significant capital requirements - there is no one size fits all solution.

Over numerous landside development projects, Pragma has developed a Landside Opportunity Framework to evaluate and identify the most relevant role, strategy, and positioning for consumer services (retail, leisure, entertainment, and attractions) based on each development's unique characteristics, and then assist operators and architects in bringing the strategy to life.

This document provides an overview of the key steps in our framework, why they are important and how they can help determine the optimum strategy to optimise the utilisation of landside space.

If you would like to discuss any of the points raised in this white paper, please drop me a line at [e.newton@pragmawk.com](mailto:e.newton@pragmawk.com).

A handwritten signature in black ink, appearing to read 'Ed Newton'.

Ed Newton  
**Director, Travel**  
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## The Need

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Regulation and price sensitivity have been putting pressure on aeronautical revenues for some time, making non-aeronautical revenues increasingly important.

Moodie Davitt's 2019 commercial revenue study indicated that non-aeronautical revenue now accounts for 46% of airport revenue on average globally.

The key issue here is that many non-aeronautical revenue streams, such as car parking, terminal retail and food and beverage are dependent on direct passenger spend, and therefore leave the airport particularly exposed to passenger fluctuations as has been so clearly demonstrated by the huge losses incurred over the Covid-19 pandemic.\*



Many airports underutilise their landside space (which is generally accessible to everyone not just passengers) and can develop on-airport businesses not linked to passenger traffic. These can be infrastructure related cargo services or energy farms, office and conference facilities, social infrastructure (healthcare, education), or consumer services like retail, leisure, entertainment, and attractions.

\* (The Pandemic Impact on Travel, page 4)

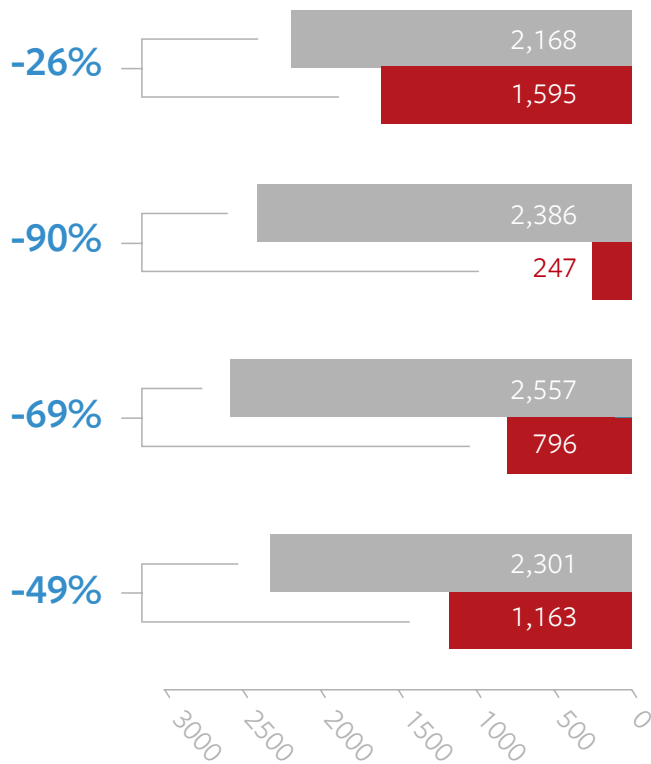
# The Need

Whilst these revenues are unlikely to exceed those from passenger-focused activities, they do provide a revenue source when there is a large reduction in passenger traffic, as well as providing a more diversified and comprehensive offer in times of passenger growth.

At their best, landside developments can provide an anchor point for infrastructure projects and can more evenly distribute economic and social activity away from potentially congested and expensive city centres. They can also address common inner-city challenges and in doing so raise the attractiveness of the entire region.

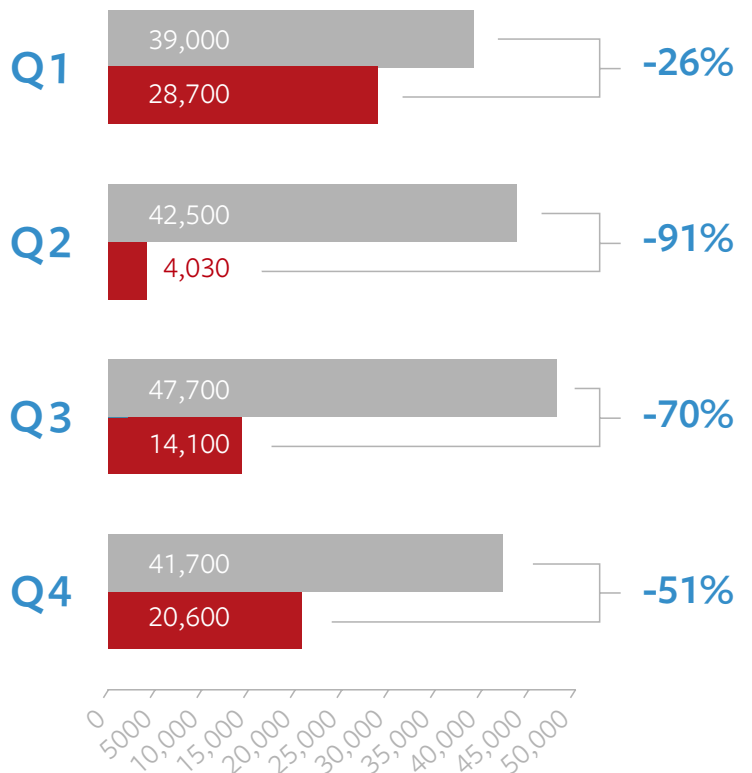
## The Impact Of Covid On Quarterly Traffic

Million Passengers



## The Impact Of Covid On Quarterly Revenue

\$ Million (USD)



Pre-Covid Projection  ACI Estimation Under Covid

Whether it is the core focus of a development, or providing a supporting role to other elements, consumer services such as retail, leisure, entertainment, and attractions are integral to driving demand and revenue generation potential.

Beyond Covid-19, airports and air travel also face increasing challenges from environmental agendas, with public and government pressures already gaining significant momentum pre-pandemic.

The recent announcement by the French Government looking to ban short-haul domestic flights where alternatives by train exist, demonstrates the scale of the issue.

This creates an even stronger agenda for airports to diversify their offer to enhance the social value of their assets and the supporting role they can play to the local community, which can significantly help to offset the negative environmental associations, when looking at the airport ecosystem holistically.

Developing an appropriate role and positioning for an airport's assets and infrastructure that maximises the potential from the surrounding catchment creates the potential to both diversify the revenue streams and enhance the value for the regional economy and community.



# Landside Opportunity Framework

Our Landside Opportunity Framework provides a simple structure to define and evaluate the commercial potential from a landside development.

Over the next few pages, we will take you through each step.



## 1. Identify Demand

What is the size and composition of the addressable market and user demand?

What are the gaps and opportunities the airport can satisfy?

## 2. Assess Accessibility

How can potential users access the development?

What type and quantum of visit and spend potential can the airport attract from target user groups?



## 3. Align Positioning

What is the appropriate commercial positioning of the landside facilities?

What is the most relevant mix for the target user base?

## 4. Create The Right Environment

How can the space be programmed to enable the users to enjoy the development and interact with the offer?



# 1. Identify Demand

It is vital to understand the demand driven by residents and visitors within the catchment area across a wide range of potential land uses, from functional aspects such as major infrastructure and transport links, office space and conference facilities, to leisure facilities and destination shopping.

Utilising London Heathrow in West London, UK, as an illustrative example, we can see there is an extensive retail provision within a 30-minute drivetime of the airport, including Westfield London which attracts 32m visitors a year.

## The Heathrow Catchment Area Retail Offer



Key to determining the best strategy for any landside development is to understand the existing competitive landscape, and how this is responding to the catchment requirements. We can then consider how these requirements

and the extent to which existing supply could compete with the landside development, change over time, and how the landside development could meet potential demand by filling gaps in existing provision.

# There are four main groups of customers to consider when identifying demand:

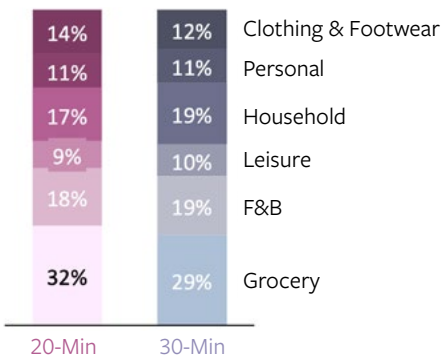
## A) Local Catchment

The first group of consumers we look at is the local catchment. We consider the size, density, and demographic composition of the local and regional catchment. This provides the widest scope of opportunity from a commercial perspective. Again, using the 30-minute drivetime catchment for Heathrow as an example, we can see that it has a population of 1.7m within a 30-minute drive and 526k within a 20-minute drive (worth £13.7bn and £3.4bn respectively,

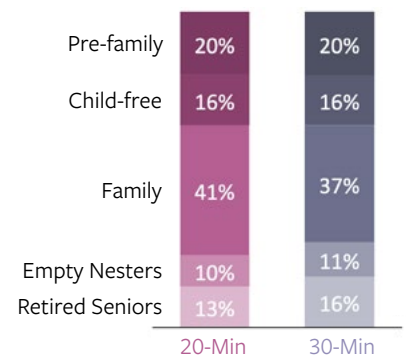
in terms of household expenditure across grocery and non-grocery categories). Affluence is higher within 30-minutes, with average household income of £58.2k (above the UK average of £49.8k), vs. £42k within a 20-minute drive. Accordingly, there is a high proportion of catchment households classified as social grade AB (the most affluent group), 30% of households in a 30-minute drive vs. 21% of households in a 20-minute drive.

## Lifestage Profile & Household Expenditure

Household Expenditure

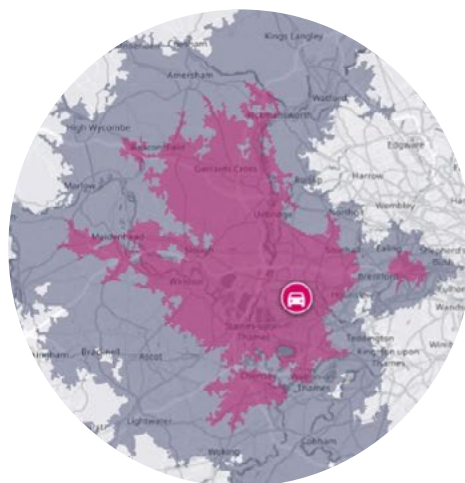


Lifestage Profile



30-Min Drive-Time Catchment

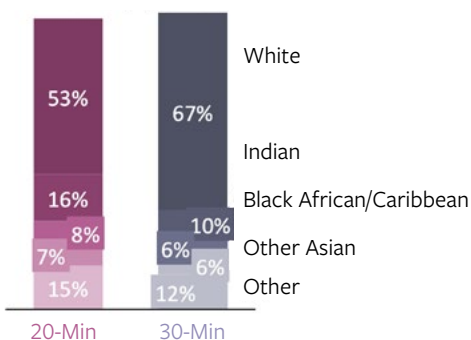
1.7m people live in a 30-min drive (total market size of £13.7bn, average household income of £58.2k)



20-Min Drive-Time Catchment

526k people live in a 20-min drive (total market size of £3.4bn, average household income of £42.4k)

Ethnicity Profile



Social Grade Profile





However, the complexity and range of factors that will affect the ability to attract these users to the airport is vast: including the quality and affordability of transport links, competing developments and even local legislation limiting the development of commercial space which will compete with that in the local catchment.

Should these potential barriers be overcome, the range of the scale of development can be significant – from more functional local convenience offers to regional, or global attractions such as Singapore Changi’s Jewel.

### **B) Local Workers**

The next group we examine is the local worker population which provides a significant revenue opportunity, as they travel to and from work, carry out day-to-day chores, grab something to eat or socialise post-work.

An aim of the development may be to develop a new ecosystem and business cluster, through the inclusion of office and hotel space, thus creating a new on-site worker population. The benefits of the retail offer are twofold: as well as the obvious benefit of additional spend from office workers, it can attract tenants to the development, who may be attracted by reduced rents and proximity to transport links as well as the enjoyment its employees take from the wide variety of spaces and activities.

### **C) Airport Workers**

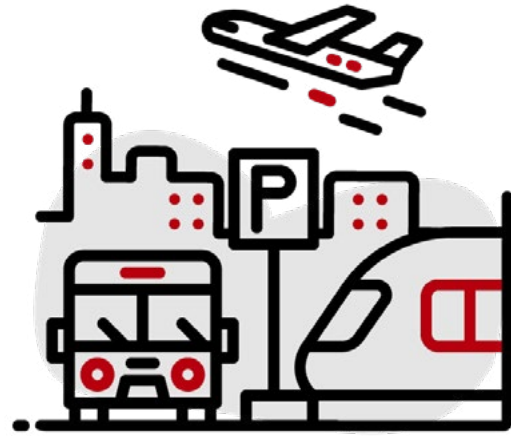
Third, we assess the likely demand and spend potential from existing on-site and local airport workers, who will likely be a substantial quantum and their proximity to a development means they should not be overlooked when considering the scale and mix of any commercial and service-led offer. Providing a space in which workers can carry out day-to-day retail chores, exercise, relax and socialise will be seen as a huge benefit to the workforce.

### **D) Passengers**

A significant proportion of passengers will use the same transport links as the other user groups, and so are likely to be exposed to, or at least have the capability of using any landside development. Whilst passenger throughput is likely to be high, they may have limited interaction with the development. For departing passengers, operational processes still need to be cleared, and many will be aware that there will be a significant spending opportunity post security. Those arriving may be more likely to utilise the development, however in many instances, travel-wary arriving passengers want to get to their final destination as soon as possible and are unlikely to require much beyond the basics immediately upon arrival, however for those who are staying nearby, there is an opportunity to entice them back for a visit later in the trip – if the development is suitably visible and compelling.

## 2. Assess Accessibility

Airports are by nature highly connected places with significant footfall. However, the location of the landside development relative to passenger terminals is key to determine the levels of ‘incidental’ footfall the facilities can attract. To attract non-airport users, connectivity to the



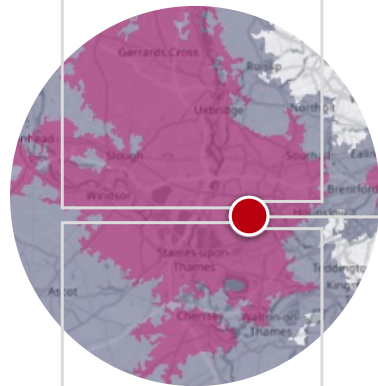
### Heathrow Airport Public Accessibility Options



Heathrow’s national coach network provides direct services to towns and cities across the UK, with services from National Express, Megabus, RailAir and The Airline

#### Heathrow

Heathrow Airport offers 52k car parking spaces across its terminals, including 30-minutes free parking at the long stay car parks.



Once fully operational, the Elizabeth Line will provide direct links between the airport and central London destinations, including Bond Street, Liverpool Street and Canary Wharf



The Piccadilly Line provides links to West, Central and East London



#### Heathrow Express

Heathrow Express offers a non-stop service from Heathrow to London Paddington in 15-minutes

catchment needs to be understood. Airports generally have excellent infrastructure connectivity into the city, although access to the more immediate catchment is often more

difficult, and the cost of transport and car parking can be significant, which can constrain the ability to attract any non-passenger traffic to the landside facilities.

In our example, we can see that Heathrow is uniquely connected to both London and the surrounding areas, enabling relatively easy access for both immediate residents and good connectivity to central London. In addition to two tube lines (once the Elizabeth Line opens), there is a dedicated Heathrow Express providing quick access to the city. The bus network and convenient car facilities also offer easy access for locals.



Travel time and affordability - not distance - are the determining factors here. The ease of access can provide a key advantage for airport cities if a coherent mobility strategy is in place and can provide a differentiating factor compared to congested city centres, either attracting commuters and visitors to the airport city, or facilitating connectivity between transport modes to encourage commuters through the development.

Having assessed the demand and accessibility of the development site, broadly speaking, we find that four types of development strategies typically emerge, in three of which the consumer-focused facilities play a major role in generating revenue.

## A) Retail-Led

Singapore Changi's Jewel is a prime example of a retail-led development. Situated at the east of the island, away from the city centre with its numerous shopping malls, the airport's affordable and plentiful parking, good transport links, and sizeable local catchment create a good opportunity for the airport to provide an attractive environment.

Changi's Jewel goes beyond providing a few retail stores and restaurants for people who happen to be at the airport. It was purpose built to attract consumers to the airport, and to provide an environment which will make people want to stay- and then offer them opportunities to spend. This approach of first creating an environment that people want to visit, and then curating the retail and food beverage offer, creates a compelling reason to visit the attraction time and time again.



## B) Business-Led

The Circle in Zurich Airport provides an example of a business-led proposition, complemented by retail, services, and restaurants, to cater to the worker population that will call the Circle home.

As with the Jewel, the Circle boasts good transport connections, by tram, train, bus, car, and, of course, plane. The airport has capitalised on this by creating an attractive office location complete with all the amenities expected by demanding workers. Onsite healthcare, day-care centres, and hairdressers are available, as well as co-working spaces and conference centres for occasional use in a convenient location.

The Circle is ideally positioned to provide an alternative to the city centre for businesses, particularly those that require the connectivity beyond Zurich or Switzerland.



## C) Commuter-Led














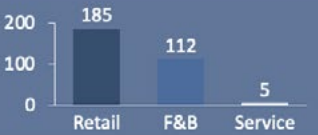
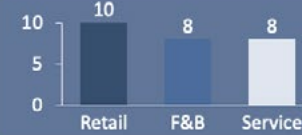
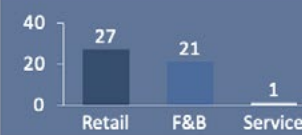
Airports with good transport links, such as Amsterdam’s Schiphol Airport, with 109,000 daily train users, and 140 bus departures, can take advantage of the high-volume of landside non-airline footfall generated by intermodal transport facilities, to provide an offer that caters to time-poor, repeat visitors.

Schiphol Airport’s offer combines retail, food & beverage, and services located on, or next to, the primary flows, recognising that the busy commuter does not have the time to deviate from their daily journey.

The commercial positioning and placement is also ideally located to cater to the airport travellers, making the offer work for both commuters and airport passengers.



### Landside Development Types With Major Consumer Focussed Facilities

	 <b>JEWEL</b> <small>CHANGI AIRPORT</small>	<b>THE CIRCLE</b> <small>AT ZÜRICH AIRPORT</small>	<b>Schiphol</b>
<b>Key landside component</b>	 World-class shopping hub	 Office and medical service hub	 Multi-modal transport hub
<b>Key customer groups</b> <small>(bubble size indicates size of group)</small>	 Commuters Residents Shoppers Workers	 Commuters Residents Shoppers Workers	 Commuters Residents Shoppers Workers
<b>Key statistics</b>	 136k sqm lifestyle development  54k sqm of retail space	 190k sqm mixed-use development  70k sqm of office space	 109k train users daily  140 buses depart daily
<b>Commercial unit composition and count</b>			
<b>Retail mix relevance</b>	The vast commercial offer encourages dwell time and repeat visits to the luxurious environment	The offer is balanced, providing convenient grocery, F&B and services, as well as high end retail and restaurants	The retail and F&B offer is convenient and functional to cater to the transient passengers in the area

## Infrastructure-Led

Other than those already discussed, there are a host of large-scale infrastructure led programmes such as energy and cargo facilities which can be good uses of landside space. These developments, however, do not generate significant footfall so there is less requirement for customer services, and revenues are

generally limited to the rental value of the land. Possibly the most common land use surrounding airports currently revolves around cargo and logistics, however as cargo operations at most airports relies on utilising passenger aircraft, these operations can also be significantly impacted by passenger downturns.

### 3. Align Positioning

Whilst not unique to landside developments, ultimately the positioning needs to be aligned to the demand within the catchment and leverage any natural advantages of the location. Depending on the potential end-use, this could be a highly connected budget business park with a focus on convenience and services, or a sophisticated retail and leisure complex with an appealing tenant mix and a stunning architectural environment.

Regardless of the main focus, to be truly successful, in addition to incorporating the goods and services in demand in the catchment, developments must create their own identity, which is clearly understood, and aligned with the brand values of the airport, and those of the community they wish to appeal to.



We then develop the strategy for consumer-focused facilities, combining our understanding of the global trends, with the insight gained from analysing and identifying the target market to define the optimum proposition and brand positioning. All this analysis then feeds into our gravity model, which allows us to evaluate the potential footfall and spend that could be captured by the development, and subsequently the target amount of space and potential revenue achievable within each commercial category.

## 4. Create The Right Environment

Devising the right strategy and mix for the development is one thing, bringing it to life is another.

To implement the strategy and create an all-important 'identity', such as portrayed in the selection of leading downtown development examples below, all elements of the design, from the overall masterplan to the architecture, landscaping and wayfinding need to work together to create a space that ensures that the primary function is effortless and intuitive,



and the environment is comfortable and enticing, such that users want to spend time in the space. Retail, Food & Beverage and services need to be seamlessly integrated into the environment such that they add to and enhance the overall placemaking.

### Targeted Placemaking Examples

#### **Immersive Lifestyle & Culture** ▶

Miami Design District combines the best of global fashion, art, culture, lifestyle and luxury in an open plan high-impact format.

*Miami Design District, USA*



#### ◀ **Contemporary Authenticity**

Xintiandi Place creates an authentic contemporary experience of entertainment, dining, and retail in an urban streetscape.

*Xintiandi Place, China*

## Community Values ►

The Commons delivers a community of local vendors, retailers, producers and services with a collective ethos of social value

*The Commons, Bangkok*



## ◀ Omni-Channel Multi-Experience

Funan Mall combines retail, co-working, and co-living in a dynamic, creative, and tech-enabled social retail environment.

*Funan, Singapore*

## Dynamic Pop-Up Entertainment ►

Boxpark, the destination pop-up mall, curates a mix of fashion, street-food, and lifestyle brands in a collection of shipping containers.

*Boxpark, London*



## ◀ Sustainable Environments

Burwood Brickworks has been designed as a sustainable shopping centre, with a rooftop farm, solar power and community facilities.

*The Burwood Brickworks, Australia*



We work with architects, engineers, and designers to guide and evaluate layout options, ensuring that the commercial strategy is brought to life within the plans. We then evaluate the planning options under consideration, both qualitatively, assessing the environment and user experience, and quantitatively, evaluating the achieved space provision and layout within each category to determine the potential performance differentials through detailed revenue modelling, allowing key stakeholders to make informed decisions as to the level of opportunity, and potential returns from the new development.



Our global experience of supporting leading airports, train stations, downtown shopping centres, and mixed-use assets, as well as brands and retailers themselves, provides us with a valuable understanding of the full spectrum of the commercial ecosystem and customer behaviours.

Combining this global experience with a detailed evaluation of the unique local characteristics of an airport's landside catchment, provides a strong platform to identify the commercial potential.

## Conclusion

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While there may be longer term impacts on the passenger mix, the disruption caused by Covid-19 has been much longer lasting and has had far more reach than previous shock events. Even a well-planned and fully operational landside development would not have been unaffected as the scale of lockdown and impact on normal life would have led to rent relief measures needing to be implemented as has been seen on the high street. It would however have allowed revenues to return more quickly, as local restrictions ease, but passenger numbers remain suppressed.

Shock events which result in a sudden fall in passenger numbers are normally relatively short-lived and traffic tends to recover quickly, and it is often the requirements of the passengers which drive much of the facilitating infrastructure on which the landside will depend.

Airports should not lose focus of their primary role of facilitating passenger movement, however there are potential significant benefits from evaluating potential alternate uses for

their landside space to provide a safety net and maintain some revenues during these shock periods.

When done right, rather than just built due to a supply of available airport land, we believe landside developments have huge potential to deliver much needed economic diversification for airports. They can also play an important role in enhancing the wider urban area or social wellbeing of the local catchment.

In most cases as well as providing an additional revenue stream, the retail, leisure, and entertainment offer can significantly impact the functionality and attractiveness of the development to users and developers alike. Considering this role early in the evaluation process is therefore fundamental.

Should you wish to discuss our Landside Opportunity Framework, or any of the points raised please get in touch at:

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