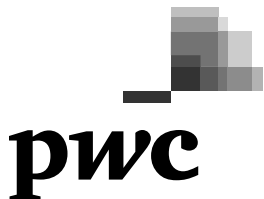

GAD Asia Conference



Aerocity Developments in Asia



There are key differences in the functions of an Airport and Aerocity...



Airport

Journey

People, cargo and aircraft pass through – not wanting to spend much time here

Connected and mutually supportive



Aerocity

Destination

This is a place where people and materials spend time – they come to do something, not just to pass by

... which in turn influence the objectives for masterplanning of these different environments



Airport

Journey

Must provide efficient, rapid and convenient processing and transit for cargo and passengers



Aerocity

Destination

Must provide an attractive and value-adding environment to engage and retain customers and tenants

Flexibility for expansion required as the customer base grows

Four key characteristics can drive effective development of a world-class aerocity destination

1

Clear value proposition



Users can make more money, be more productive, reduce risk ...

2

Innovative and unique experience



A “wow” factor which draws customers & tenants

3

Customer focused



Align value proposition with true customer needs

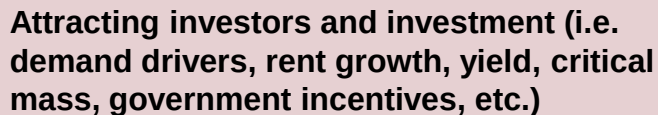
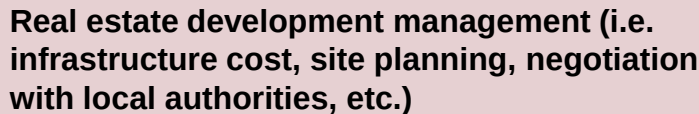
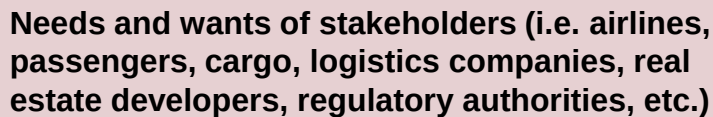
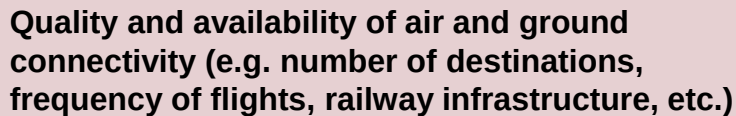
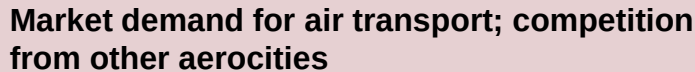
4

Accessible, comfortable, & convenient

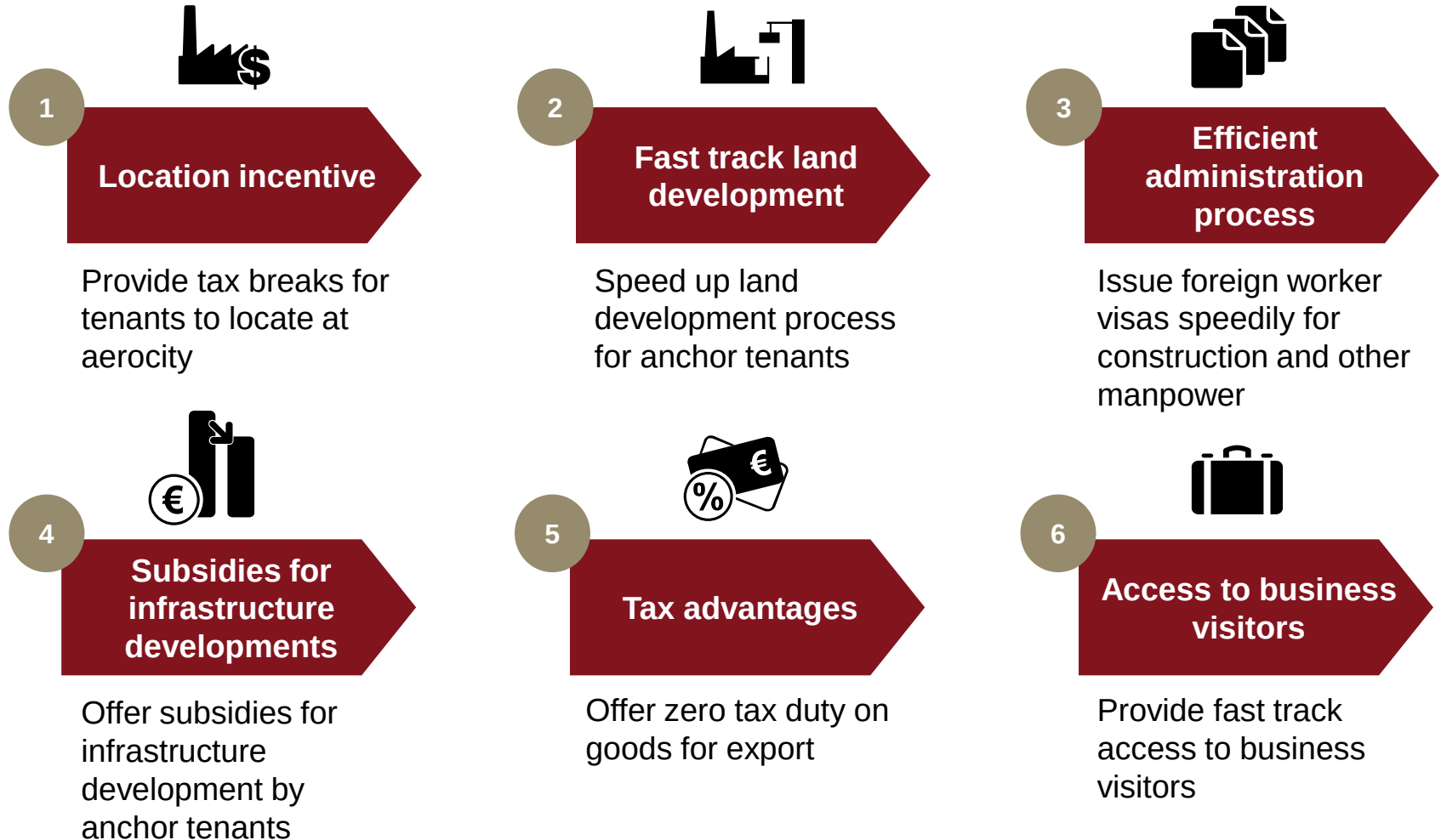


Great to get to, be in and achieve customer goals

Impactful Local Conditions



A variety of factors attract anchor tenants within aerocities, bringing success to the air hub



Aerocities around the world offer a diverse range of services and experiences to attract businesses and consumers

- Las Vegas McCarran has an aviation museum and Amsterdam Schiphol has a Dutch Masters art gallery
- Frankfurt has the world's largest airport clinic serving over 36,000 patients yearly
- Stockholm Arlanda has a chapel, which conducted nearly 500 weddings in 2010. Weddings are also offered in the air control tower's visitors balcony, with a view of the entire airport
- Detroit Metro offers a 420 room Westin Hotel, located just off its main terminal concourse. Similarly Dallas Ft. Worth's Grand Hyatt hotel serves as a convenient meeting location for many U.S. businesses



Aviation museum, Las Vegas McCarran



Art gallery, Amsterdam Schiphol



Ex- Airport Control Tower, Stockholm Arlanda



Clinic, Frankfurt Airport



Westin hotel, Detroit Metropolitan Airport

Notable aerocity developments, specifically in Asia, include Delhi's Aerocity Central & Singapore Changi's Jewel

India (Aerocity Central)



- Designed to be the national capital's leisure destination
- 18.2-acre compound near to Delhi's international airport, 14,000 sq-m retail mall with ~500 national & international brands
- 9 operational hotels spanning budgets and ratings; personal chauffeur service for guests
- 90,000 sq-m luxury office space, hosting large companies such as EY, Airbus, F500

Singapore (Changi Jewel)



- Designed to be a world-class lifestyle destination
- 3.5 ha compound in the midst of Changi airport terminals, 53,800 sq-m retail mall with ~300 shops and F&B outlets
- 5 operational hotels spanning budgets and ratings
- Encompasses world's tallest 40m indoor waterfall with park space of 13,000 sq-m which encompasses a total of 2,500 trees and 100,000 shrubs from various countries
- Air-conditioned traveller bridges about 300m long linking Jewel to all main airport terminals

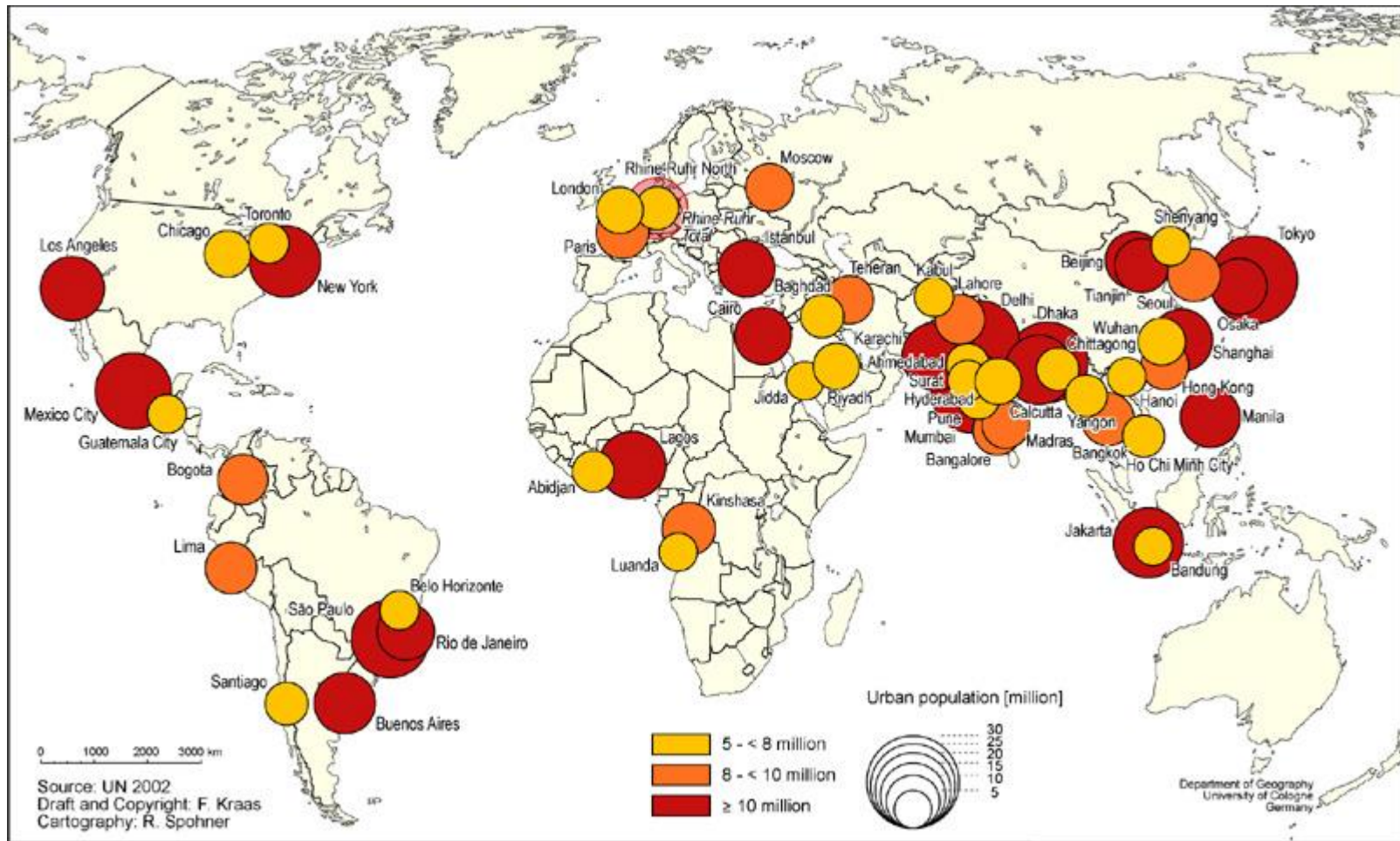
Conflicts can arise due to limited resources being shared between stakeholders in the aerocity and the airport itself

Typical Sources of Conflict

- **Shared resources:** e.g. additional road traffic generated by one stakeholder's success can add to transport time for a nearby business venue's time poor business clientele – or even access to the airport terminal
- **Land scarcity:** When Airport and other stakeholders want to expand on the same land, who should the land go to for development? What about reserved land in prime areas for future development?
- **Land value:** land furthest from the Airport is less valuable to tenants than land closer to the Airport and the international connectivity the Airport offers; how should pricing be structured?
- **Environment:** e.g. air pollution from one part of the aerocity development impacts the rest – Heathrow's permission for additional flights is in jeopardy if aerocity related traffic drives breaches in air quality limits



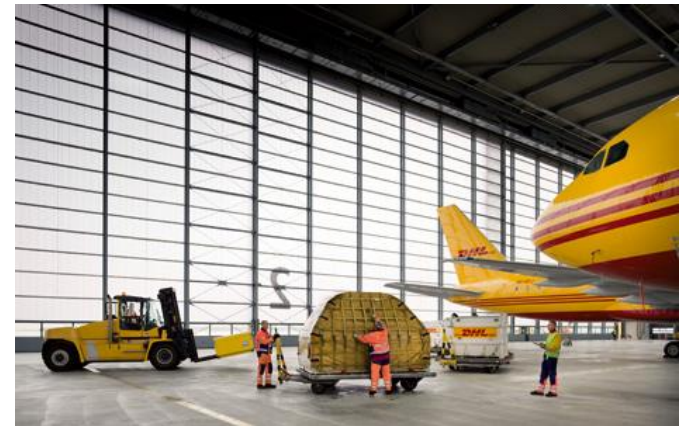
Asia has a problem with providing land for aerocities – the population pressure is far higher than other continents



Case Study: DHL establishes Europe's most modern air freight logistics centre in Leipzig, satisfying more customers



A logistics base to serve the world market, more particularly business customers demanding **rapid transport of goods and documents.**



Case Study: How is DHL operating the Leipzig logistics hub?

60 cargo aircraft take off/land per night, approximately every 3 minutes

1
Offload area for 150,000 shipments every night

2
Advance sorting facility to sort different types of shipments

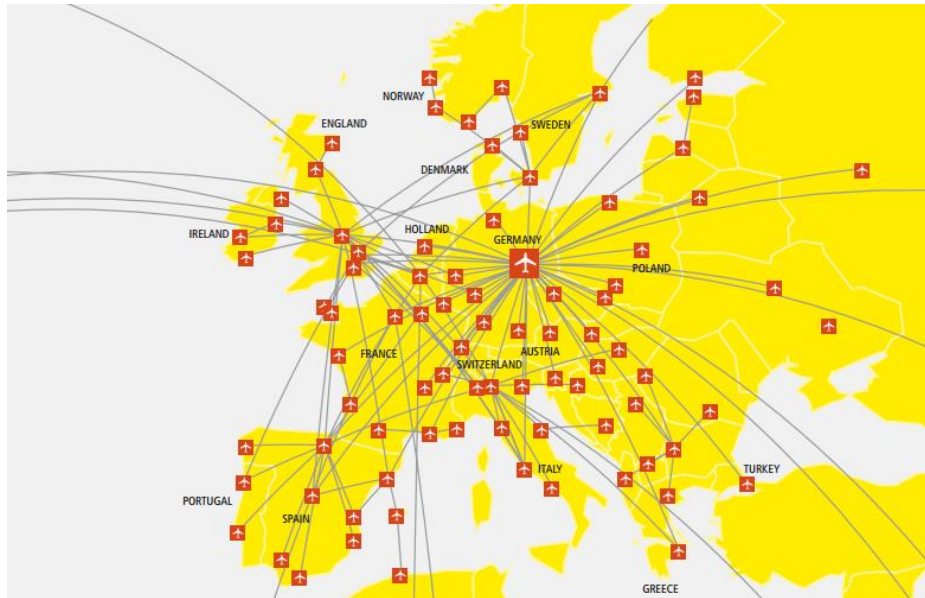
3
Customs clearance and repair facility for damaged parcels

4
Reloaded and getting ready for take off



*DHL Leipzig hub is capable of processing **150,000 shipments per hour**, or **42 shipments per second**, at **low cost** to more than **50 countries per day***

Case Study: What is the winning formula for DHL?



Key Success Factors for DHL

Ideal international hub location

Excellent transport connections to more than 50 countries per day, especially to growth markets in Eastern Europe and Asia

High-performance operations

Operates 24-hour take off and landings 365 days a year, with 2 runways allowing redundancy and therefore total reliability

Good infrastructure

High tech full automated warehouse sorting facility, processing 150,000 shipments per hour or 42 shipments per second

Large air freight fleet

Approximately 60 aircraft take off and land each night, approximately every 3 minutes

Meeting customers expectations

Exceptional delivery standards that meet expectations of customers based on speed, convenience, transparency and cost

Date here

12

In order to scale up, anchor tenants generate valuable multiplier effects



DHL at Leipzig – attracts MRO, suppliers (>10,000 jobs)



Amazon fulfilment centre at Manchester Airport – attracts logistics, air freight



Questions - How can aerocities be successful?

- What are the factors to take into account while providing a tailored approach in masterplanning based on location?
- How to provide a modern, innovative and sustainable design which distinguishes itself from other locations?
- What are the different business skillsets needed to manage an aerocity as compared to an airport?
- How to manage conflicts effectively? (i.e. shared resources, land scarcity, air quality, etc.)



Thank you!

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