

August 2016



BRAM FISCHER INTERNATIONAL



CAPE TOWN INTERNATIONAL



O.R. TAMBO INTERNATIONAL



KIMBERLEY AIRPORT



PORT ELIZABETH INTERNATIONAL



EAST LONDON AIRPORT



KING SHAKA INTERNATIONAL



GEORGE AIRPORT



UPINGTON INTERNATIONAL



GHANA  
BRAZIL  
INDIA  
SOUTH AFRICA

# Experts Group Meeting Synergy Between Airports and Urban Development for Sustainable Development

# Infrastructure Development and Management OR Tambo International Airport



AIRPORTS COMPANY  
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# Infrastructure Development & Management

## *Transforming to Aerotropoli*

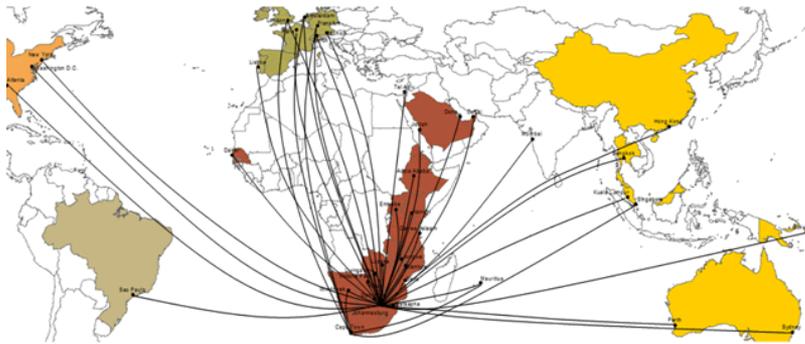


- Aerotropolis (city) represents a strategic opportunity for both the airport and the surrounding areas to achieve long-term sustainability growth and resilience.
- As Airport Cities succeed, they magnify the connective power of the airport development being part of the bigger city wide development and its surrounds and transform the hinterland urban areas into an Aerotropolis.
- Extraordinary economic potential accrues to an airport and the surrounding areas when their respective capacities and demands are formally coordinated.

# Infrastructure Development & Management

## Hub Status and Connectivity

O.R. Tambo International Airport is the largest and busiest hub airport in the African continent. Since 2004, transfer passenger traffic has averaged 23 percent of the total traffic and reached up to 27 percent in 2014.



### Europe

- All the main hubs in Europe are served from JNB.
- Six routes are served from JNB into Europe namely- London, Paris, Zurich, Frankfurt, Amsterdam and Munich.
- Europe remains a key connecting market via JNB into Southern Africa.

### Africa

- Thirty eight routes are served from JNB into the African continent
- The Zimbabwe market is the largest.
- Due to the continent having higher economic growth, mineral resources and emerging middle class the propensity to fly is higher.

### North America

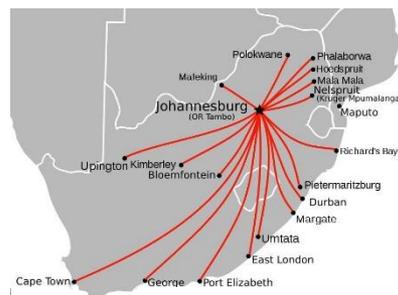
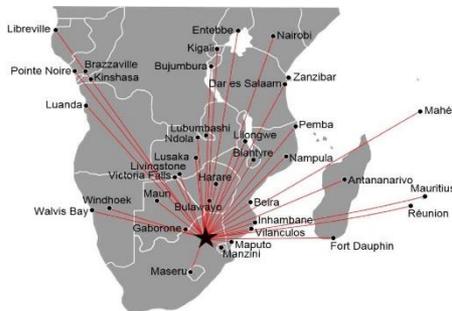
- Three routes are served from JNB into North America namely: SAA-New York, Delta-Atlanta and SAA-Washington DC.

### Asia

- Three routes are served from JNB into Asia namely- Beijing, Hong Kong and Singapore

### Middle East

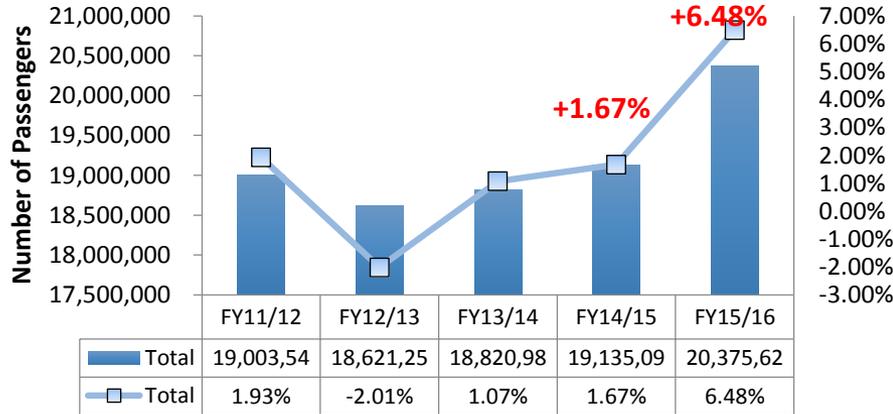
- Five routes are served from JNB into the Middle East namely: Dubai, Abu Dhabi, Tel Aviv, Jeddah and Doha
- The Middle Eastern carriers have grown significantly in JNB and their traffic mainly connects to other destinations.



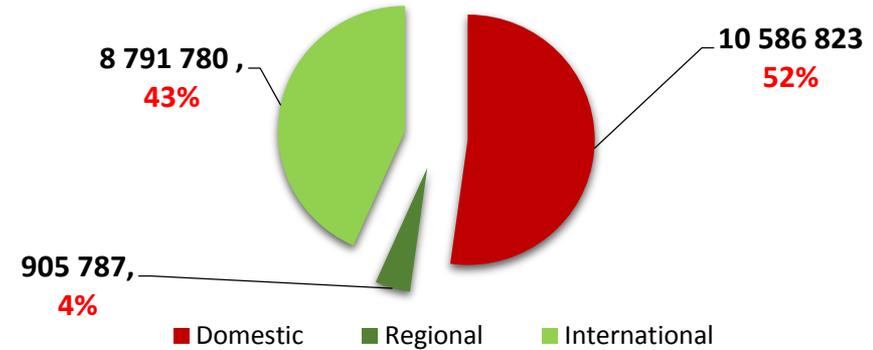
# Infrastructure Development & Management

## Historic Passenger Volumes

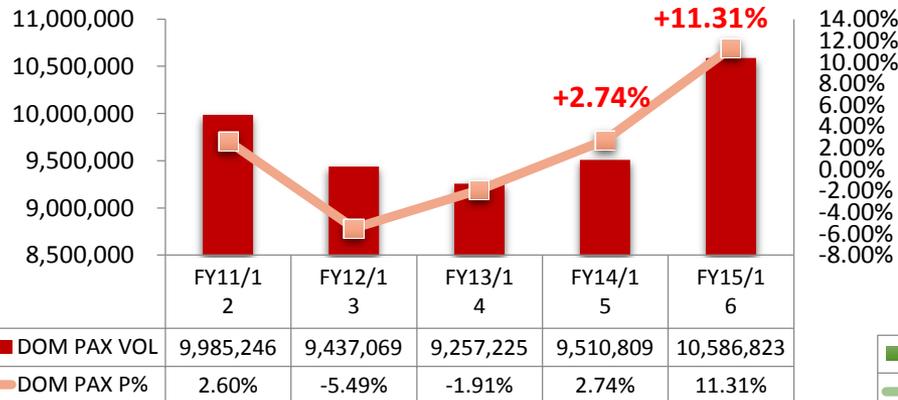
### Total passenger volumes



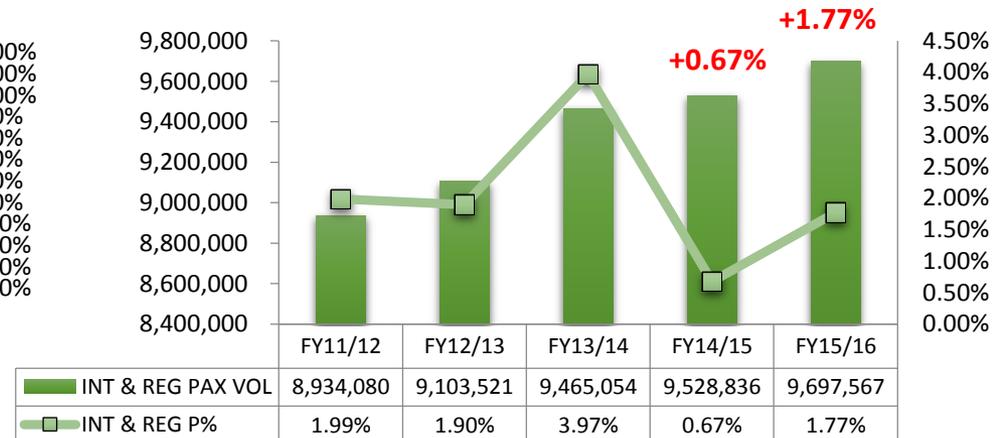
### Passenger volumes per sector 2015/16



### Domestic passenger volumes



### International & Regional passenger volumes

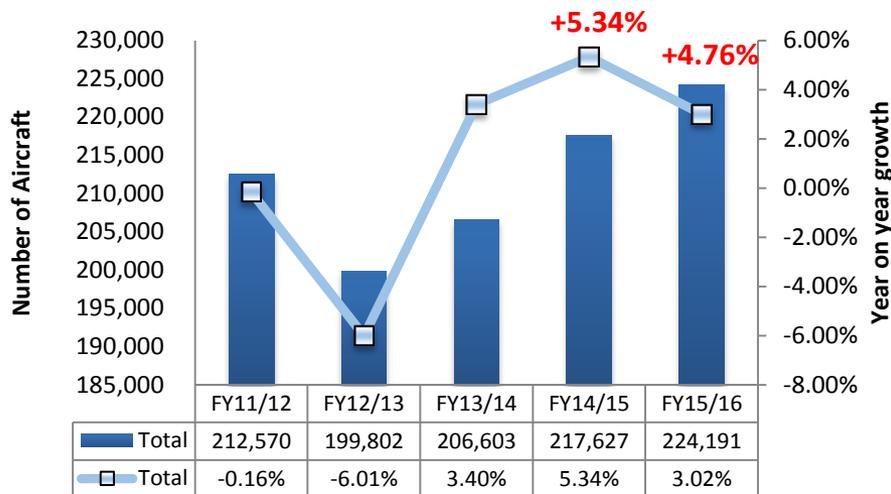




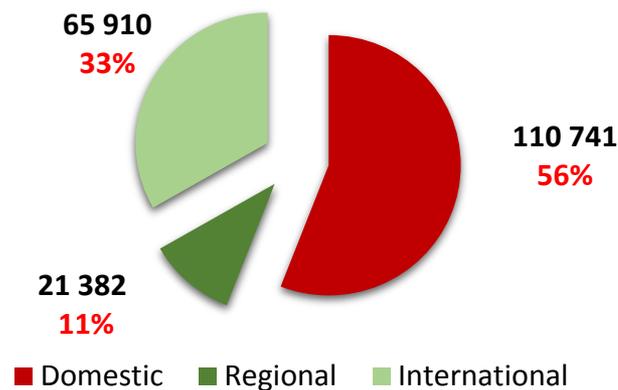
# Infrastructure Development & Management

## Historic Air Traffic Movements

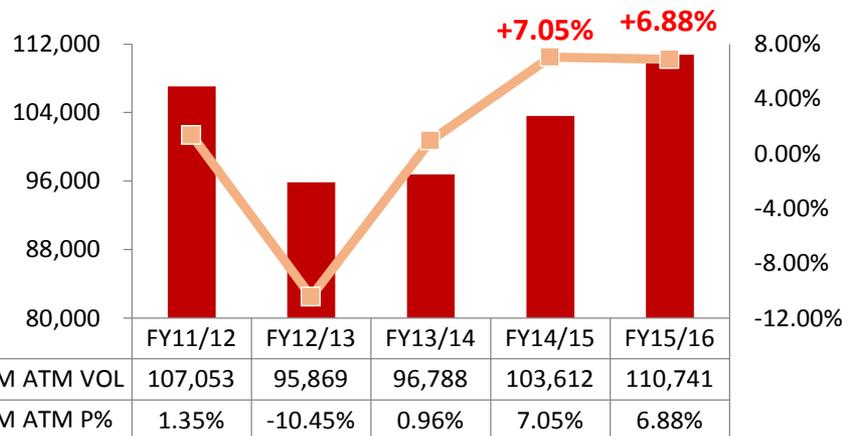
### Total aircraft movements



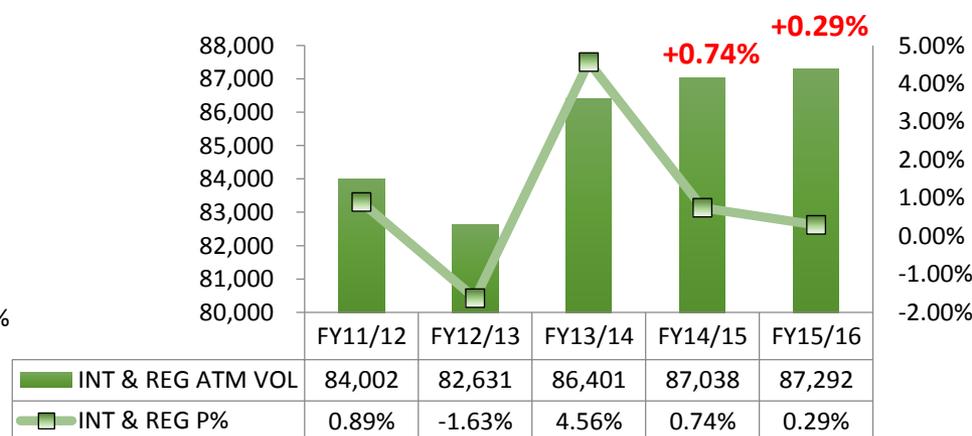
### Aircraft movements per sector 2015/16



### Domestic aircraft movements



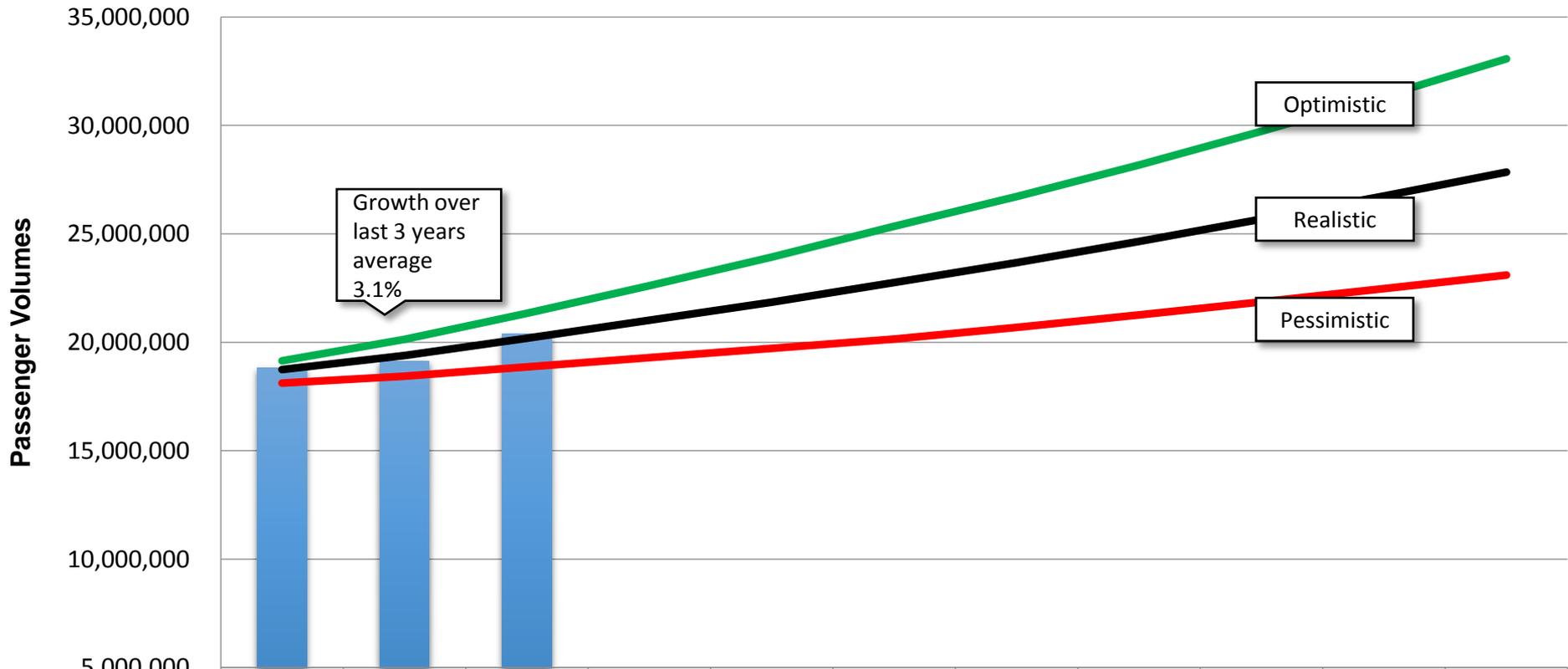
### International & Regional aircraft movements



# Infrastructure Development & Management

## Passenger Traffic Forecast

**Total Passenger Volumes Actual vs. Forecast**



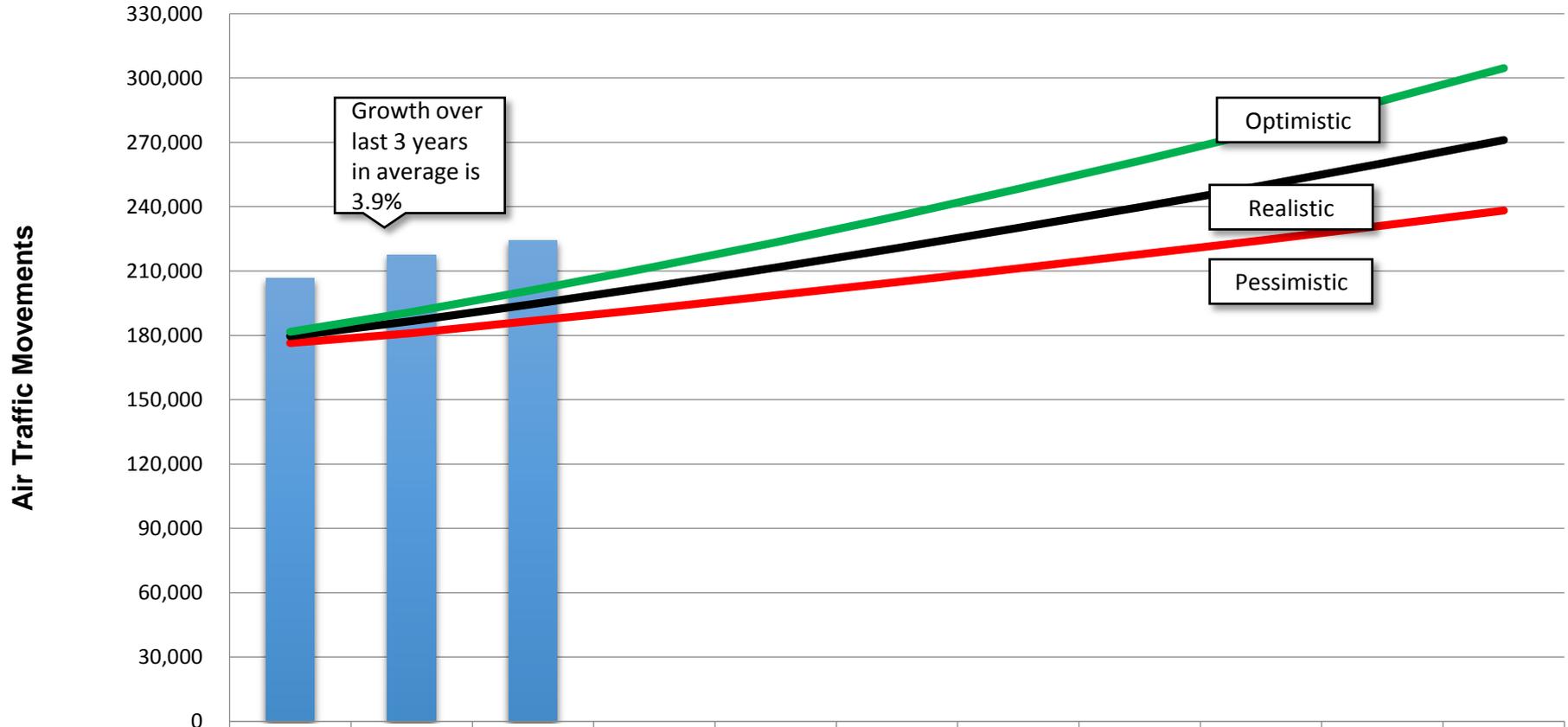
Growth over last 3 years average 3.1%

	FY13/14	FY14/15	FY15/16	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24
<b>ACTUAL</b>	18,820,988	19,135,093	20,375,626								
<b>ACSA 13 - PESS</b>	18,121,643	18,433,144	18,858,900	19,296,858	19,719,477	20,153,715	20,684,785	21,265,881	21,858,327	22,467,512	23,093,914
<b>ACSA 13 - REAL</b>	18,746,554	19,383,703	20,179,793	21,010,963	21,851,593	22,749,559	23,677,906	24,655,600	25,675,473	26,737,637	27,843,850
<b>ACSA 13 - OPT</b>	19,140,501	20,139,590	21,335,867	22,606,722	23,923,270	25,342,602	26,716,987	28,179,638	29,723,263	31,351,504	33,069,001

# Infrastructure Development & Management

## Air Traffic Movement Forecast

**Total Aircraft Movements Actual vs. Forecast**

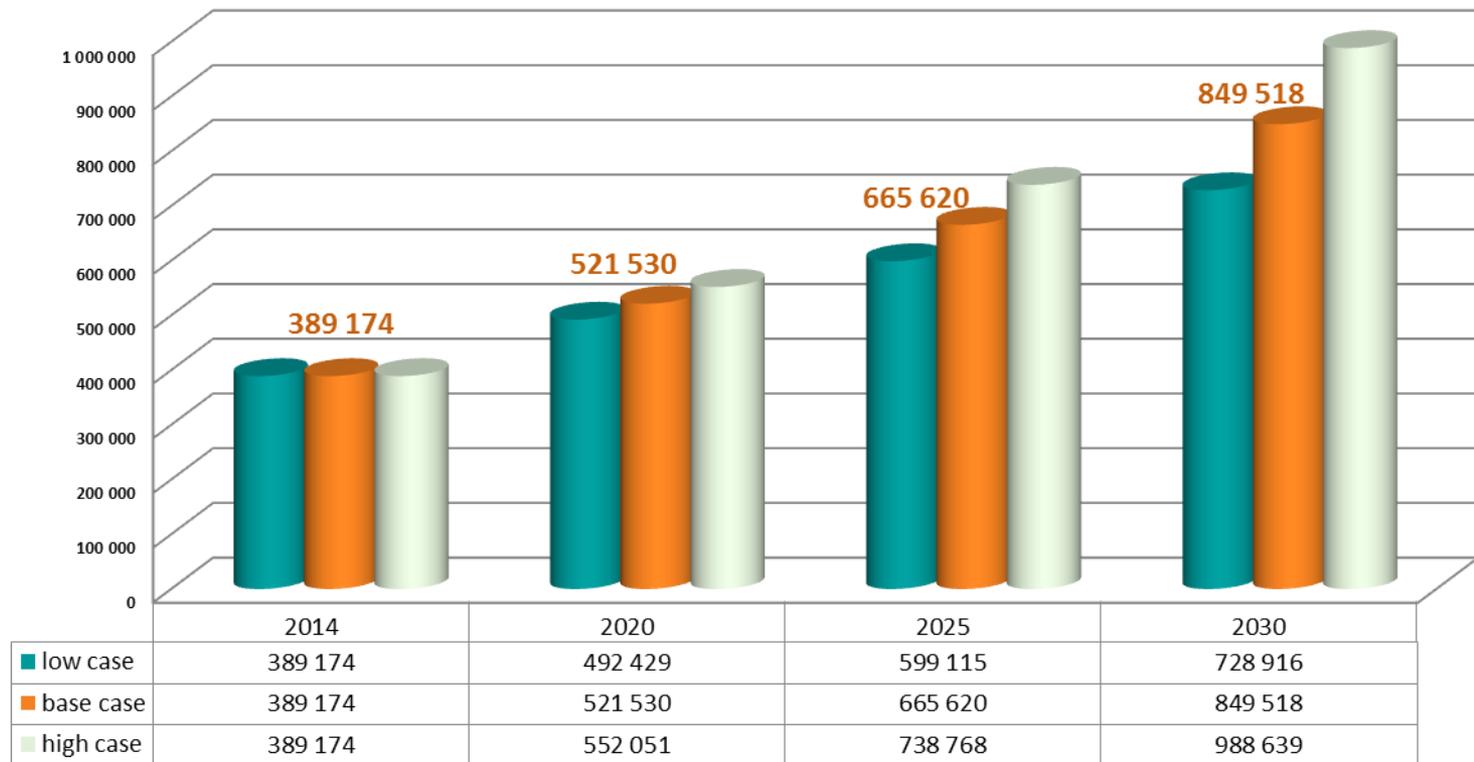


	FY13/14	FY14/15	FY15/16	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24
<b>Total</b>	206,603	217,627	224,191								
<b>ACSA 2013 - PESS</b>	176,443	181,055	186,728	192,580	198,614	204,839	211,258	217,694	224,307	231,121	238,142
<b>ACSA 2013 - REAL</b>	179,559	186,595	194,586	202,920	211,611	220,676	230,129	239,733	249,738	260,161	271,020
<b>ACSA 2013 - OPT</b>	181,702	190,818	201,088	211,911	223,318	235,454	248,250	261,277	274,965	289,370	304,531

# Infrastructure Development & Management

## Cargo Forecast

Cargo forecast szenarios O.R. Tambo based on ACOC figures



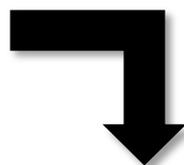


# Infrastructure Development & Management

*Holistic & Integrated Development Plan Process*

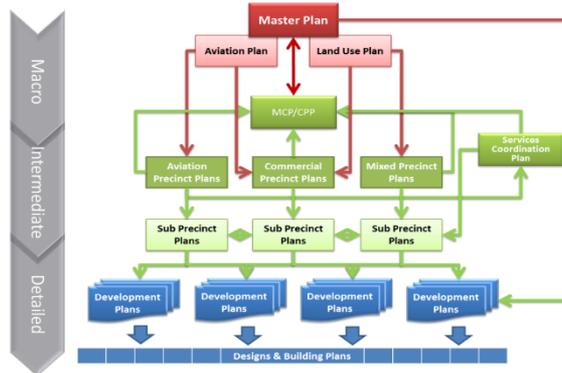


**TODAY**  
**+/- 20.3 MPA**



## MACRO, MESO, MICRO PLANNING

Development phasing & frameworks to ensure alignment & integration



**THE FUTURE**  
**+/- 60 MPA**



# Infrastructure Development & Management

## Current Layout



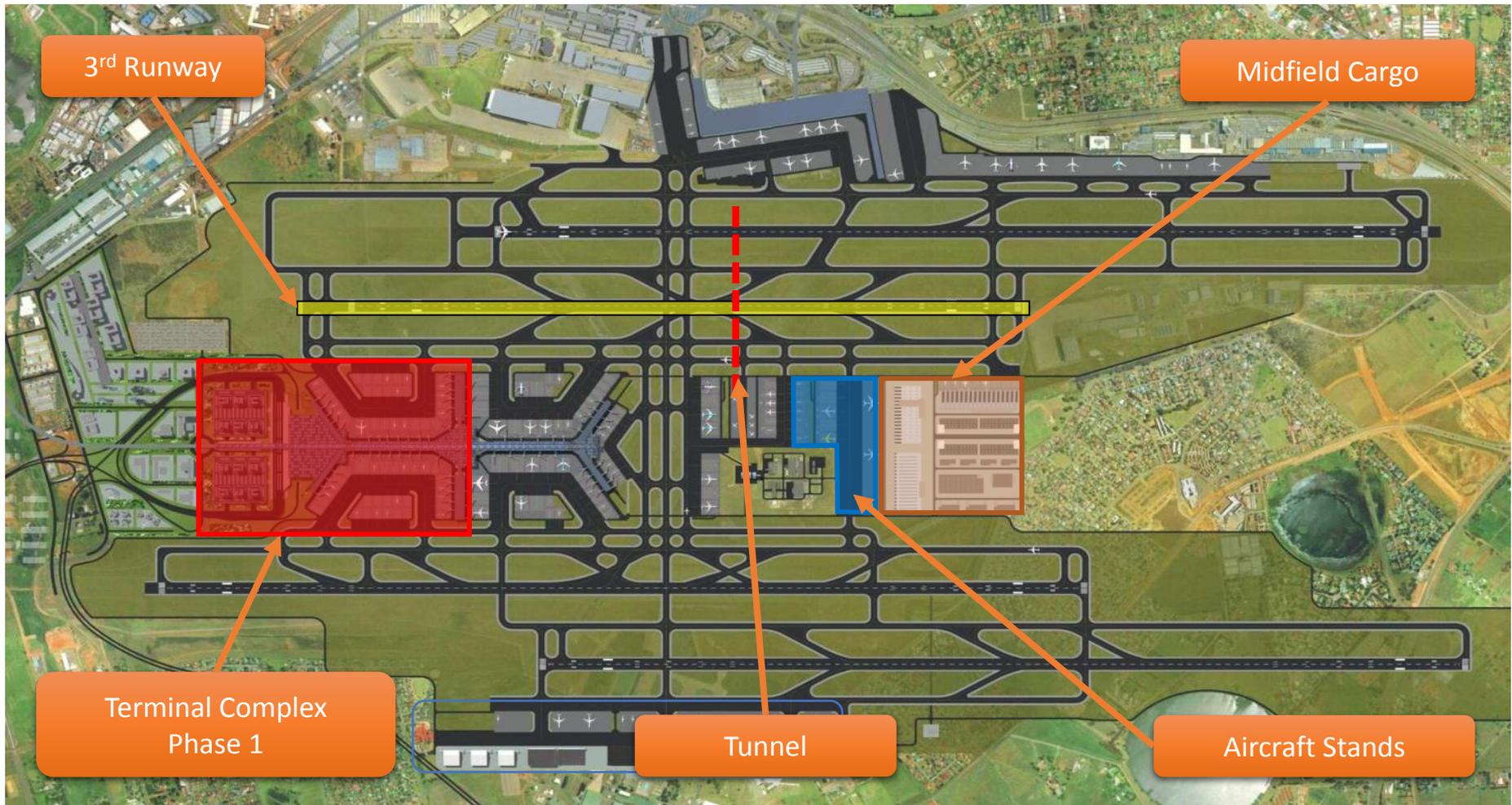
# Infrastructure Development & Management

## *Current Capacities and Throughput*

- Airport Site:  $\pm$  2100 ha or 3300 soccer fields
- Airport Elevation 1680 meters above sea level
- 2 Runways: Departures Runway (03L/21R): 4418m x 75m  
Arrivals Runway (03R/21L): 3400m x 75m
- Code F compliant e.g. Airbus A380, Boeing 747-800
- 81 to 130 aircraft stands (depending on configuration)
- Current Throughput:
  - 53 ATM's per hour
  - $\pm$  20.3 million passengers per annum
  - 224 000 ATM's per annum
  - $\pm$  400 000 tonnes cargo per annum
- Overall Terminal Capacity: 25 MAP

# Infrastructure Development & Management

## Major Medium Term Developments

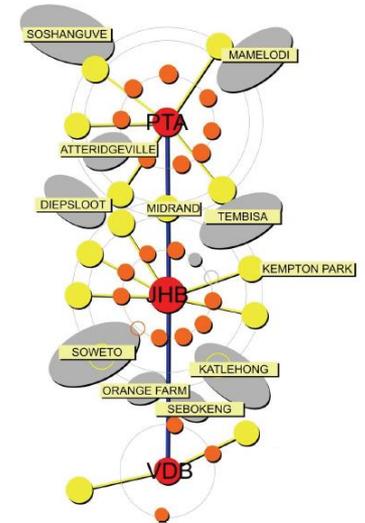
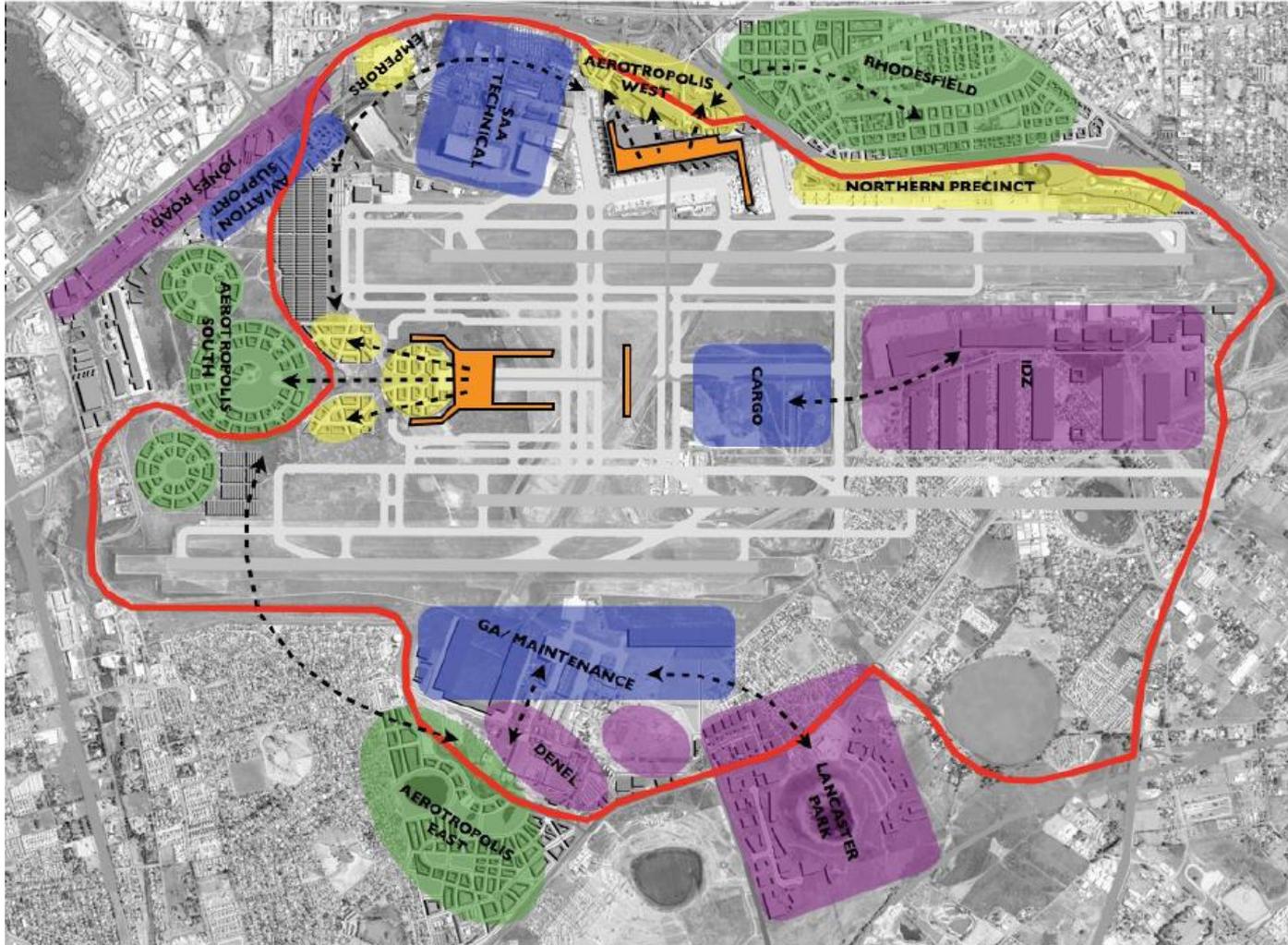


# Infrastructure Development & Management

## *Integrating Airport & City Development*



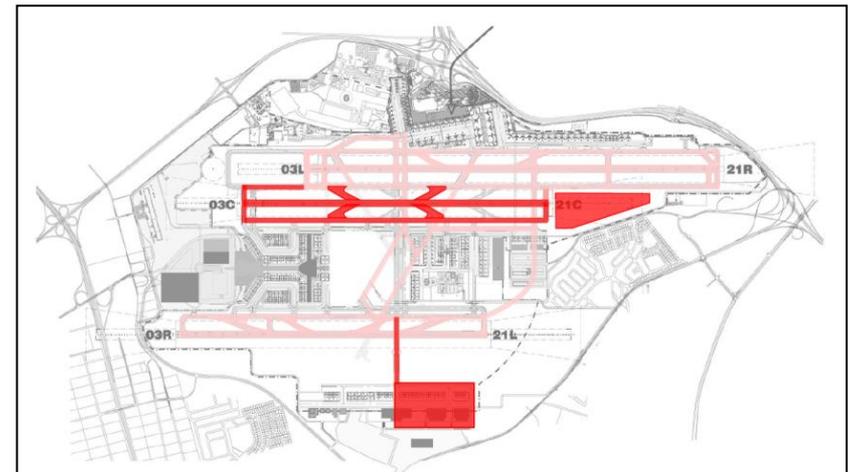
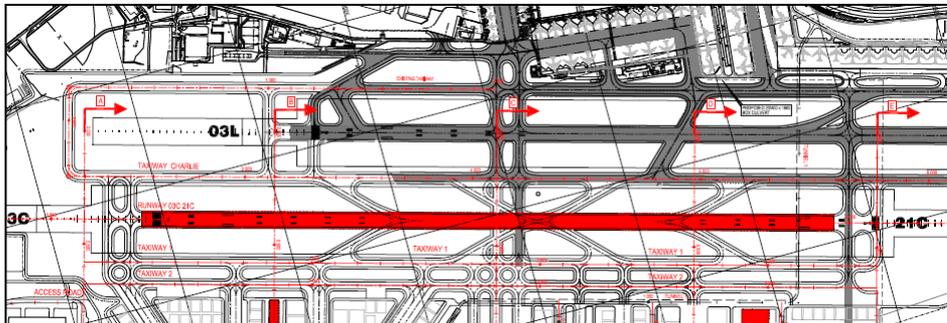
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# Infrastructure Development & Management

## 3<sup>rd</sup> Runway

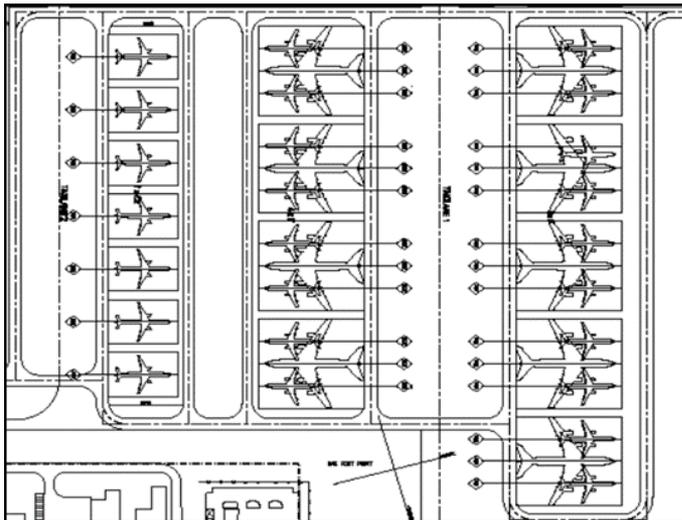
- Increase airside capacity with approximately an additional 10 to 15 ATM's
- Project consist of:
  - 3500m x 75m (Code F) runway
  - 4 x RET's
  - Parallel Taxiway
  - Existing maintenance and GA Area north of the proposed runway to be re relocated to free up space for AGL, navigational aids (ILS) and OLS.



# Infrastructure Development & Management

## *Aircraft Stands*

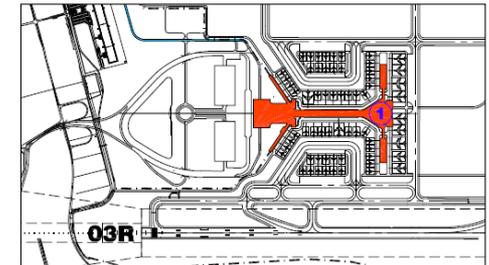
- 9 Code F stands in MARS configuration (9 Code F or 18 Code C) and 7 Code C stands
- Linked with the Western Terminal Complex via an internal airside link road.
- These stands will initially be used to accommodate long stay aircraft and later for cargo aircraft



# Infrastructure Development & Management

## Midfield Terminal Complex

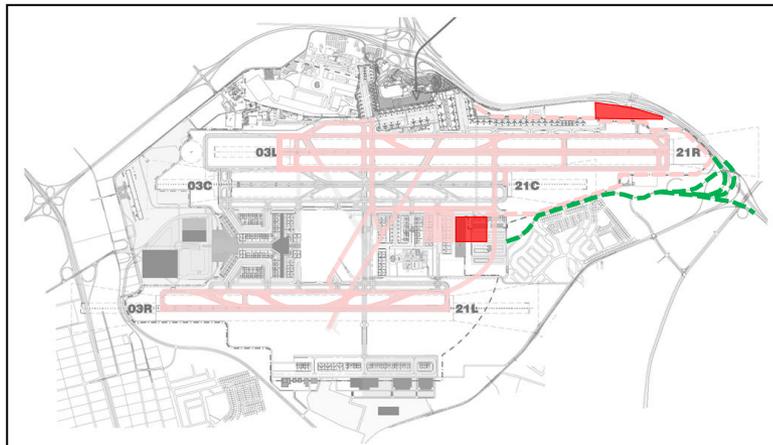
- Midfield Terminal complex consisting of:
- ± 80 000m<sup>2</sup> Terminal buildings
- Approximately 25 Code C stands excl. remote stands
- Taxiways to access stands and runways
- Access roads and interchanges from the freeway system
- 3500 parking bays etc.



# Infrastructure Development & Management

## Midfield Cargo

- In 2015/16 O.R. Tambo International airport handled  $\pm$  400 000 tons of air cargo
  - 60% Imports and 40% Exports.
- 30% of the air cargo was transported on dedicated cargo aircraft & 70% on passenger aircraft.
- 2 Phase development
  - 1<sup>st</sup> phase 750 000 tonnes
  - 2<sup>nd</sup> phase 2 000 000 tonnes
- Includes Cargo Terminal, Express Cargo, Forwarders, Staging, Storage, Aircraft Stands and Roads
- Aerotropolis Catalyst Project



# Infrastructure Development & Management

## *Macro Economic Impact – Sustainable Development*



In 2012 Airports Company South Africa appointed KPMG to conduct a study to determine the Macro Economic Impact of airport infrastructure development that took place between 2007 and 2011 following a 16.6 billion investment programme.

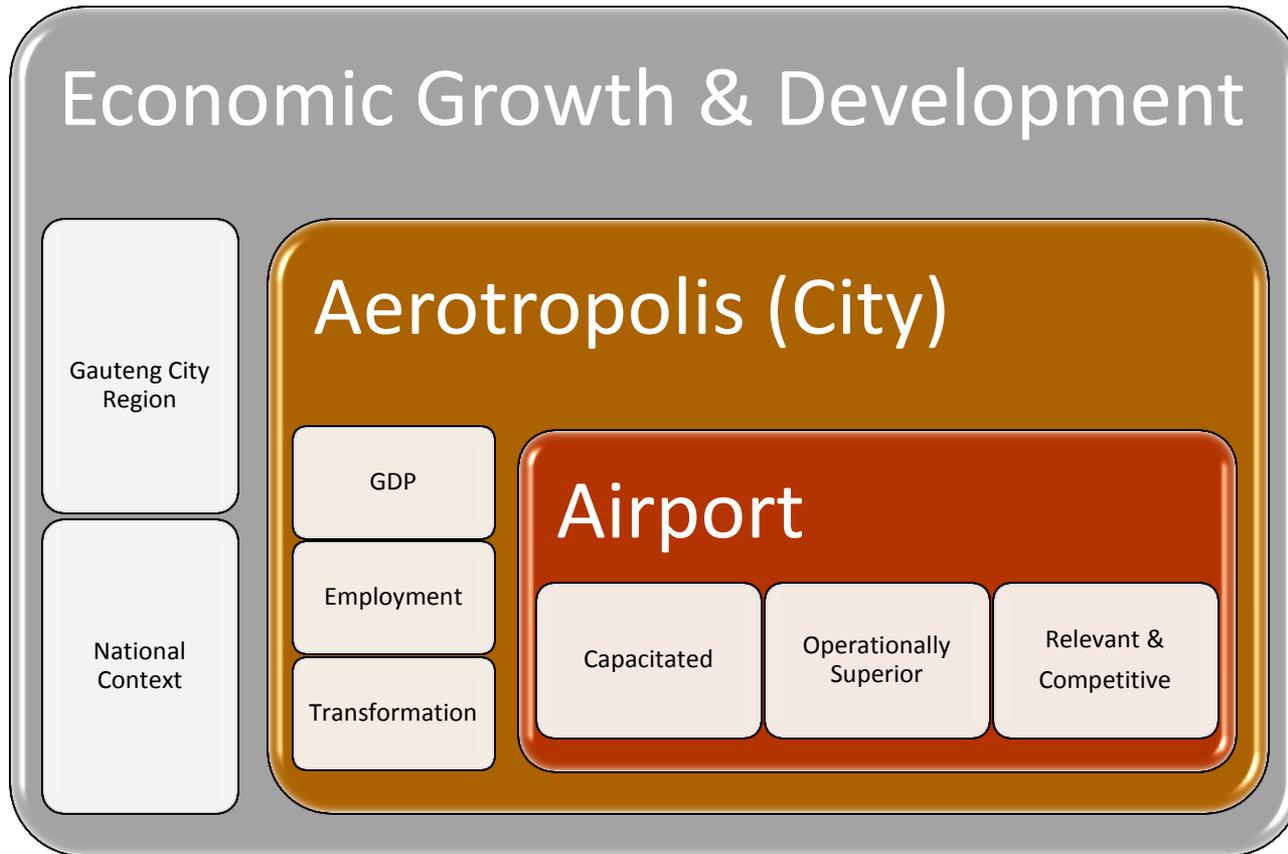
For the Gauteng Province:

- Real GDP – R128 million.
- Tax Revenue – R100 million.
- Employment – 8 658 direct and 20 202 indirect opportunities.



The general 'rule-of-thumb' international gateway airports e.g. OR Tambo generates  $\pm$  1,000 jobs on-airport per million passengers and an additional 5 to 10 jobs off-airport per every job on-airport

***Airports are economic engines and catalysts for economic development.***





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**Thank You**