



# Terminals of the Future

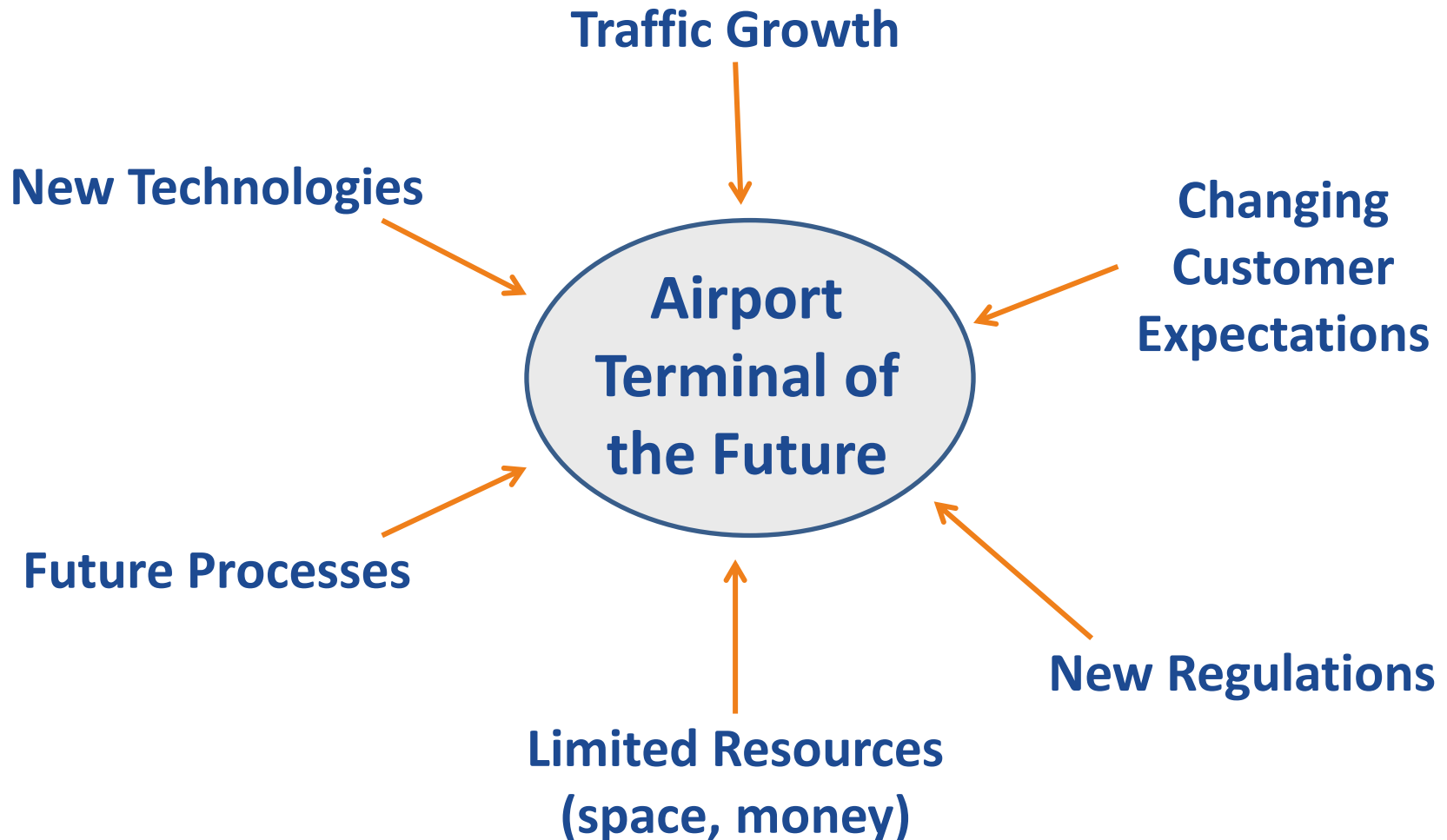
## Effects of Current and Future Trends on Airport Development in Africa

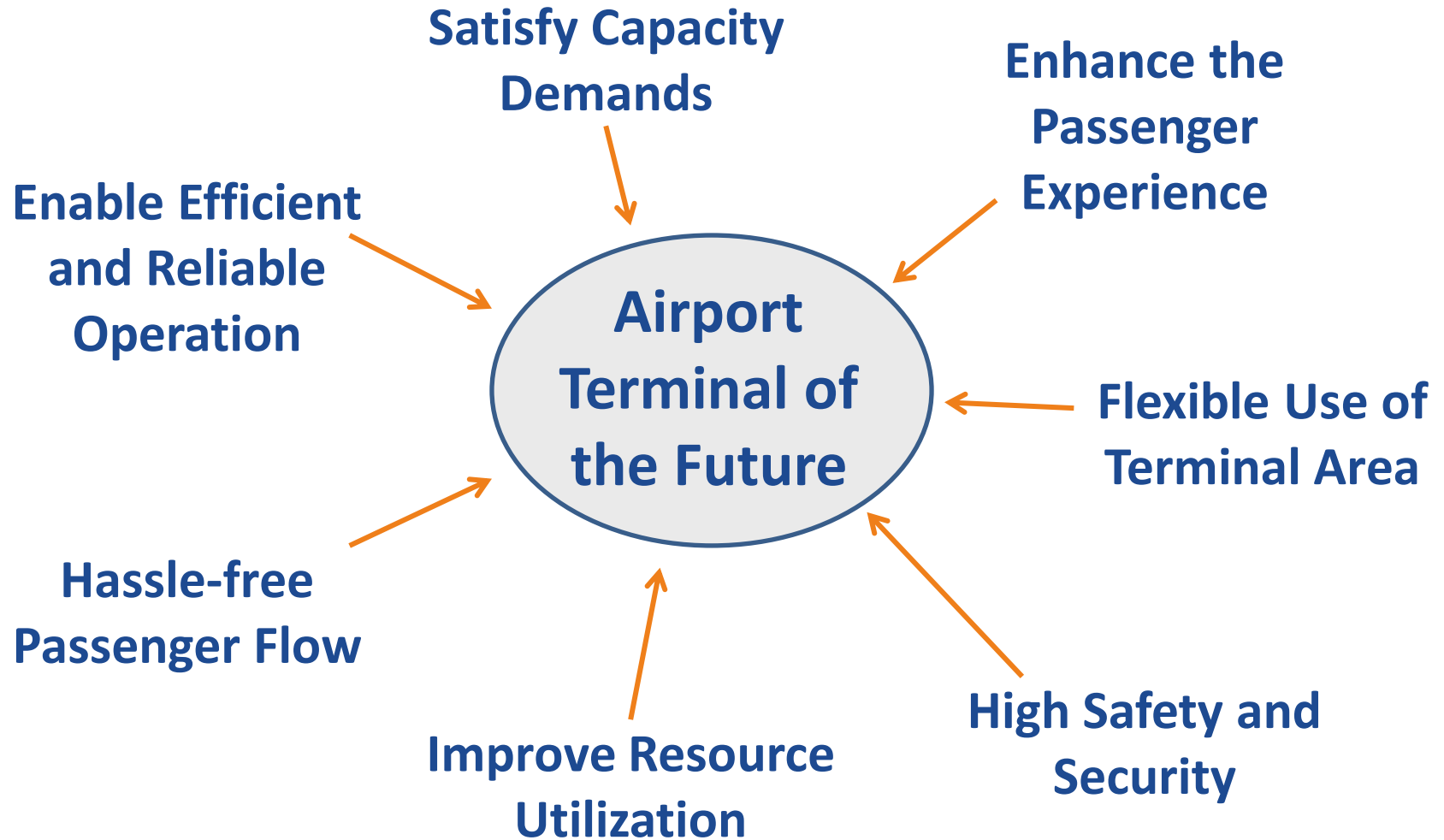
Presentation at the 2<sup>nd</sup> Annual Africa Airport Expansion Summit  
20<sup>th</sup> – 21<sup>st</sup> February 2014, Cape Town



airport consulting

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➤ Terminal of the future concepts need to be evaluated according to the requirements above

## Existing Check-In Halls

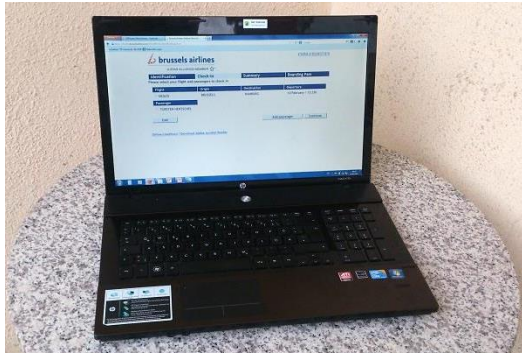


- Low utilization of Check-In counters through dedicated use
- Dependency on staff



## In 2025/30 ...

... most passengers will check-in off-airport or will be checked in automatically!



... most Airports will provide self-service bag drop desks!



... most passengers will self-tag their bags at home or at the airport?  
-> permanent bag tag becomes common

- Most conventional Check-In counters and kiosks will disappear
- Check-In hall will mainly be used for baggage drop-off
- Even some baggage will be checked off-airport (hotel, city office, station)
- Permanent bag tag allows individual tracking + info on time of receiving

## Existing innovative Check-In Hall concepts



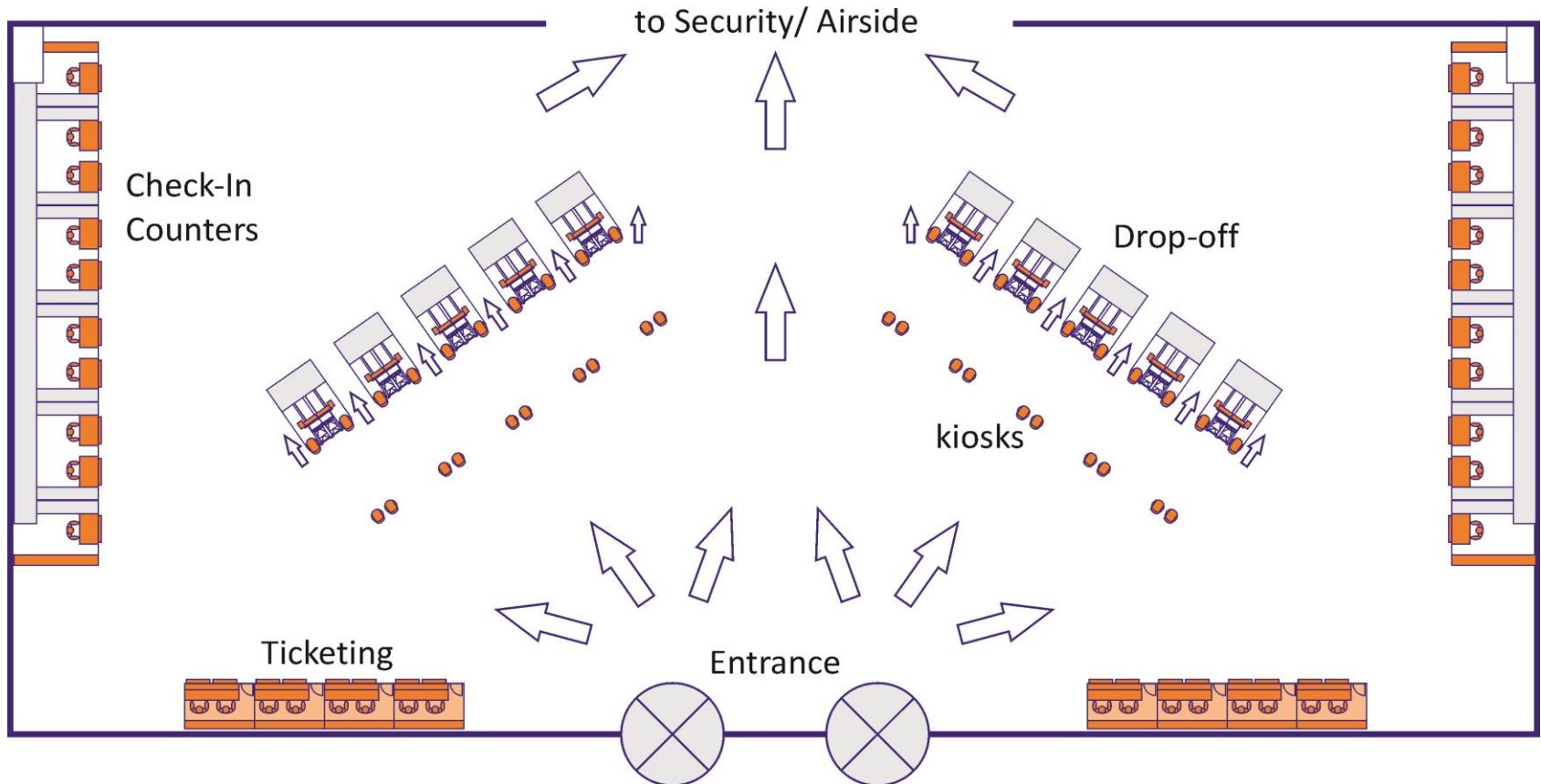
Auckland



Sydney, © ICM Airport Technics

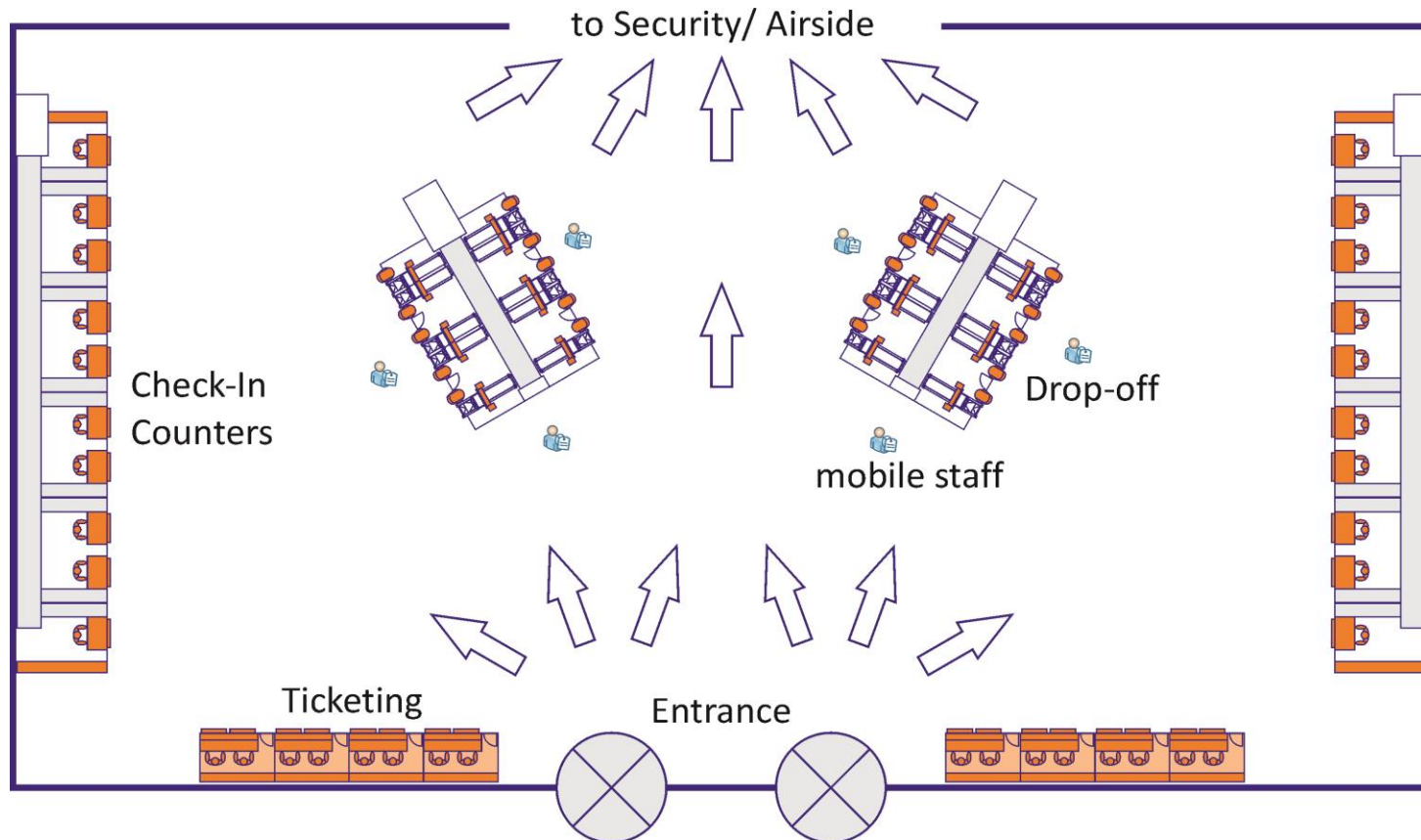
- New concepts for Check-In areas with a maximum of automation
- Current applications focus on the modification of existing halls

## Vision 2025: Check-In Hall of the Future



- 50% Common-use Automated Bag-Drop; **bag-tag at kiosk**; 50% Check-In Counters for special services or priority passengers
- **Reduced size** of Check-In Hall with optimized passenger flow

## Vision 2025: Check-In Hall of the Future



- 50% Common-use Automated Bag-Drop; **bag-tag at home or by mobile staff**; 50% Check-In Counters for special services or priority passengers
- **Further reduced size** of Check-In Hall with optimized passenger flow



## What will be the Boarding-Pass of the future?

### NFC

(Near Field Communication)



### Biometrics



### RFID



- Boarding and access control will be more reliable and faster compared to the traditional barcode
- One Technology should prevail as the future standard (simple “tap and go” is necessary to successfully replace barcode)
- NFC has most advantages; recommended by IATA to member airlines

## Automated border control (ABC)



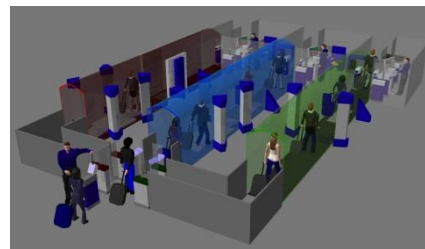
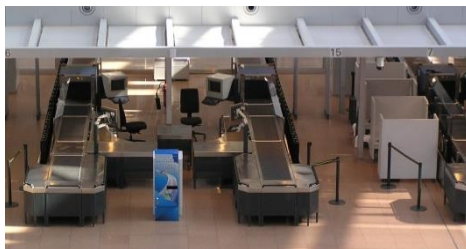
Picture Amsterdam (Kigali first in Africa)

## Automated airside access control



Brussels

## Security checkpoint of the future



Will there be a system, which allows screening without forcing someone to stop or to drop-off the cabin luggage (ambient screening)?

- Automation reduces queuing time, improves security and the passenger experience
- ABC gets interesting when most pax use e-passports (different speed per country)
- Efficient security checkpoint of the future concepts and technology might not be ready by 2025/30

## Future gate concepts



Pictures Amsterdam

## Entertainment of the passengers



Picture Amsterdam

## Automated boarding

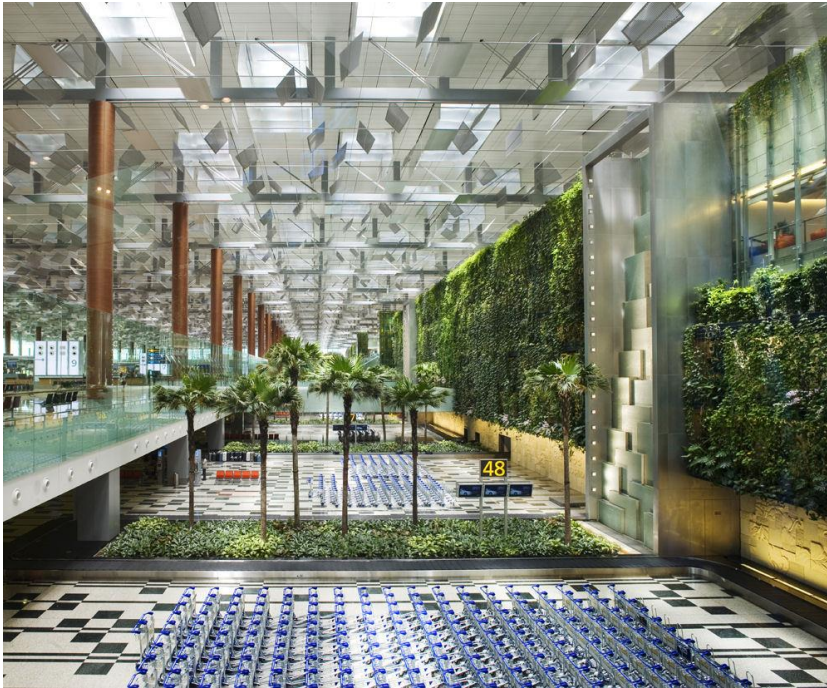


Picture Munich

- Enhanced services and comfort on the airside in the future
- Terminal space will shift from landside to airside



## Impressive arrival areas (Where is the belt?)



Singapore

## Shopping on arrival



Johannesburg

To order on departure or during the flight with collection on arrival will become common.

IT trends:

- self-service kiosks for mishandled baggage
- Individual info on mobile regarding time of bag on conveyor for convenient collection

- Arrival areas will become more important in the future since they provide the first impression of a destination/country
- Shopping/collecting on arrival will require new processes and infrastructure for arrival areas



- Increased product differentiation (dedicated low cost or priority facilities)
- Optimized Terminal Operation with
  - Passenger flow management systems
  - A-CDM (Airport Collaborative Decision Making) for terminal processes
- Information
  - Personalized information on time to gate, “last call”, delays, shopping opportunities, etc. on mobile phone
  - Indoor-navigation with smartphone
  - Instant feedback systems
  - Touchscreens, holograms for passenger information
  - Location based social media



Frankfurt, © insoft

- Optimized terminal operations will improve efficiency and reliability
- The journey will become much more personalized to make the passenger feel he is in control of the journey

- Flexible terminal design is key to incorporate future concepts
- Development just happens since future generations ...
  - will prefer mobile devices for the management of trips
  - will grow up with contactless technologies
- The informed and empowered “Me Passenger” will enforce the transformation of airports
- Self-Service will not completely replace staff since passengers expect to see people (VIP’s, first and business class and others require individual service)
- Will there be a technological divide between world class facilities and underdeveloped airports? No, development can happen everywhere!

## Terminal of the future concepts will ...

- **improve the utilization of resources**
- **reduce operating costs**
- **unlock new revenue streams**





Thank you very much for your attention!

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