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# The Future of the Landside in the Master Plan Process

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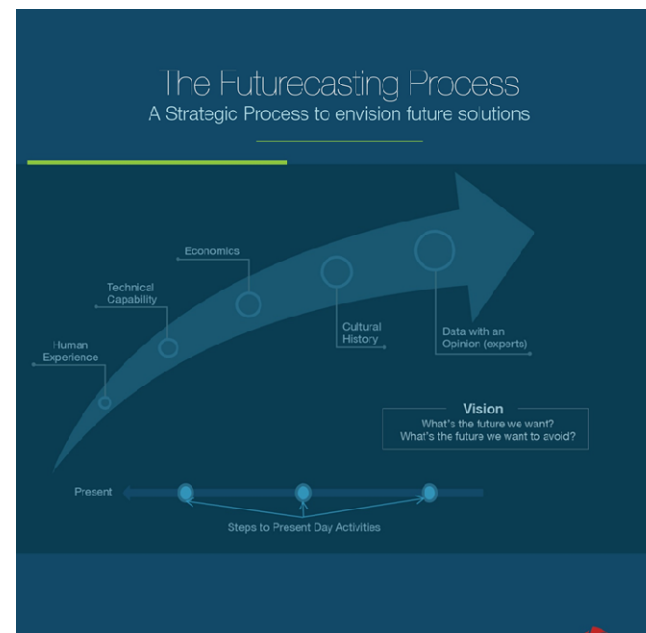
# ARUP





# Introduction

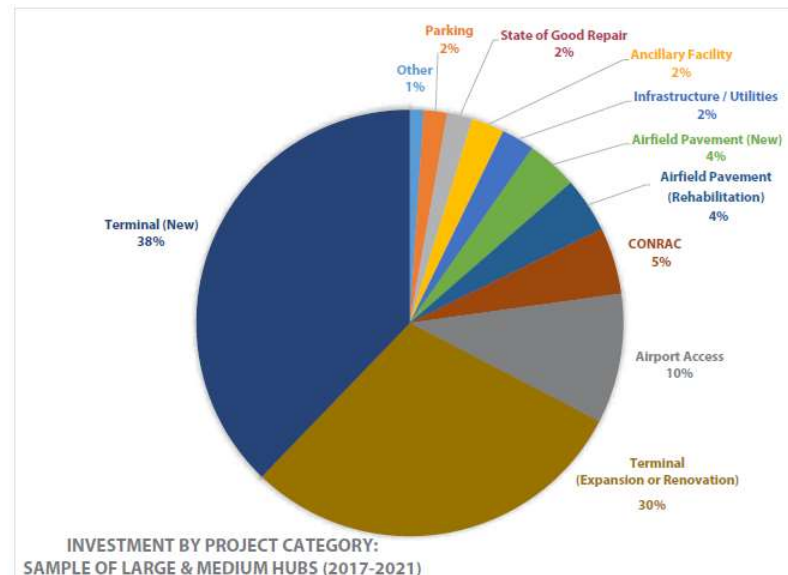
- Context
- Considerations
- Capacity Challenges
- Landside is a Key Component
- Some Trends
- Fast Changing World
- Take Away





# Context

- Section 3 – Landside.
- Business Case.
- Interface with Airside.
- Terminal.
- Landside Access.
- Commercial Opportunities.

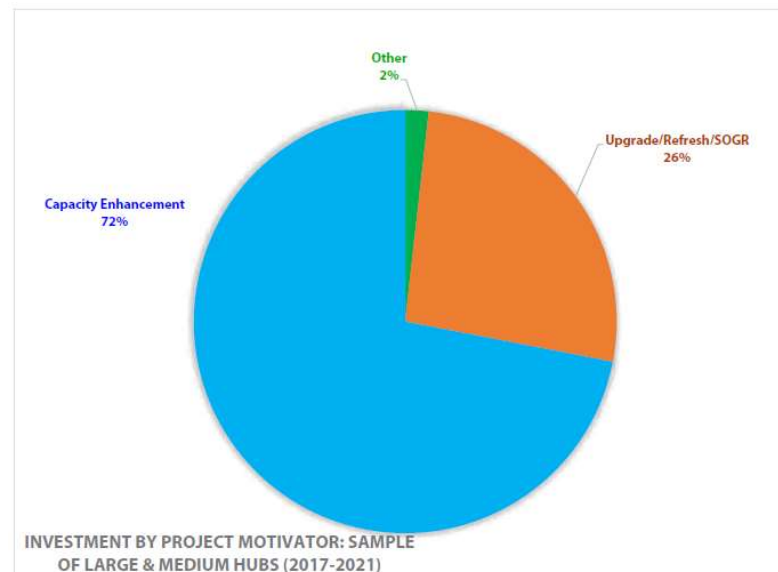


Extract ACC, Development at US Airport – Summary look at future trends



# Considerations

- Greenfield or Existing.
- Scale and Size.
- Stakeholders.
- Interfaces.
- Politics.
- Purposes.
- Capacity and Flexibility.



Extract ACC, Development at US Airport – Summary look at future trends



# Terminal Capacity Challenges

- Originally an experience for only a few people.
- 2017 more than 4B passengers.
- Traffic expected to double over the next 15 years.
- On-going and continuous expansion.
- Major part of CAPEX program.
- Complex building sensitive to change.
- Multiple services and stakeholders.
- Time has past but challenges still remain.



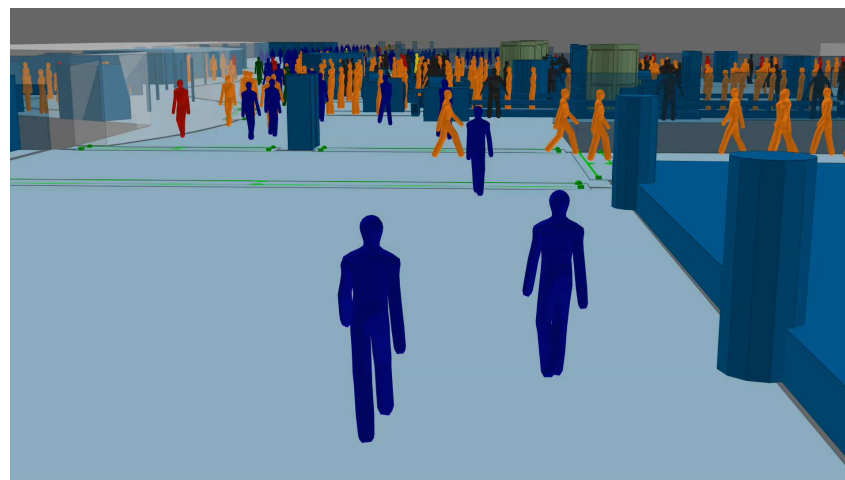
The Terminal





# Capacity Enhancement

- Understanding of existing condition and its behaviors.
- Optimization of existing facilities.
- Testing before implementing.
- Various method of testing.
- When looking forward 20 to 30 years from today, how can we safeguard the future?





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# Landside Access

- Choice and reliability.
- Sources of landside revenue.
- Flexibility.
- Congestion outside of airports
- AV's will further disrupt the groundside operations.





# Some Trends

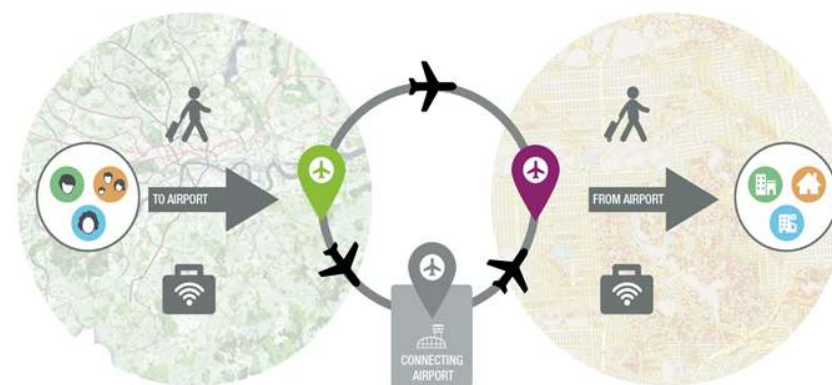
- Flexible terminal objectives.
- Seamless travel experience.
- Meet or exceeds safety, security and immigration regulations.
- Recognize that a large variety of passenger types must be serviced.
- Optimize the passenger journey within a reasonable cost model.
- Be based on a 'sustainable strategy'.





# End to End Journey

- Travel ecosystem.
- Need an holistic view.
- E to E will required:
  - Real time tracking,
  - Smart integration,
  - Streamlining of the experience,
  - Data sharing.

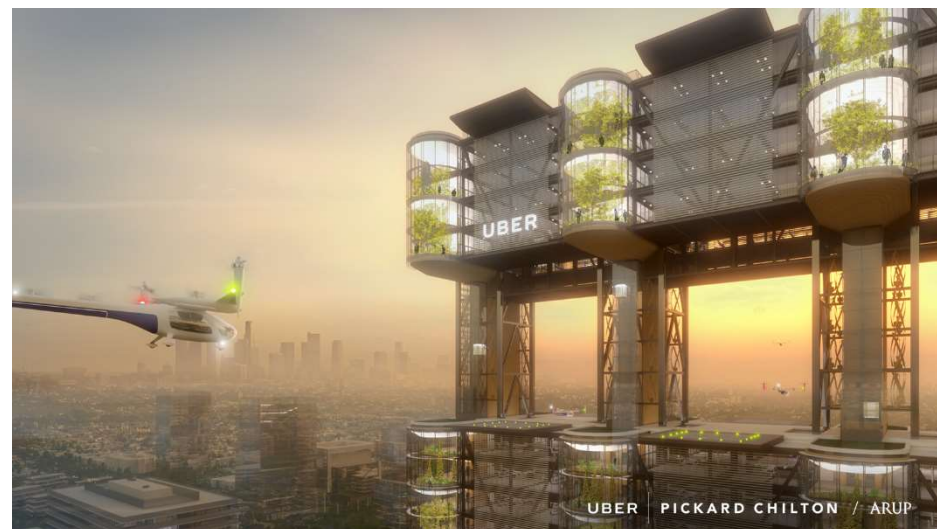


The Connected-End-to-End travel Experience



# Future Landside

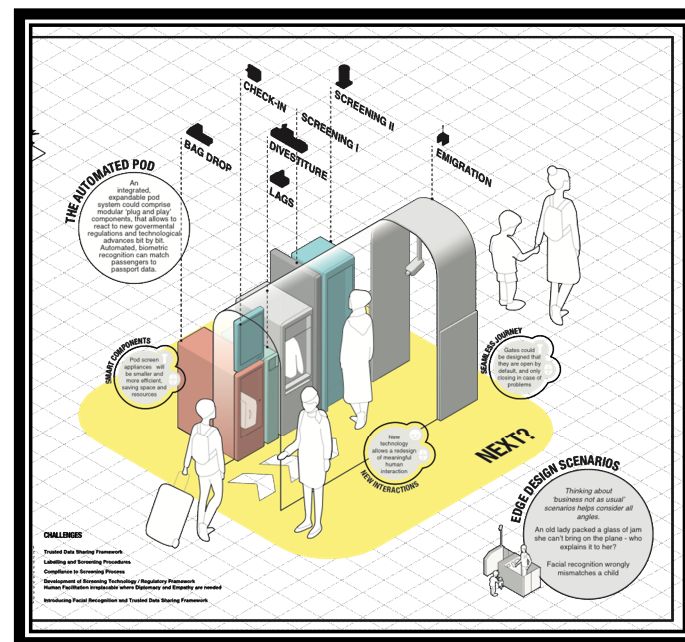
- Flexibility and choice.
- Seamless Travel experience.
- Optimize passenger journey.
- New means of Transport.
- Other trends.





# Future Terminal

- Tailored passenger experience.
- Optimized assets and operation.
- Terminal-lite.
- Smart Terminal using technology.
- One-check concept.
- Supply chain approach in order to decentralize.





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# Baggage Identities

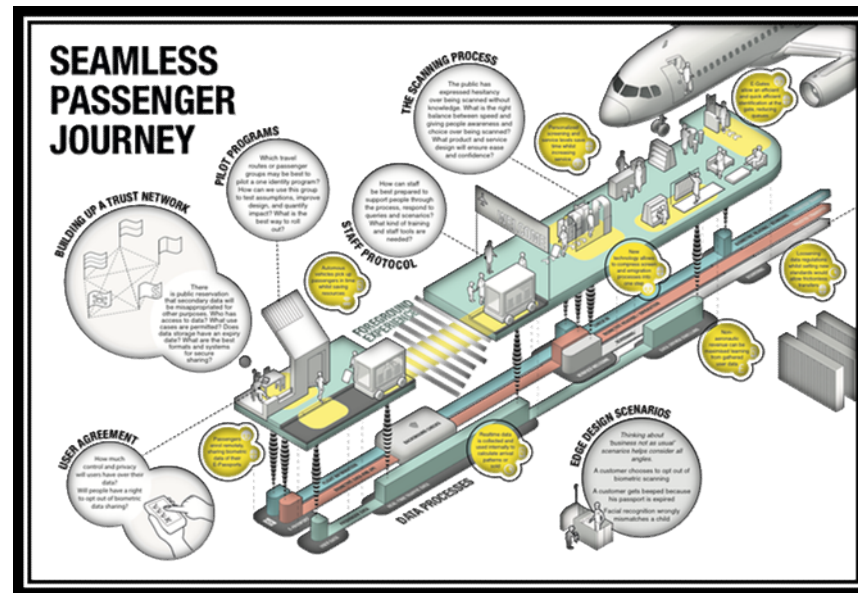
- Independent baggage.
- Real-time tracking.
- Reclaim on-demand.
- Baggage Uberization.





# Big Data

- Holistic data management.
- Other industries approach.
- Many questions exist.
- Fast changing word.
- Many challenges ahead.





# Some Take Away

- Collaborative journey !
- Weight of the Landside/Terminal.
- Understanding of existing assets.
- Seamless experience – E to E.
- 4th industrial revolution.
- Call for Flexibility.
- Fast changing environment.





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THANK YOU