

Auckland Airport Lean Six Sigma Programme

February 2012

Purpose

- Auckland Airport Lean Six Sigma journey
 - How it started
 - Where it is today
 - Where to next

Agenda

- Overview of Lean Six Sigma
- How the Auckland Airport programme started
 - Programme partners
 - Governance structure
- Key outcomes
 - Metrics
 - Awards
 - Transformation change
- Key projects
- Where to next

What is Lean Six Sigma

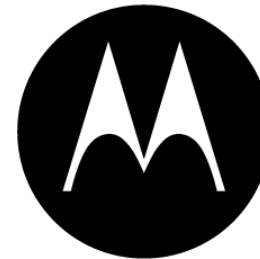
Established management approach to operational excellence

Lean



TOYOTA

Six Sigma

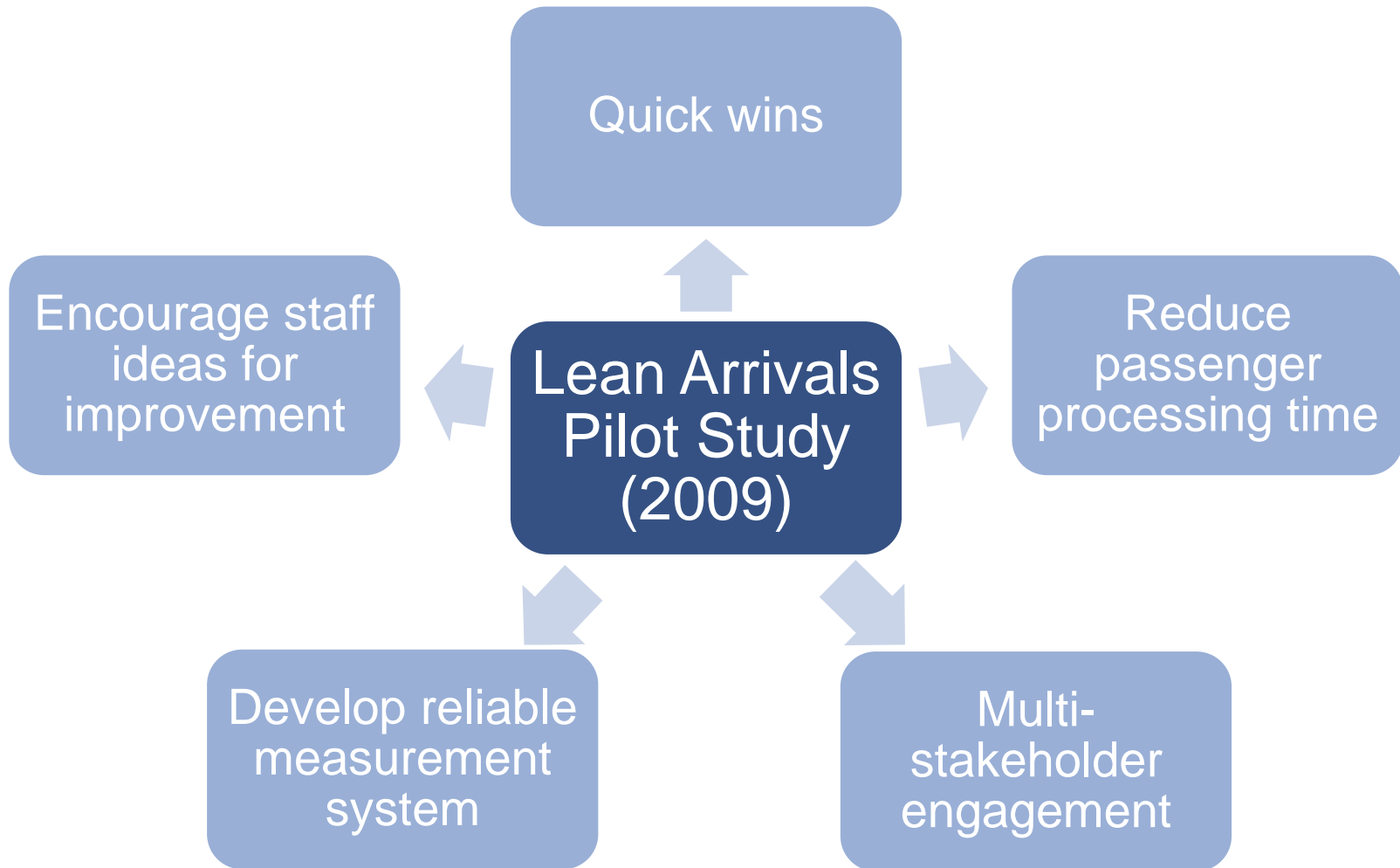


MOTOROLA

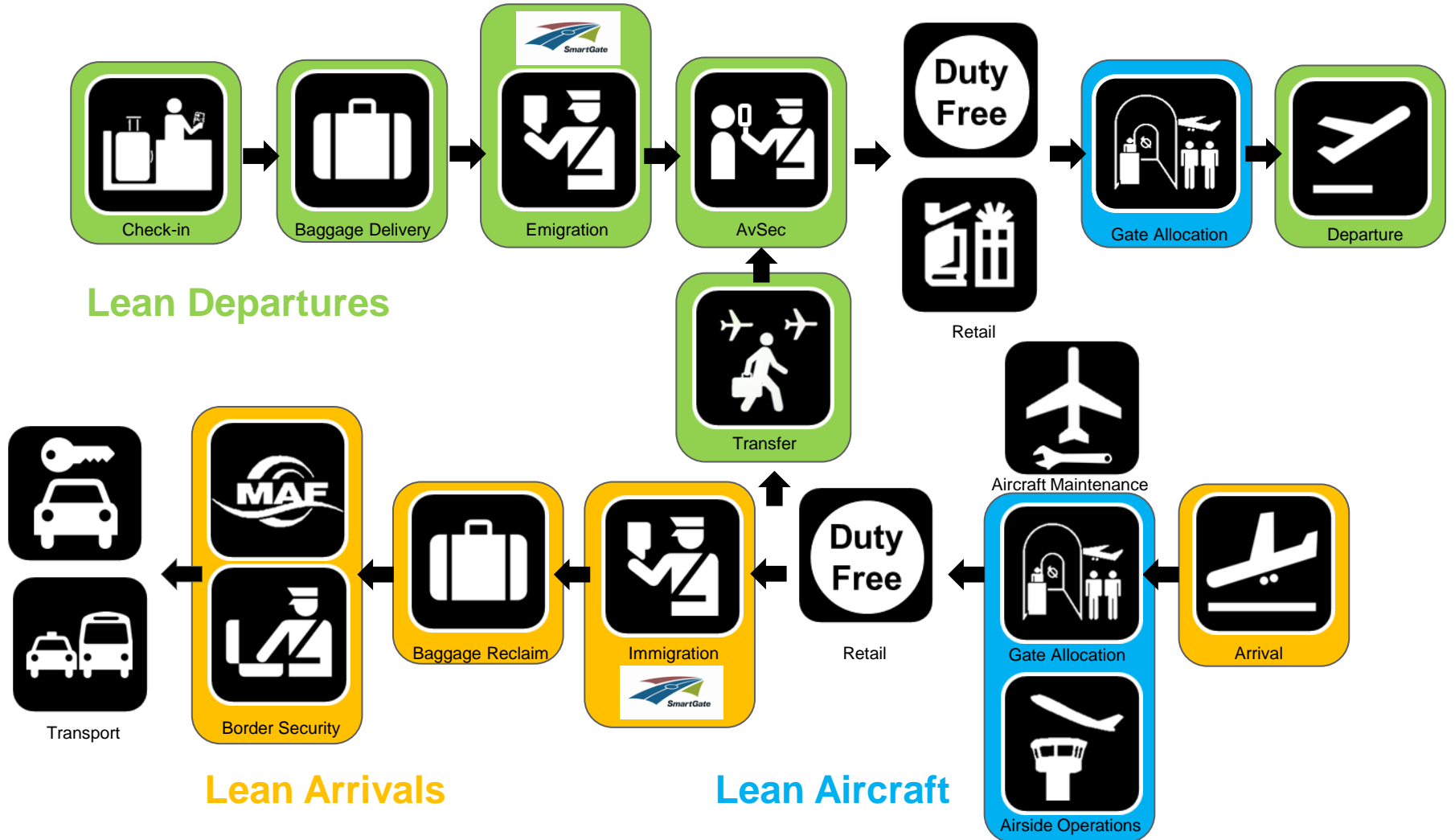
What is Lean Six Sigma

- Voice of the Customer
 - Creates shared vision among stakeholders
- DMAIC framework
 - Data driven problem solving
- Continuous improvement
 - Inherent inclination towards innovation

Auckland Airport Lean Journey



Auckland Airport Lean Journey



Programme Partners



AIR NEW ZEALAND

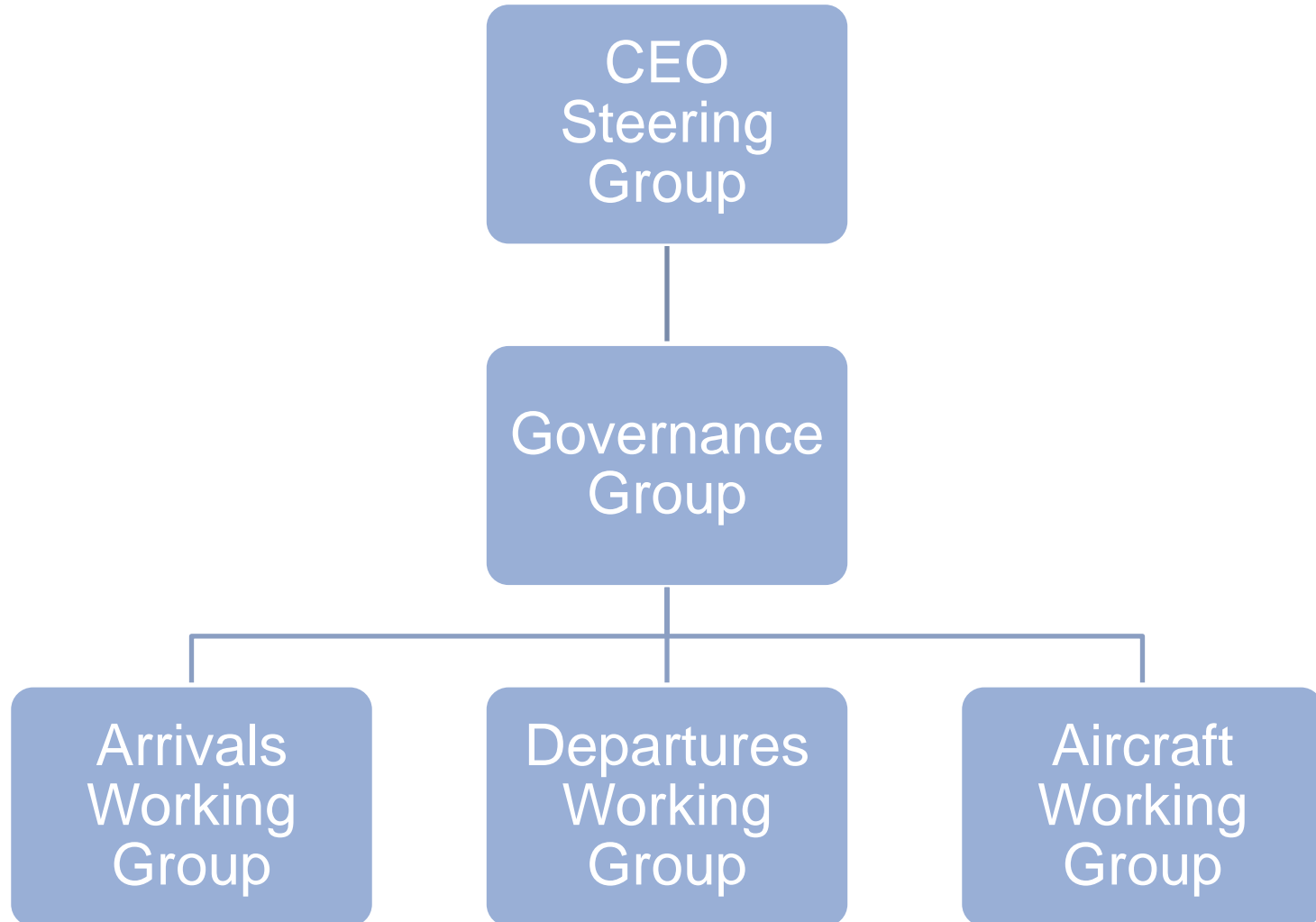
Department of Labour
TE TARI MAHI



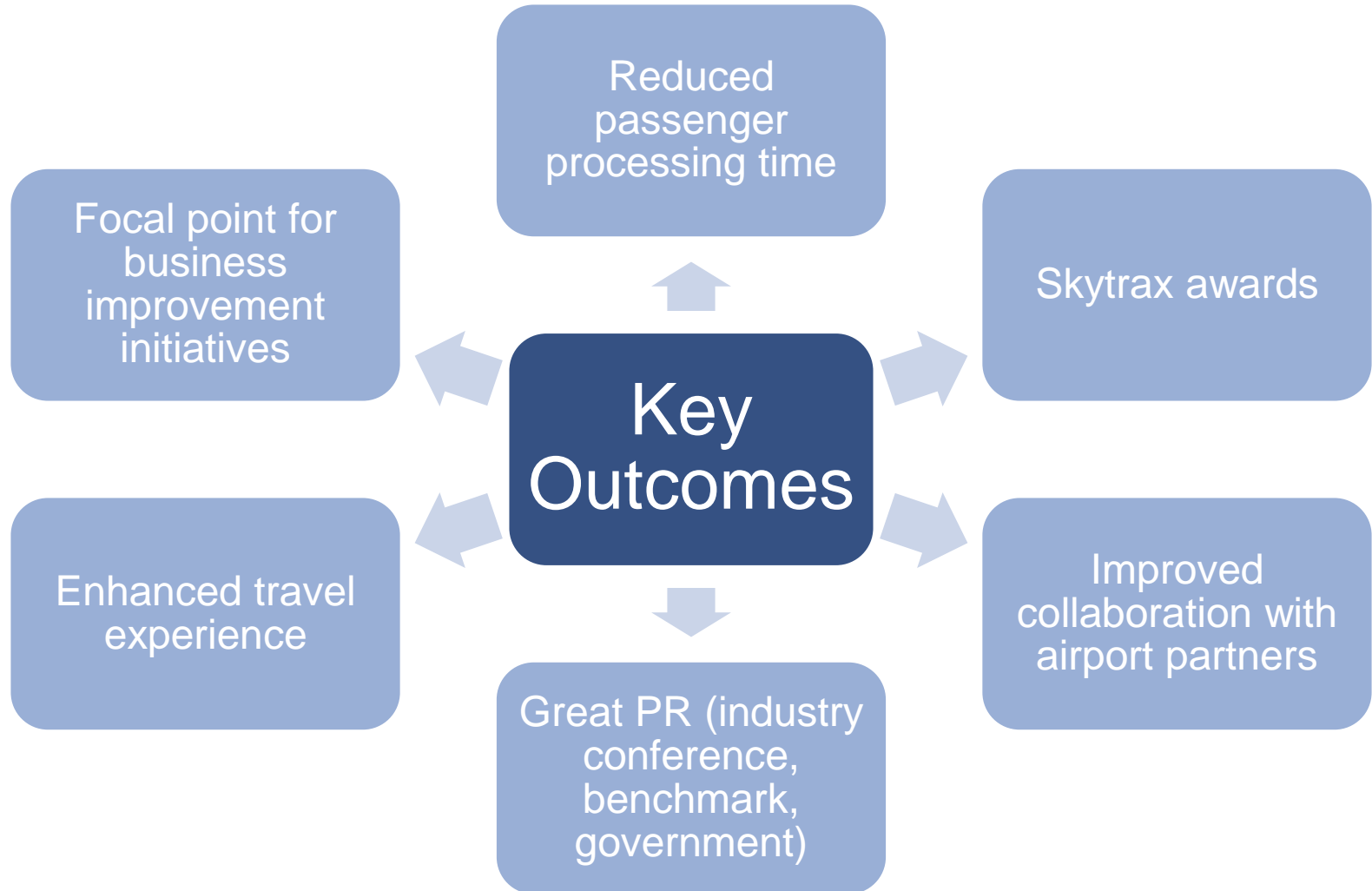
SKYCARE
INTERNATIONAL



Governance Structure



Key Outcomes



Key Performance Metrics

KPI	April 2010	November 2011	RWC
Arrivals: 100% of passengers processed within 25 min	64%	84%	90%
Departures: 100% of passengers processed within 12 min	89%	97%	99%



Receiving praise from customers for delivering a typically friendly standard of Kiwi service, airport users also showed **improved satisfaction levels for security and immigration procedures.** (*Skytrax Award 2011*)

Lean Arrivals Projects

Project	Objectives
Way-finding	<ul style="list-style-type: none">• Improve way-finding• Standardise signage
MAF exit facilitation	<ul style="list-style-type: none">• Implement direct exit• Segment passenger and intervene based on risk profile• Reduce border processing time
Baggage handling	<ul style="list-style-type: none">• Reduce delivery times• Reduce mishandled bags
Dynamic signage at entry portals	<ul style="list-style-type: none">• Improve way-finding• Support multi-language displays• Promote flexible passenger facilitation
Queue layout and management	<ul style="list-style-type: none">• Improve passenger facilitation• Optimise use of existing terminal space
FIDS screen design	<ul style="list-style-type: none">• Improve visibility

Lean Arrivals Projects

Project	Objectives
Carousel extension and upgrade	<ul style="list-style-type: none">• Increase capacity• Improve reliability, availability and maintainability• Reduce bag jam and bag damage
Carousel allocation and automation	<ul style="list-style-type: none">• Eliminate conflicts between different ground handlers• Improve asset utilisation• Reduce baggage handling errors
Border agency staff rostering review	<ul style="list-style-type: none">• Improve resource allocation• Reduce border processing time
Bio-image transfer	<ul style="list-style-type: none">• Implement pre-arrival risk assessment• Focus intervention on high risk passengers• Reduce border processing time
RWC crowd modelling and planning	<ul style="list-style-type: none">• Improve understanding and decision making when facilitating passengers at this historical event

Lean Arrivals Projects

Project	Objectives
Special handling review	<ul style="list-style-type: none">• Improve travel experience• Improve operational effectiveness and efficiency
Domestic transfer and secondary line redevelopment	<ul style="list-style-type: none">• Improve passenger facilitation• Streamline passenger flow• Optimise space sharing between Customs and MAF• Improve trolley replenishment• Streamline domestic transfer process• Reduce border processing time
Daily heartbeat meetings	<ul style="list-style-type: none">• Improve stakeholder collaboration• Improve planning and communication
Digital screens on carousels	<ul style="list-style-type: none">• Improve flight info display

Lean Departures Projects

Project	Objectives
Way-finding	<ul style="list-style-type: none">• Improve way-finding• Standardise signage
Emigration hall redevelopment	<ul style="list-style-type: none">• Increase capacity• Streamline passenger flow and processing• Reduce border processing time• Improve operational effectiveness and efficiency• Improve retail experience
Staff and crew security screening	<ul style="list-style-type: none">• Increase capacity (as an interim solution)• Eliminate poor passenger experience from staff and crew queue jumping
AvSec screening point design	<ul style="list-style-type: none">• Improve operational efficiency (as interim solution to emigration hall capacity increase)• Reduce border processing time
RWC crowd modelling and planning	<ul style="list-style-type: none">• Improve understanding and decision making when facilitating passengers at this historical event

Lean Departures Projects

Project	Objectives
FIDS messaging upgrade	<ul style="list-style-type: none">• Getting passengers to the right place at the right time• Improve customisation of messages• Align messages with static way-finding signs• Provide fail-safe mechanism to message displays• Reduce system maintenance cost
LAGS searches	<ul style="list-style-type: none">• Raise awareness of LAGS• Reduce LAGS intervention at screening point
Check-in area de-clutter	<ul style="list-style-type: none">• Improve way-finding• Reduce unnecessary clutter
Airline check-in signage consolidation	<ul style="list-style-type: none">• De-clutter check-in area• Reduce storage requirement• Standardise check-in signs• Improve customisation and flexibility in branding• Improve operational efficiency

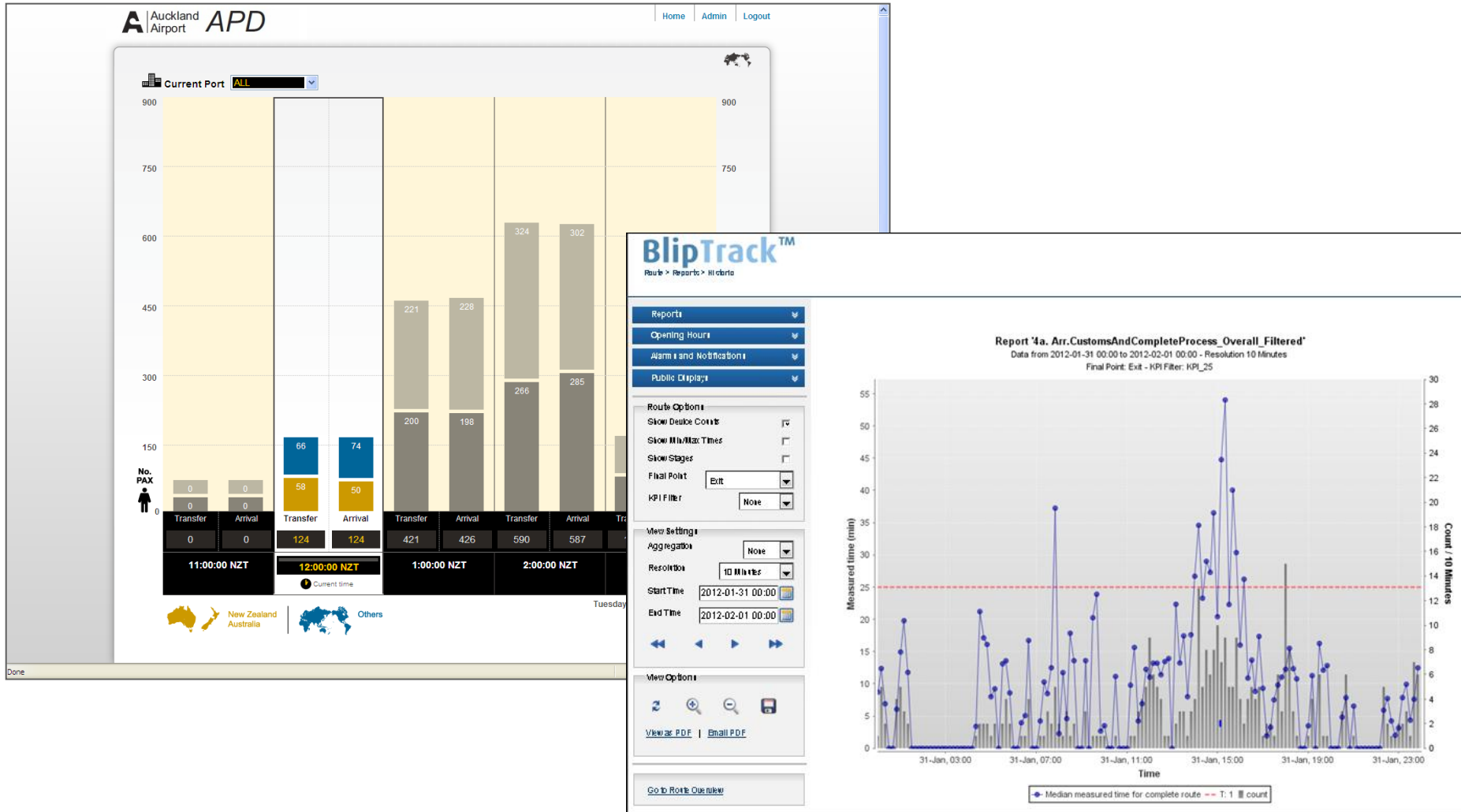
Lean Departures Projects

Project	Objectives
LPD processing review	<ul style="list-style-type: none">• Improve way-finding
E-bag analysis	<ul style="list-style-type: none">• Reduce congestion in emigration hall• Improve operational efficiency
Departure information (i.e. e-departures card)	<ul style="list-style-type: none">• Streamline emigration process• Reduce border processing time• Reduce operating cost
PA announcement changes	<ul style="list-style-type: none">• Reduce noise in the terminal

Lean Aircraft Projects

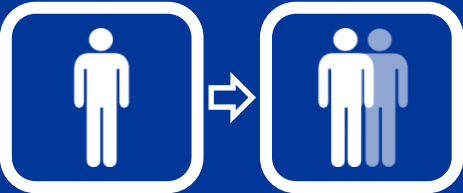
Project	Objectives
Automate airside driving course	<ul style="list-style-type: none">• Improve operational efficiency• Provide assurance on timely assessment
Project Zero	<ul style="list-style-type: none">• Improve air bridge maintenance• Reduce delays
LVO signage replacement	<ul style="list-style-type: none">• Improve safety• Reduce delays
On time performance	<ul style="list-style-type: none">• Improve on time performance• Reduce turnaround time

Innovative Solutions

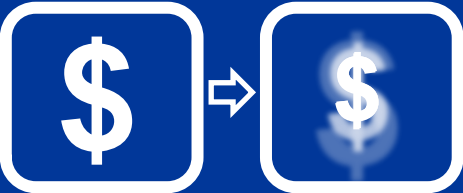


From Performance Improvement to Smarter Airport for NZ Inc

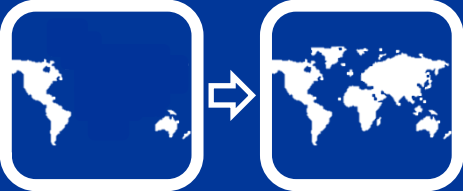
WHY



Passenger Growth



Cost Cutting Pressure
Commercial & Government



Grow Travel, Trade
and Tourism

WHAT

Technology

Innovation

Spend to
Save

More for Less

HOW

NZ Inc

?

Airlines

JBA

Auckland
Airport

Future
Auckland
Airport
Operations

Optimised Processing | Stakeholder Collaboration | Real Time Information | Mobile Workforce

