

The Chartered Institute of Logistics and Transport

ANNUAL FORUM 2016











INTRODUCTION

- Housekeeping
- Order of the day
 - Greg Thomas, Wellington Airport
 - Mike O'Donnell, vWorks
 - Neil Cole, KiwiRail
 - Phil Urlich, MITO
 - Walter Glass, Logistics Training Group
 - Sue Ramsay, Christchurch City Council



What is innovation?

innovation

/ɪnəˈveɪʃ(ə)n/ •

noun

the action or process of innovating.

"innovation is crucial to the continuing success of any organization"

synonyms: change, alteration, revolution, upheaval, transformation, metamorphosis, reorganization, restructuring, rearrangement, recasting, remodelling, renovation, restyling, variation; new measures, new methods, new devices, novelty, newness, unconventionality, modernization, modernism; a break with tradition, a shift of emphasis, a departure, a change of direction; informal a shake up; informal a shakedown; humorous transmogrification

"they favoured the traditional approach and resisted innovation"

· a new method, idea, product, etc.

plural noun: innovations
"technological innovations designed to save energy"



Strategic Planning at CEO Level

Presenter: Greg Thomas General Manager Communications Wellington Airport















DRIVERS OF GROWTH





2017+ GROWTH STRATEGY





5.4m passengers

- 2-4% passenger growth
- Capacity constraints in terminal and car park
- Undeveloped land
- Relationship with customers
- New pricing

5.8m passengers

- ✓ Extend trans-Tasman
- ✓ Regional Network
- ✓ Terminal extensions
- ✓ New Retail opportunities
- ✓ Multi-level car park
- ✓ Hotel
- ✓ Airport Retail Park
- ✓ Runway ext consent
- ✓ Active in regulation



6.5m passengers

- √ Faster pax growth
- ✓ Trans-Tasman Long Haul
- ♦ New retail & transport
- ♦ Hotel
- **♦** Retail park
- **♦** Runway extension
- ♦ Long haul flights

2014 - Platform

2015 – New Growth Platforms

2017/20 - Next Level

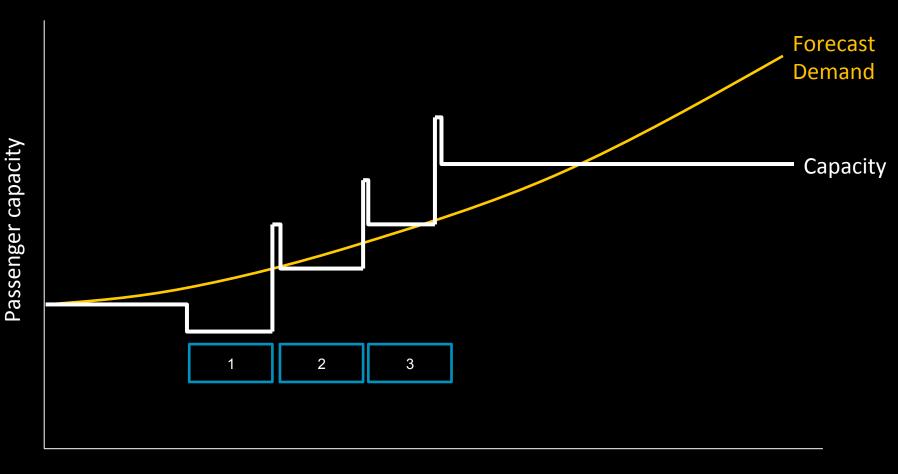
MASTER PLANNING FOR 110ha





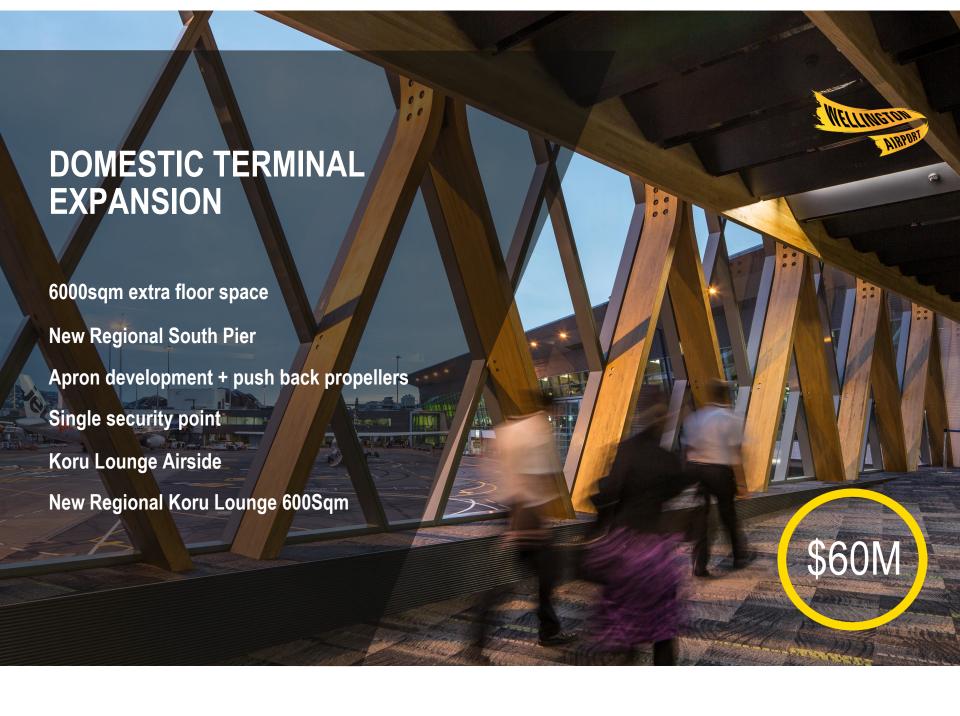
BUILDING TO MEET DEMAND

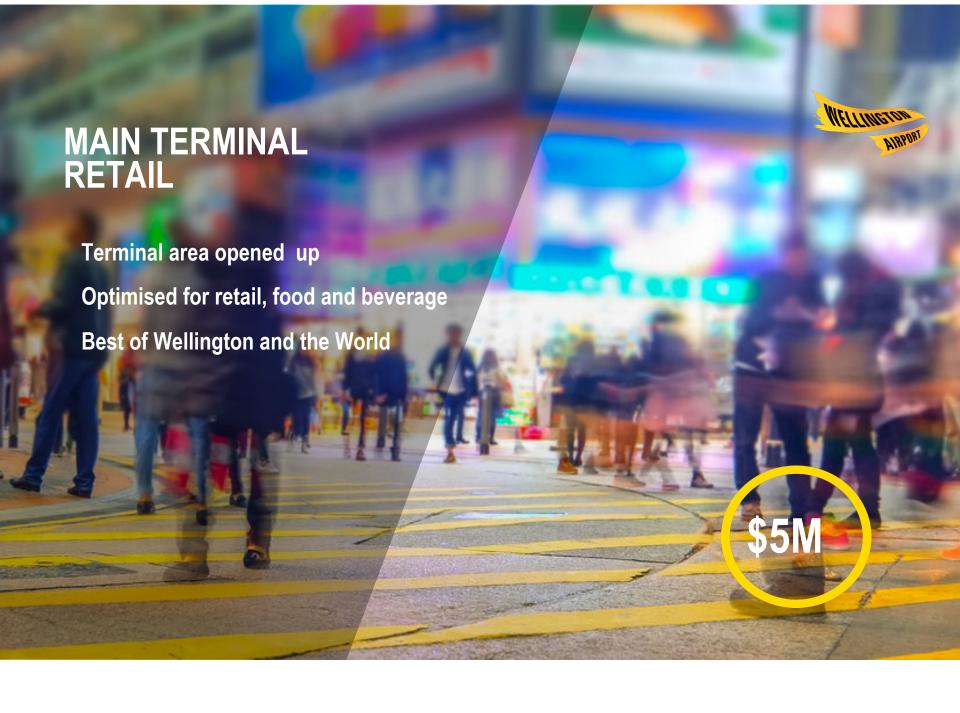




Time











Drop Off & Pick Up

let

Covered

Rental Cars

Buses

Park

Rental Cars

Rental Car

8 levels providing 1000 car parks

Undercover bus stops & high vehicle access

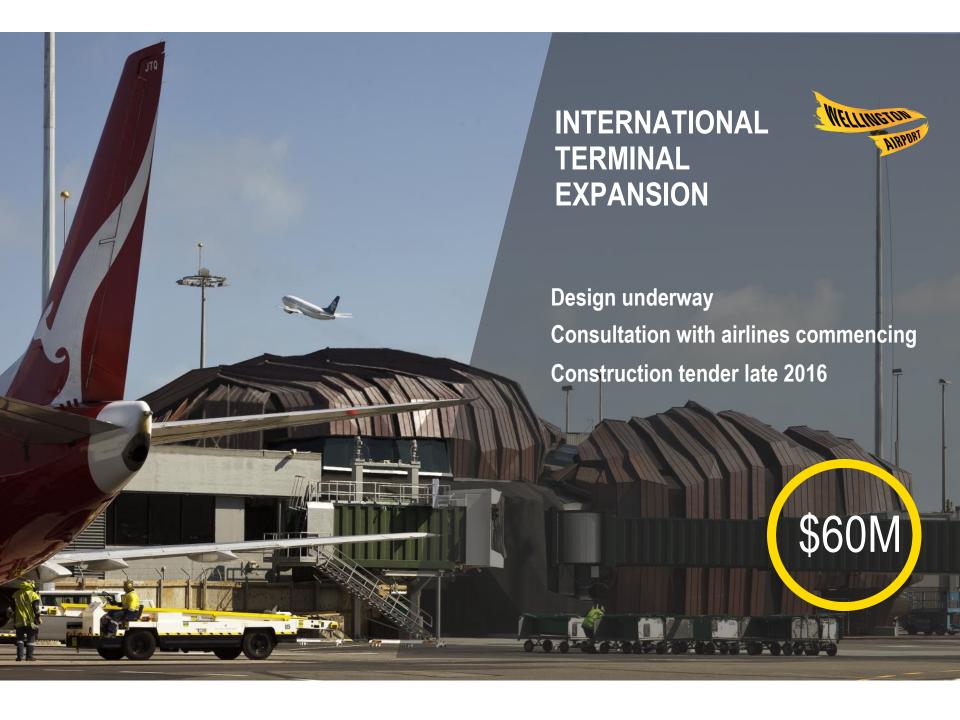
Reworks of ramps and circuit roads

Real Time Park Assist signage + mobile APP

Built for electric car with charging outlets

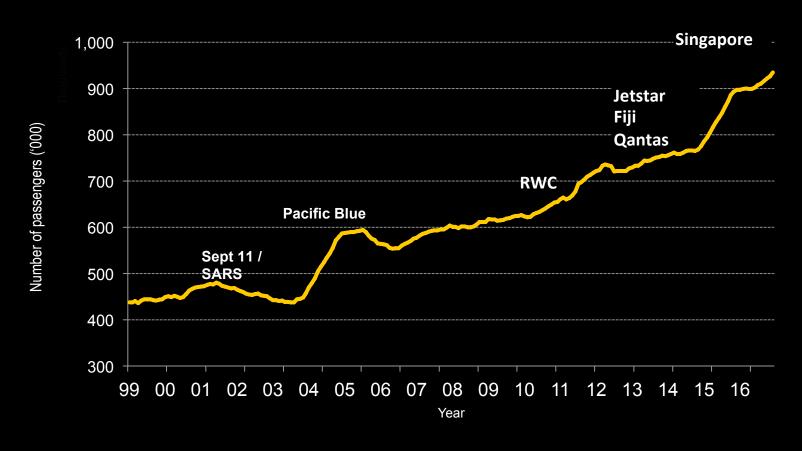
Parking growth from 2000 to over 3500 by 2030 keeps increasing relative to passenger growth.





INTERNATIONAL PASSENGER GROWTH

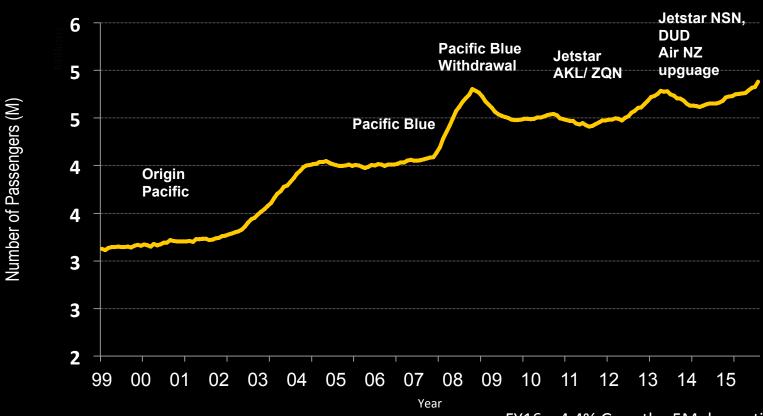




FY16 = 16% growth - 1M international pax by 2018

DOMESTIC PASSENGER GROWTH



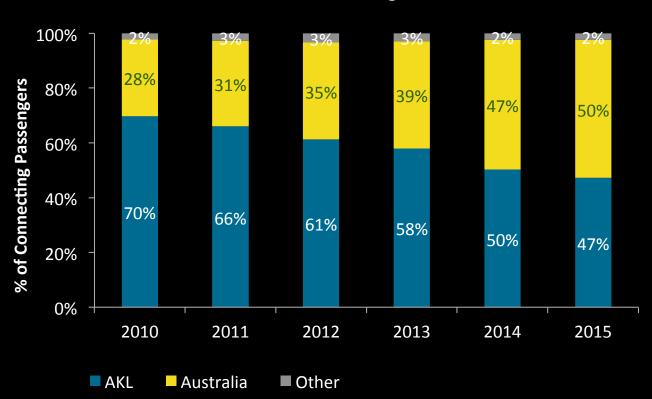


FY16 = 4.4% Growth - 5M domestic pax in FY17

CHANGE IN INTERNATIONAL TRAFFIC



WLG – International Long Haul Connect Points



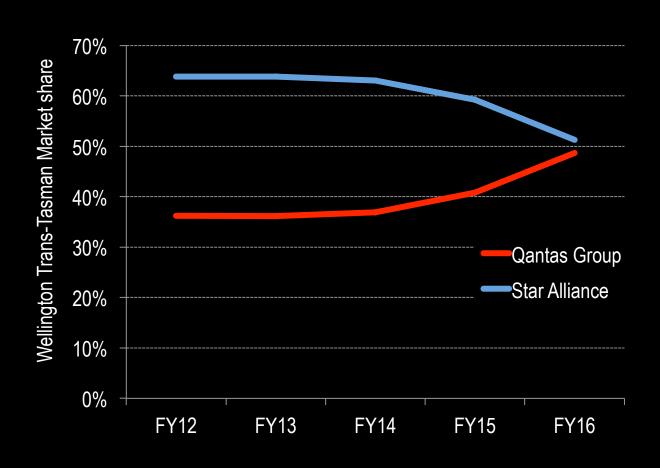
Significantly more long haul traffic is going via Australia.

Connections via Australia have increased 186% since 2010.

Australia routings are still not optimal and are capacity constrained.

CHANGE IN INTERNATIONAL TRAFFIC







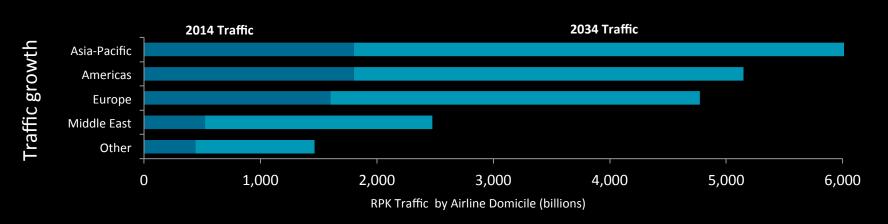




WORLD TRAVELLER NUMBERS SET TO DOUBLE



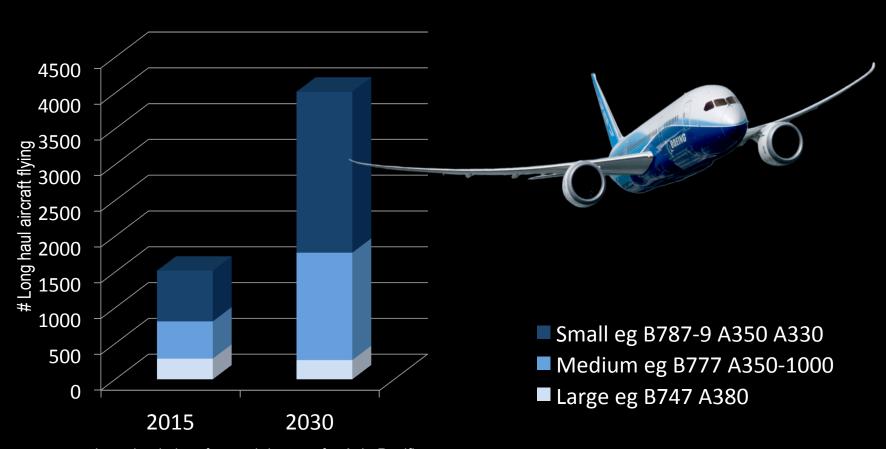
Asia-Pacific expected to account for 42% of all passenger traffic by 2034



Source: IATA, Boeing Market Outlook, Airbus Global Market Forecast.

THE RISE OF FUEL EFFICIENT LONG HAUL AIRCRAFT

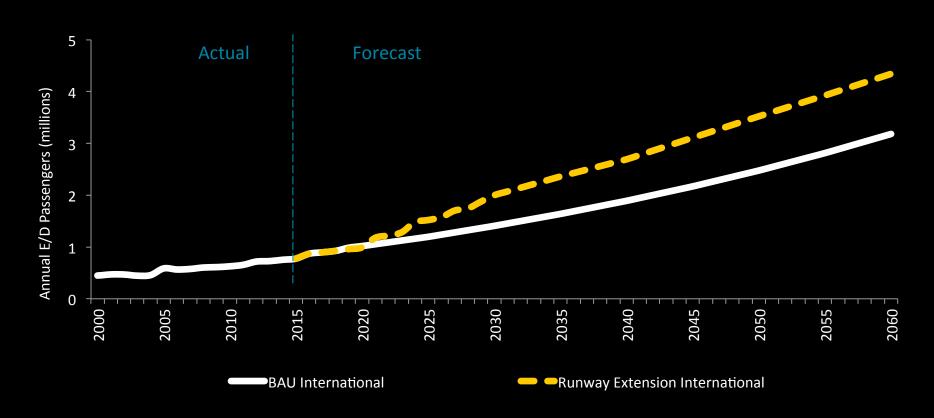




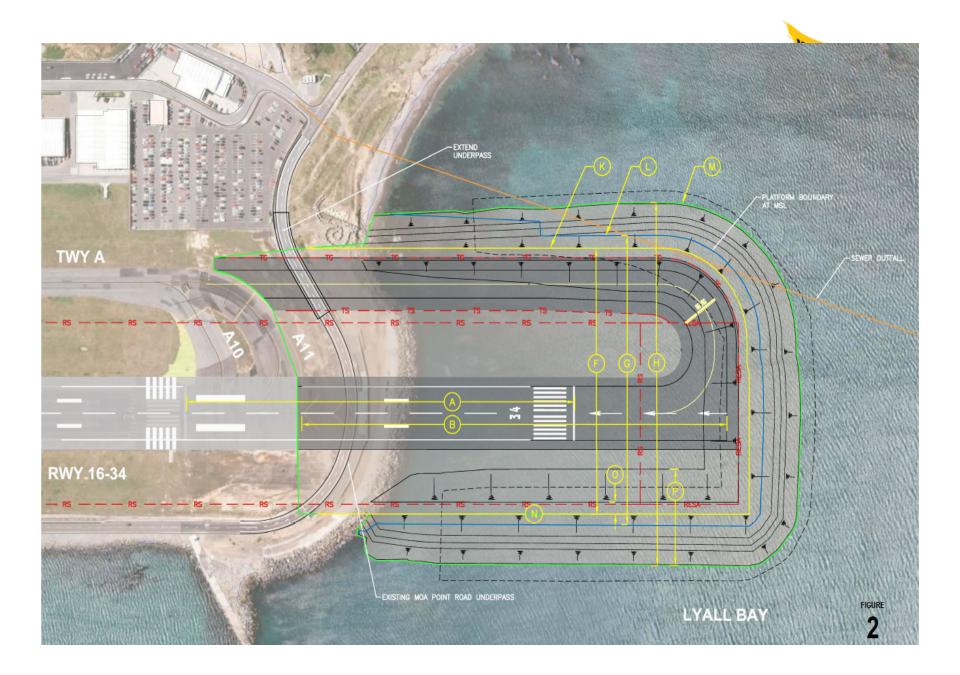
Long haul aircraft growth by type for Asia Pacific (Source Boeing Market Outlook)

PASSENGER FORECAST WITH EXTENSION



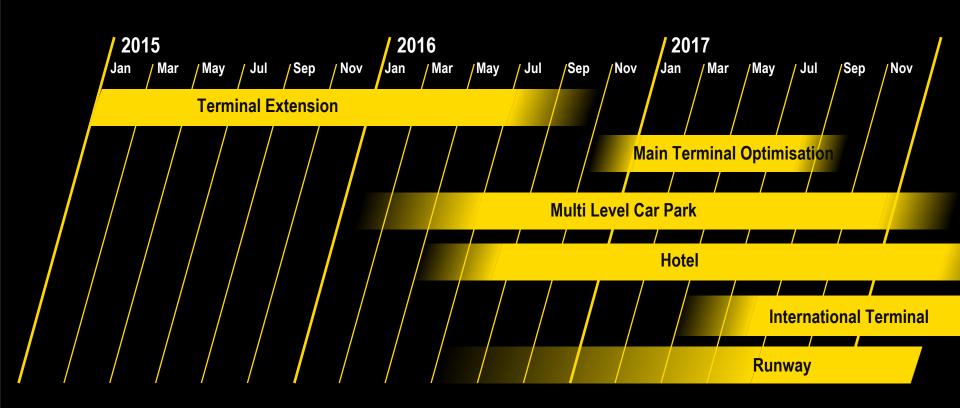


Source: InterVISTAS forecasting group (October 2015). Preliminary results.



DELIVERY TIMELINE







Any questions?

Innovation in recruiting for the transport sector

Presenter: Mike O'Donnell
Chief Commercial Officer
vWorks









CILT Conference Wellington 2016





- 1. The end of business of usual
- 2. What lies beneath the 4 drivers
- 3. What it means for Transport businesses

Ownership no longer equals power



Alibaba, the most valuable retailer, has no inventory.





Uber, the world's largest taxi company. owns no fleet.

AirBnb, the largest accommodation provider owns no real estate what-so-ever.





Facebook, the most popular media owner, creates no content.

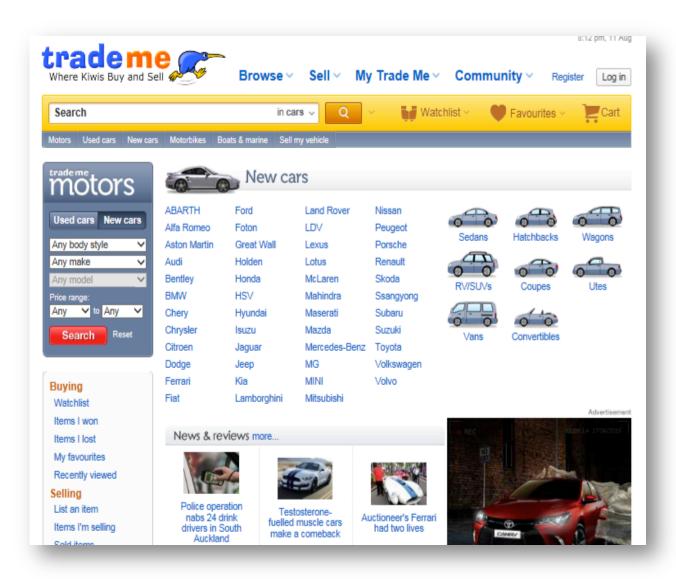












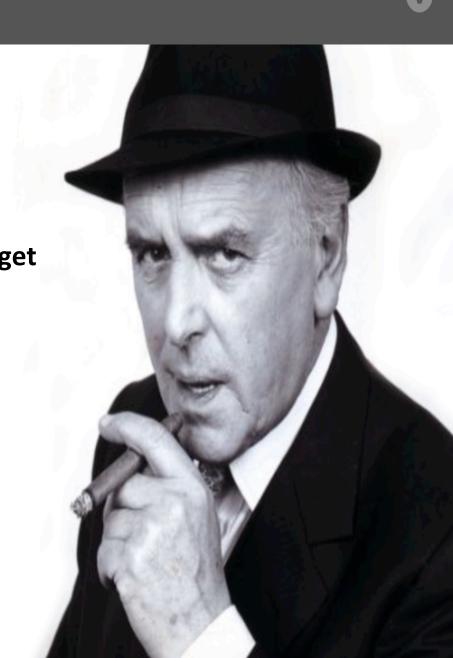


The web eats valueless margin

If you add margin without value you'll get

smoked

Intermediation is over



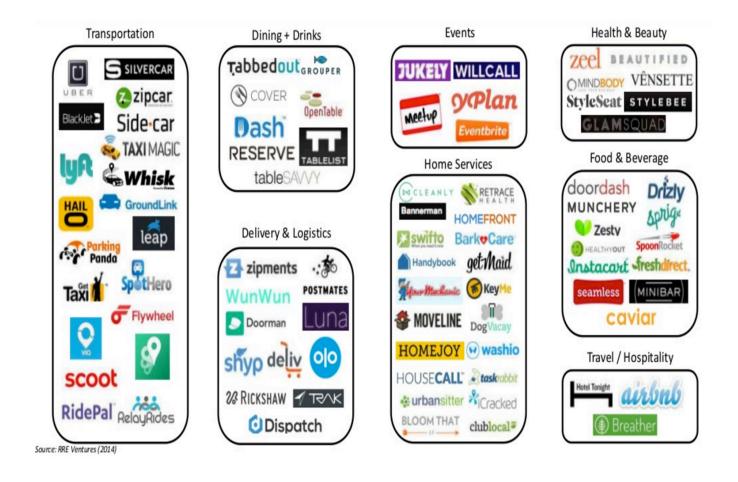






Introducing amazondash (1) Exclusively on amazonfresh

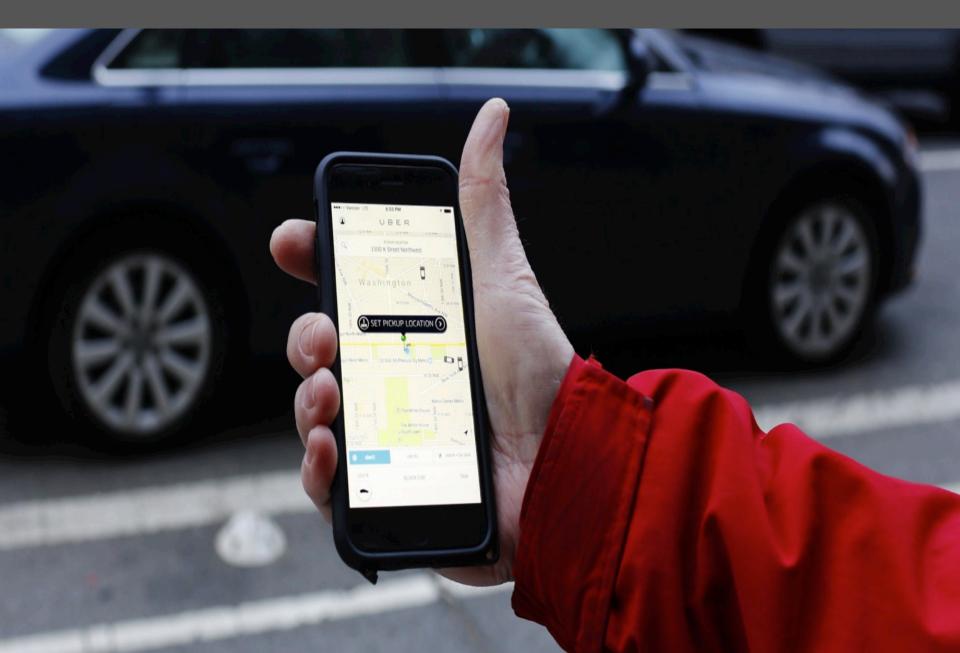




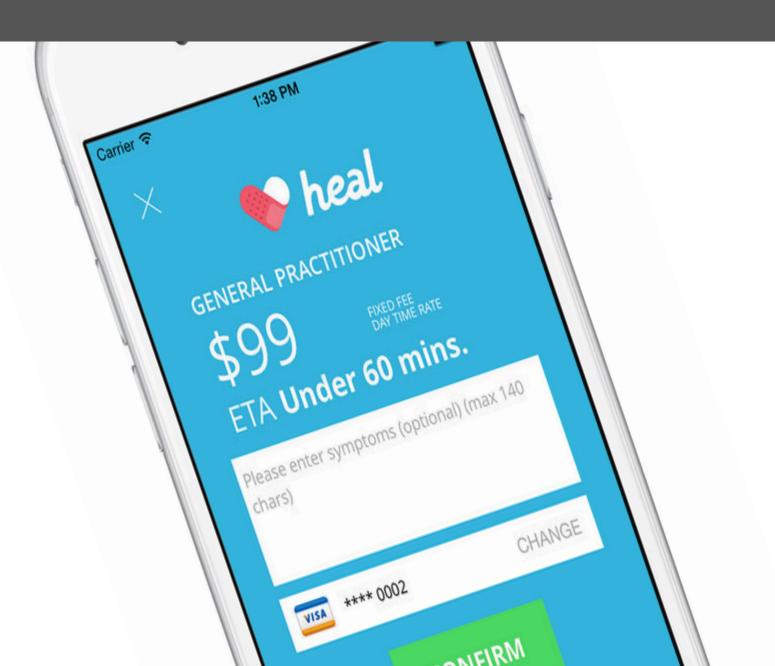
Consumers – Cloud – Service Companies

On Demand



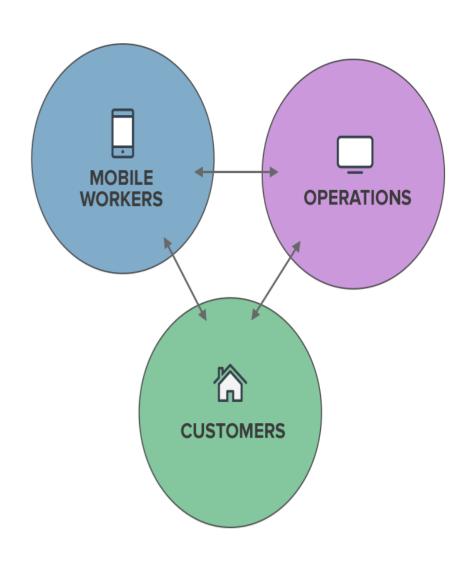






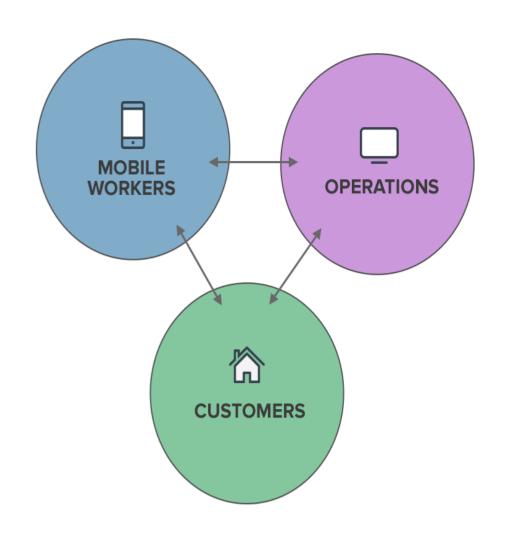
Configurable mobile workforce platform























A unified set of tools – enabling organisations with mobile workers to be safe, efficient and connected with customers

CUSTOMER TOOLS

Get availability
Order
Messaging
Progress updates
Online portal
Defer visit

WORKER TOOLS

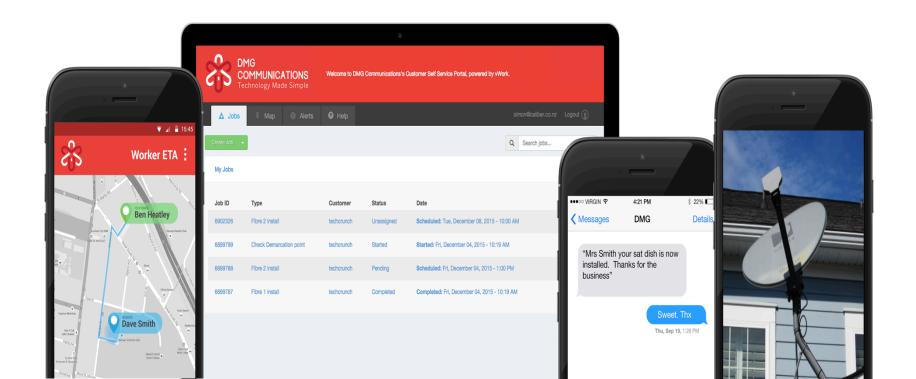
Schedule
Health & Safety
Invoicing
Mapping
Photos capture
Data Input

OPERATION TOOLS

Job visibility
Worker locations
Reporting
Health & Safety
Dispatching
Alerts

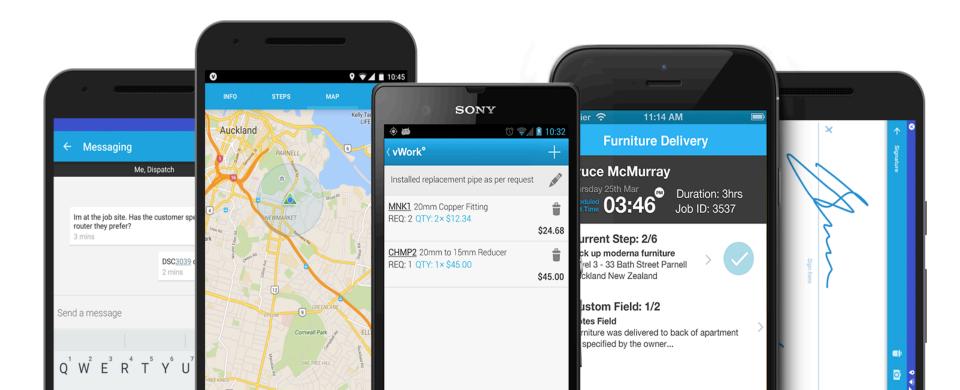


The customer is at the heart of the process. They can book, get updated, track progress and are connected with all parties.





Everything mobile workers need to locate, complete and report their work, even when they're out of coverage.





Everything your operations controller needs.

Beautifully integrated with total single view of all staff and jobs

- live and future.



PCBU's duty of care embedded in supply chain





CREATE

Create tailored H&S requirements within each task.

SCHEDULE

Automatically schedule your equipment checks and maintenance.

MANAGE

Enforce day-today H&S needs through to subcontractors & casuals

VISIBLE

Full visibility of all compliance activities

ALL FACETS OF HEALTH & SAFETY INTEGRATED







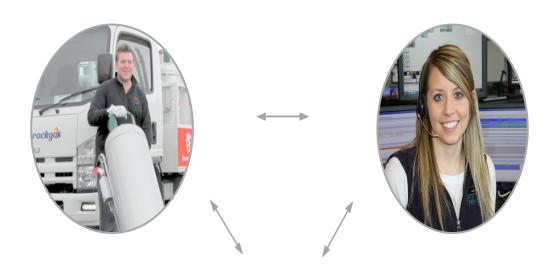


CUSTOMERS



DRIVERS











Rockgas Taranaki Workflow



- 1. Customer order comes in
- 2. Dispatcher allocates job
- 3. Driver accepts job
- 4. Customer receives email the night before
- 5. Driver gets mapping instructions
- 6. Customer gets SMS 20 mins out
- 7. Driver arrives H+S hazard check
- 8. Driver does drop off / pick up
- 9. Invoice automatically created in Xero
- 10. Customer gets NPS survey via email
- 11.Core CRM/Finance system updated





Rockgas Taranaki Workflow



- 1. Customer order comes in via web or phone
- 2. Dispatcher allocates job
- 3. Driver accepts job
- 4. Customer receives email the night before
- 5. Driver gets mapping instructions
- 6. Customer gets SMS 20 mins out
- 7. Driver arrives H+S hazard check
- 8. Driver does drop off / pick up
- 9. Invoice automatically created in Xero
- 10. Customer gets NPS survey via email
- 11.Core CRM/Finance system updated







Dear {{Customer Name}},

Thank you for your order for **{{CustomField: Kgs Delivered}}**Kg of LPG.

Your Job has been assigned to **{{Worker Name}}** and the delivery will take place on the next scheduled delivery day.

Thank you for your business. If you have any questions, please do not hesitate to contact us.

All the best

Murray and the Rockgas Wanganui team

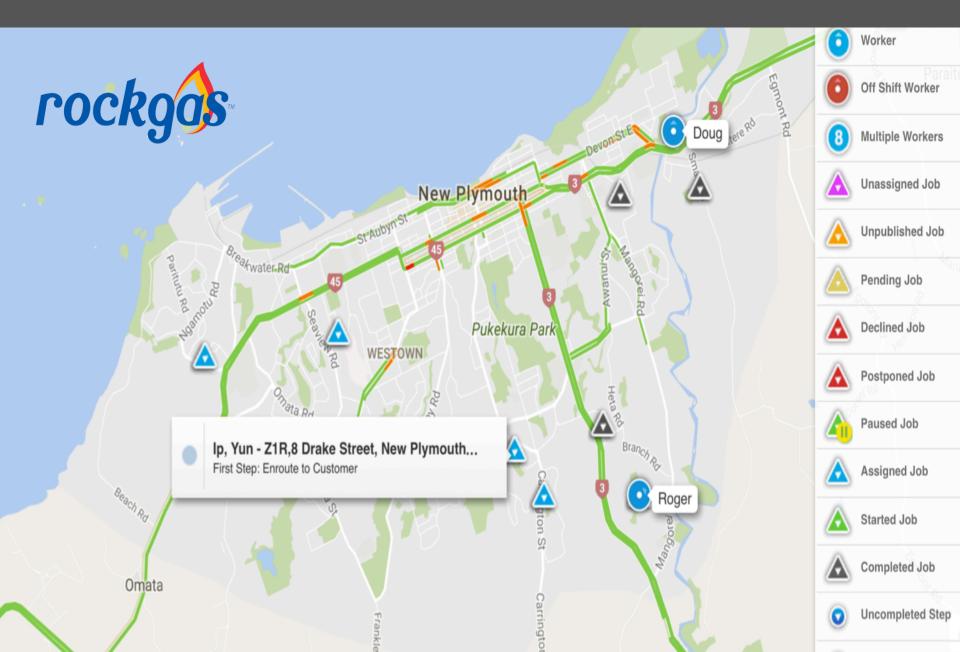
Remember that orders for delivery of LPG can be placed by using any of the following methods:

Our app - available from your Mobile Phone/Tablet App store
Our web: www.rockgaswanganui.co.nz



Map view of jobs + drivers

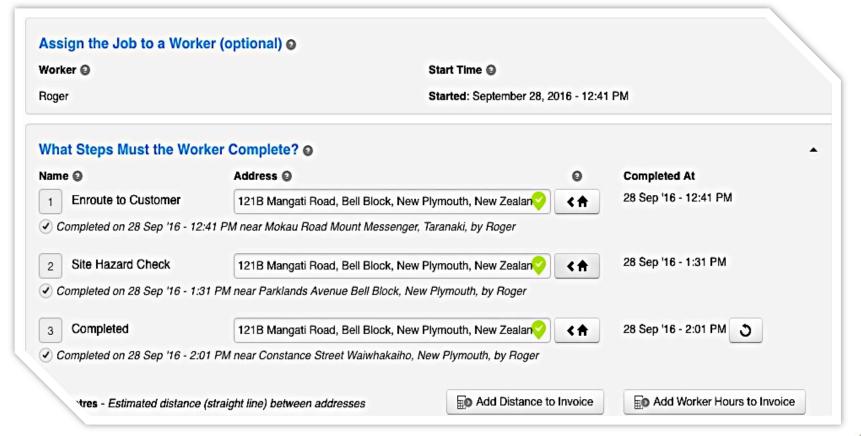














Customers Alerts

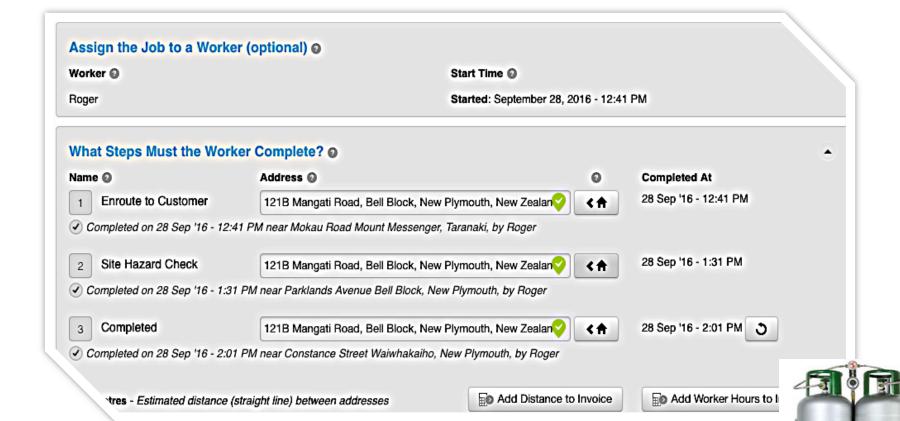
Add Alert

Q Search Alerts

Name	Туре	Output	Recipients	Unsubscribes	Totals For Month	Created By
Cylinder delivery job start reminder - 24 hours	Job Start Reminder	Email	Customer	0 unsubscriptions	SMS: 0 / Email: 52	Leonie
ETA Alert	Estimated Time of Arrival	Email	Customer	3 unsubscriptions	SMS: 0 / Email: 222	z Murray
Job Assigned	Job Assigned	Email	Customer	2 unsubscriptions	SMS: 0 / Email: 202	z Murray
Job Completed Alert	Job Completed	Email	Customer	4 unsubscriptions	SMS: 0 / Email: 233	Leonie
Site Check/Test	Job Completed	Email	murray@rockgastaranaki.co.nz	0 unsubscriptions	SMS: 0 / Email: 2	z Murray
Site Reading	Job Completed	Email	murray@rockgastaranaki.co.nz	0 unsubscriptions	SMS: 0 / Email: 19	z Murray
Stock	Job Completed	Email	murray@rockgastaranaki.co.nz	0 unsubscriptions	SMS: 0 / Email: 0	z Murray
Check List Completed	Job Completed	Email	murray@rockgastaranaki.co.nz	0 unsubscriptions	SMS: 0 / Email:	Leonie









Proof of Delivery

Name:

Date: 9:24 am, Wed Sep 28 2016 (NZDT)











MCCARTHY TRANSPORT LTD



McCarthy Transport Workflow



- 1. Stocks set up as jobs day before
- 2. Dispatcher allocates job
- 3. Driver gets mapping instructions via long/lat
- 4. Jobs have five stages:
 - i. Truck start
 - ii. Hazard check
 - iii. Log uplift
 - iv. Weighbridge
 - v. Delivery/logs off
- 5. Log company, destination, docket number, log grade, weight captured + shared.
- 6. Instant SMS notifications to client on uplift
- 7. Daily stock summary to client
- 8. Weekly reporting to finance and commercial

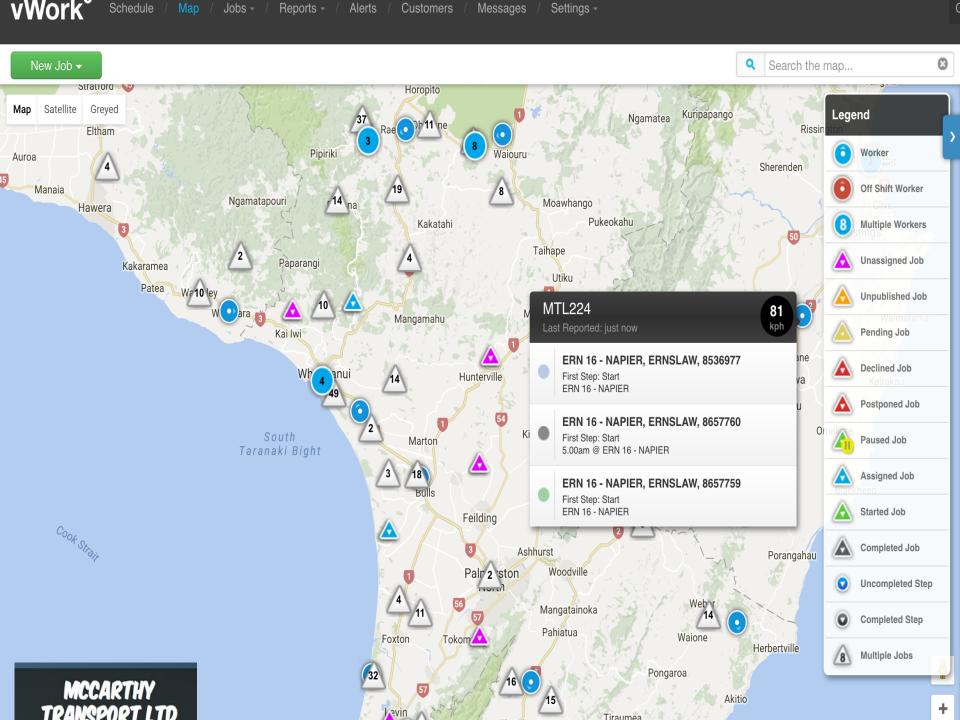


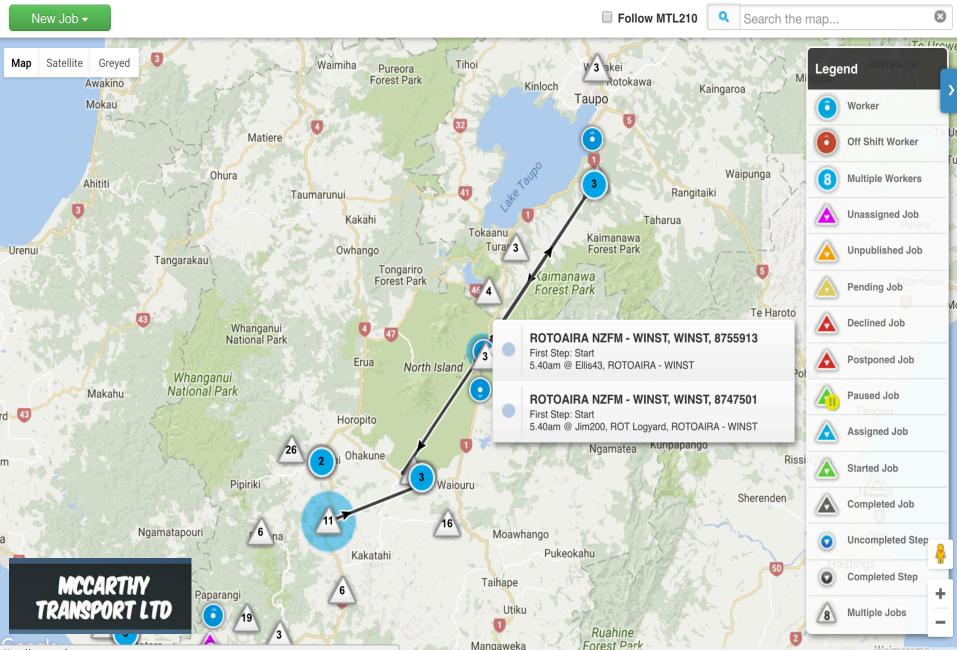
McCarthy Transport Workflow

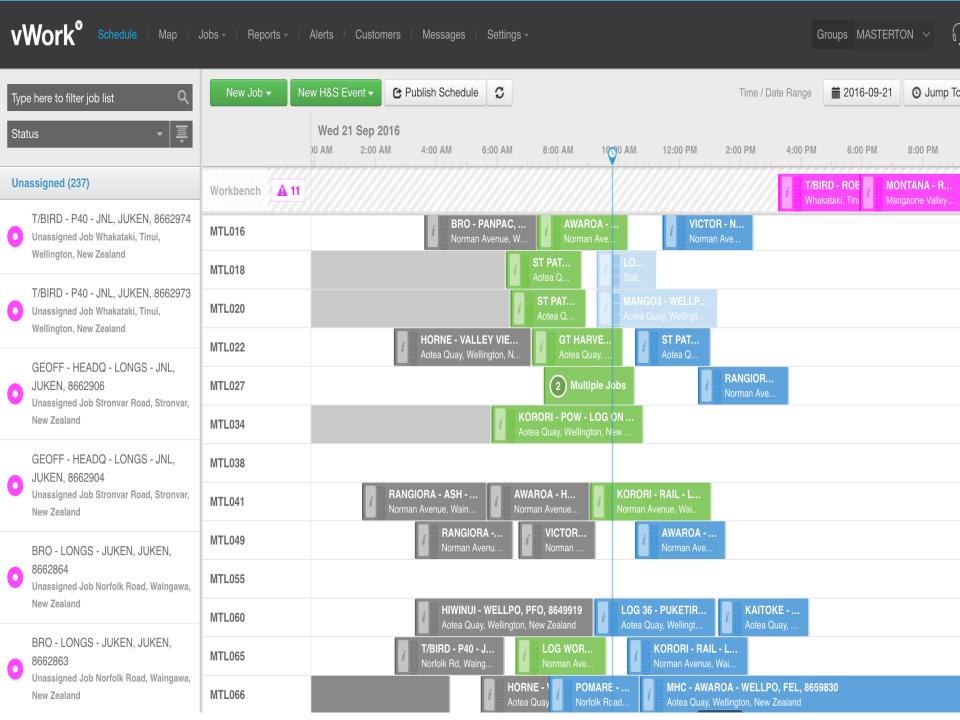


- 1. Stocks set up as jobs day before
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www.vworkapp.com

Customer Service Innovation

Presenter: Neil Cole

Customer Experience Manager

KiwiRail





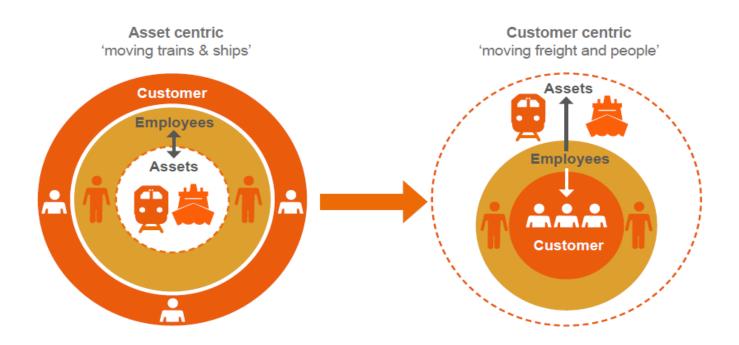


KIWIRAIL CUSTOMER SERVICE INNOVATION

Presentation to Innovation in Transport Conference 12 October 2016



KIWIRAIL VISION FOR CUSTOMER CENTRICITY



To be customer centric we must **listen**, **understand and act** on voice of customer insight.



LEARNING FROM INDUSTRY LEADERS





2005 2016 **AIR NEW ZEALAND**

Position

6th in the Star Alliance Network

Report focus

- Profitability, Gearing, Dividend, & Cash
- Fuel price hedging
- **Operating costs**
- Engineering performance
- (no measure of customer)

Customer experience

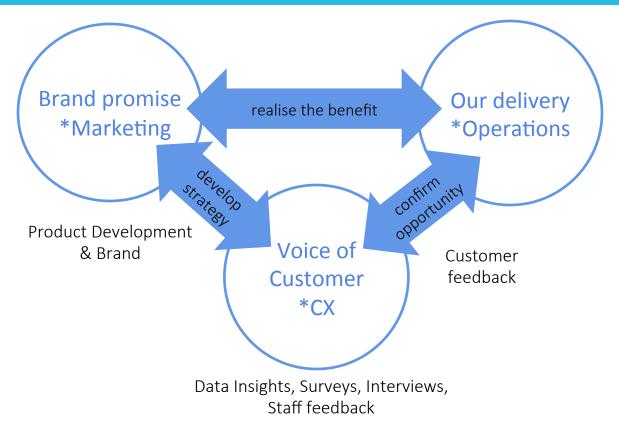
- Queues at check in counters
- Physically check in 2 hours before flights
- Crew perform safety briefings
- Limited onboard entertainment

- Airline of the year 2014 2016
- Markets
- Efficiency
- Customer
- People
- **Technology**
- Kiosk & mobile check ins
- Safety briefings as entertainment
- Rich multimedia onboard
- Lounge and loyalty coffee on a phone



ORGANISATIONAL FIT OF CX

CX operates as an agent of change for the customer, a champion for business improvement, to ensure we deliver on our promise. CX acts independently of Marketing and Operations





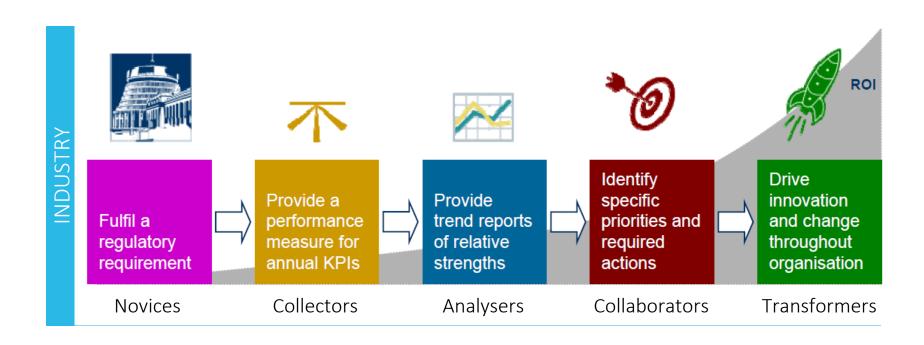
WHAT DOES CX SUCCESS LOOK LIKE

- Enthused employees with the knowledge and empowerment to deliver the experience consistently.
- Customers who are so satisfied that they only choose KiwiRail and recommend us to others.
- Measureable results that demonstrate ROI.

 Let's start all our meetings with a safety moment, OR a customer opportunity moment.



WHERE IS KR ON THE CX MATURITY MODEL?





POINTS OF DATA

We hold an amazing amount of data about our customers

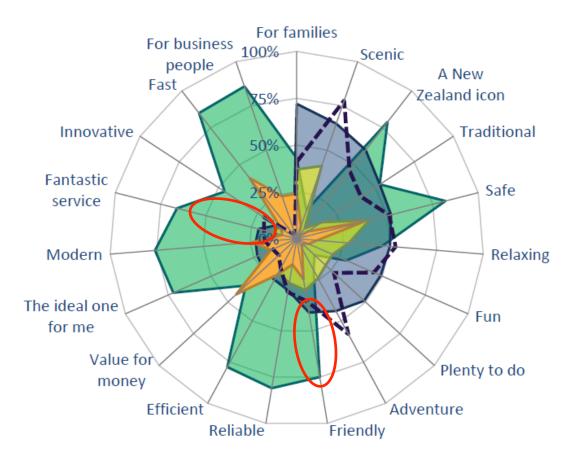
- Historically survey & booking data largely un-tapped.
- Insights not gathered from complaints
- Our other customer contact insights were basic at best



Presents a great opportunity to understand our customers in detail



IDENTIFYING AREAS OF FOCUS



Comparing Interislander brand research results against transport industry leaders, we can identify areas where CX can create value without infrastructure investment:

- Friendly
- Fantastic service



THE 4 STAGES OF CX FOR KIWIRAIL

RESEARCH CUSTOMERS

DIDENTIFYOPPORTUNITIES

3 QUALIFY



PERSONAS



Customer insights Industry insights



Customer insights Industry insights

New product validation



New products & services





PERSONA INSIGHTS

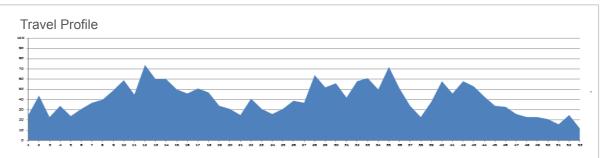
GOLDEN ANZACS

Origin: New Zealand & Australia

Age: 55-75

Income: \$104k average

Gender: Slight **female** skew (57%)
Number: 27% of customer base



SUNSHINE GROUP

Origin:

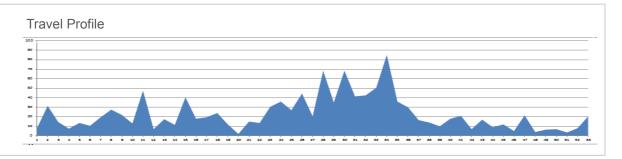
Age: 53% New Zealand

Income: 55-75

Gender: \$99k average

Number: **Heavy female** skew (71%)

7% of customer base



SNEAKERS INTERNATIONAL

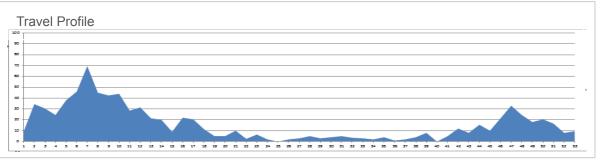
Origin: UK, United States, Asia,

Canada, Germany

Age: 55-75

Income: \$133k average

Gender: Slight **male** skew (55%) Number: 7% of customer base





JOURNEY MAPPING

Journey mapping is a tool organisations use to understand the customer need through all phases – to identify moments of value and pain, and the ways in which customers go about achieving their needs.

An example journey map for SWT:



Opportunities exist outside of just the 'In Service' phase of our customer journeys



CX REGISTER

The CX Register monitors, tracks and controls the opportunities discovered through all channels. It is a feedback mechanism for staff, customers & public who have provided ideas to improve the CX experience.

The CX Register allows KR to:

- More considered exploration, assessment and prioritisation of initiatives based on impact to the customer and organisation.
- Structured management and delivery of CX initiatives.
- Greater visibility of CX investments and benefits.
- Increased engagement with staff through contributions, feedback, acknowledgement and participation in the delivery of new initiatives.

A CX Register will be worthless without a customer centric culture



IMPLEMENT AND MEASURE

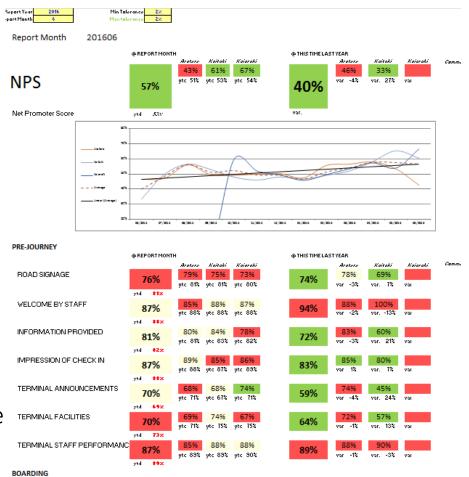
Turning our survey data into a management dashboard report.

We understand and manage performance of results.

Treating our customer satisfaction like an experience P&L account.

Results are examined at Customer Experience Team (CXT) meetings.

CXT meets regularly to discuss reporting results, CX opportunities, and to interface the key parts of the business.





IT'S ABOUT...

- Knowing the current measurement.
- Shifting the culture.
- Understanding the customer.
- Identifying opportunities.
- Monitoring improvement.

DISCUSSION

Afternoon Tea

sponsored by





Innovations in the Logistics Sector

Presenter: Walter Glass
Academic Director
Logistics Training Group





INNOVATION IN LOGISTICS EDUCATION AND CILT - NZ's ROLE

Walter Glass Logistics Training Group

LOGISTICS AND SC EDUCATION SCOPE

- CONTEXT: EDUCATION & DEVELOPMENT OF PEOPLE
- SECTORS: Civilian; Military; Government, NGO, HADR etc.
- LOGISTICS & SUPPLY CHAIN FUNCTIONS
 - Procurement (all aspects)
 - Warehousing (all types)
 - Transport (all modes)
 - Inventories
 - Supply Chain ICT (incl "big data" systems)
 - Supply chain management
 - Logistics management
 - Retail Logistics
 - Supply chain network planning design
 - Industry Infrastructure Policy and Planning

- Quality systems, project management
- Inventory

Raw materials to finished goods

FMCG, semi durables, durables

Liquid or solid

Cycle, buffer, transit or speculative

REVIEW - 1990'S

- 3PL development & the advent of contracted logistics activities
- Ave working week 45-50 hrs/week
- Expensive poor ICT systems Poor inter-system integration Reduced ROI Interfaces not user friendly
- Considerable focus on Quality Systems certification "proving" company commitment to client objectives (i.e. ISO 9000 series etc)
- *Higher investment and focus on "People" T&D in "management".
- *People in logistics become an asset not a necessity or liability
 - Flatter management structures more integrated decision making
 - Proven ROI improvement with investment in staff/management training

REVIEW - 2000's

- Innovations in ICT were very expensive but improve systems interface/communications (ERP e.g. SAP)
- Innovations in HTML & internet provide huge advances in logistics administrative functionality and trade capability
- Chinese political and economic innovation fuels its global manufacturing focus
- Innovation in automation & "bigger is better" drive productivity improvement
- People **Less education & training as companies too busy to educate & train staff (profit & acquisition were focal in the logistics sectors)

REVIEW - 2010

- GFC impact from 2008 onwards global downturn that is ongoing
- 3PL mature & margins cut; ditto transport and logistics contracting
- Technology Surging -Larger ships, trucks, facilities for increased productivity (20,000 TEU)
- Companies losing money so no funding to train & educate staff which exacerbate losses (solution hire people from the UK to fix problems????)
- **People Lower L & SC education investment at mid and senior management levels (no \$)
 - Still a shortage of educated Logistics and SC management specialists to make informed decisions.
 - Aging NZ workforce in L & SC becomes more critical, lack of skilled replacements

CURRENT - 2015 onwards

• NZ companies starting to recover on the back of CHC earthquakes & AKL road & housing major construction - Hamilton/Tauranga also benefit (Govt backed)

*People

- SC related tertiary education rising (especially with P.G. foreign students who can do 1 year of study & 1 year work visa then get NZ permanent residency after with no work experience)
- **LTG notes increase in CILTUK Dip Log enquiries but students opt for easier university programmes with no applied component
- Lack of direction from NZ Govt on the desired level of expertise required in the logistics sector and incentives for companies to become CILT-NZ not involved.
- **Average L & SC manager's working week in often 60-70 hrs/week, so no time for study.

THE TOUGH QUESTION

 How well is the global integrated logistics sector preparing for its future challenges?

Not well enough in NZ The lack of education is inhibiting innovation by NZ L&SC staff -

and importing people from overseas is no guarantee of success (often in a large organisation mistakes are easily buried)

(*NZDF is an exception with L&SC education, but not other govt depts)

L & SC EDUCATION CHALLENGE

- To merge the L &SC sectors' understanding of
- 1. Logistics & Supply Chain Management Skills (across all functions)
- 2. The value of research for continued improvement (big data analytics)
- 3. The development, engineering and applications of existing technology
 - (e.g. 3D printing, ERP system integration, self drive, electric vehicles)
- 4. Preparation for the new technology and methods (driverless vehicles, Hoop line)

Companies must understand the way in which these multidimensional activities and technologies interact - Currently most don't!

Continual education updates will be required to keep industry updated on advances and Professional Institutes like CILT-NZ should be involved

HOW DOES CILT-NZ FIT IN?

- 1. *CIPS Rapid recent growth in Wellington (400)
- 2. *IPENZ Sustained growth

*Both are CILT related institutions and professionally recognised by their industry and NZ Government

3. NZ Institute of Directors - Rapid growth, i.e. Bay of Plenty to 400 members with 8,000 nationwide NZ members.

How should CILT-NZ position itself and in what role? IDEAS??

Perhaps lobby Government on behalf of industry?????

END

• THANK YOU

• QUESTIONS

Technology and Innovation in Career Planning

Presenter: Phil Urlich
Manager Corporate
MITO

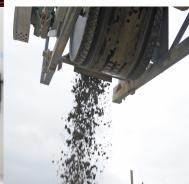








CILT – Qualifications and Career Pathways – Why, How & When?



Phil Urlich – Manager Corporate, Workforce Development

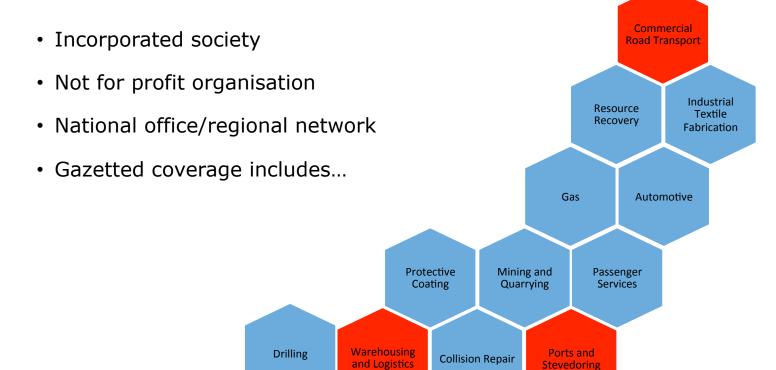
12 October 2016

Overview

- Introduction
- Brief overview of the role of MITO & its Industries
- Demographics of Road Transport, Logistics, Ports & Stevedoring industries
- Targeted Review of Qualifications (TROQ)
- Career pathways (Road Transport, Logistics, Ports & Stevedoring)
- New programme development Ports & Stevedoring sector
- Opportunities for other sector collaborations



MITO New Zealand





MITO Roles

- Provides leadership to our industries on skill and training matters
- Designs national/NZ qualifications and manages moderation systems to manage consistency
- Arranges for the delivery of industry training

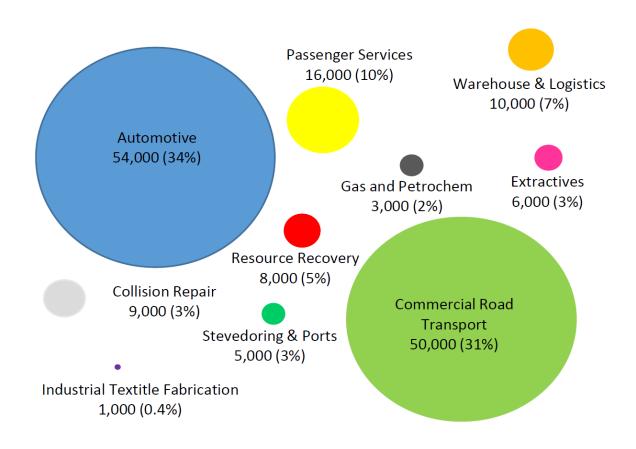
Work with industry to ensure that vocational learning meets industry needs Enable working
New Zealanders to
complete
nationally
recognised
qualifications

Create clear
pathways towards
advanced trade
qualifications at
levels four and
above

Build and maintain strong support from the industries we serve



Employment in MITO sectors (total = 160,000)





Road Transport

total employment

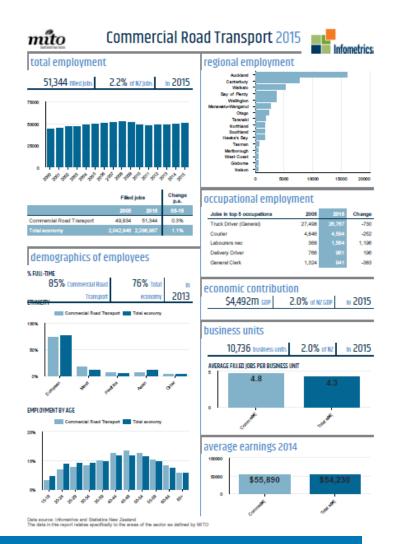
51,344 filled jobs 2.2% of NZ jobs in 2015

occupational employment

Jobs in top 5 occupations	2005	2015	Change
Truck Driver (General)	27,498	26,767	-730
Courier	4,846	4,594	-252
Labourers nec	368	1,564	1,196
Delivery Driver	766	961	196
General Clerk	1,324	941	-383

economic contribution

\$4,492M GOP 2.0% of NZ GOP in 2015





Ports & Stevedoring

total employment

5,337 filled jobs

0.2% of NZ jobs

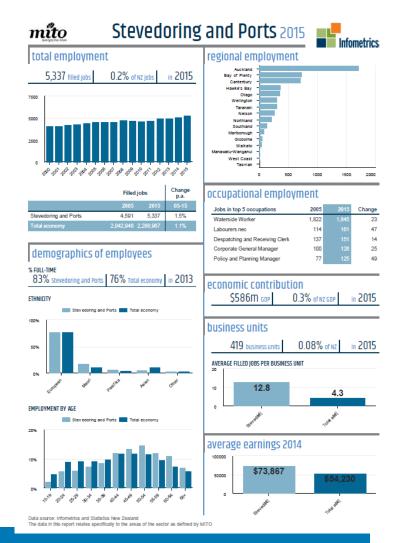
in 2015

occupational employment

Jobs in top 5 occupations	2005	2015	Change
Waterside Worker	1,822	1,845	23
Labourers nec	114	161	47
Despatching and Receiving Clerk	137	151	14
Corporate General Manager	100	126	25
Policy and Planning Manager	77	125	49

economic contribution

\$598M GDP | 0.3% of NZ GDP | in 2015





Warehouse & Logistics

total employment

10,949 filled jobs

0.5% of NZ jobs

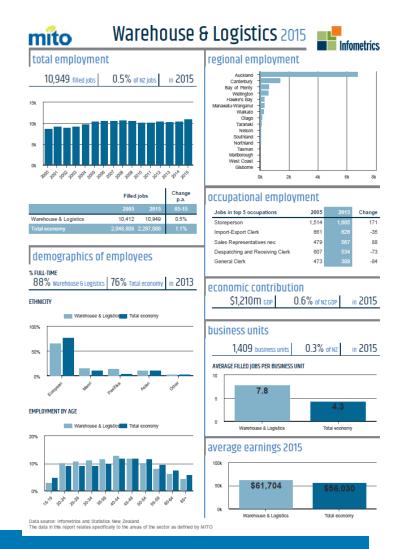
in 2015

occupational employment

Jobs in top 5 occupations	2005	2015	Change
Storeperson	1,514	1,685	171
Import-Export Clerk	661	626	-35
Sales Representatives nec	479	567	88
Despatching and Receiving Clerk	607	534	-73
General Clerk	473	389	-84

economic contribution

\$1,210 m GOP | 0.6% of NZ GOP | in 2015



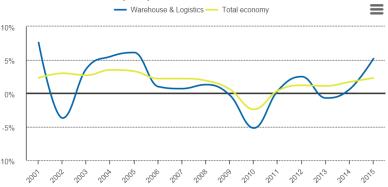


Warehouse & Logistics

Employment by Skill Level



Growth In Employment



Employment by Age





Targeted Review of Qualifications (TROQ) & Programme Development

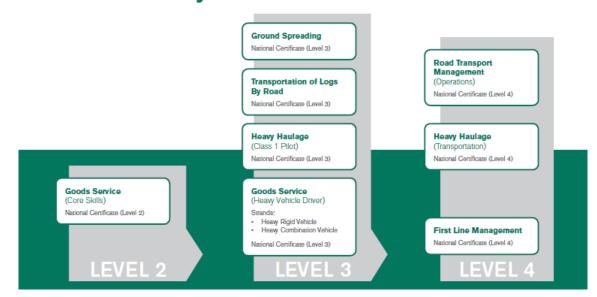
- Govt. mandated review of NZQA qualifications
- NZ Certificates developed with industry support & listed with NZQA
- Any approved organization can develop a programme to deliver the qualification
- MITO has moved from qualification development to programme development
- MITO Programme development prioritized by demand. Current priorities =
 Collision Repair & Automotive industries
- Increasing levels of E learning and on line resources



Commercial Road Transport

- SWEP Project underway
- National Qualification Pathway in place
- NZ Certificate programme development 2017/18
- LTSC Accreditation Pathway

Commercial Road Transport Career Pathway

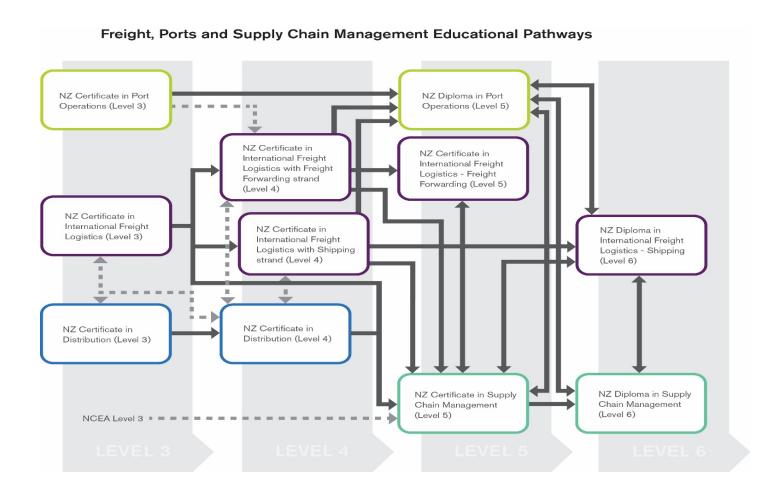




Ports & Stevedoring Programme Development

- Mar 2016 Ports & Stevedoring Association signaled the adoption of the L3 NZ Certificate – Cargo Handling as an industry standard. (1800 employees)
- April Oct 2016 Industry working group established & regularly meets with MITO to develop/collate resources for the programme. Assessments being developed by MITO
- Quarter 1 2017 new programme available







Logistics Programme Development

- Programme development scheduled to start later in 2017
- Is there demand for MITO to develop programmes for these NZ Certificates?
- MITO needs industry subject matter experts to commit their time to help us develop the programmes.
- Do your employees want nationally recognized qualifications?



Summary - Qualifications and Career Pathways - Why, How, When?

- Why attract, retain, upskill & keep employees safe
- **How** MITO & industry expert led programme development
- When demand and commitment







Thank you

Phil Urlich – Manager Corporate

Crime Prevention through Environmental Design

Presenter: Sue Ramsay

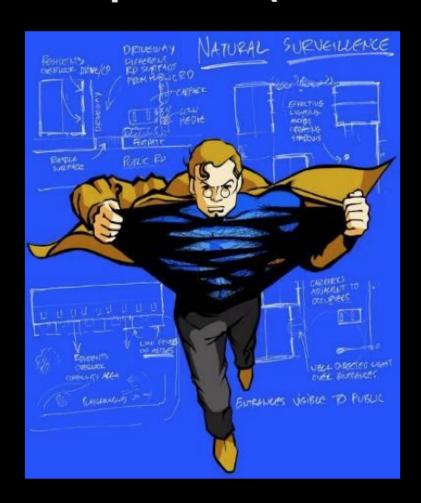
Metropolitan Community Adviser

Christchurch City Council





Crime prevention innovation in the context of a transport hub (with a detour via an intersection)



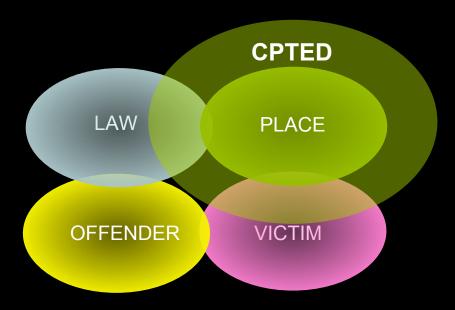
CPTED – Crime Prevention through Environmental Design

pronounced "sep-ted"

CPTED is a crime prevention discipline based on the proper design and effective use of the built, landscaped and social environments, leading to a reduction in the incidence and fear of crime, as well as improvement in the quality of life*

^{*}Adapted from National Guidelines for Crime Prevention through Environmental Design in New Zealand

CPTED is about place



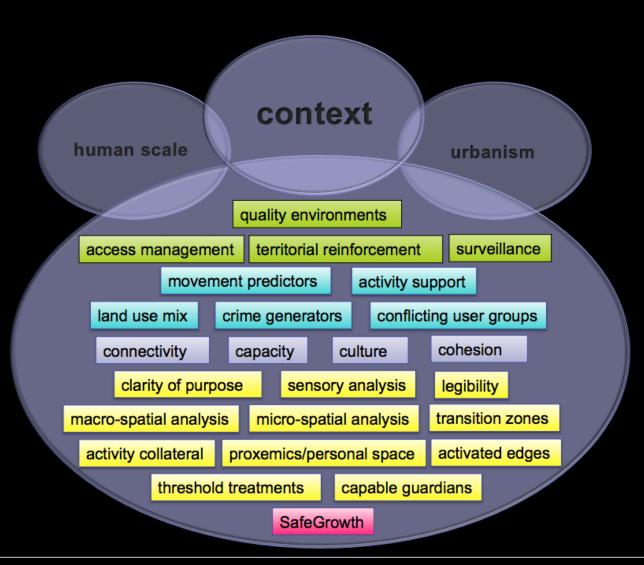
Crime Prevention through *Environmental* Design



1st Generation CPTED

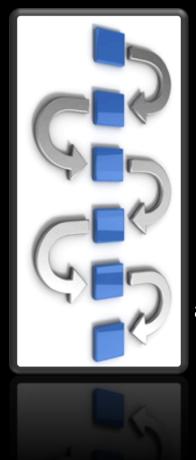
- focus on minimising opportunities for offenders
- territoriality, access control, image, natural surveillance
- tends to focus on security of property
- widely practised







CPTED process



environmental scan

site assessments

(safety audit)

safety map

asset and issue analysis

improvement plan



Project Lifecycle

Brief

Concept Design

Developed Design

Space hierarchies.

Incompatibilities.

community areas.

Communal/

Entrances and

Service areas.

lobbies.

Detailed Design

Construction

In-service life

CPTED mandates.
CPTED

consultation. Analysis of

receiving environment.

POE's.

Management capacity etc. Masterplanning: Bulk & location.

Neighbourhood connections.

Entry points, circulation.

tion.

Travel routes and desire lines.

Landscaping.

Materiality.

Entrance design. Interior design. Doors and

windows.

Tech services.

Lighting.

Rubbish and storage.

Master keying.

Quality assurance.

Variations & VE.

Inspections.
Queries.

Setup and

commissioning.

Post Occupancy Evaluation (POE).

Facility

management

support.

Fine tuning.



CPTED INPUTS

different matters at different stages wherever the entry point is available

STOKS CPTED INPUT

different matters at different stages wherever the entry point is available

desire lines. Landscaping. storage. Master keying.















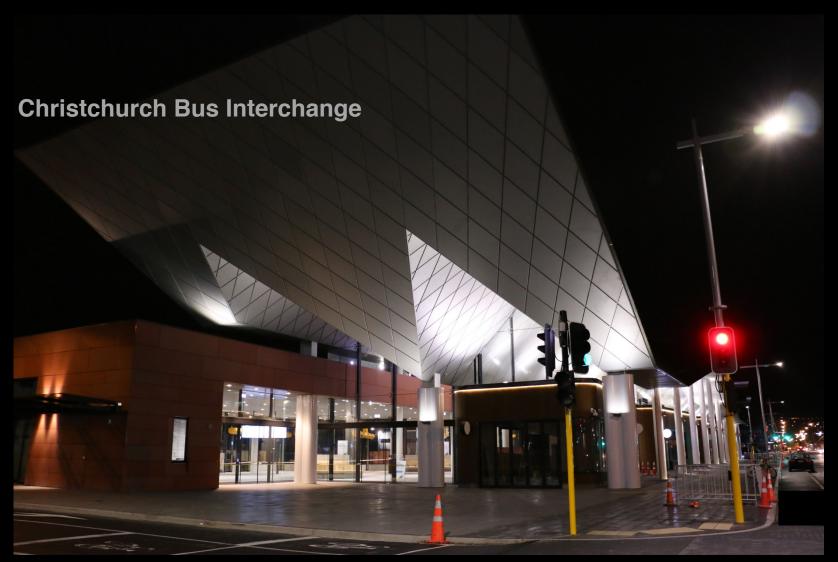




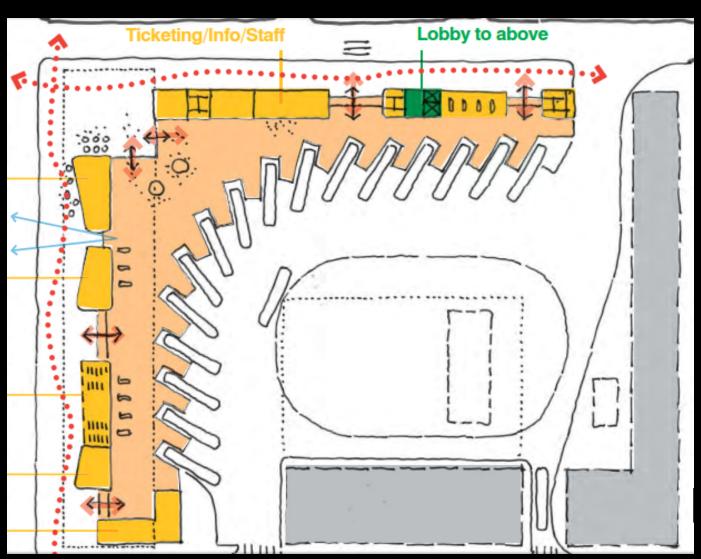




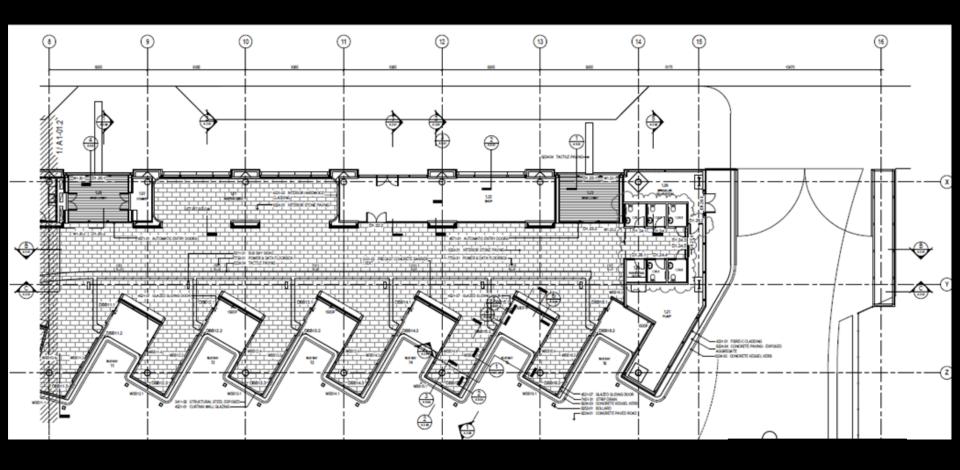




















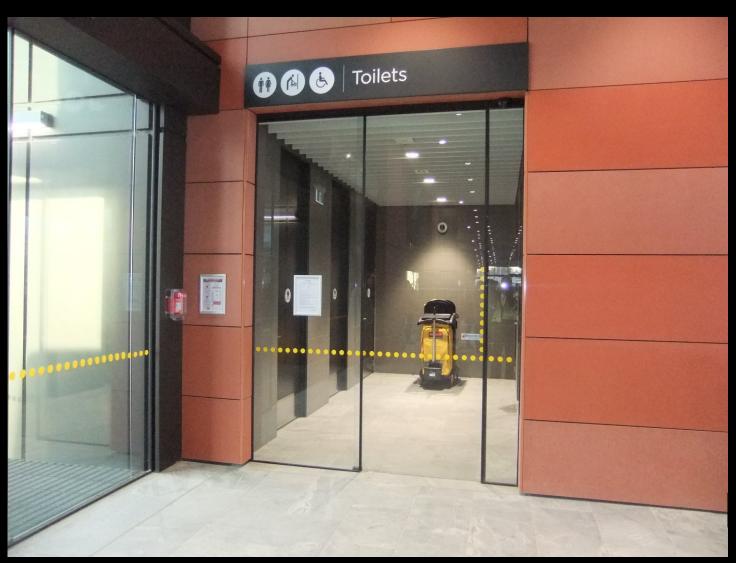
















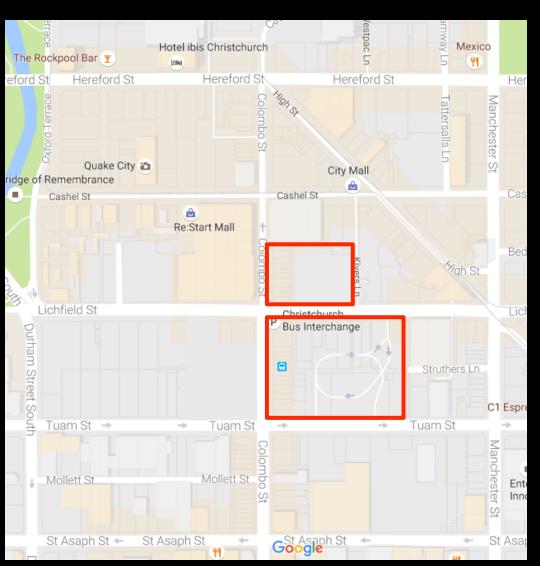














Police provisional calls for service data

Bus Xchange 2009 173

Bus Interchange May 2015 to May 2016 40

Adjusted for passenger numbers 70% reduction





You are about to enter a science-free zone!!!



	Old Bus			New Bus		
	Exchange			Exchange		
Type Code	(1 Jan-	Cost per	Total	(25 May	Cost per	Total
***	31 Dec	event	Cost	2015 - 25	event	Cost
	2009)			May		
1510 - Serious Assaults	,	8910	8910	2016)	8910	8910
	_			1		
1640 - Minor Assaults		8910	133650	4	8910	35640
1710 - Intimidation/Threats		8910	62370	1	8910	8910
1840 - Harassment	1		8910	0	8910	0
1C - Car/Person Acting Suspiciously	12	2,240	26880	3	2,240	6720
1F - Assist Fire/Ambulance/Traffic	0	2,240	0	1	2,240	2240
1G - So Ivent Abuse	1	5,780	5780	0	5,780	0
1J - Juvenile Complaint	2		4480	3	2,240	6720
1K - Drunk Custody/Detox Centre	18	2,240	40320	5	2,240	11200
1M - Mental	2	2,240	4480	0	2,240	0
1U - Traffic Offending	0	2,240	0	0	2,240	0
1X - Attempted Suic ide	4	2,240	8960	0	2,240	0
1Z - Other Incident	9	2,240	20160	0	2,240	0
2210 - Sexual Affronts	2	72,130	144260	0	72,130	0
2630 - Sexual Attacks	0	72,130	0	0	72,130	0
3210 - Drugs (Cannabis Only)	1	5,780	5780	0	5,780	0
3530 - Disorder	32	2,240	71680	8	2,240	17920
3910 - Liquor Offences	22	2,240	49280	0	2,240	0
3985 - Breach Of Local Council Liquor Ban	2	2,240	4480	1	2,240	2240
4320 - Theft Ex Shop	1	1,300	1300	1	1,300	1300
4370 - General Theft	3	1,300	3900	2	1,300	2600
5120 - Wilful Damage	5	2,160	10800	1	2,160	2160
5134 - Wilful Damage - Graffiti	5	2,160	10800	0	2,160	0
6110 - Trespass	22	2,240	49280	7	2,240	15680
6820 - Firearms Offences	2	2,240	4480	0	2,240	0
6D - Bail Breach	0		0	2	2,240	4480
NSEC - No Speech Emergency Call	4	2,240	8960	0	2,240	0
Total	173		689900	40		126720



Cost / benefit

Cost of CPTED \$2000

Cost saving @ 50% \$391,797 (CPI adjusted)

Cost / benefit \$1 / \$196 per annum

Savings over 50 year life of building?

Lots









Summary and Conclusion

Presenter: Glen-Marie Burns

New Zealand President

Chartered Institute of Logistics and Transport









