



**NZ State Services Commission &
ANZSOG present:**

SOLVING COMPLEX PROBLEMS WELL

SPEAKER

Dr Nick Fleming

Director

Innergise Pty Ltd

LOCAL SPEAKER

John Mauro

Chief Sustainability Officer

Auckland Council

MODERATOR

Lou Lennane

Auckland Strategic Programme Lead,

Ministry of Transport

SLIDES FROM TODAY'S
PRESENTATION WILL BE
AVAILABLE ON THE ANZSOG
WEBSITE

Solving **Complex Problems** Well

ANZSOG



Innergise



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Complex Problems

- No definitive problem description
- Product of inter-related systems
- The problem keeps evolving
- A solution depends on how the problem is framed
- Solutions aren't "right or wrong" but enable "better or worse"



#1


COMPLEX PROBLEM
SOLVING

ANZSOG

 Innergise



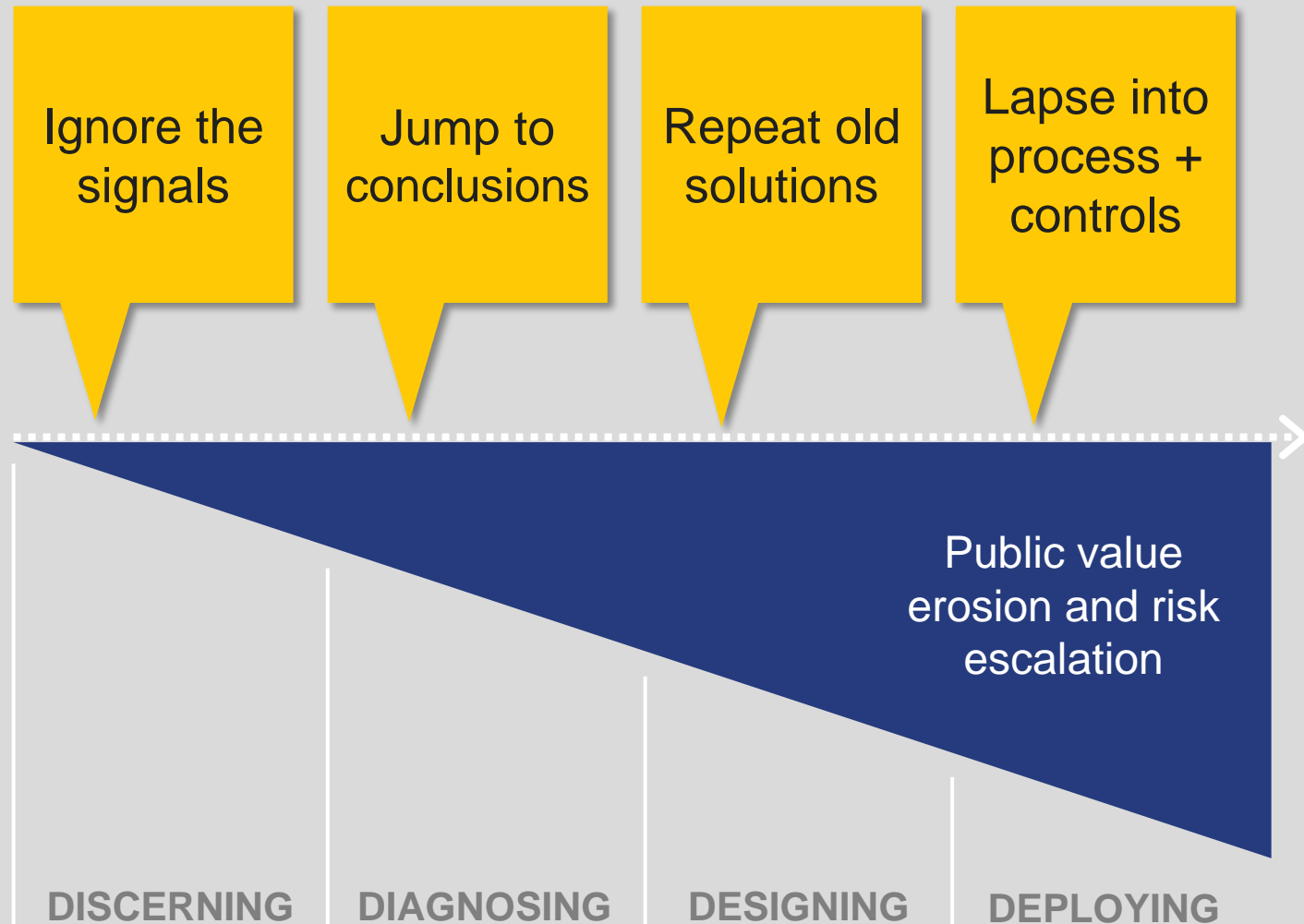
ANZSOG



We are
solving
the wrong
problems

ANZSOG

 Innergise





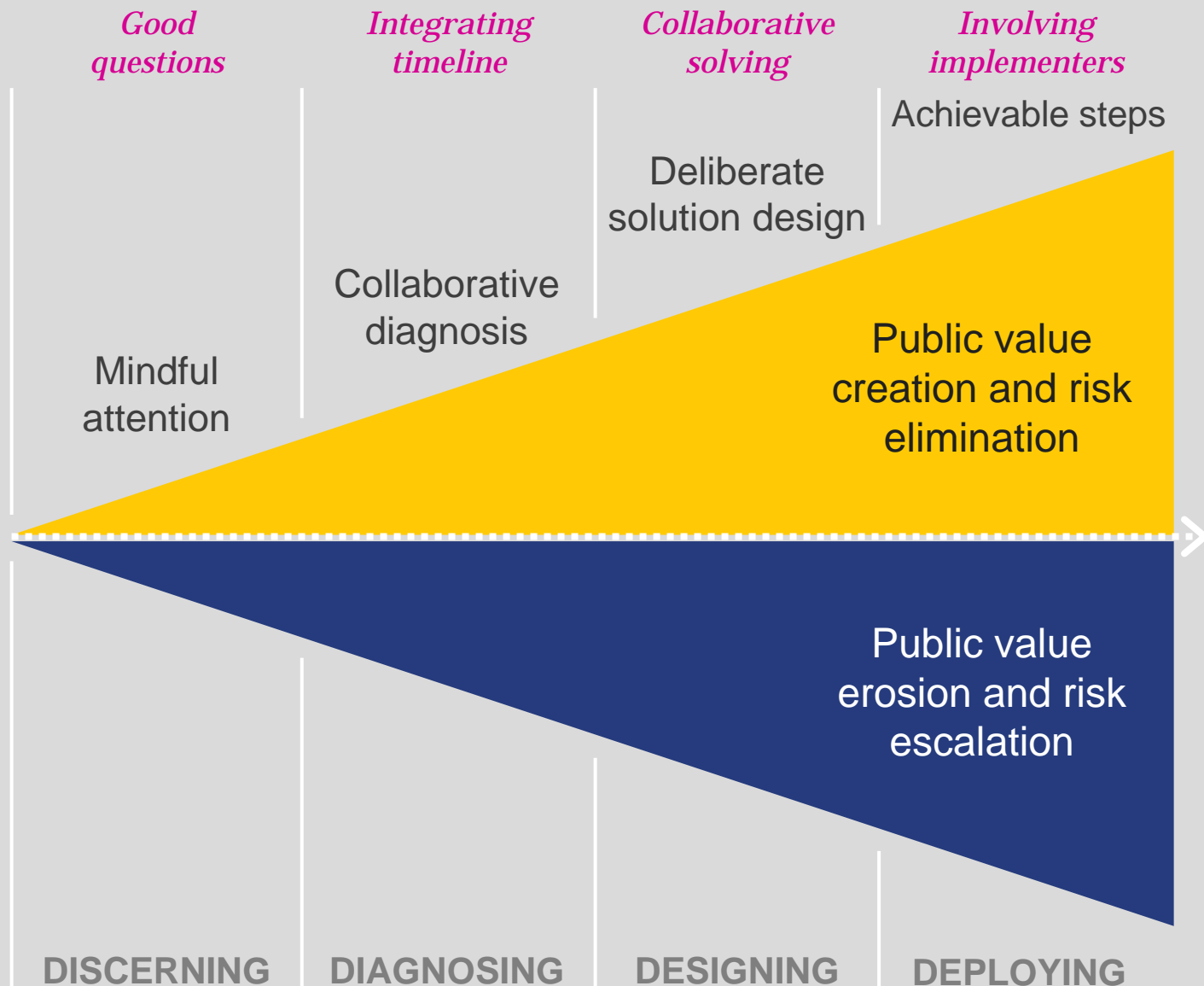
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 Innergise

We're not taught to problem solve.

We don't get to the root causes of problems,
which are often human not technical in nature.





What's it worth investing?

Cost



Probability
of a similar mistake



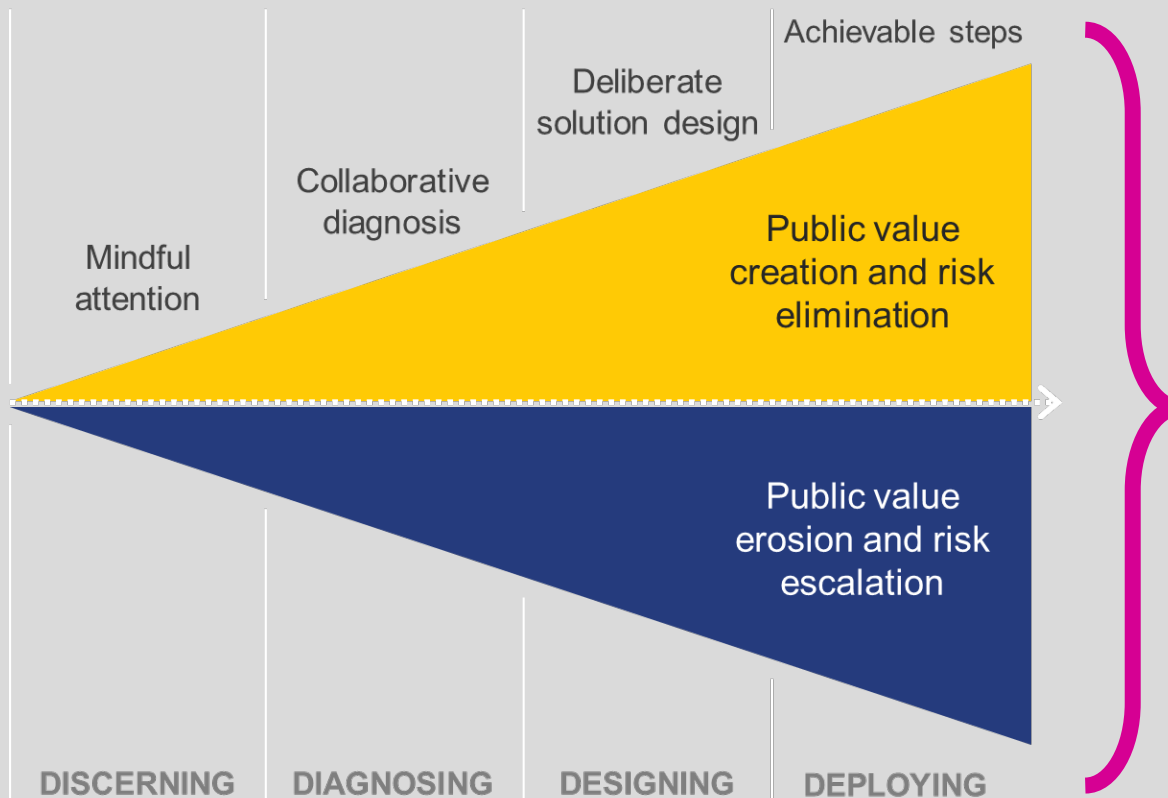
10

for a 1 in 10 return
on investment



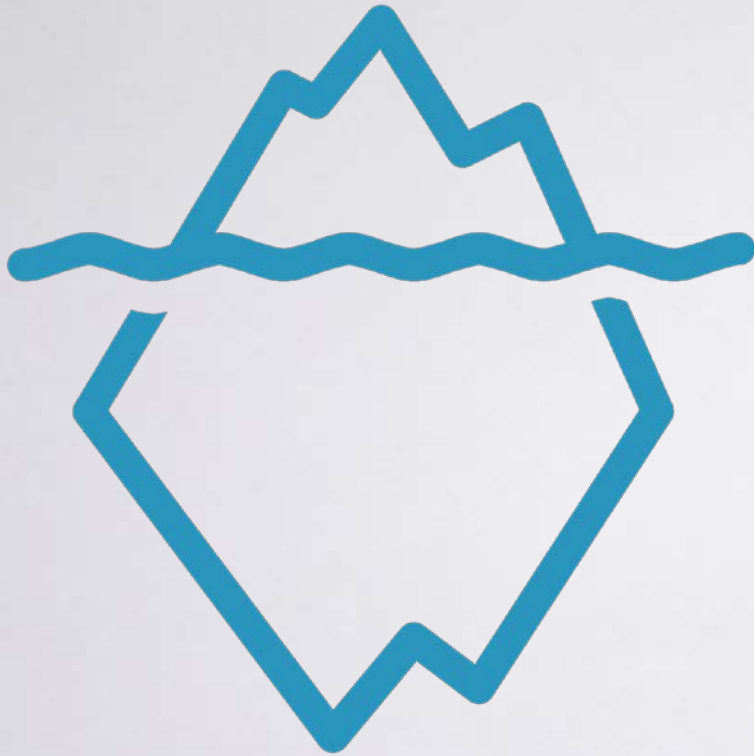
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Dividend

- Saved effort
- Avoided risk
- Better-spent taxpayer dollars
- Repeatable practices
- Engaged latent energy + talent
- Career growth
- Renewed trust



What is the problem?

The headline

What are the causes of the problem?

Obvious systemic causes-and-effects

What mindsets permit these things?

Worldviews

What deep stories and values underpin these mindsets?

Formative ideas



THANK YOU

ANZSOG.EDU.AU

@ANZSOG



Dr Nick Fleming

innergise.com.au





What is the problem?

The headline

“Government is imposing it’s green ideology.”

What are the causes of the problem?

Obvious systemic causes-and-effects

Drought has fuelled the climate change and sustainability lobby.
Government is fulfilling a policy promise to the urban latte lappers.
Sustainability actions don’t address our real (water supply) challenges.

What mindsets permit these things?

Worldviews

It’s not right to be wasting public money.
It’s not fair to impose urban whims on regional businesses.
Our business is about good engineering and sound financial management.

What deep stories and values underpin these mindsets?

Formative ideas

“Government should be small, efficient and low taxing.”
“It’s all take and no give for regional communities.”
“There are rules and standards that keep us on the right track.”

Insight Trading

Collaborating to transform the infrastructure that shapes society

by Nick Fleming and Susanne Cooper



Available at
amazon

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 Innergise

Solving Complex Problems Well

(A day in the life of a sustainability professional)



John Mauro

Chief Sustainability Officer

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ANZOG

24 July 2018

Overview

- Concepts
- Case study
- What success looks and feels like
- Practicum





- What invisible force affects us all?
- What's an inescapable truth over the past and coming century?
- What may be the single greatest intractable problem ever facing collective humanity?







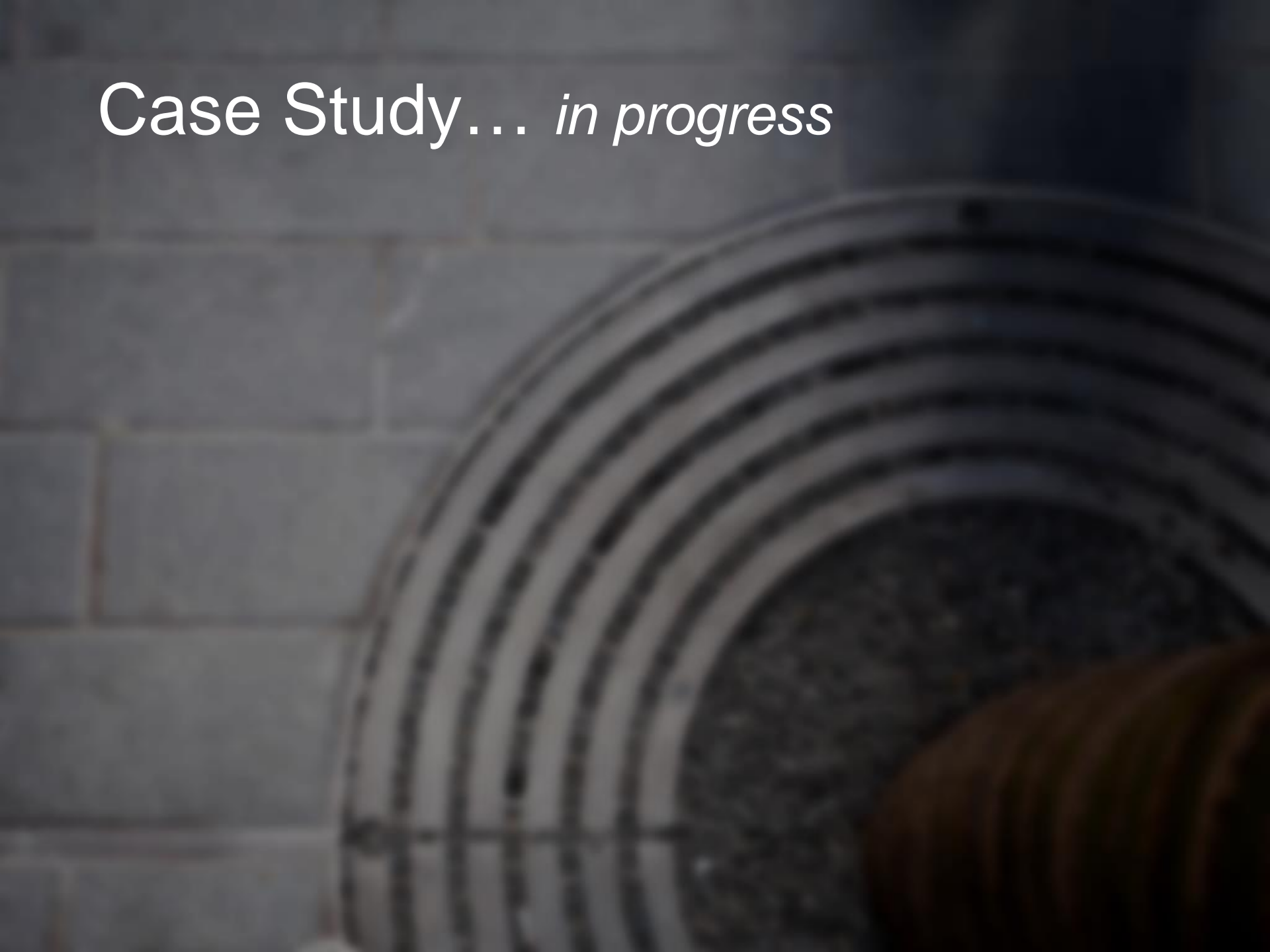




Concepts: How to Win

1. Learn from mistakes
2. Listen and dive deeply into problems as systems
3. Create urgency and buy-in
4. Commit together to direction, vision
5. Connect to values, speak people's language
6. Exhibit guts + savvy with tactical wins
7. Anchor, embed, hold accountable
8. Iterate and have fun

Case Study... *in progress*



Learn from mistakes



Listen and dive deeply into problems as systems



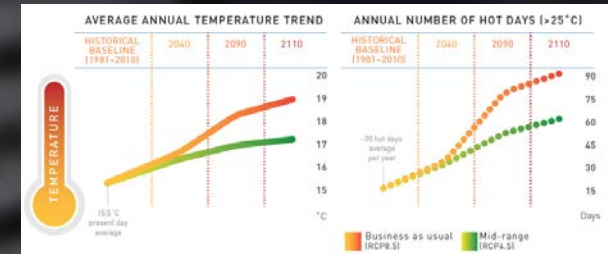
Create urgency and buy-in

How will Auckland's climate change?



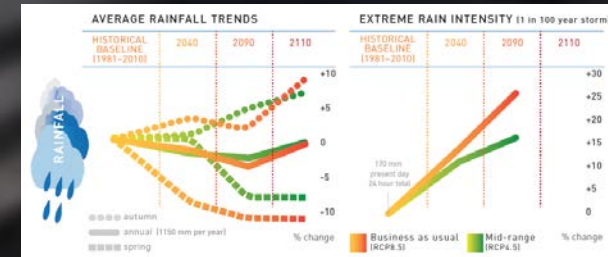
INCREASING TEMPERATURES

The average annual temperature in Auckland has increased by about 1.6 °C over the past century and is expected to increase through the 21st century.



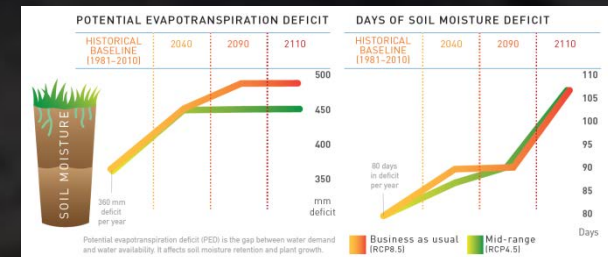
INCREASE IN EXTREME WEATHER

Seasonal rainfall patterns will change with wetter autumns and drier springs. Increasing extreme rainfall intensity is likely because warmer air holds more moisture.



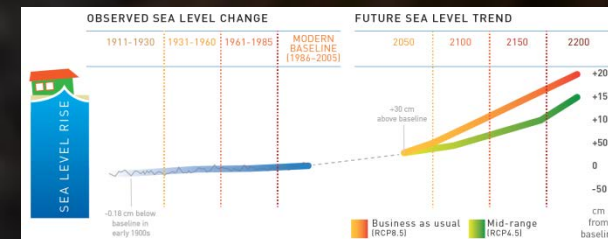
INCREASING CHANCE OF DROUGHT

Longer dry spells will mean increased potential for drought conditions. Moisture in our soil is expected to decline due to increased evaporation and changing rainfall patterns.



SEA LEVEL RISE & OCEANIC CHANGE

Sea levels around Auckland have risen. This is expected to continue and potentially accelerate.



Commit together to direction, vision

Government to consult before drafting 'Zero Carbon Act' to reduce emissions

STACEY KIRK

Last updated 18:10, December 18 2017



Connect to values, speak people's language

Auckland Exposed? Truth, consequences and aspirations for a climate-ready city - Full video

Auckland
Council



Exhibit guts + savvy with tactical wins

BUSINESS

Auckland Council to launch \$200 million green bond offer to fund electric trains

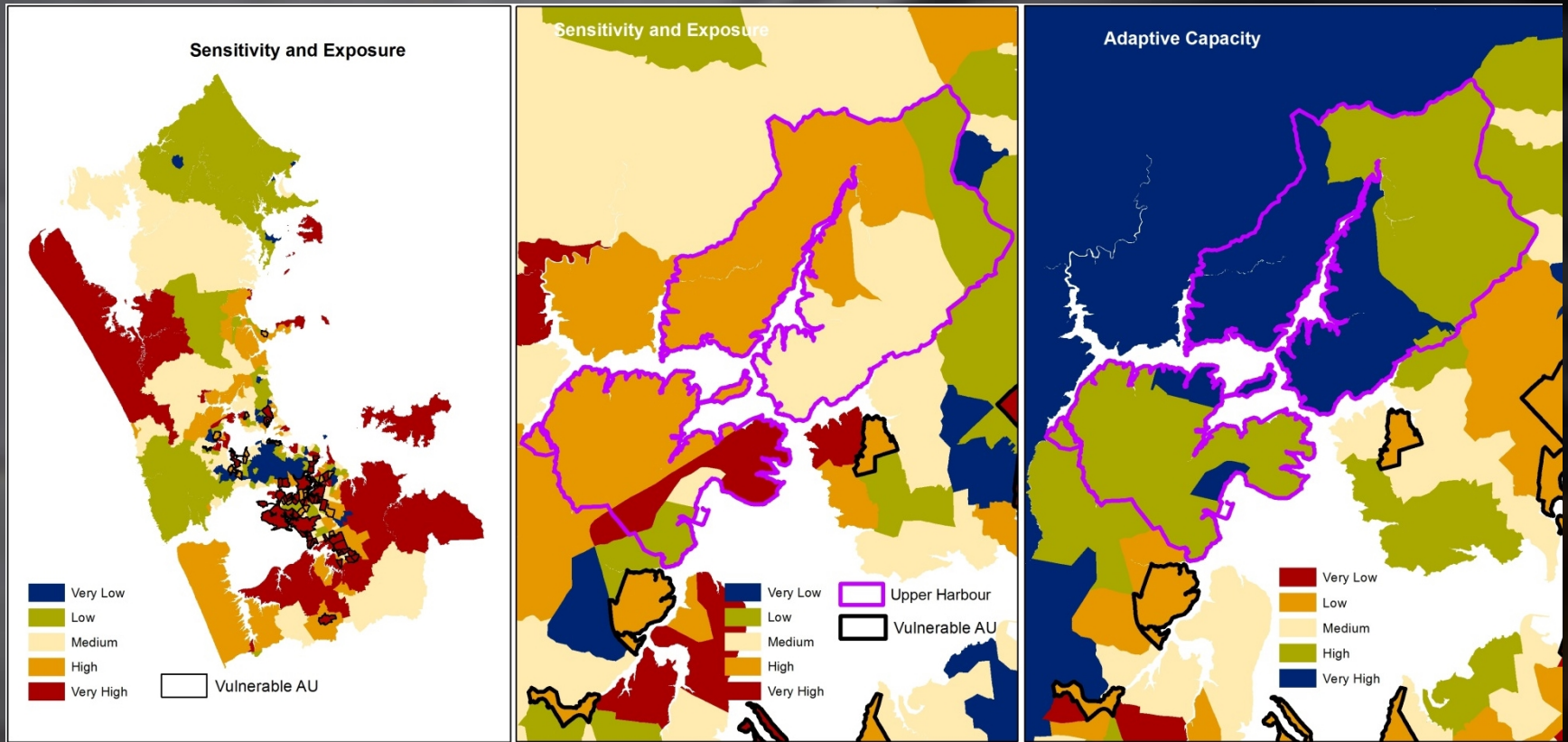
12 Jun, 2018 10:44am

🕒 2 minutes to read





nzherald.co.nz

Anchor, embed, hold accountable



Iterate and have fun

[Ideas Hub](#)[About](#)[Challenges](#)[Blog](#)[Toolkit](#)[Innovation Ambassadors](#)[Survey](#)





The Ideas Hub

Kia ora

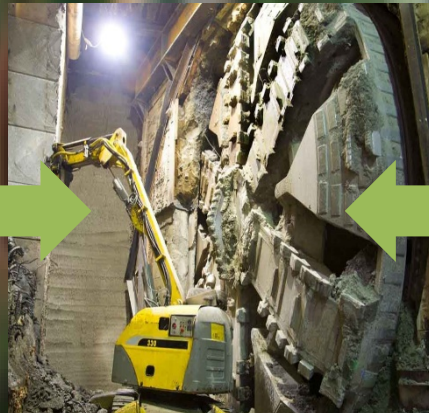
The Auckland Council is New Zealand's largest community.

We believe there are some awesome ideas, or the spark of them, that never get heard. The Ideas Hub is a place for you to come share and develop ideas with colleagues in



What Success Looks and Feels Like





Aspirations

Activities/Action

Allocation

Attitude



Westgate

TOYWORLD
where the best toys come from

SHARING SHED
HANGOUTS FOR MEN AND WOMEN

LOOK
SHARP
STORE

Eastern Massage
Therapy & Relaxation

Bendon

TOYWORLD
where the best toys come from

WELCOME TO
TOYWORLD
WORLD
where the best toys come from

OUTLET

50%
OFF SALE

BQJ382

Aon

BUC563

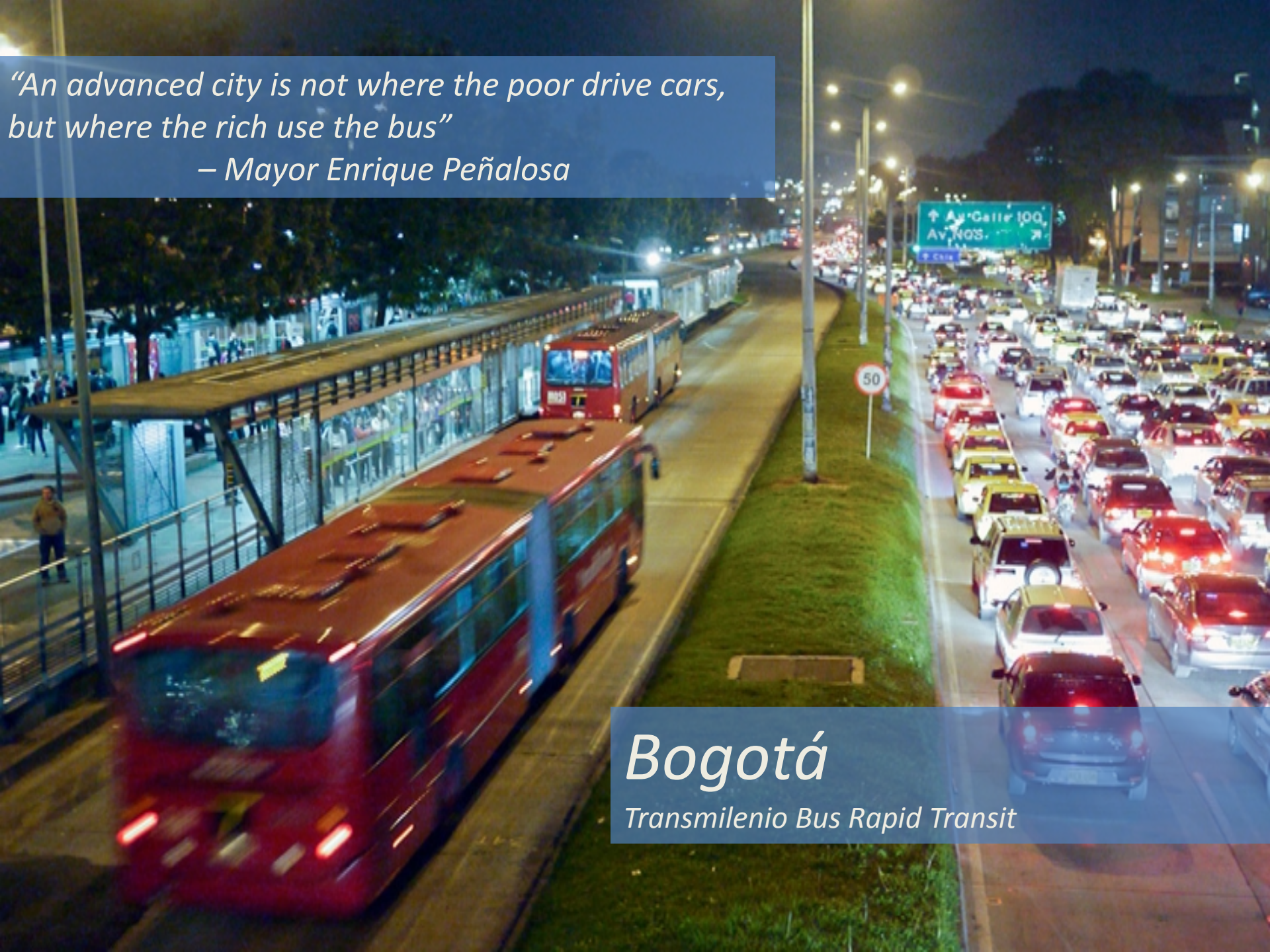






*“An advanced city is not where the poor drive cars,
but where the rich use the bus”*

– Mayor Enrique Peñalosa




Bogotá

Transmilenio Bus Rapid Transit

*1km by bike instead of car provides 1€ benefits
62% Copenhageners bike to work/study*



Copenhagen
City of Cycles

An aerial photograph of the Shenzhen skyline at sunset. The sky is a mix of orange, yellow, and blue. The city is filled with numerous skyscrapers, with the most prominent one being a very tall, slender tower in the center. Other buildings of various heights and shapes are scattered around it. In the foreground, there are some lower-rise buildings and green spaces. The overall scene is a vibrant and modern urban landscape.

*With over 16,300 electric buses, it's the world's first
100% electrified bus fleet – and its largest*

Shenzhen


Largest e-bus fleet & emissions trading

*2003: 20% reduction in car traffic, better safety
2018 aims: 4 of 5 trips by PT, walking, cycling*



London

Congestion charge & ultra-low emission zone



*Seattle values its urban forest at USD \$6.8 billion
Forest canopy cover is 28% with aims for 30%*

Seattle

The Emerald City & GSI Laboratory

An aerial photograph of Melbourne, Australia, showing a vast green park in the foreground with rows of tall, dark green coniferous trees. In the background, the city skyline is visible, featuring various skyscrapers and a prominent church with a tall spire. A blue semi-transparent box is overlaid on the top left of the image.

*“We’ve converted these laneways from a place for
garbage trucks... to green community spaces”
– Councillor Cathy Oke*

Melbourne

Laneways and Urban Forests



*First city in North America with a green roof bylaw
Most green roof area of all North American cities*

Toronto

Green roofs and urban rooftop agriculture

*“We couldn’t achieve (70% emissions reduction)
unless we worked with the major landlords”
– Lord Mayor Clover Moore*



Sydney

Better Buildings Partnership

*Kuyasa retrofit initiative tackled energy poverty,
reduced emissions & generated jobs & health*



Cape Town

Energy retrofits for low-income homes

*Social enterprises help finance “Solar Home Systems”
for millions of low-income households*



Bangalore/Karnataka

Rural solar micro-grids and micro-loans

An aerial photograph of a large port facility. In the foreground, several large container ships are docked at a quay, with their decks covered in colorful shipping containers. Numerous gantry cranes are positioned along the quay, ready for loading and unloading. In the background, a vast area is filled with stacks of containers, creating a colorful grid pattern. The sky is clear and blue.

"Our know-how is a first-class export product"
– Mayor Ahmed Aboutaleb

Rotterdam

Accelerating the circular economy

"If you create a vivid experience at eye level, people forget about density"

— Former Chief Planner Larry Beasley

Vancouver

Density done well in the “greenest city”



Practicum

Who's in?

ClimateAKL.nz

#ClimateAKL

Auckland's Climate Action Plan



Zero Carbon Bill





Summary Thoughts

Honesty. Ambition. Abundance.



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Upcoming Thought Leadership Seminars

<i>Swipe right to fix the world</i> Speaker: Professor Beth Noveck	Auckland	1 August 2018
<i>Teaching evidence-based policy to fly: transferring sound policies across the world</i> Speaker: Professor Paul Cairney	Auckland	12 October 2018



Enquiries to:
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THANK YOU

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