Aug 2016

Ministry of Transport
TE MANATŪ WAKA

How should transport be regulated in 2025?

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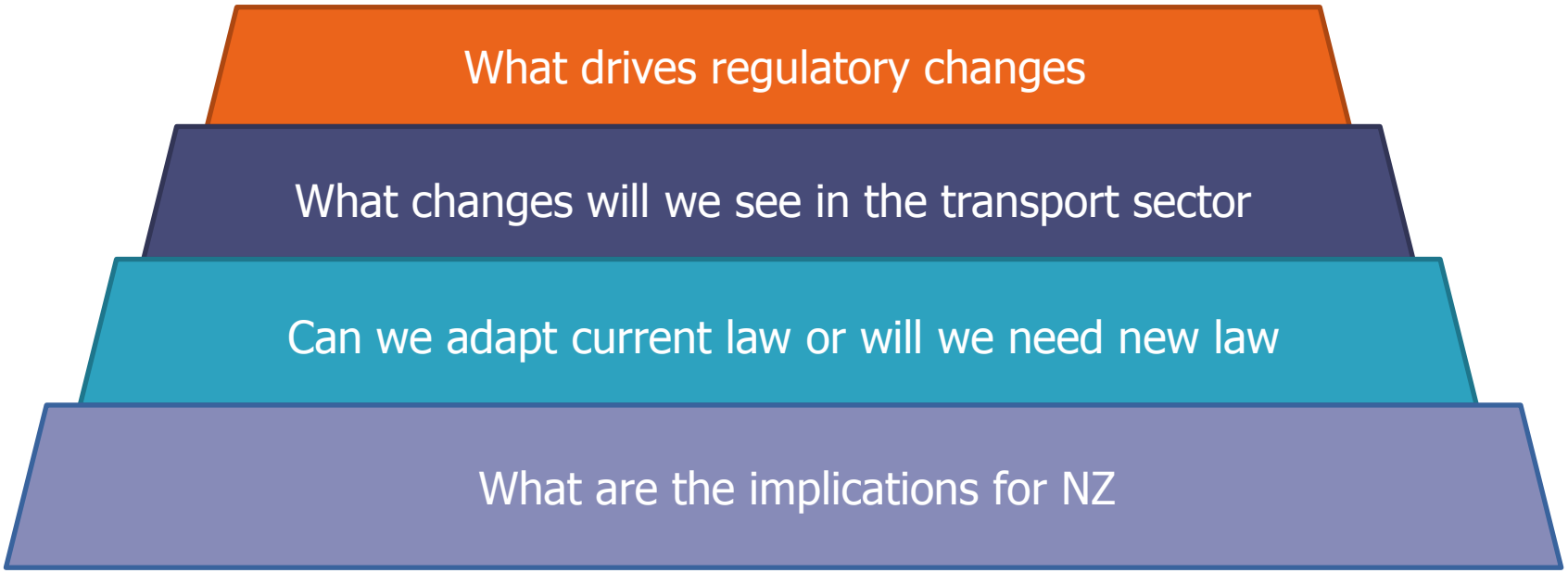

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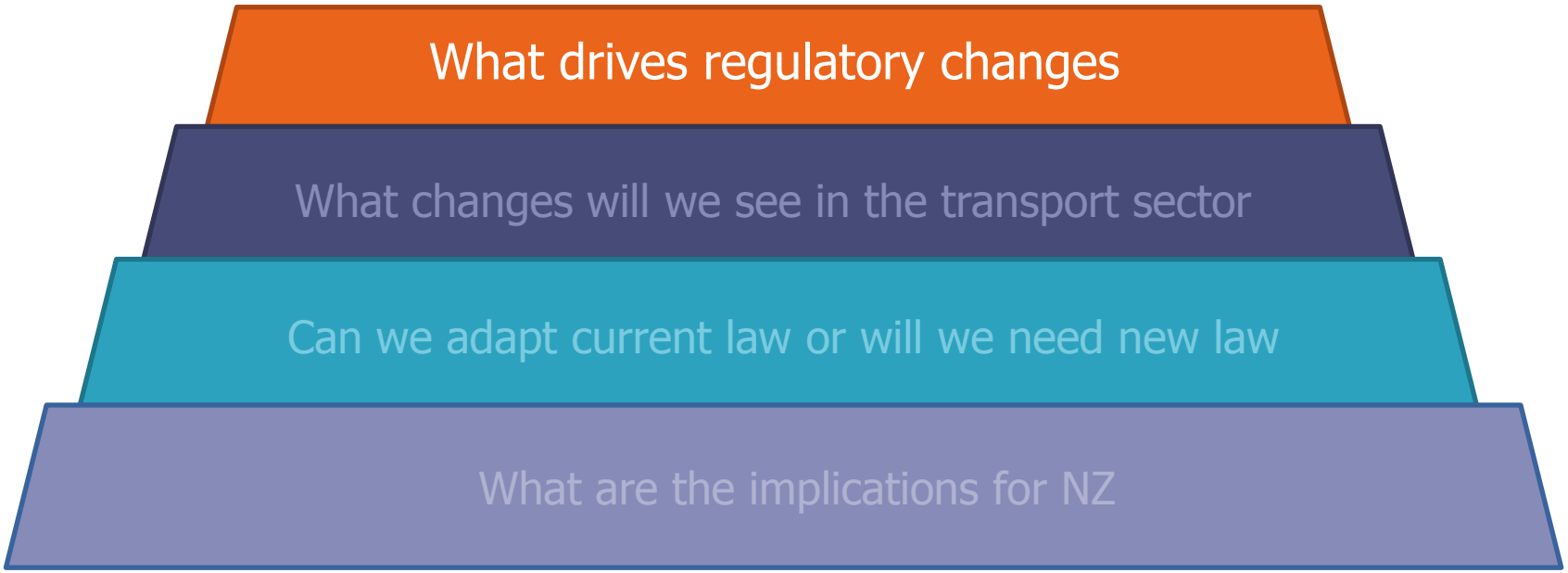

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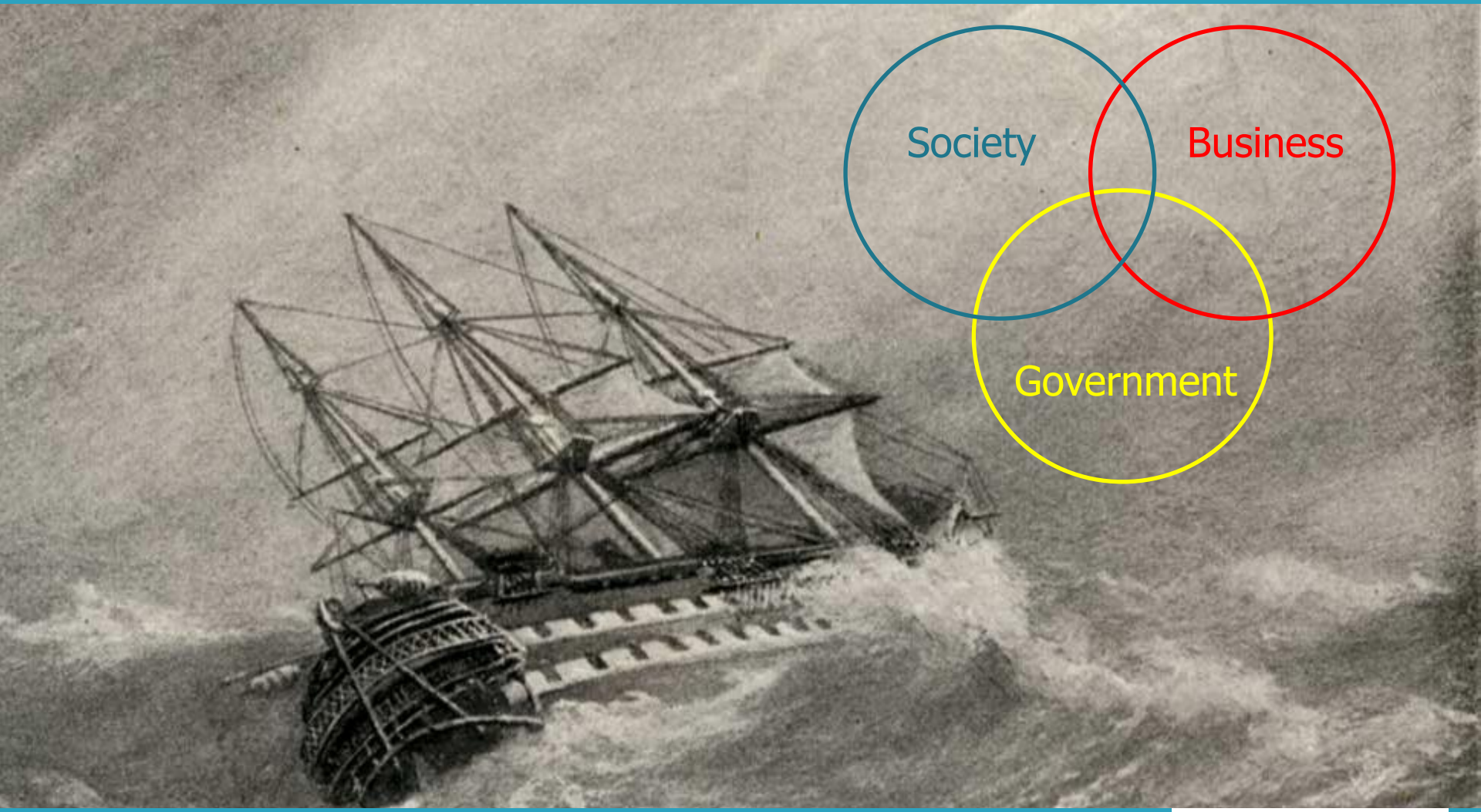
Regulation is about balancing interests



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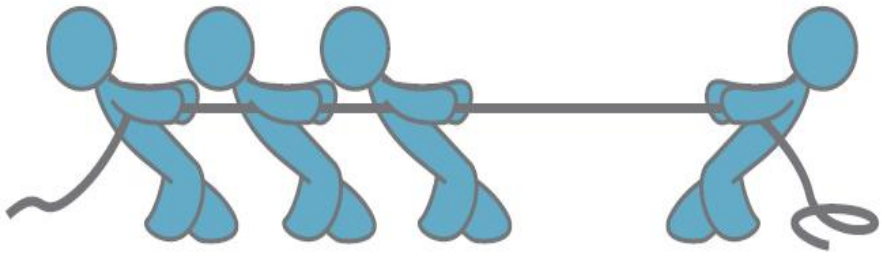
Regulatory systems are always changing in response to demands

Driving change

- Public risk perception
- New regulatory ideologies
- New business models
- New technologies

Inhibiting change

- Social norms
- Regulatory inertia
- Established business interests
- Ludditism



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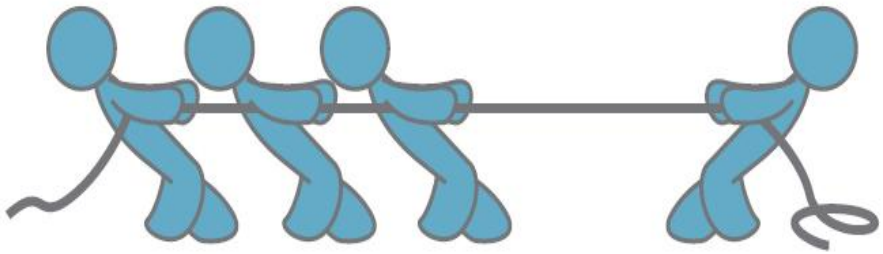

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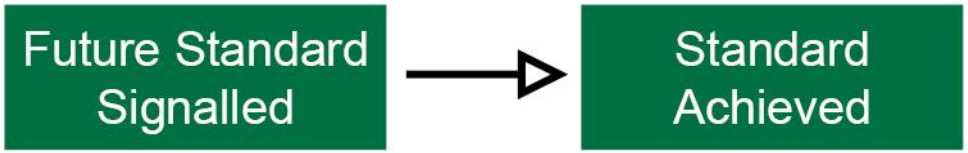
Regulation can drive better outcomes through technological innovation

Proactive



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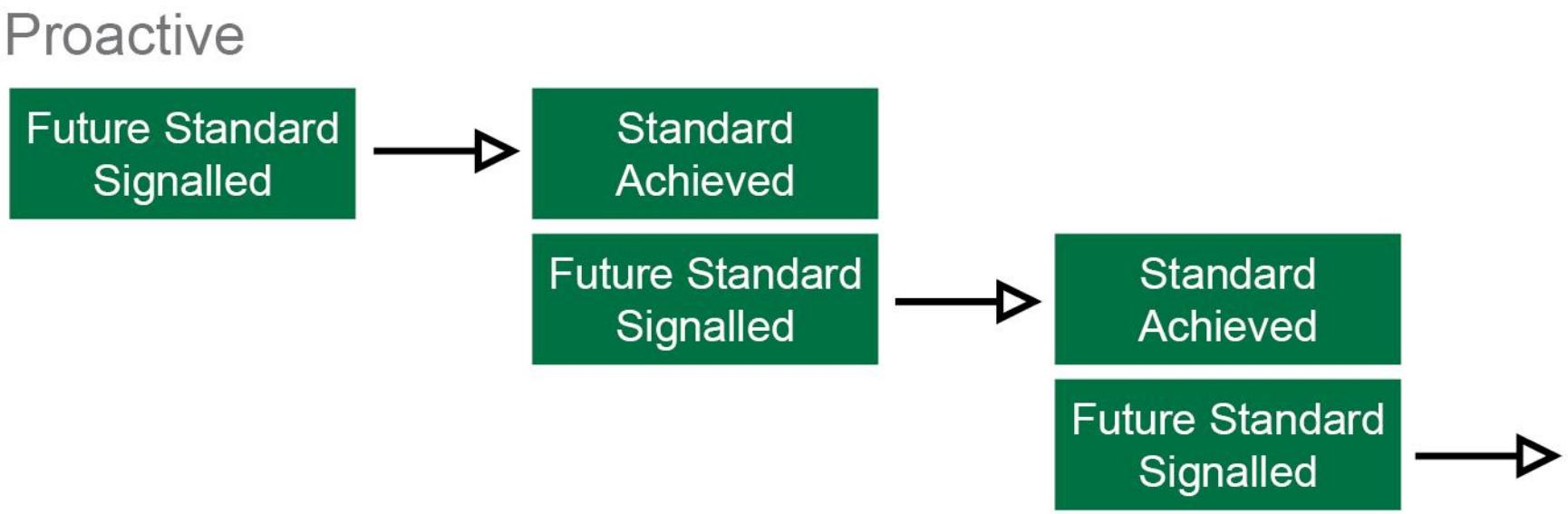

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Regulation can drive better outcomes through technological innovation

Proactive

Future Standard Signalled → Standard Achieved

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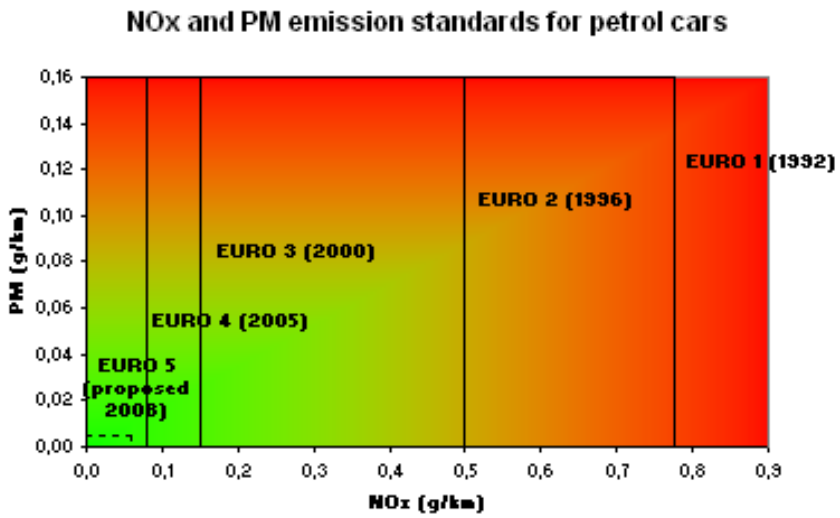
Future Standard Signalled →



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Regulation can ensure diffusion of technology

Reactive

Minimum Safety Standard → ABS in luxury cars

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Regulation can ensure diffusion of technology

Reactive

Minimum Safety Standard → ABS in luxury cars → ABS in most models

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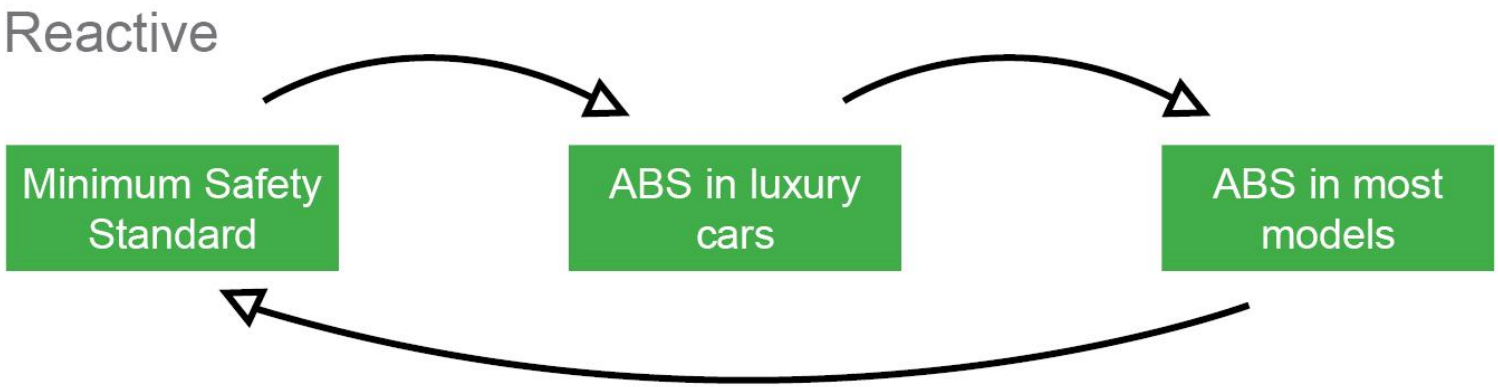
Regulation can ensure diffusion of technology



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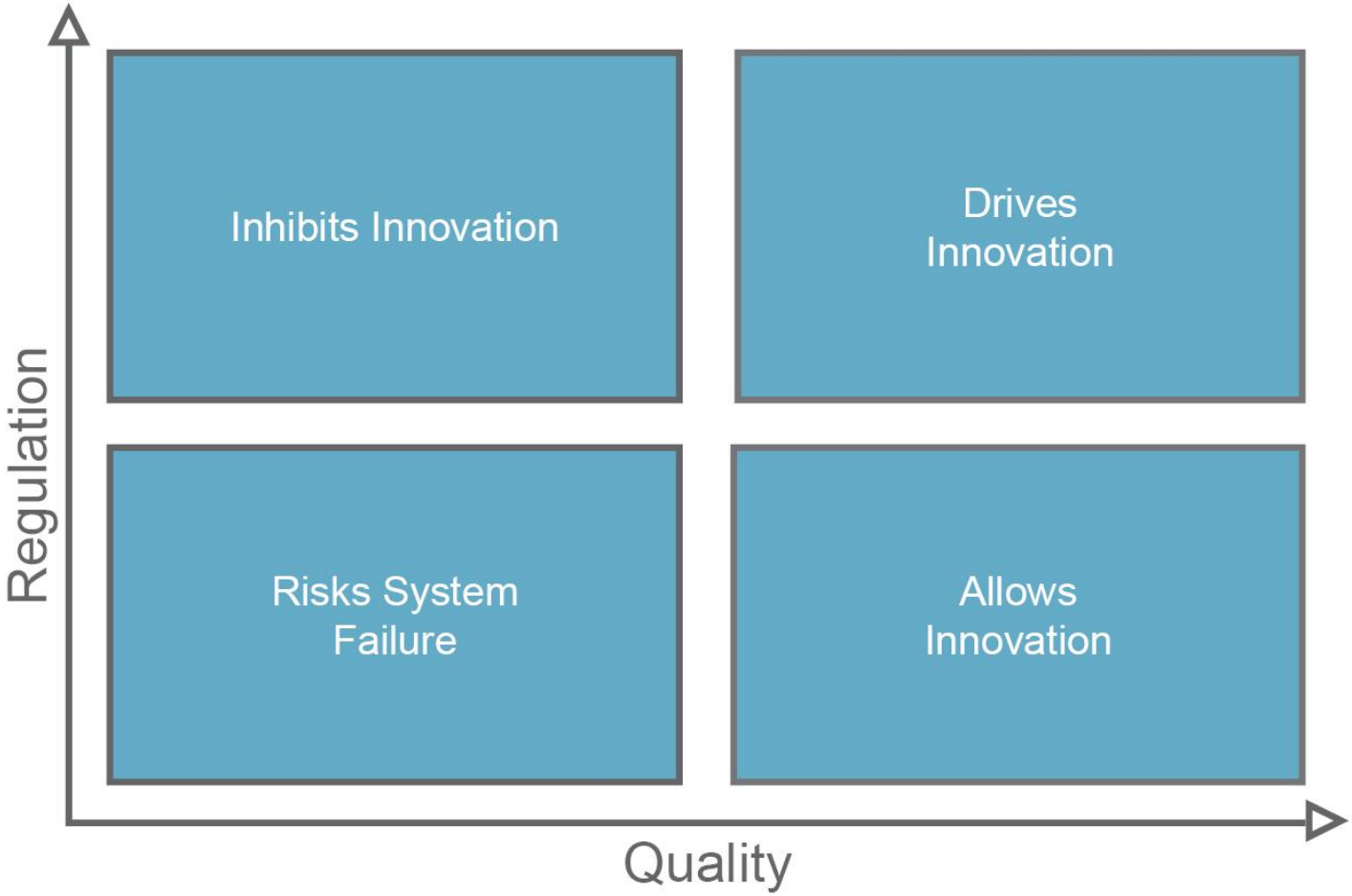
We need to deliver a good regulatory environment not a minimal environment



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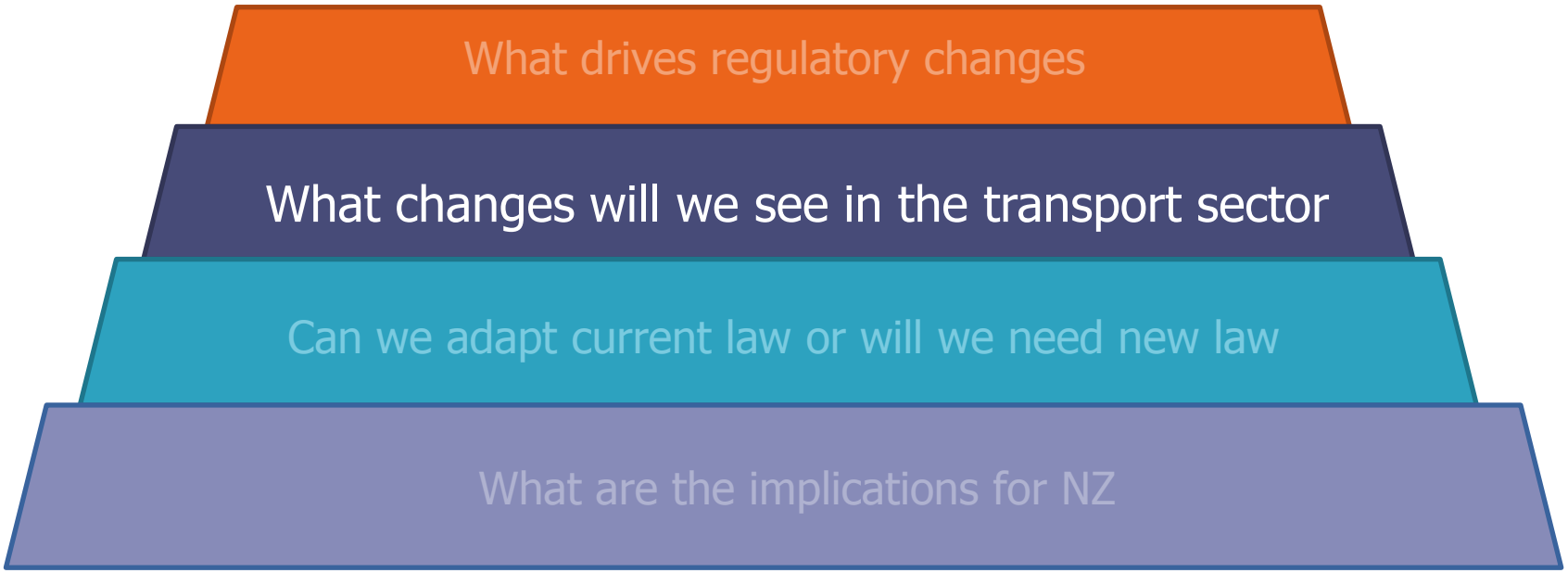

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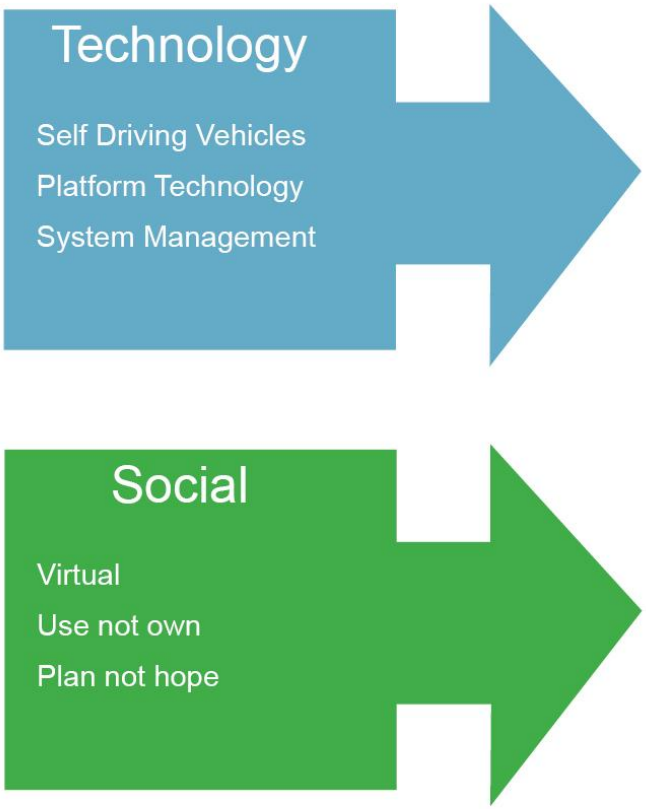
Disruptions to transport



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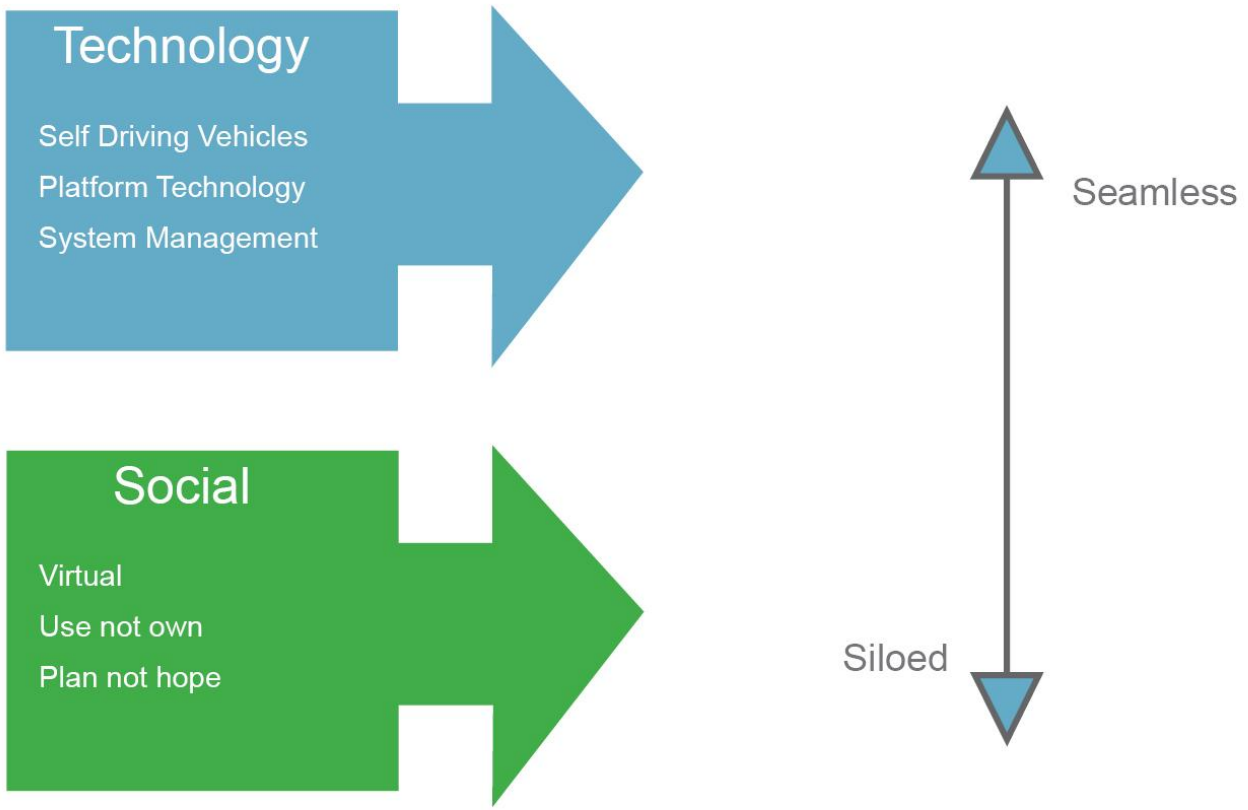

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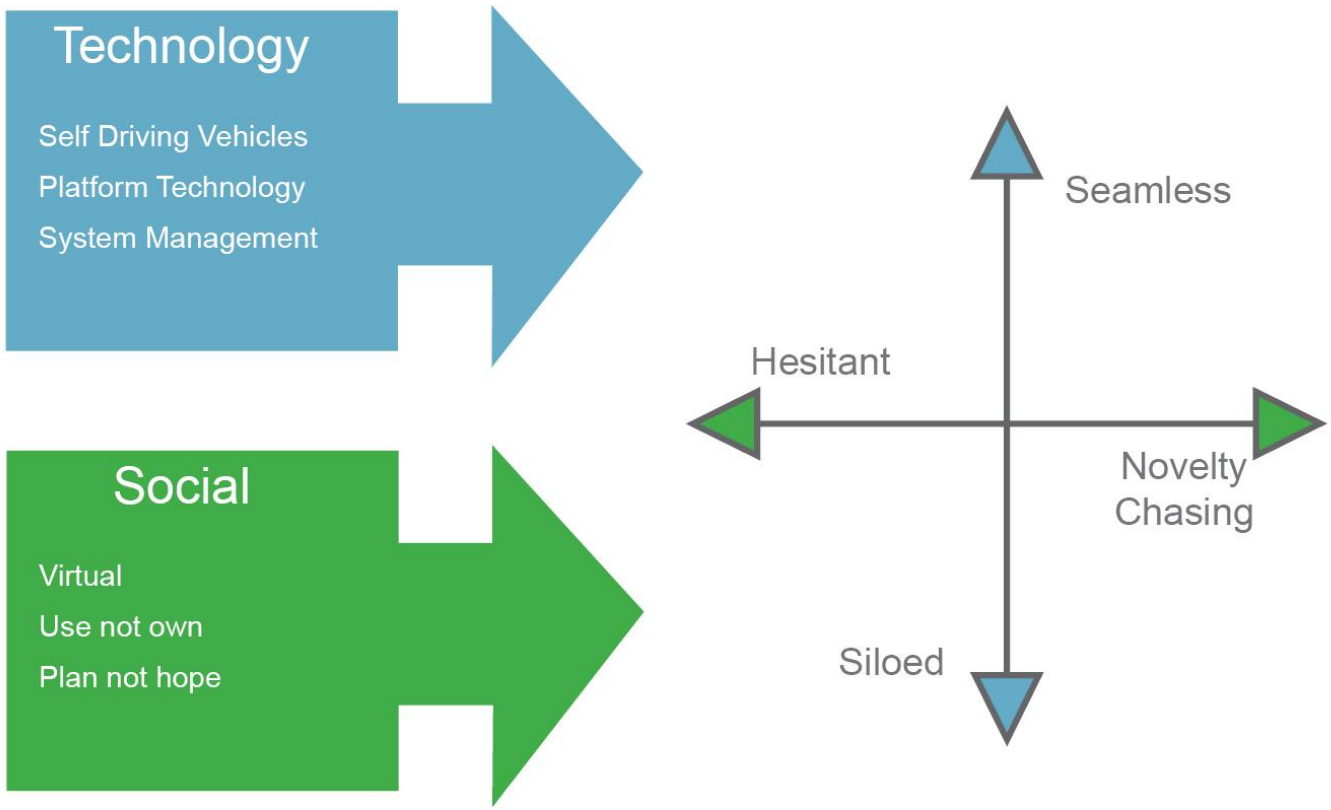

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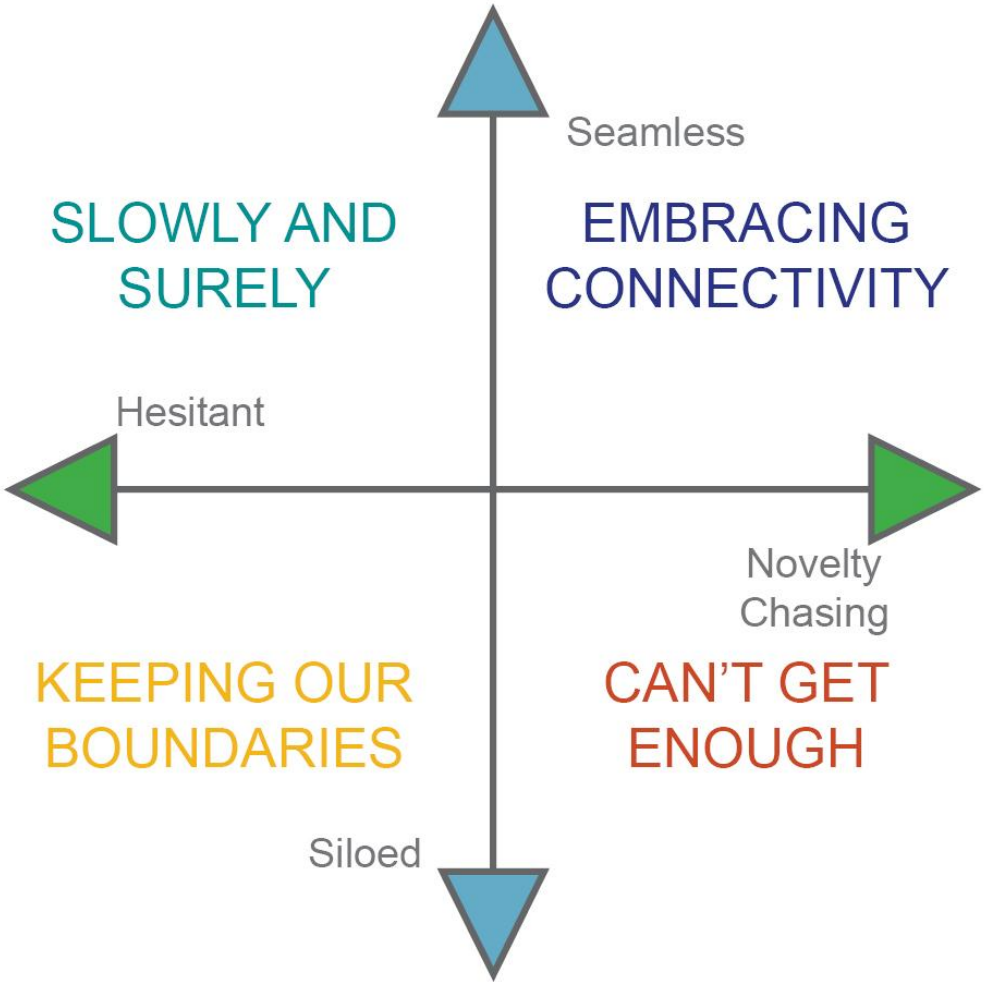
Regulation 2025



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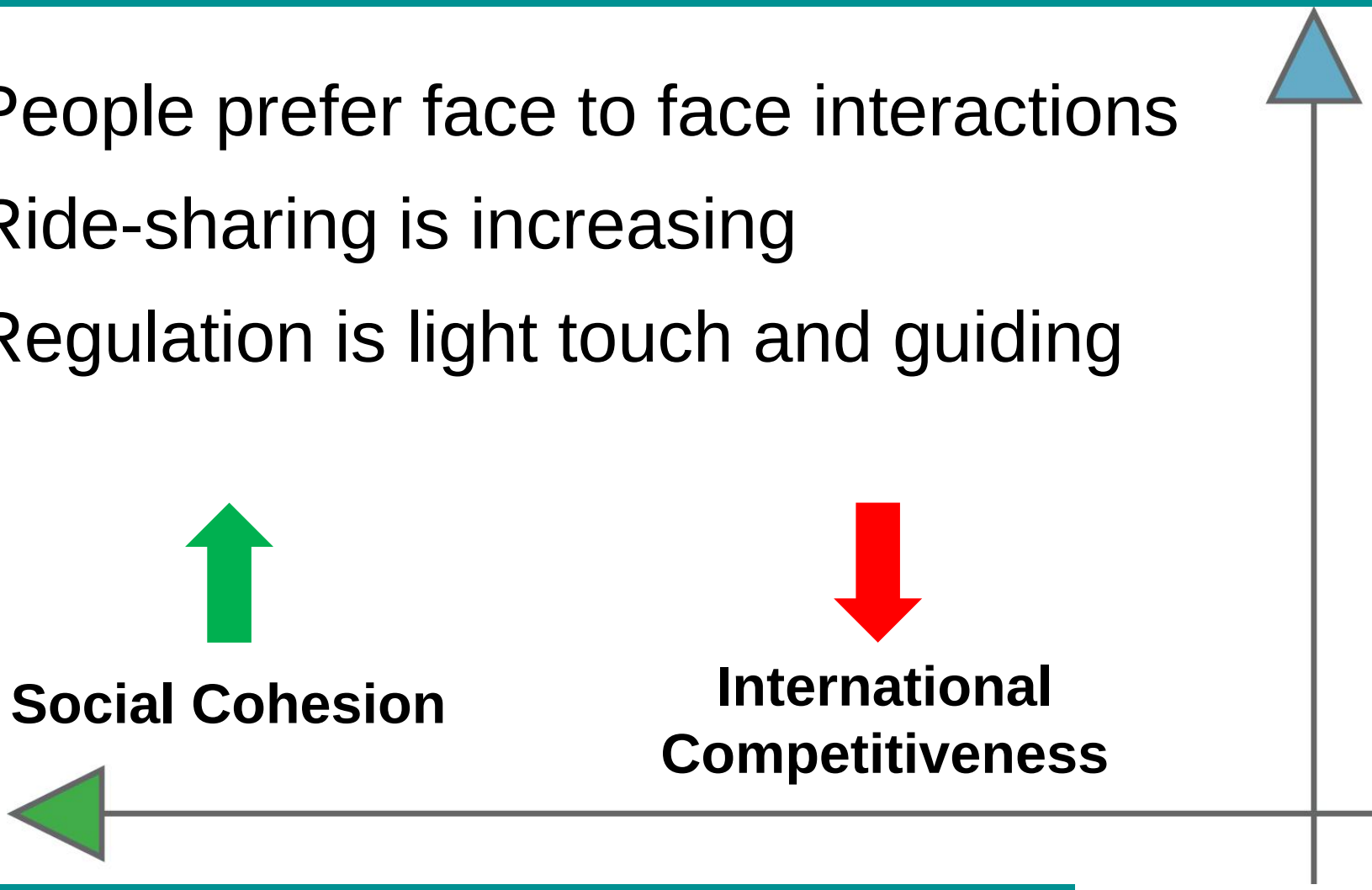
Slowly and Surely

- People prefer face to face interactions
- Ride-sharing is increasing
- Regulation is light touch and guiding



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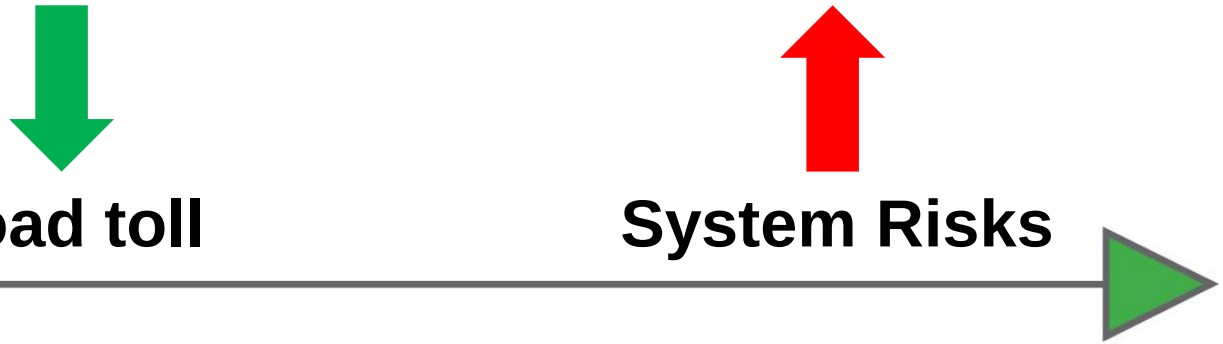
Embracing Connectivity

- Greater willingness to share private information and data
- Autonomous vehicle fleets
- Regulation is liberal in places, hard-lined in others



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Can’t Get Enough

- Pockets of different transport technologies are adopted
- Regulation is light handed, for now
- Objective of regulator is to improve interoperability

System risks

Social cohesion

This publication does not reflect government policy

Keeping our Boundaries

- People value privacy and security
- The transport system is similar to today
- Regulation is deliberative and protective

System risks

Efficiency

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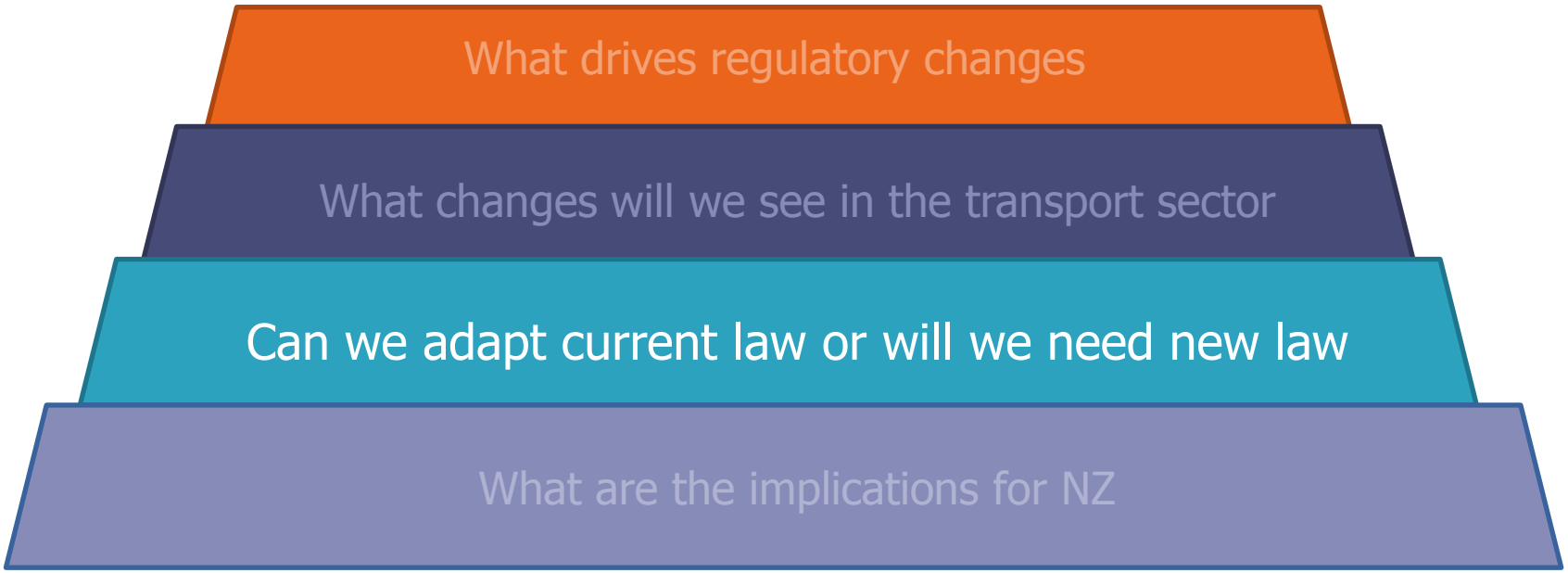

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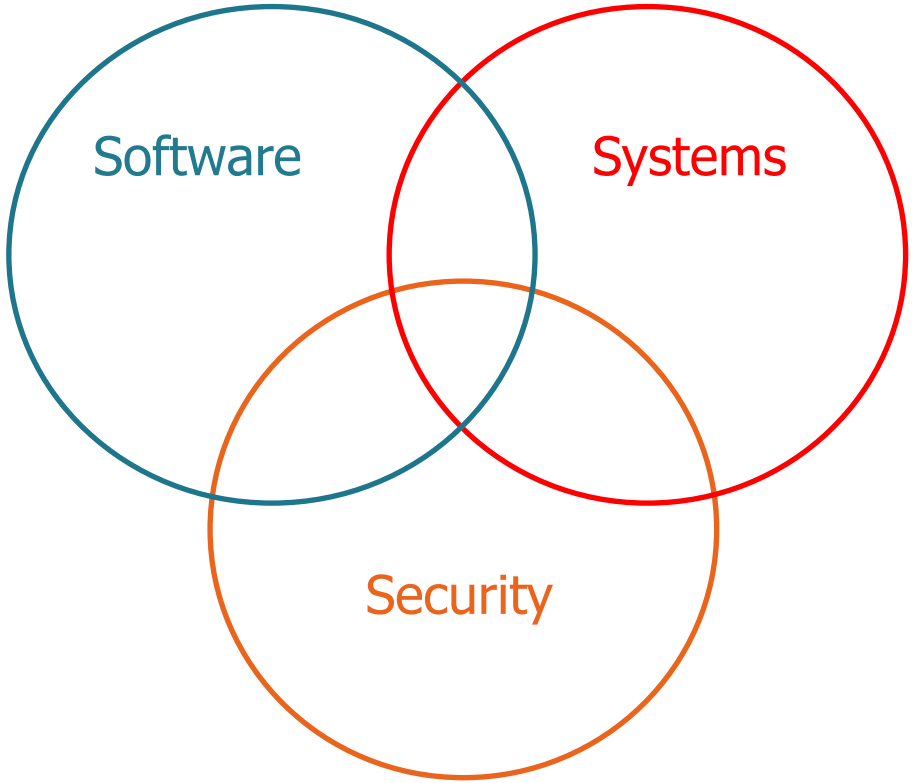
We will need to manage three different types of risk

Self-driving vehicles

Integrated



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Performance

Software

System issues

Security

- Trials to certification
- Comply – will it
- Stability
- Fail-safe

This publication does not reflect government policy

Human Interface

Software

System issues

Security

- Issue for today
- Who is in control?
- Test of character?

This publication does not reflect government policy

Ethics

Software

- Who to save
- Social and cultural values
- Moral and ethical choices are not black and white

System issues

Security

This publication does not reflect government policy

System Performance

Software

System issues

Security

- Emergent behaviour
- Effectiveness
- Stability
- Fail-safe
- Compatibility

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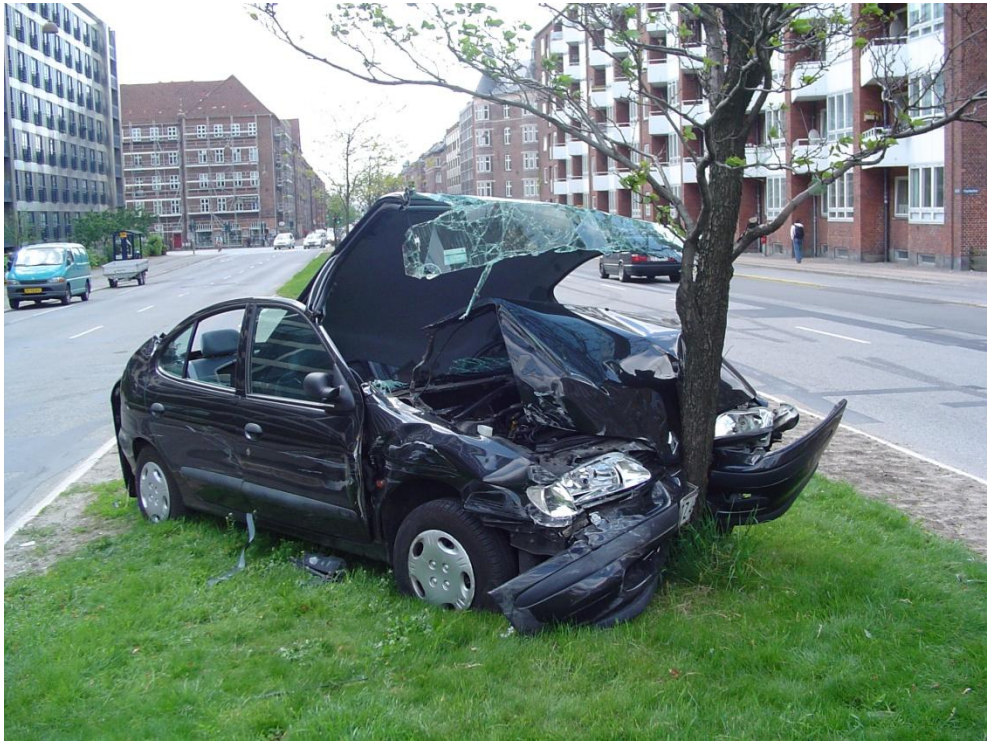
Liability

Software

System issues

Security

- Who should pay
- Will there be insurance?



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Data

Software

System issues

Security

- Who owns the data?
- Expectations on data sharing
- Expectations on data storage
- Protection

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Physical security

Software

System issues

Security

- Vehicle
- Fleet
- Management system

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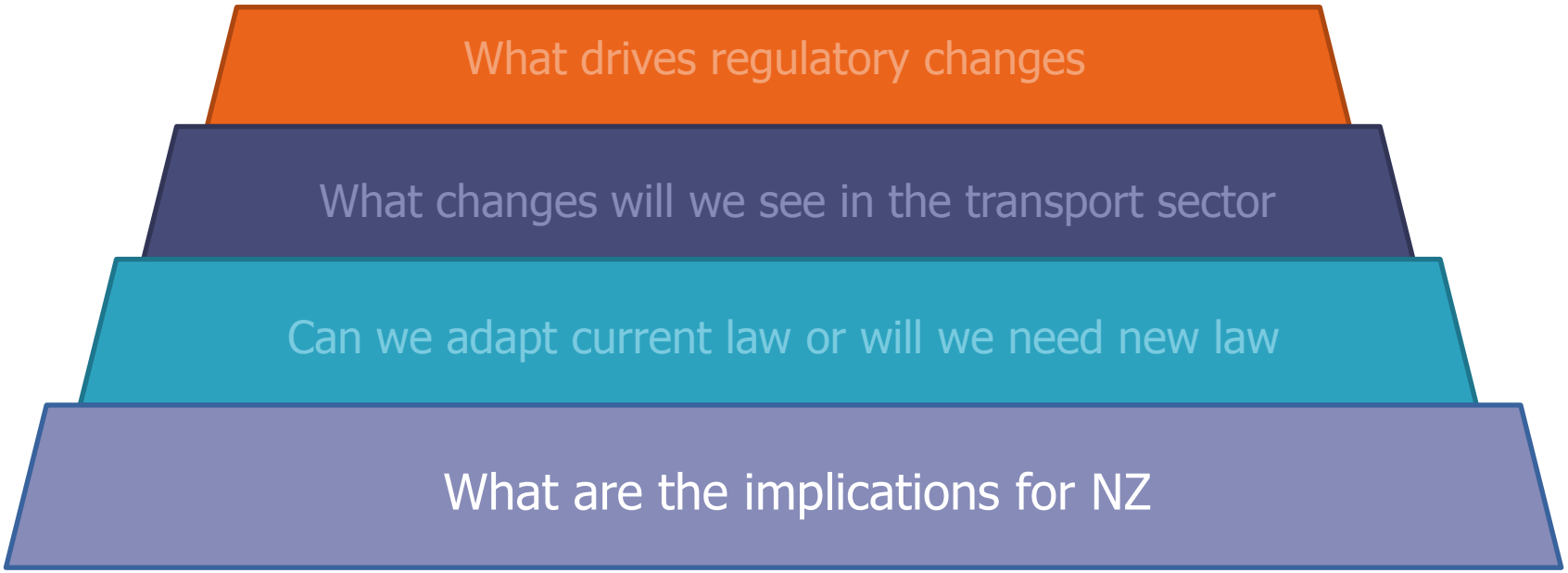

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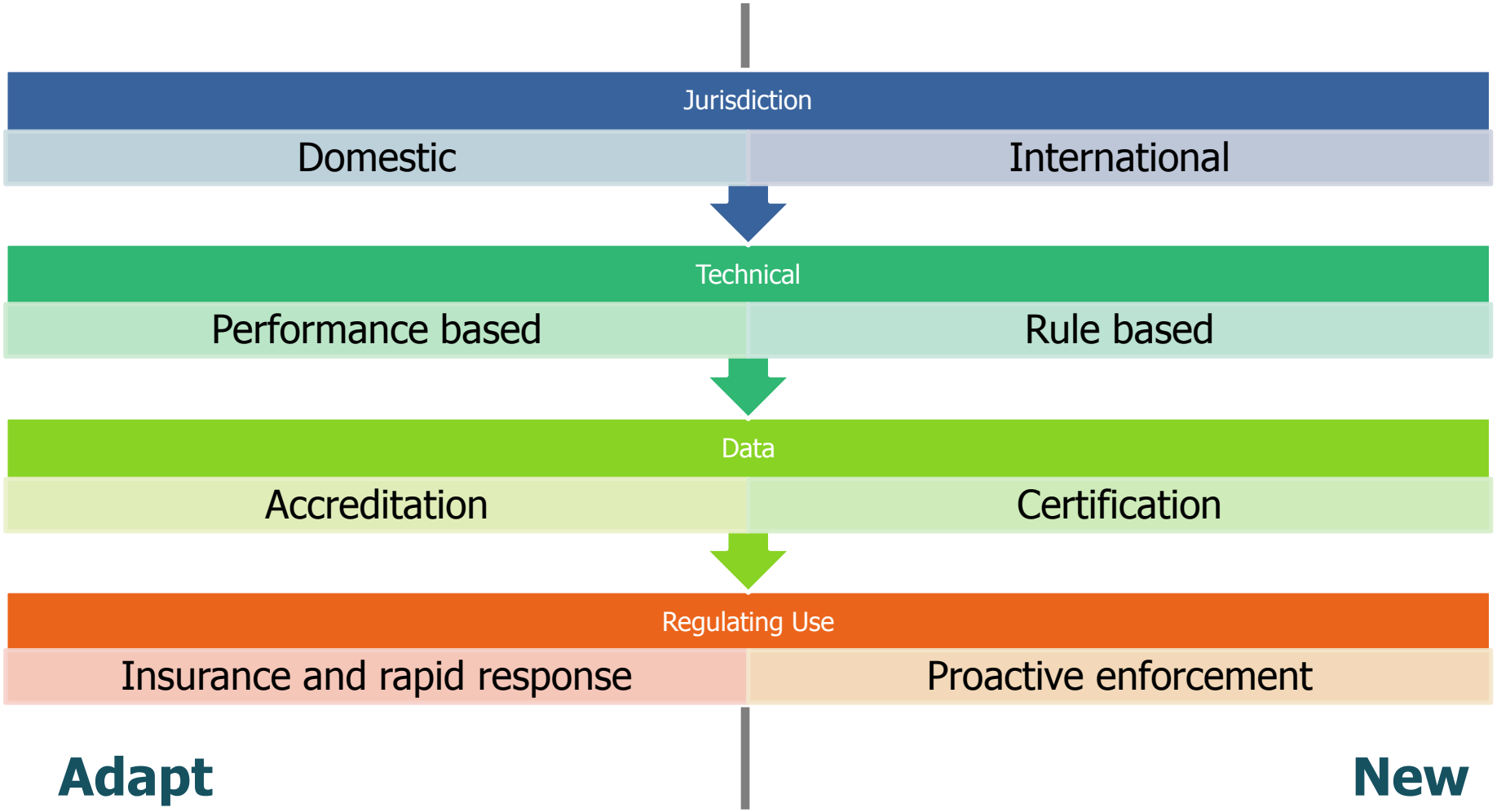
NZ strategic choices – self driving transport system



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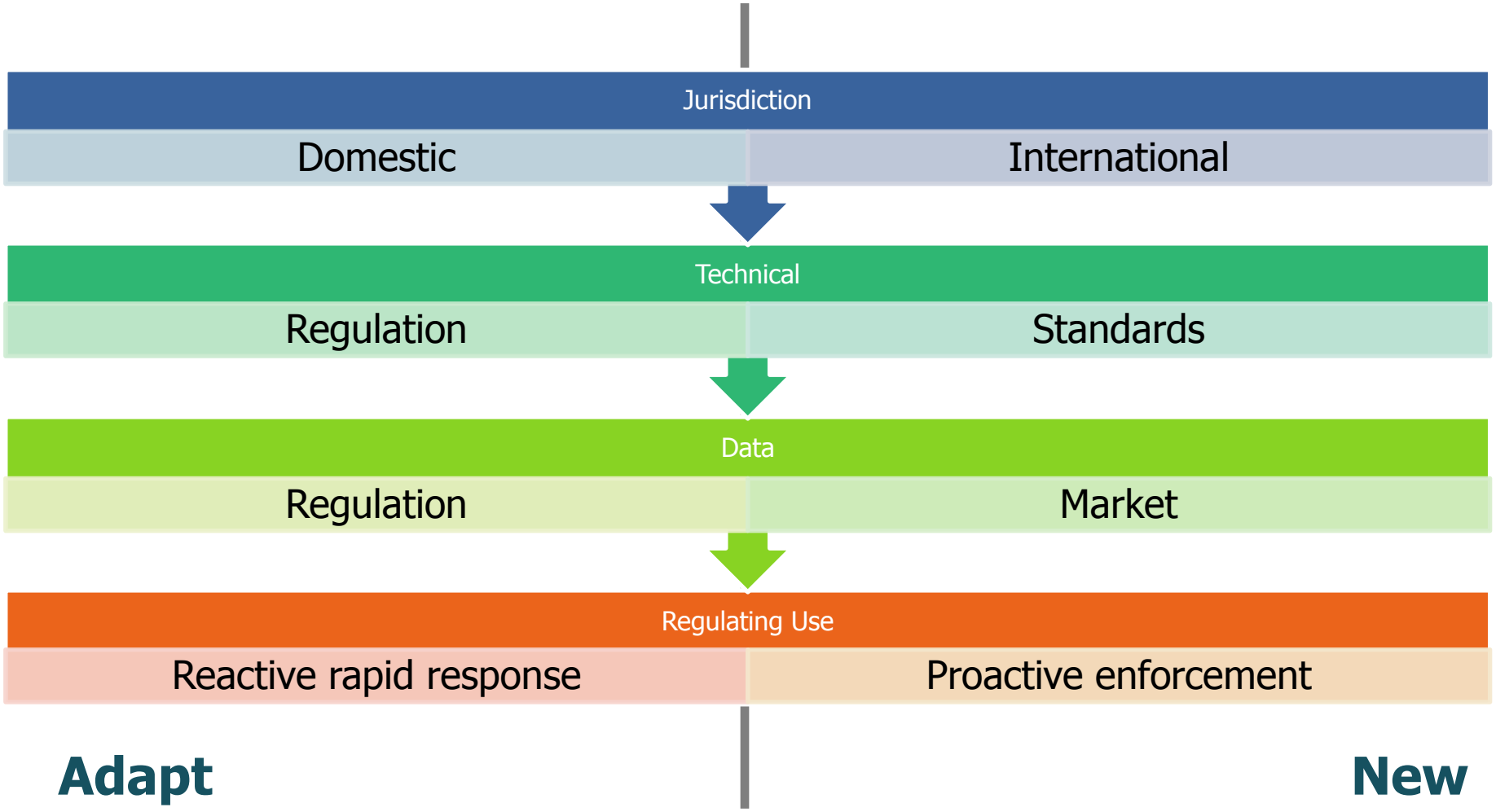
NZ strategic choices – integrated transport system



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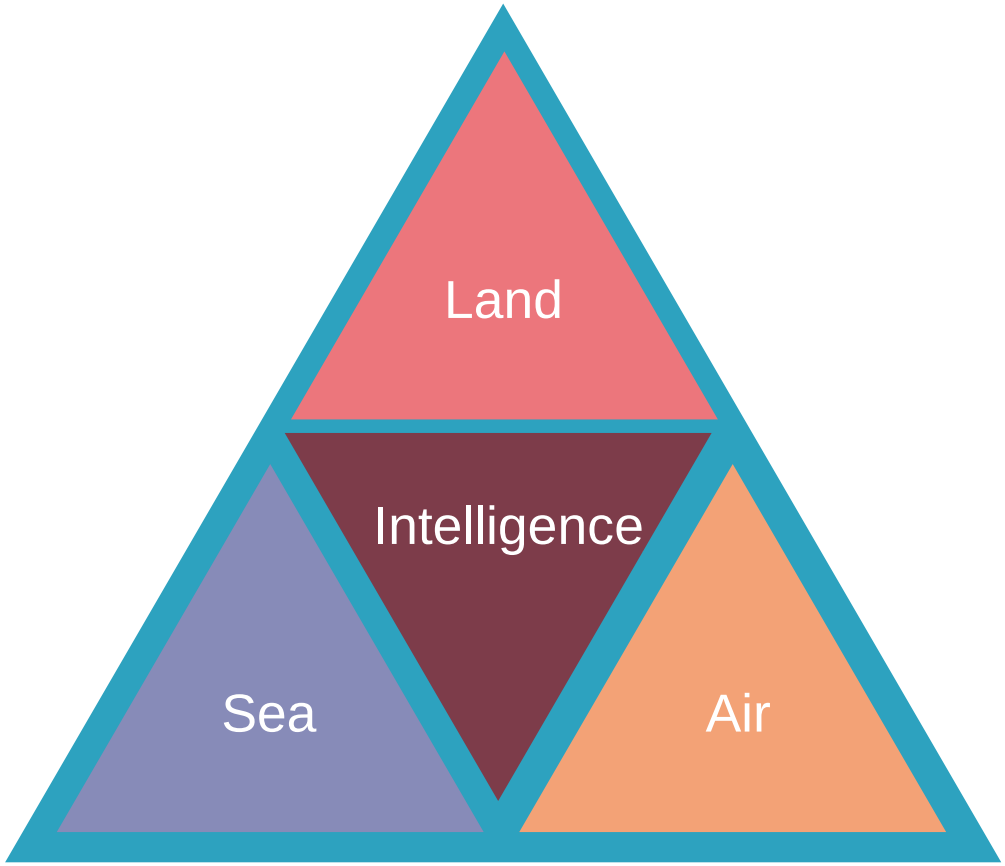
NZ strategic choices - regulatory structure



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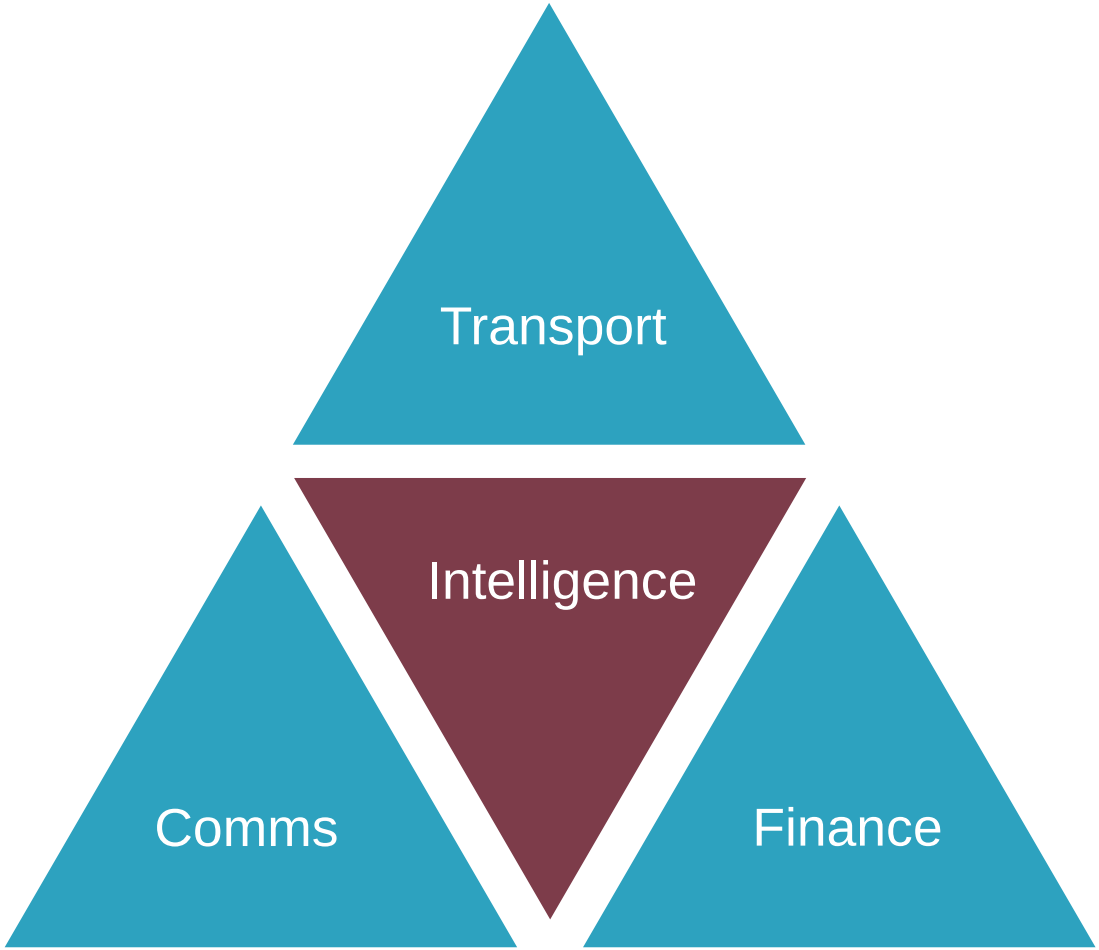

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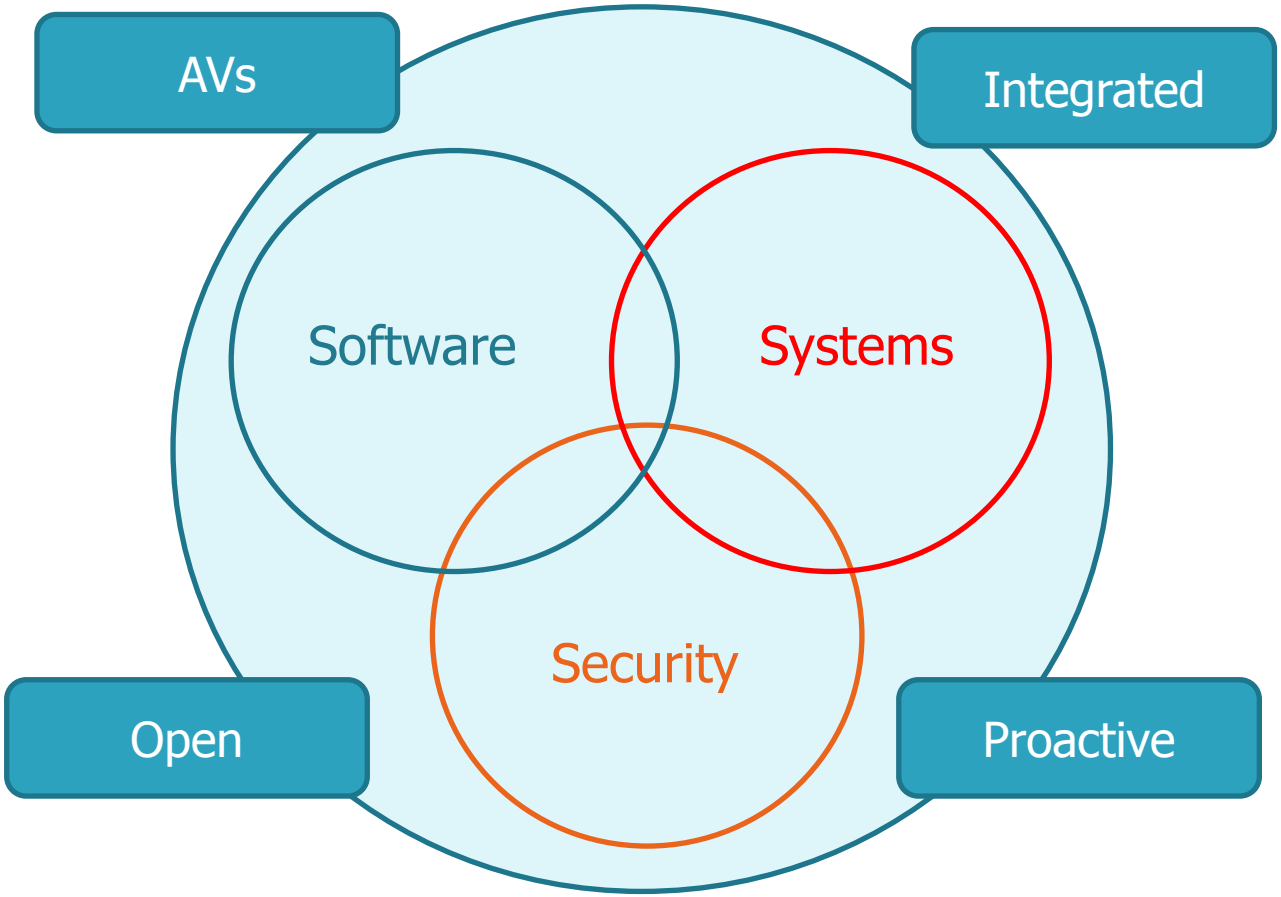
Strategic Choices



Single regulatory system

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