How should transport be regulated in 2025?

- In order to decide whether we can simply build on existing law, or need new law, we explored:

  - What drives regulatory changes
  - What changes will we see in the transport sector
  - Can we adapt current law or will we need new law
  - What are the implications for NZ

Regulation 2025

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Regulation 2025

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Regulation is about balancing interests

Society

Business

Government

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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
Regulatory systems are always changing in response to demands

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Regulation can drive better outcomes through technological innovation

Proactive

Future Standard Signalled → Standard Achieved
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NOx and PM emission standards for petrol cars

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Regulation can ensure diffusion of technology

Reactive

Minimum Safety Standard

ABS in luxury cars
Regulation can ensure diffusion of technology

Reacting

- Minimum Safety Standard
- ABS in luxury cars
- ABS in most models
Regulation can ensure diffusion of technology

Reactive

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

Regulation 2025

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

- Inhibits Innovation
- Drives Innovation
- Risks System Failure
- Allows Innovation

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Disruptions to transport

Technology
- Self Driving Vehicles
- Platform Technology
- System Management

Social
- Virtual
- Use not own
- Plan not hope
Disruptions to transport

Technology
- Self Driving Vehicles
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Social
- Virtual
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Seamless

Siloed

Regulation 2025
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Disruptions to transport

**Technology**
- Self Driving Vehicles
- Platform Technology
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**Social**
- Virtual
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Slowly and Surely

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

Social Cohesion

International Competitiveness
Embracing Connectivity

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

Road toll | System Risks

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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

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

System risks  Efficiency
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We will need to manage three different types of risk:

- Self-driving vehicles
- Software
- Systems
- Security

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Performance

Software

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

System issues

Security

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Human Interface

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

Software

System issues

Security

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## Ethics

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

**Software**

**System issues**

**Security**

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<table>
<thead>
<tr>
<th>Software</th>
<th>System issues</th>
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<tr>
<td>Stability</td>
<td>Compatibility</td>
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Liability

- Who should pay
- Will there be insurance?
Data

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

Software

System issues

Security

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Physical security

Software

- Vehicle
- Fleet
- Management system

System issues

Security

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NZ strategic choices – self driving transport system

Jurisdiction
- Domestic
- International

Technical
- Performance based
- Rule based

Data
- Accreditation
- Certification

Regulating Use
- Insurance and rapid response
- Proactive enforcement

Adapt
New

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NZ strategic choices – integrated transport system

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Strategic Choices

- AVs
- Integrated
- Software
- Systems
- Security
- Open
- Proactive

Single regulatory system

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