

An aerial photograph of a multi-lane highway with several vehicles. Overlaid on the image are several blue circular icons: a traffic light, a car, a bus, and a road divider. A network of thin white lines connects various points across the image, suggesting a digital or data network. A large white curved shape is on the right side.

International Perspectives

What's Next for the U.S.?

Benefits of Asset Management

Virginia DOT define new pavement and bridge performance measures, and set sustainable long-term targets. This process delivered improved outcomes through:



↓ **12%** REDUCTION
IN STRUCTURALLY DEFICIENT
BRIDGES AFTER 30 YEARS

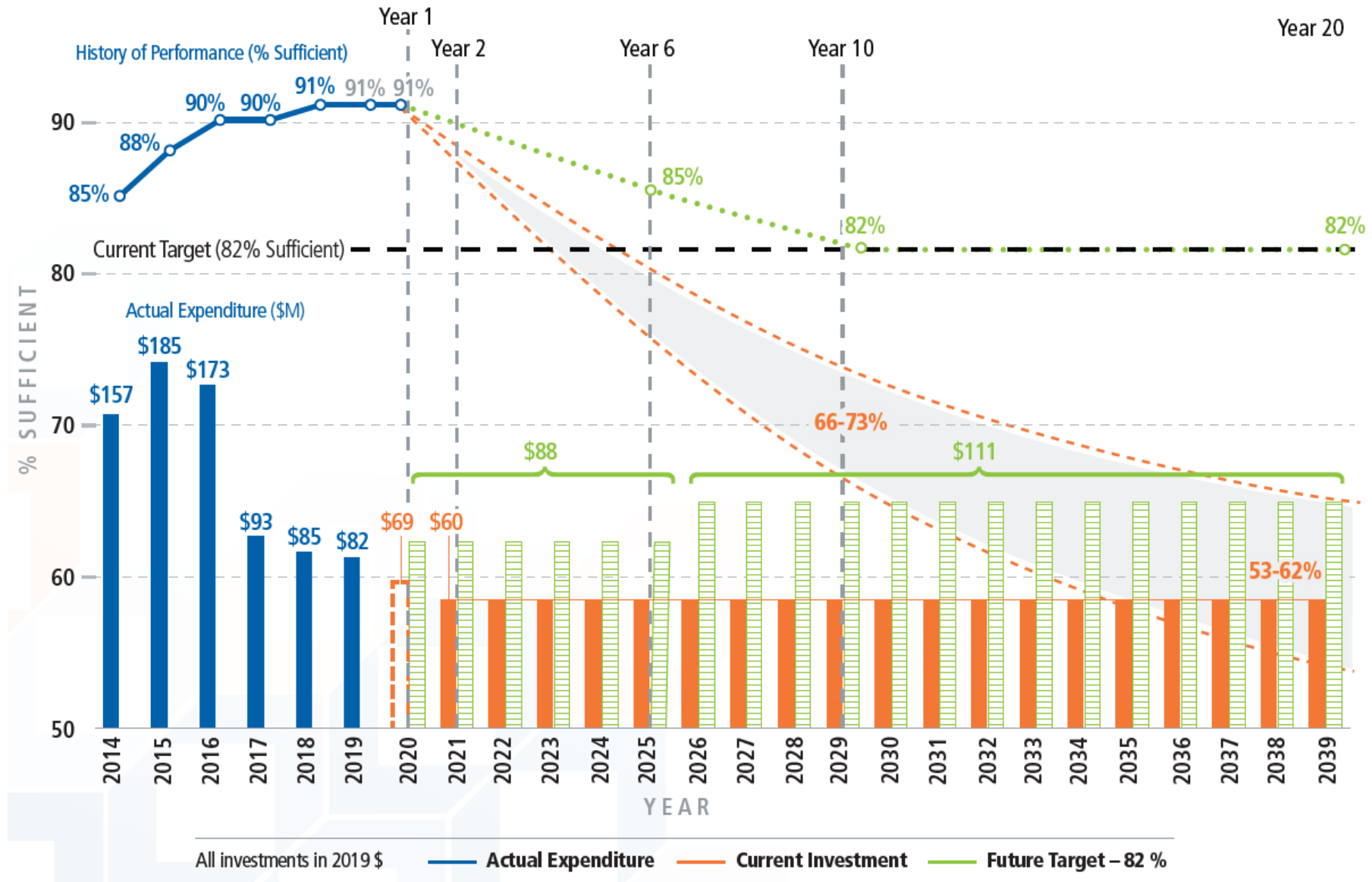
✓ **\$145M**
SAVINGS PER YEAR

How did they achieve it?

- Undertook long term projections
- Considered a range of possible outcomes
- Presented a plan to the Commonwealth Transportation Board



How did they achieve it?



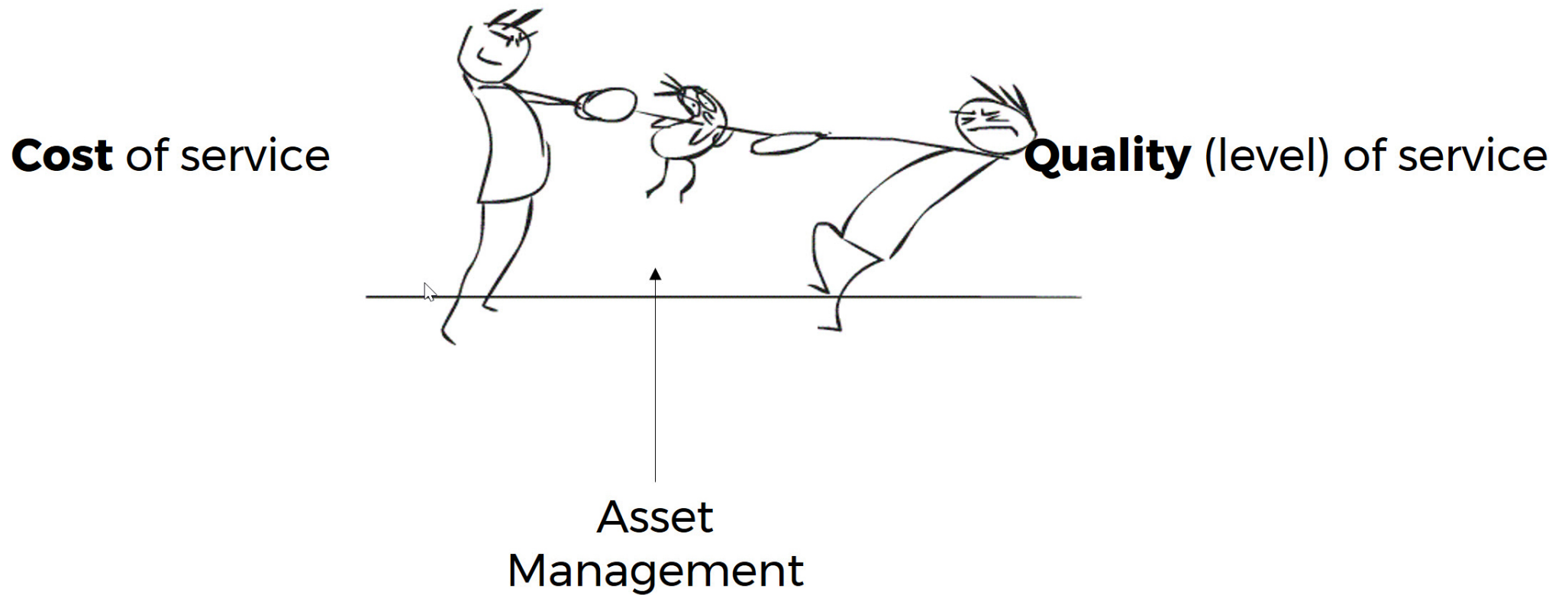
Today's Discussion

- What decisions are agencies grappling with internationally?
- What can we do as a next step?

“A good plan today is better than a great plan tomorrow.”

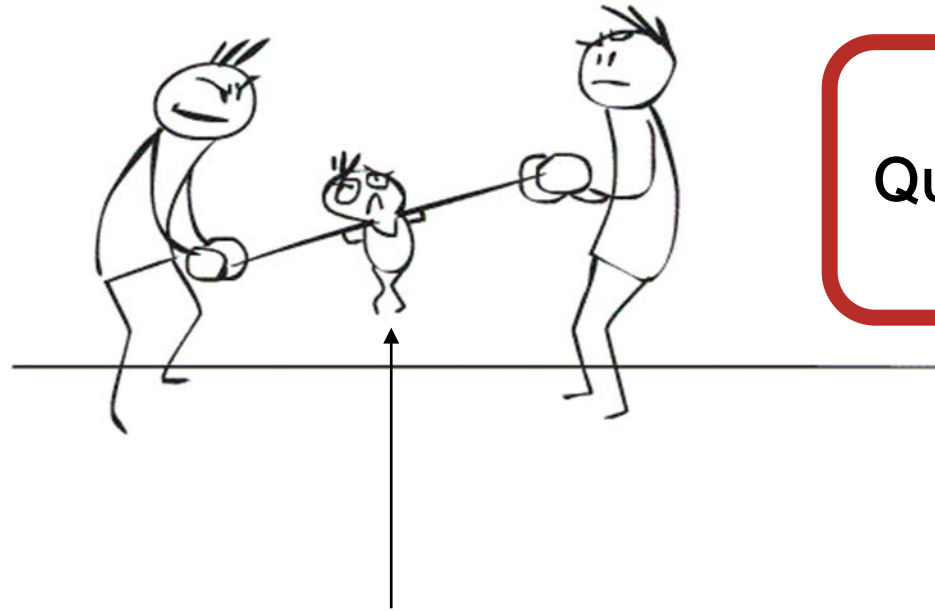
General George S. Patton

Asset Management



Asset Management

Cost of service



Asset
Management

Quality (level) of service

Objectives of the Organization (e.g. DOT Mission)

- Providing the highest quality integrated transportation services for **economic benefit and improved quality of life.**
- Our mission is to plan, deliver, operate and maintain a transportation system that is **safe, enables easy movement of people and goods, enhances the economy and improves our quality of life.**
- Our mission is to provide the **safe and easy movement of people and goods from place-to-place.**

Focus on outcomes

United Kingdom

Condition Assessment and Certification Process



Physical Condition

Condition of asset
Degradation

Safety

Ability to perform safely

Compliance

Legislation
Regulations
Standards

Service Delivery

Reliability
Availability

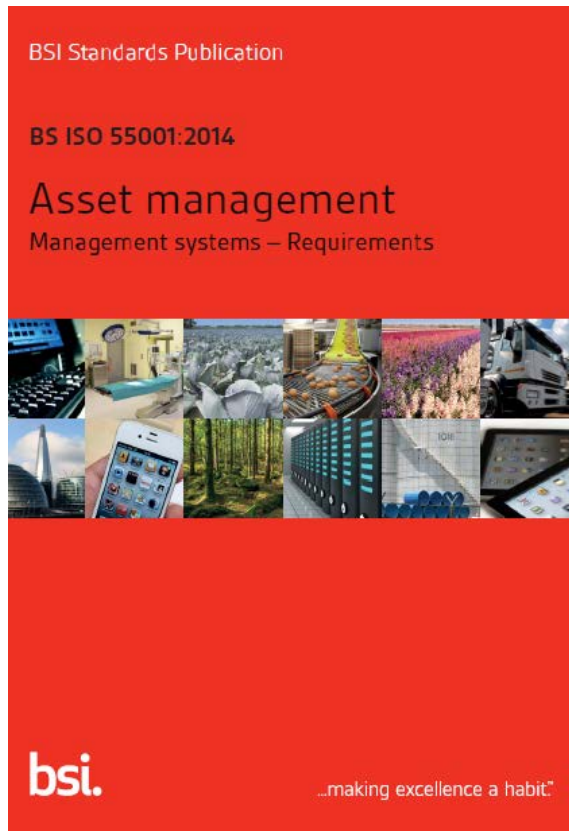
Environmental Impact

Passengers
Staff

Others

Any issue affecting
'fitness for purpose'

ISO-55001 Asset Management



VALUE

Valuations
Financial return
End user / community satisfaction
Social benefit

ALIGNMENT

Business objectives
People / processes / outcomes
Level of service definition / achievement
Asset management culture

ISO 55001 Fundamentals

LEADERSHIP

Governance
Asset management policy / strategy
Roles / responsibilities
Resources

ASSURANCE

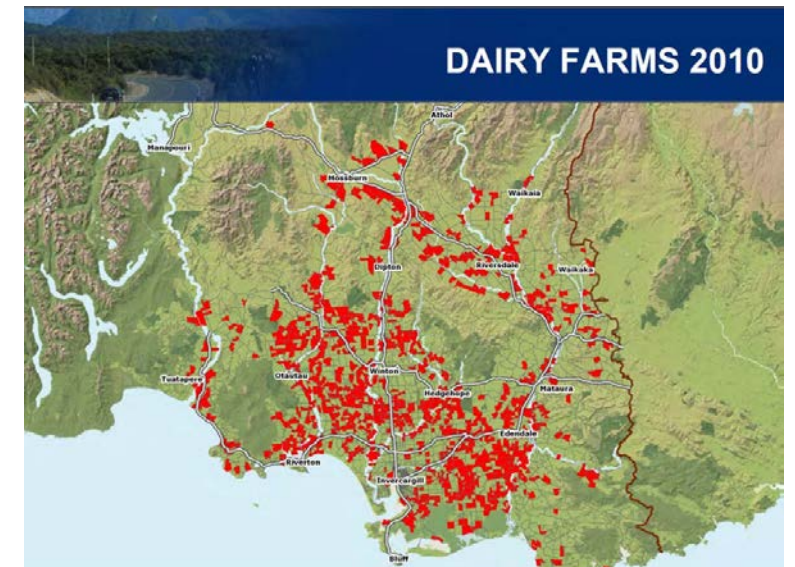
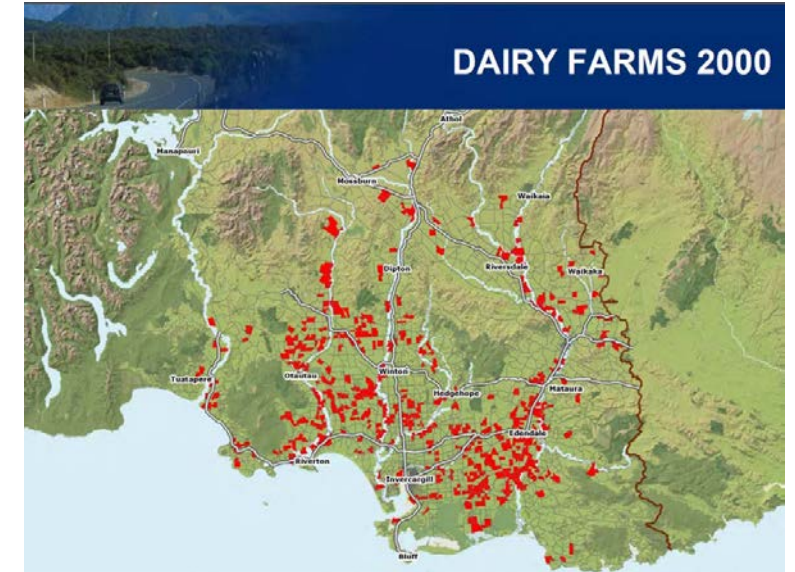
Performance monitoring / actions
Forecasting future condition / costs
Risk / change management
Reliability / effectiveness

Purpose of the network

New Zealand

Southland New Zealand – Challenges

- Needed to change from ‘business as usual’ network management to a more focused approach to deliver a **fit for purpose road network**.
- The first step in determining what fit for purpose means, is to understand **what the road is for**.



Source: Road Efficiency Group Case Study – Economic Road Network Planning.
<https://www.nzta.govt.nz/assets/Road-Efficiency-Group/docs/Economic-Road-Network-Planning-Southland-District-Council-full-document.pdf>

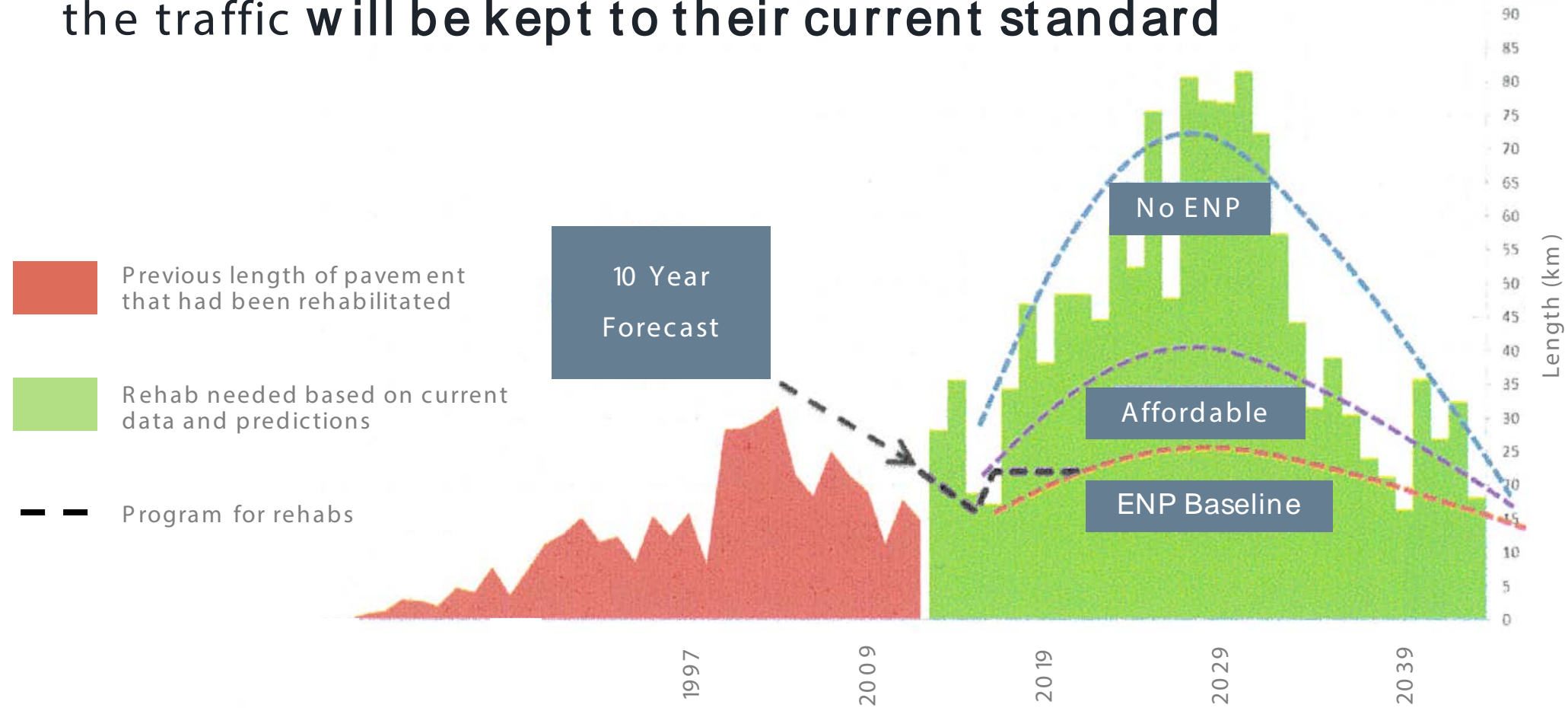
What is the role of the road network?

Economic Road Network Plan data inputs:

Economic Flow s	Outputs in value of export receipts per annum
Land use	Export value calculated per hectare per annum
Whole life cost of assets	Annualized maintenance costs plus depreciation
Vehicle flow s	AADT
Crash information	Social cost of safety
Em ergency Managem ent Considerations	Em ergency events, lifeline infrastructure, historic flood records, liquefaction assessments

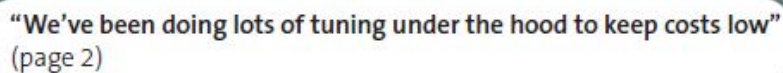
Data and Strategies Supporting Difficult Decisions

— Decision made that only 20% of roads that carry 70 % of the traffic **will be kept to their current standard**



Stakeholder buy-in

New Zealand



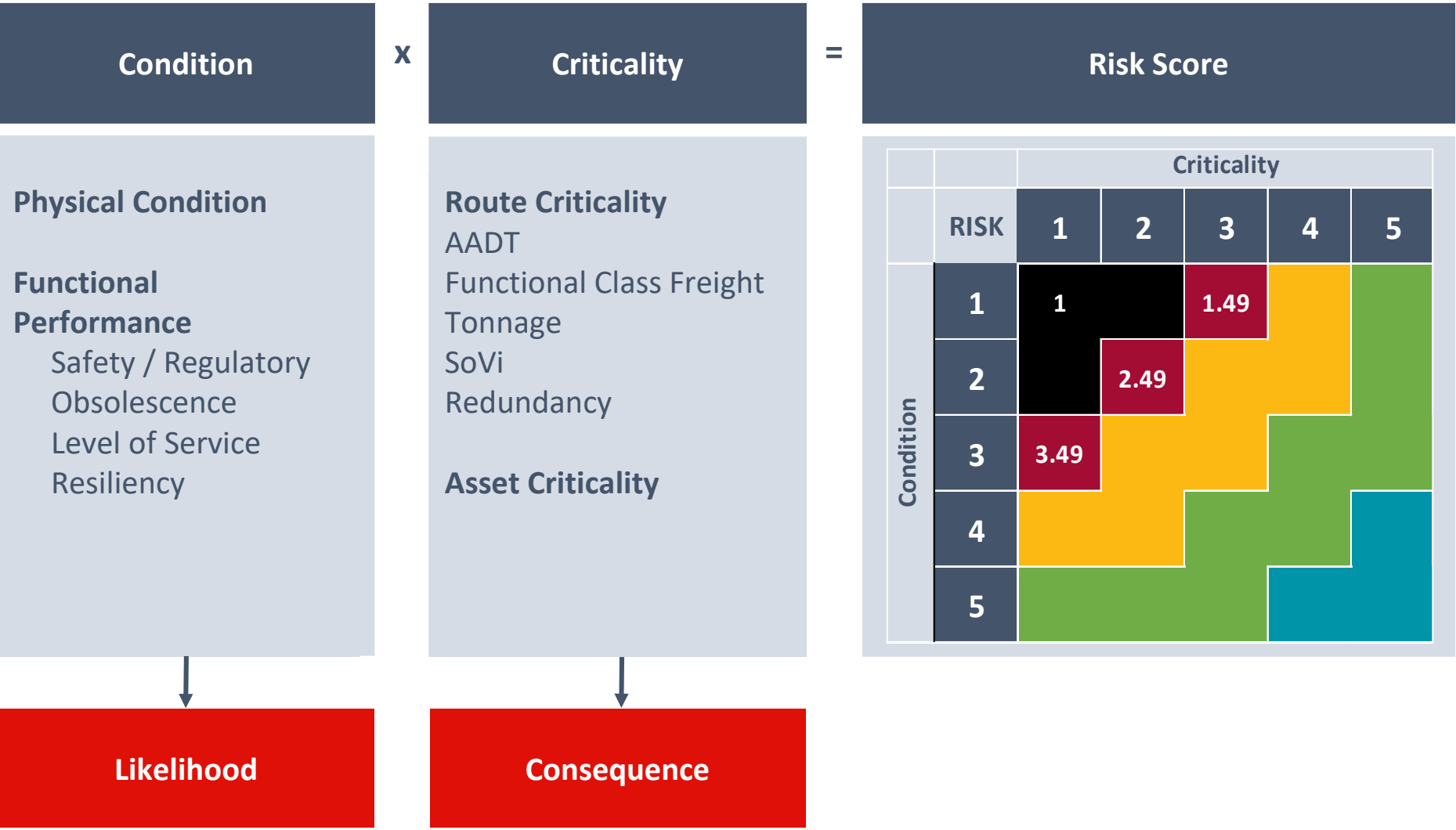
"Our rates are similar to your car rego, where some of it is set, and some is variable depending on the type of car you have" (page 24)



First step beyond condition?

Maryland DOT

Maryland DOT – Risk Framework



Summary

- Understand the objective – what do we want the assets to achieve
- Have a plan that addresses long term needs and outcomes

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