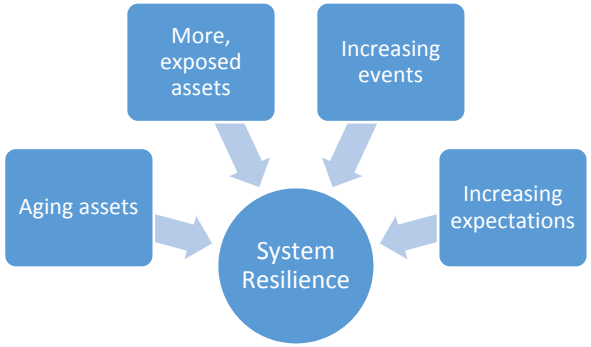
Blending information for new resilience insights

Resilience??

Resilience is the transport systems ability to provide access for communities by absorbing the impacts of unplanned disruptive events, perform effectively through the disruption, and respond and recover functionality quickly.

It requires minimising and managing the likelihood and consequences of small and large scale, frequent and infrequent, sudden and slow onset disruptive events, caused by natural or manmade hazards.

Pressures – The Challenge



But where first?

Invest wisely

using evidence

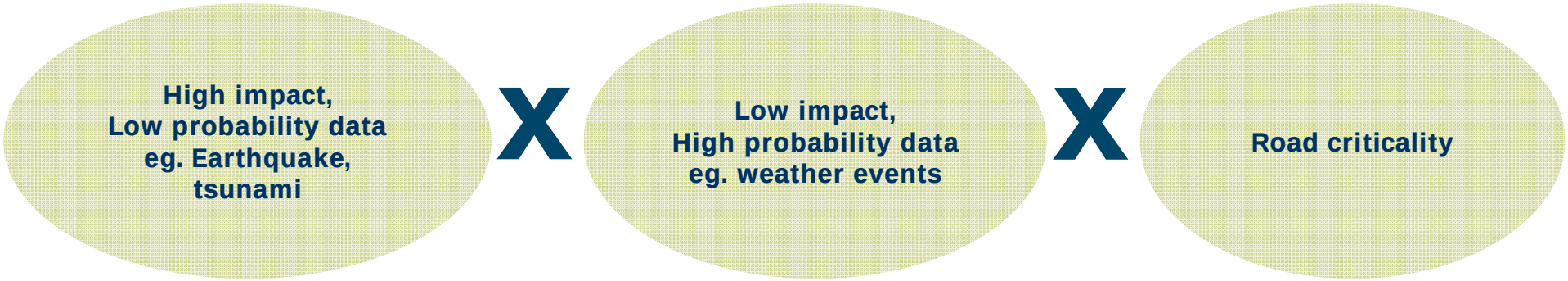
In the past...

- Paper maps
- Local knowledge
- Inconsistency from region to region

And the focus now?

- Consistent approach
- Understand where to prioritise investment
- Data and knowledge re-purposing
- Future proof data and tool
- Visualise data and results

Resilience Hotspot Priority Tool



= Prioritisation data

Resilience Hotspot Risk Priority

Hotspot = Exposure * Criticality

	High Frequency Band Score ($)			
Worst Disruption State	A (Very Low)	B (Low)	C (Moderate)	D (High)
None	I	I	I	I
Limited	I	I	II	II
Moderate	I	II	II	III
High	I	II	III	IV
Severe	I	II	III	IV
Extreme	I	III	IV	V
Catastrophic	I	III	IV	V

X

Criticality
Vital (HV Nat, Nat)
Major (Reg, Art)
Significant (1º/2º Coll)
Local

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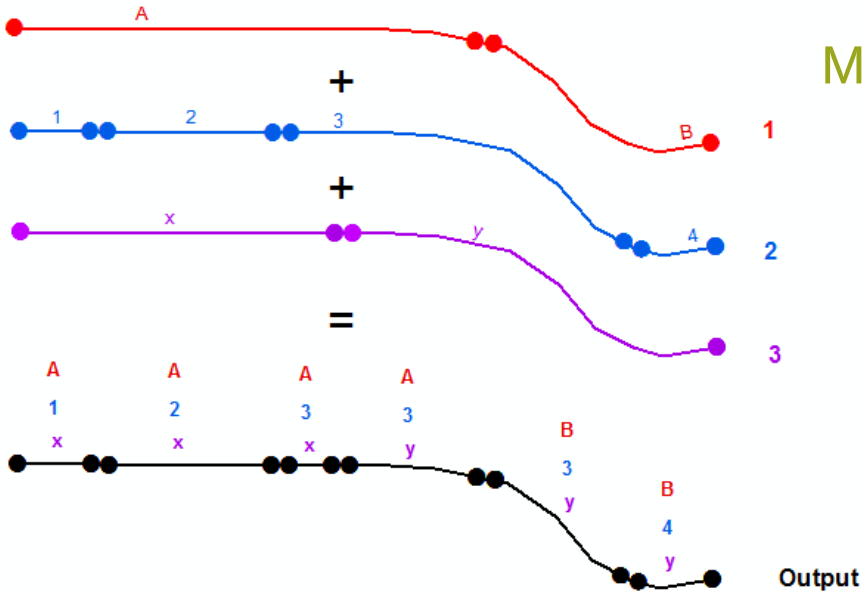
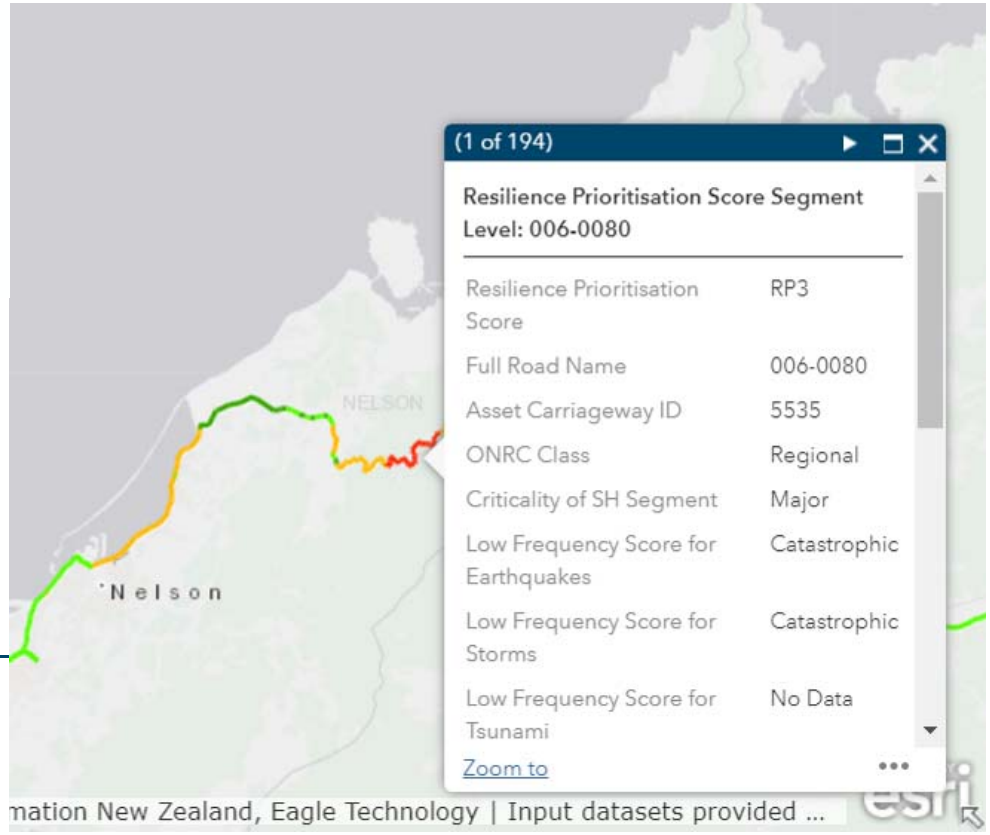
Development challenges



Merging datasets



Segment reporting

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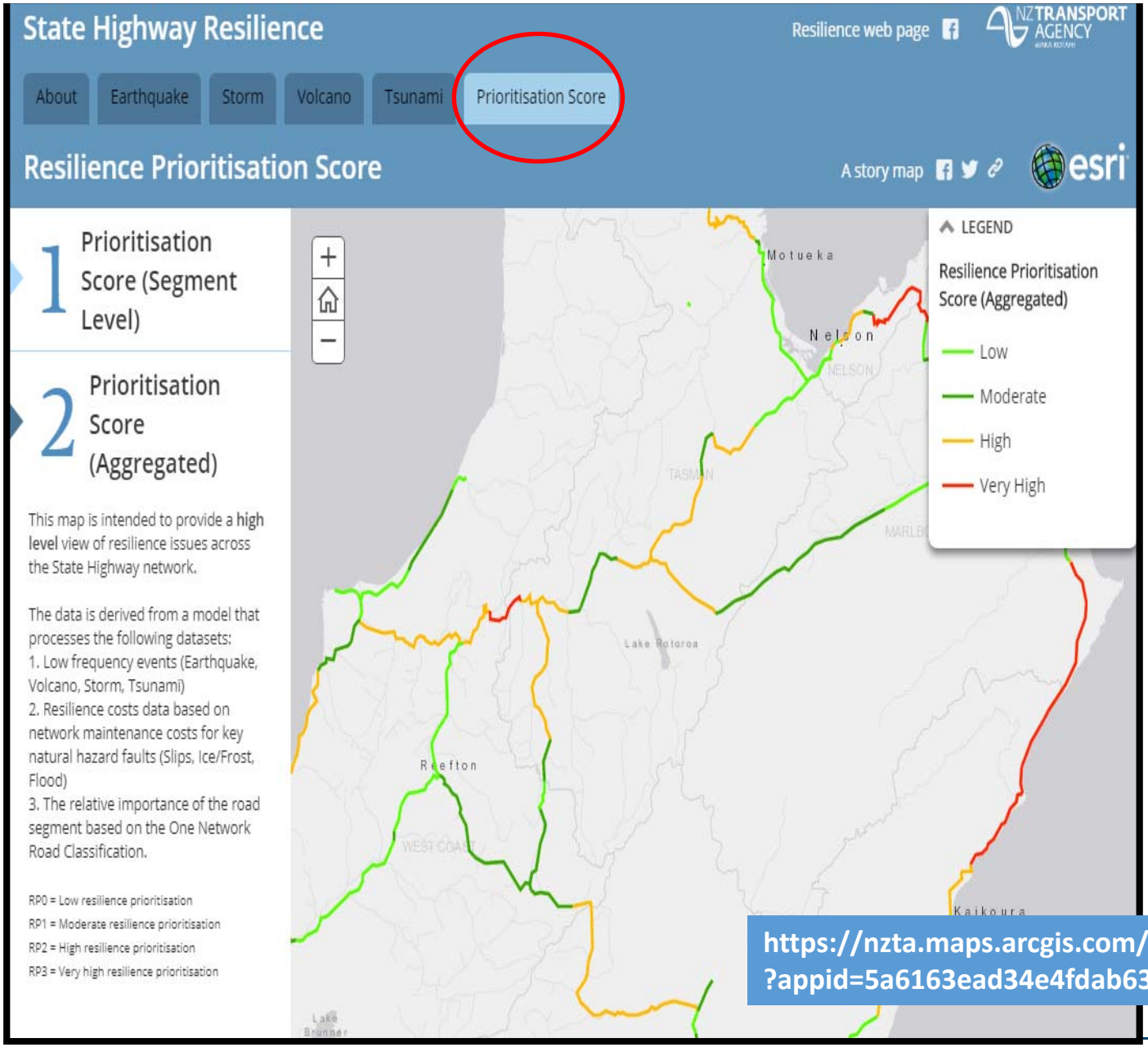
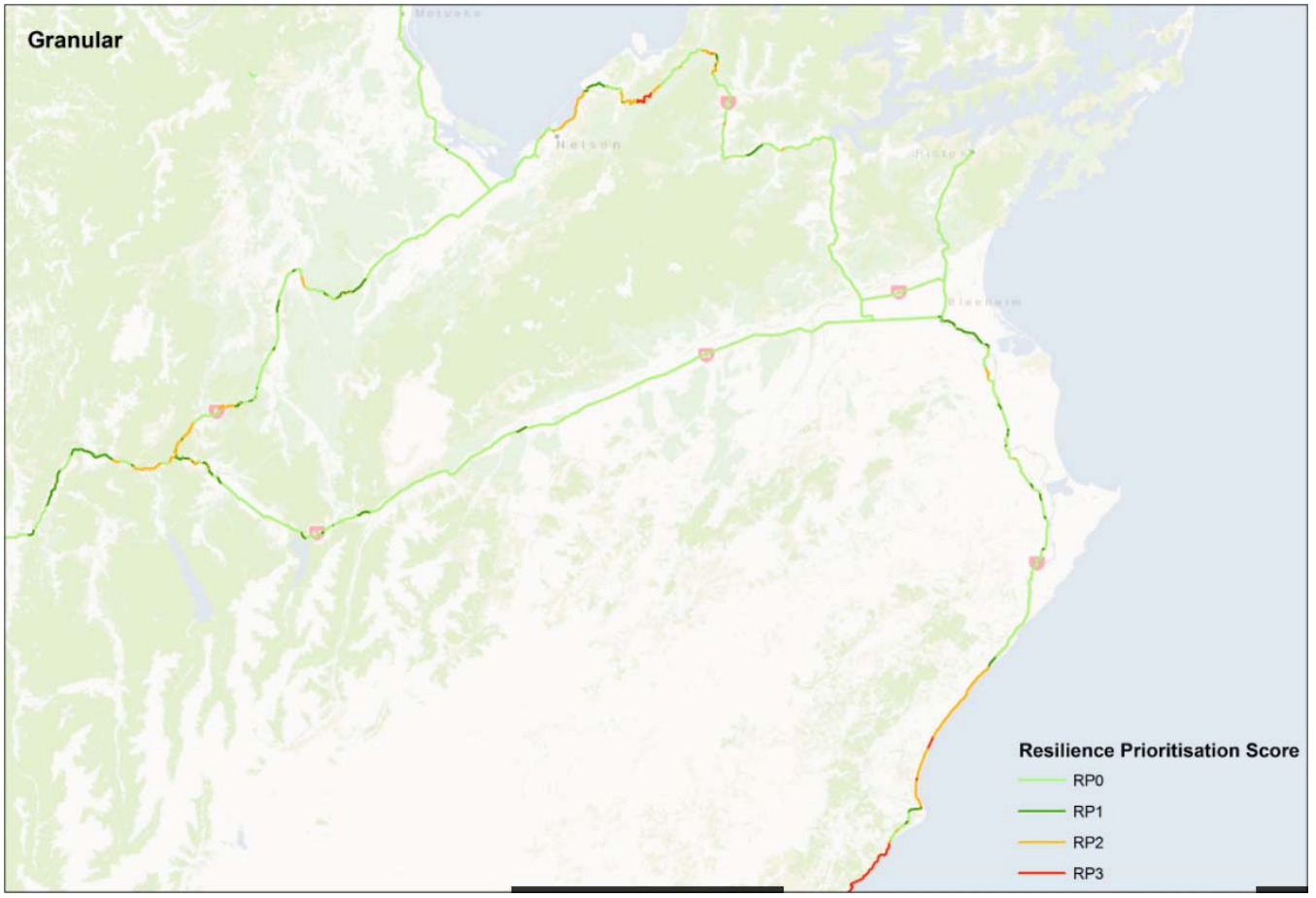


ArcGIS Online

https://nzta.maps.arcgis.com/apps/MapSeries/index.html?appid=5a6163ead34e4fdab638e4a0d6282bd2

Resilience Risk Priority



Critiques and Improvements

Generally well accepted

- Can provide national consistency and transparency
- Stronger evidence for funding prioritisation

Is RAMM data appropriate?

Wellington highways problems

	High Frequency Band Score ($)			
Worst Disruption State	A (Very Low)	B (Low)	C (Moderate)	D (High)
None	I	I	I	I
Limited	I	I	II	II
Moderate	I	II	II	III
High	I	II	III	IV
Severe	I	II	III	IV
Extreme	I	III	IV	V
Catastrophic	I	III	IV	V

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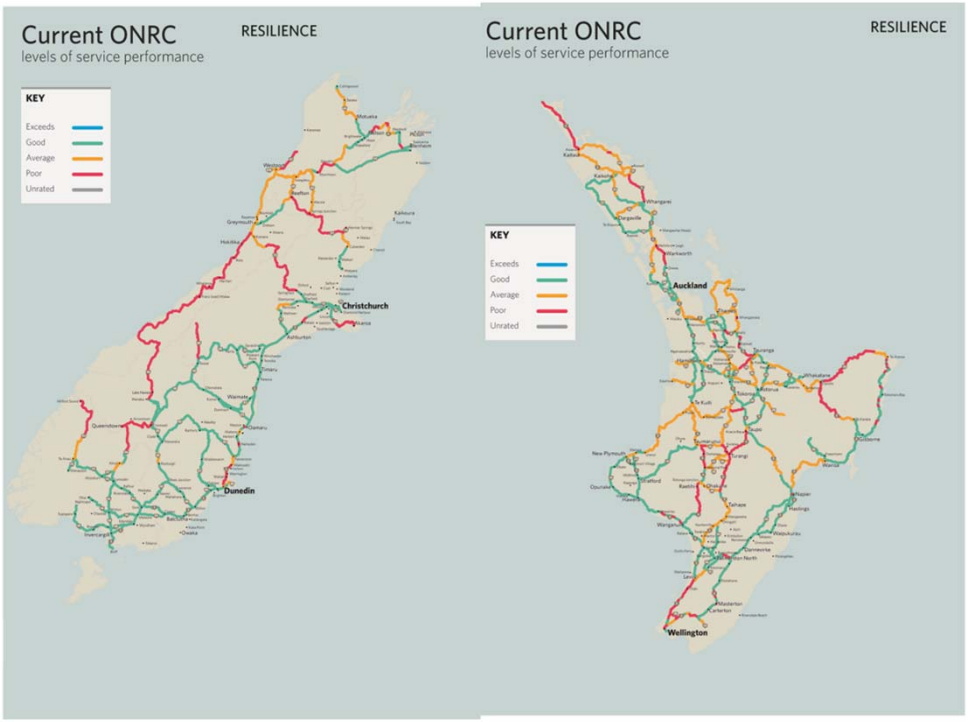
Conclusions

✓ **It works!**

- Consistent, transparent, automated
- Recognition of low frequency events
- Flexible
- Improvements identified
- Insights from using a GIS platform
- Valuable benefits gained from blending existing information



Thank you for listening

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