

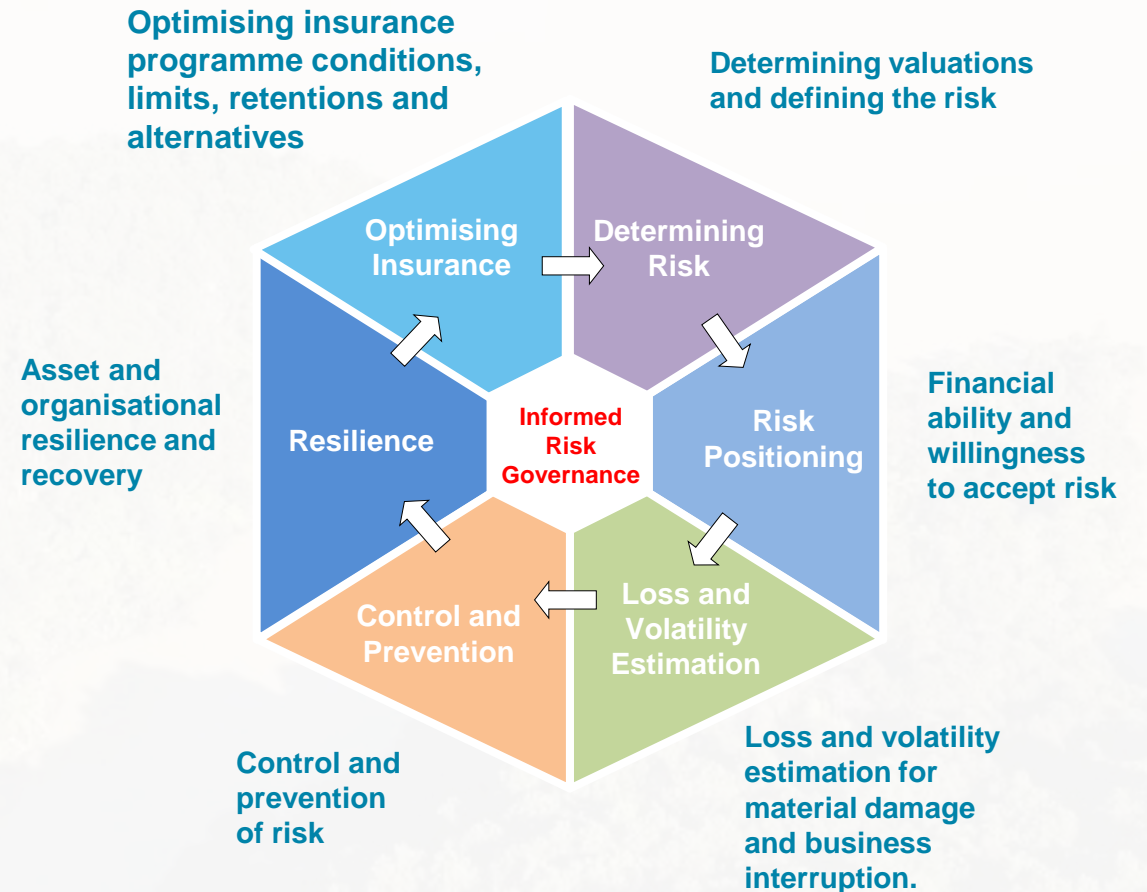
Risk and resilience projects



Loss modelling



- Insurance driven
- Model asset losses from natural events
- Initial focus on earthquake and flood



NHRMAP



- Internal co-ordination tool for Auckland Council activities
- Covers:
 - Governance and leadership
 - Strategy, policy and planning
 - Regulations and consents
 - Asset management
 - Knowledge and research
 - Communication, education and community resilience-building
 - Partnerships
- Living document

OVERVIEW MAP

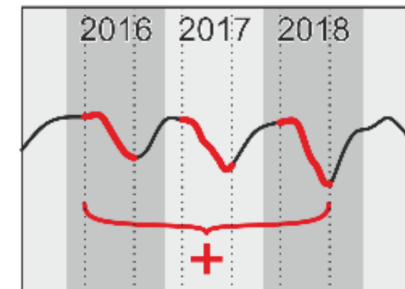
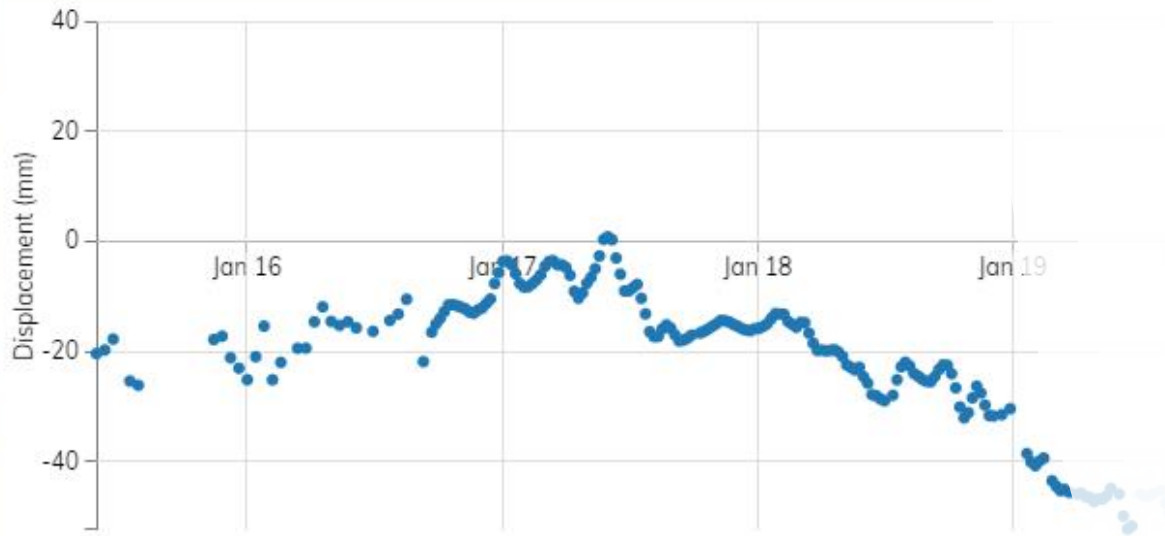


InSAR

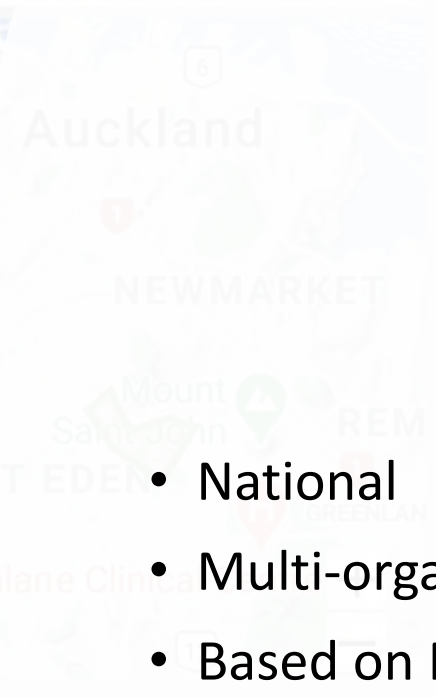


- Data and analytics
 - High-resolution (TerraSAR-X, 2-3mm precision)
 - Deformation of assets
 - Identify seasonal patterns
- Intent to share

Timeline



Landslide database



- National
- Multi-organisational
- Based on NZ Geotechnical Database model

s Database

(landslide ID, name, description, etc)

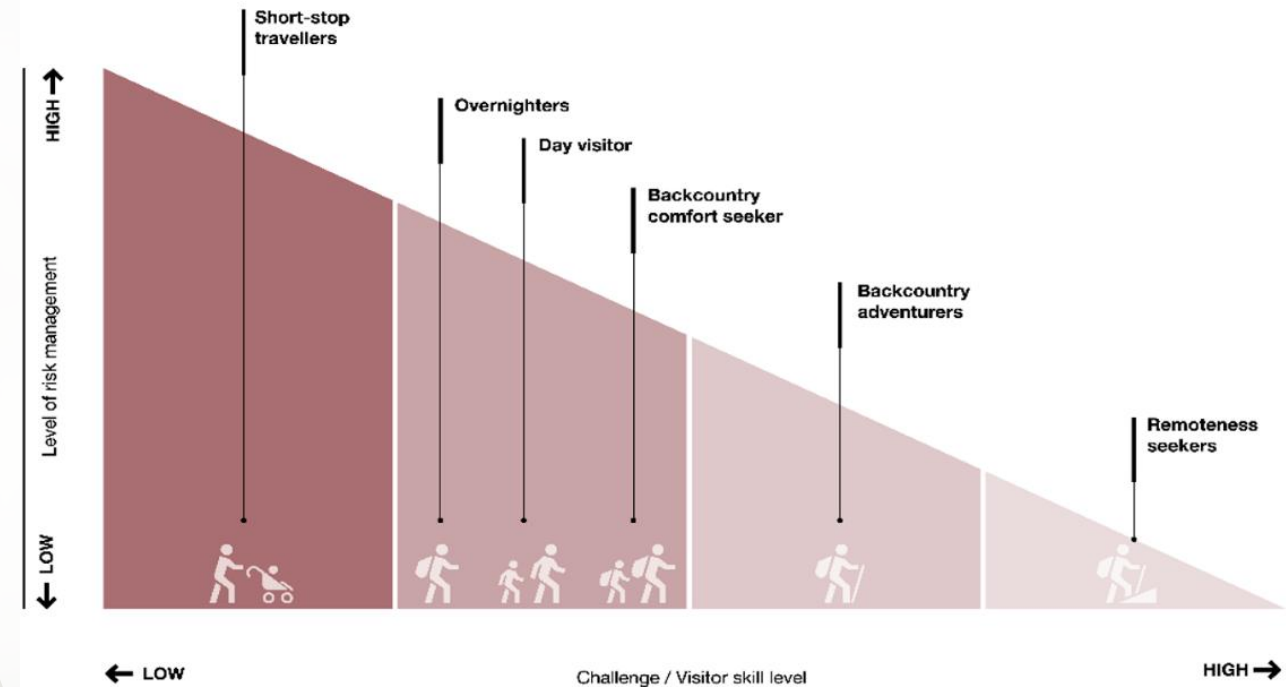
View / Edit Create Select Columns

Landslide ID	Parent Landslide	Landslide name	Location Description	Location Method Device	Location Accuracy	Date Occurrence	Date Occurrence Accuracy	Movement Complexity
5334	Value	name	Steep landslide...	GPS	Very	13/05/2019	Very accurate	Fairly
5334	Value	name	Steep landslide...	GPS	Very	13/05/2019	Very accurate	Fairly
5334	Value	name	Steep landslide...	GPS	Very	13/05/2019	Very accurate	Fairly
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Acceptable risk

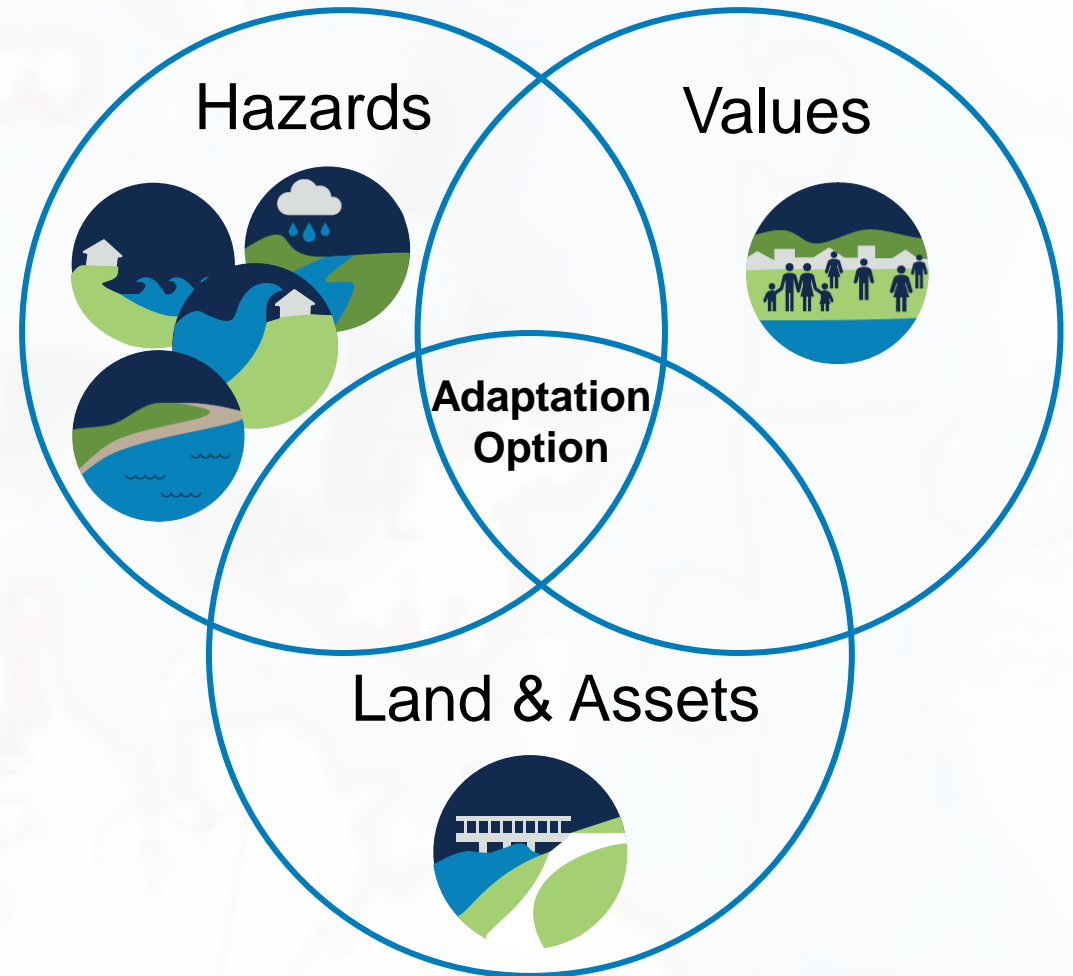


- No defined or regulated level of tolerable or acceptable risk in New Zealand
- Under / over management of risks
- Following GNS & DoC



Coastal Management Plans

- Integrating
 - Community priorities
 - Council assets

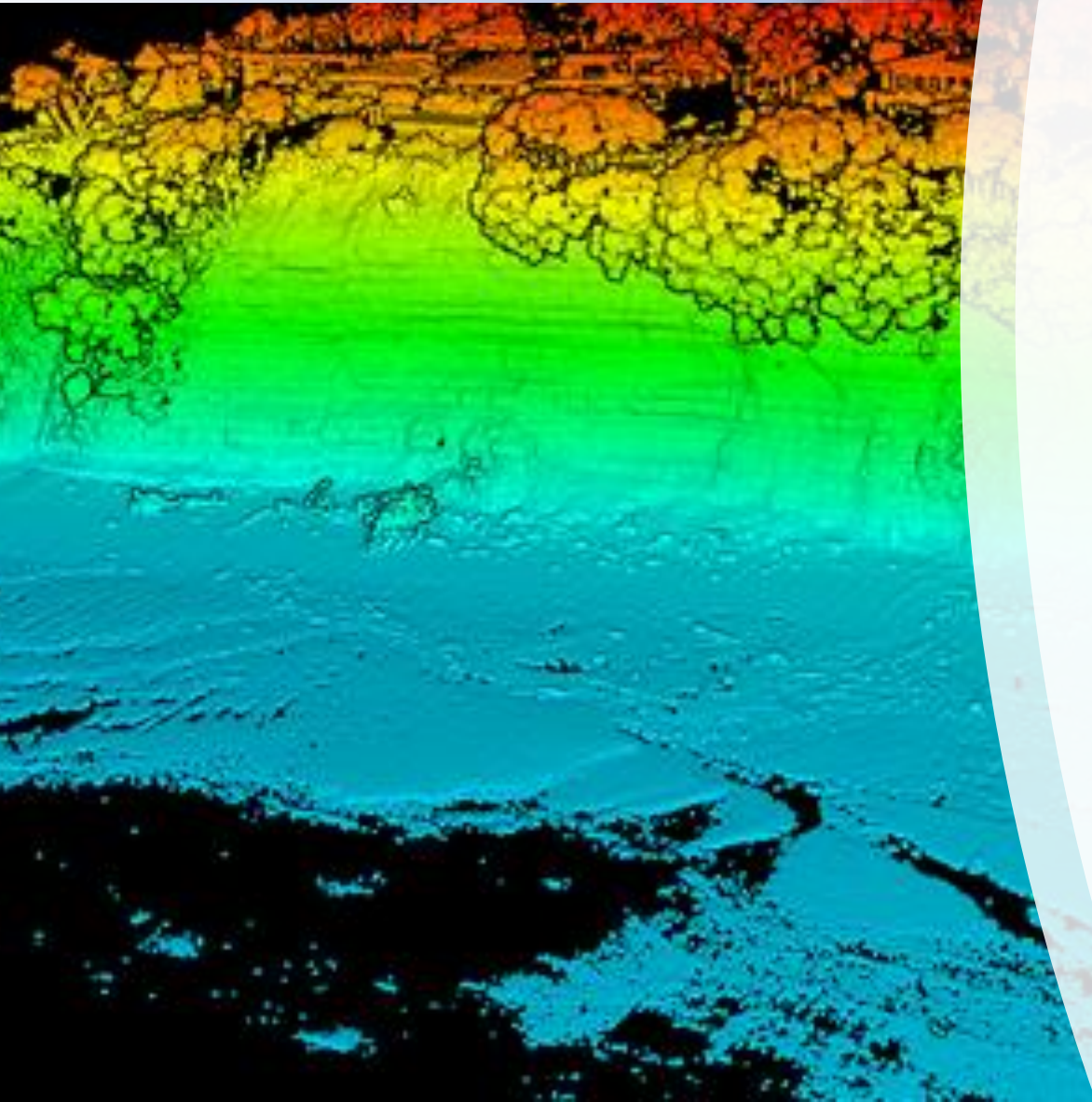


Coastal erosion



- New regional maps of coastal erosion and instability
- The lines show the areas that may be susceptible to erosion and instability. They DO NOT represent the future coastline.
- Planning – not site specific

Cliff LiDAR



- Baseline data for future retreat assessments
- ~50 pts / m²
- Other uses