

# REGIONAL ADAPTATION PROJECT

Phase 2: a regional approach to adaptation



Left – Motuwairaka/Riversdale



Below – RiverLink Hutt Valley



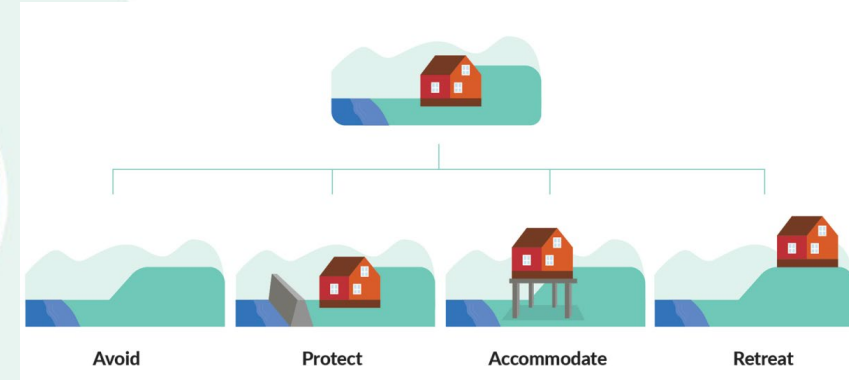
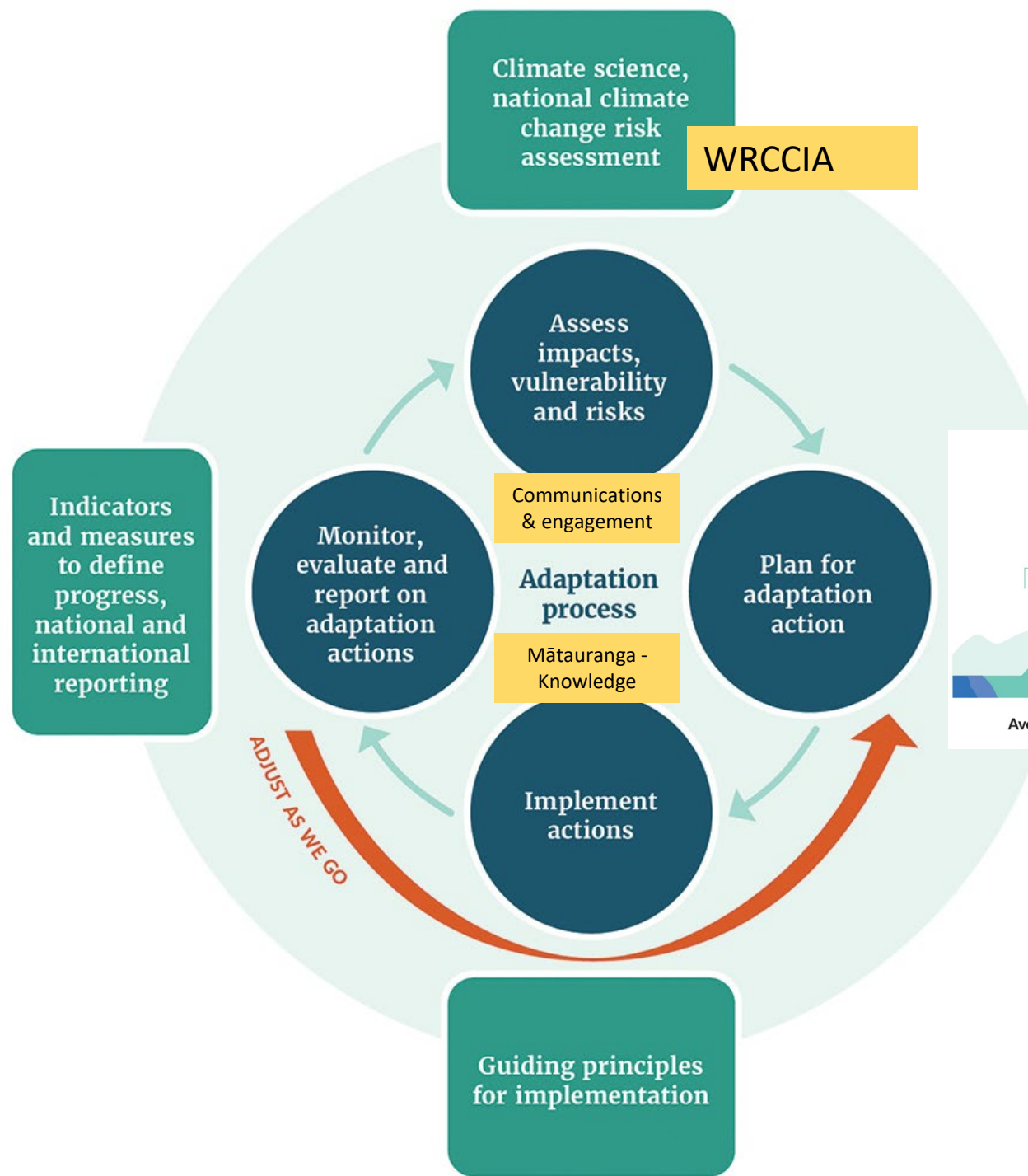
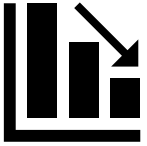
# What we've done: The RoadListen

- Sought and received feedback on the RAP from multiple partners:
  - Document analysis of relevant climate strategies, plans, policies and adaptation-adjacent info
  - Summarised Wellington region responses to Climate Change Minister's request for adaptation preparedness information from local gov, central gov and CCOs under section 5ZW of the CCRA 2002.
  - Undertaken a semi-structured interview process to guide discussions in 50+ meetings, Festival for the Future
  - Established kanohi-ki-te-kanohi relationships
  - Identified opportunities, risks, visited key sites and sought new partnerships
  - Distilled and connected this information

Question 47	GW	Horizons	Horowhenua	Kāpiti	Porirua	Wellington Water	WCC	Hutt City	UHCC	SWDC + Carterton	Masterton
Which actions or resources would help your organisation to better prepare for the impacts of climate change? Tick as many as apply:											
a. More information about how climate change is projected to impact a region or a district											
b. Guidance on how to assess and consider the impacts of climate change on your organisation											
c. Tools to help quantify impacts from climate change on your organisation.											
d. Methodology for assessing and quantifying climate change risks											
e. Legislative requirements to consider/plan for the effects of climate change											
f. Legislative requirements to publicly report on your organisation's climate risks and adaptation plans											
g. Opportunities to engage and learn from others											
h. Training to develop skills/capabilities											
i. Improved and centralised data repository eg, flooding											
j. Good practice guides, benchmarking and assessment tools											
k. Funding to implement a strategy and deliver on-the-ground adaptation actions											

# What is adaptation?

Monitoring, Evaluation,  
Reporting and Learning  
(MERL)



*“If we prepare well, we can give ourselves a fighting chance to preserve some of the best of what we have, build stronger and fairer communities, find a path through the escalating pressures of a warming world – and even find new ways to flourish”*

- Hamilton and Wilkenfield, **Living Hot**, 2024



# Current state: We're adapting already

We are doing a lot of adaptation already....

...but it's patchy, inconsistent, narrow, often disconnected and largely invisible

**WAIARAPA**  
WATER RESILIENCE

**Takutai  
Kāpiti.**

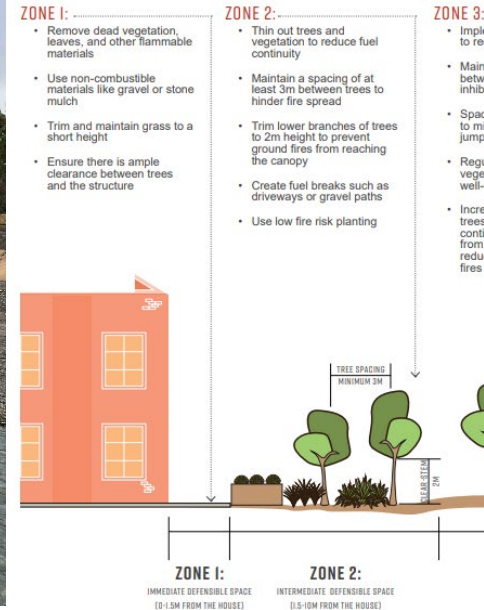
OUR COASTAL  
ADAPTATION PROJECT

Coastal



Too much-too little water

## FIRE RISK - ZONES



Fire

## Planning for Climate Change Impacts on Māori Coastal Ecosystems and Economies:



A Case Study of  
5 Māori-owned land blocks in the  
Horowhenua Coastal Zone



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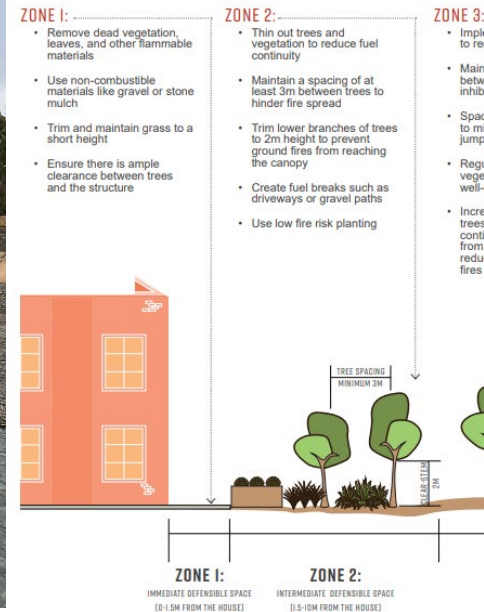
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## FIRE RISK - ZONES



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## Planning for Climate Change Impacts on Māori Coastal Ecosystems and Economies:



### Regional Food System Plan: Phase One Report

Stakeholder/ Partner Engagement, Data and  
Baseline Information for Wairarapa-Wellington-  
Horowhenua Region

Health New Zealand  
Te Whatu Ora  
Capital, Coast, Hutt Valley and Wairarapa

 Wellington  
Regional Leadership Committee

A Case Study of  
5 Māori-owned land blocks in the  
Horowhenua Coastal Zone



# Reflecting Iwi aspirations

Rauora: A climate change framework	
Toitū te mana atua, toitū te mana whenua, mana moana, te mana o te ao tūroa	

Transformative change	Principle of abundance		Principle of wholism	
	Principle of collectivity		Principle of interconnectedness	
	Principle of balance		Principle of intergenerational equity	
	Transformative actions and processes that build resilience			
	Whenua ora	Tāngata ora	Kawa ora	Mauri ora
	Just transition: Adaptation and emissions reduction			

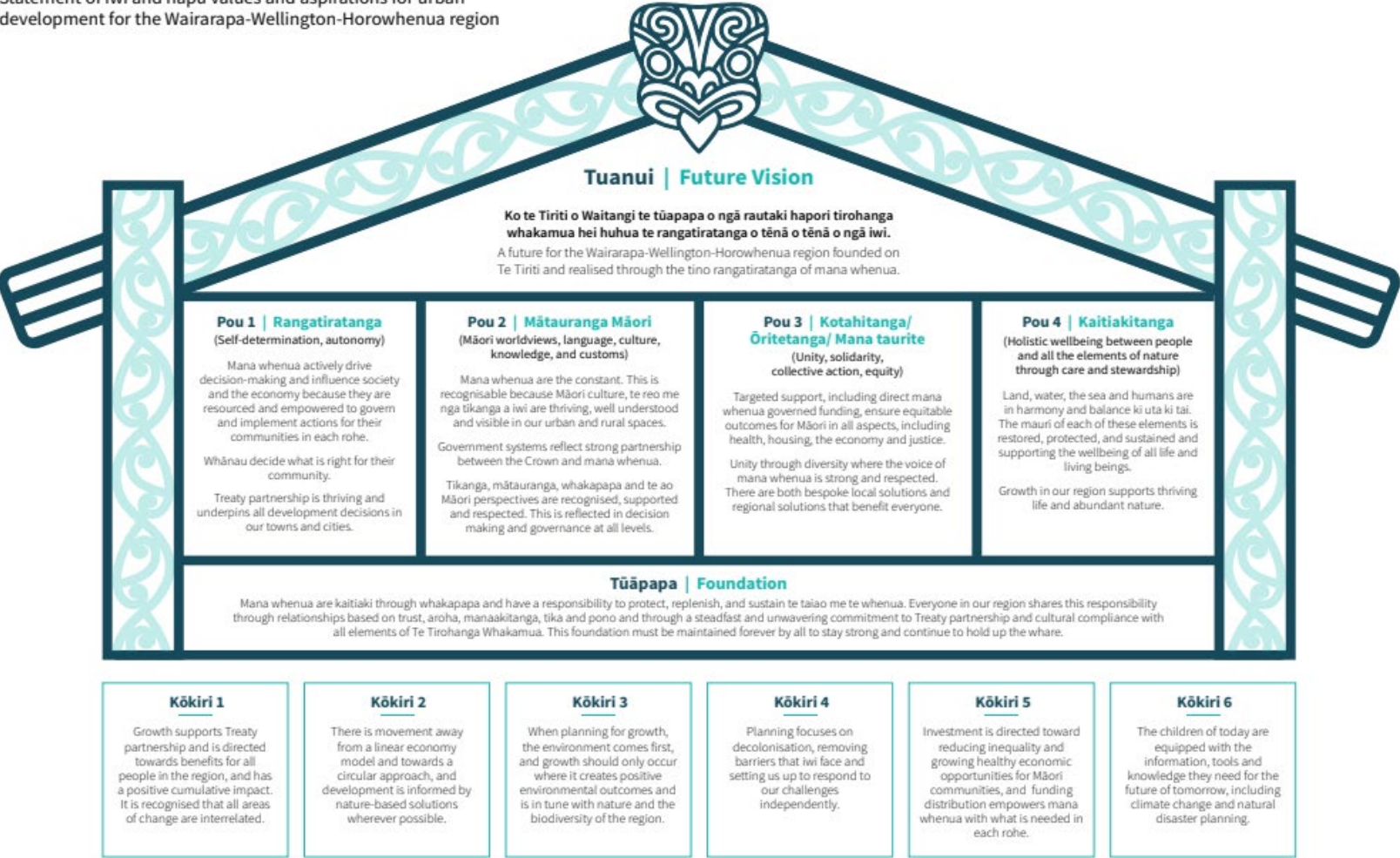
Indigenous climate approaches	Manaaki mātauranga Māori		Te Tiriti o Waitangi		Hoki whenua mai	
	Accelerate ecological restoration		Localised investments, production and consumption		Whakapiki oranga o te wai ki uta, ki tai	

Climate characteristics	<b>Increasing</b>	Climate risk is increasing at a rapid rate, which will significantly impact hapū/iwi.	<b>Systemic</b>	The principle of inter-connectedness. Systems are interconnected. Impacts will cascade across all aspects of society, including financial systems.
	<b>Under-preparedness</b>	Pace and scale of adaptation and emissions reduction needs to increase urgently. Early investment is required to prepare. Hapū and iwi generally need to be supported to advance climate action.	<b>Spatial</b>	Regional climate risks need to be understood in relation to geographically defined areas. There are variations between and within regions. A one-size-fits-all approach does not address the variation that occurs.
	<b>Non-linear</b>	Climate actions need to take account of the uneven ways in which impacts occur. Climate planning and actions need to be agile and pivot as changes occur.	<b>Regressive</b>	The poorest communities and populations are most vulnerable, creating spatial inequalities. Climate actions should not further exacerbate inequalities.
	<b>Non-stationary</b>	Physical climate risks will constantly change and are non-stationary. Warming is 'locked in' for the next decade because of physical inertia in the geophysical system.		
		Hapū/iwi land, assets and cultural sites are highly likely to be in places that will bear the brunt of climate disruption (coastal regions, rural isolated communities, rivers prone to flooding, urban diaspora).		

Our approach must enable and support adaptation for Māori, by Māori and be Interconnected – holistic

## Te Tirohanga Whakamua

Statement of iwi and hapū values and aspirations for urban development for the Wairarapa-Wellington-Horowhenua region



## Common challenges, gaps, observations and opportunities...

- **Strategic** – adaptation planning is occurring already/will be occurring at the local level
- **Connection** is critical – across departments, orgs., whakapapa – links between local/hapori adaptation strategies and other plans
- **Scalable** - ability to work across scales – regional, local, household, asset, value
- **Consistency** – information and data architecture and standards, common climate change scenarios, terminology (e.g. resilience vs adaptation),
- **Holistic** - Develop/refine regionally specific Te Ao Māori framework
- **Lack of capacity** – need for shared resources (2 FTE + engagement) – build adaptive capacity, promote \$ efficiency
- **Spatial** risk analysis capability, place-based adaptation planning
- **Comms and engagement** capability
- Develop Monitoring, Evaluation, Reporting and Learning tool (**MERL**) – can't adapt if we are not monitoring
- **Shared collateral** – templates, comms, adaptation options and costings etc improved \$ efficiency
- Tackling **big issues** - regional agreement on methods for funding and financing adaptation implementation
- Identify links with **CDEM**, especially risk reduction and recovery
- Often too negative, **reframe** and look to **use existing processes** e.g. community development planning



# A regional approach needed

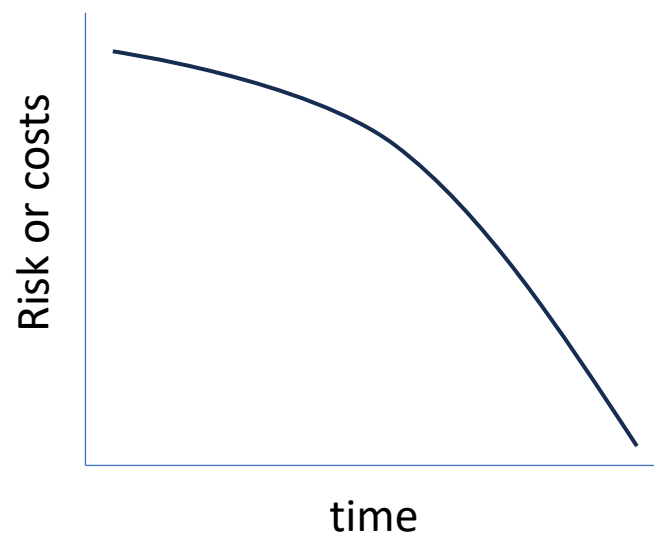
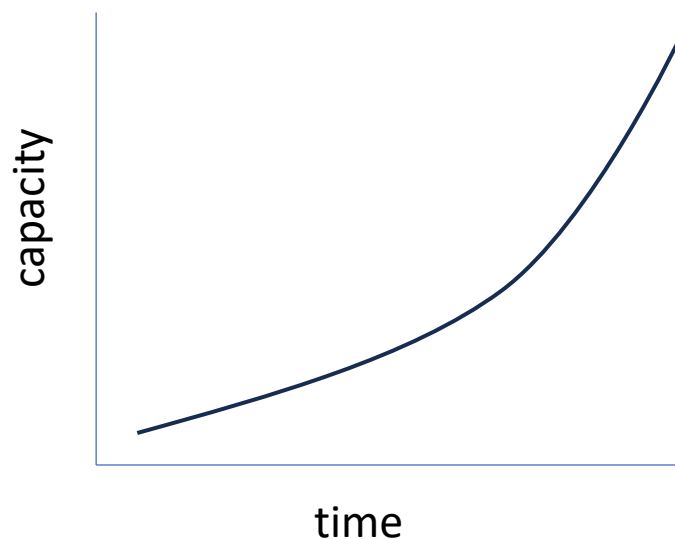
**...a regional approach to adaptation will be critical and offers a unique opportunity to increase our collective resilience and adaptive capacity**

## WHY?

- Climate impacts and adaptation mahi crosses boundaries, spans organisations and hits differently over space and time
- Consistent data and information to inform decision-making at the right scale
- Many actions taken at a regional level can leverage the collective and realise efficiencies
- Enables clear links with Future Development Strategy - land use and infrastructure planning – and local adaptation initiatives
- Potential to leverage new partnerships and investment

# Vision: The future state

- Increased capacity across the region – build knowledge, awareness and increase agency
- Consistent data, information and knowledge base to inform decisions
- Collective understanding of challenges and opportunities
- Connected system and decisions
- Better use of scarce resources
- MERL - Continuous learning



**= MORE EFFICIENCY**

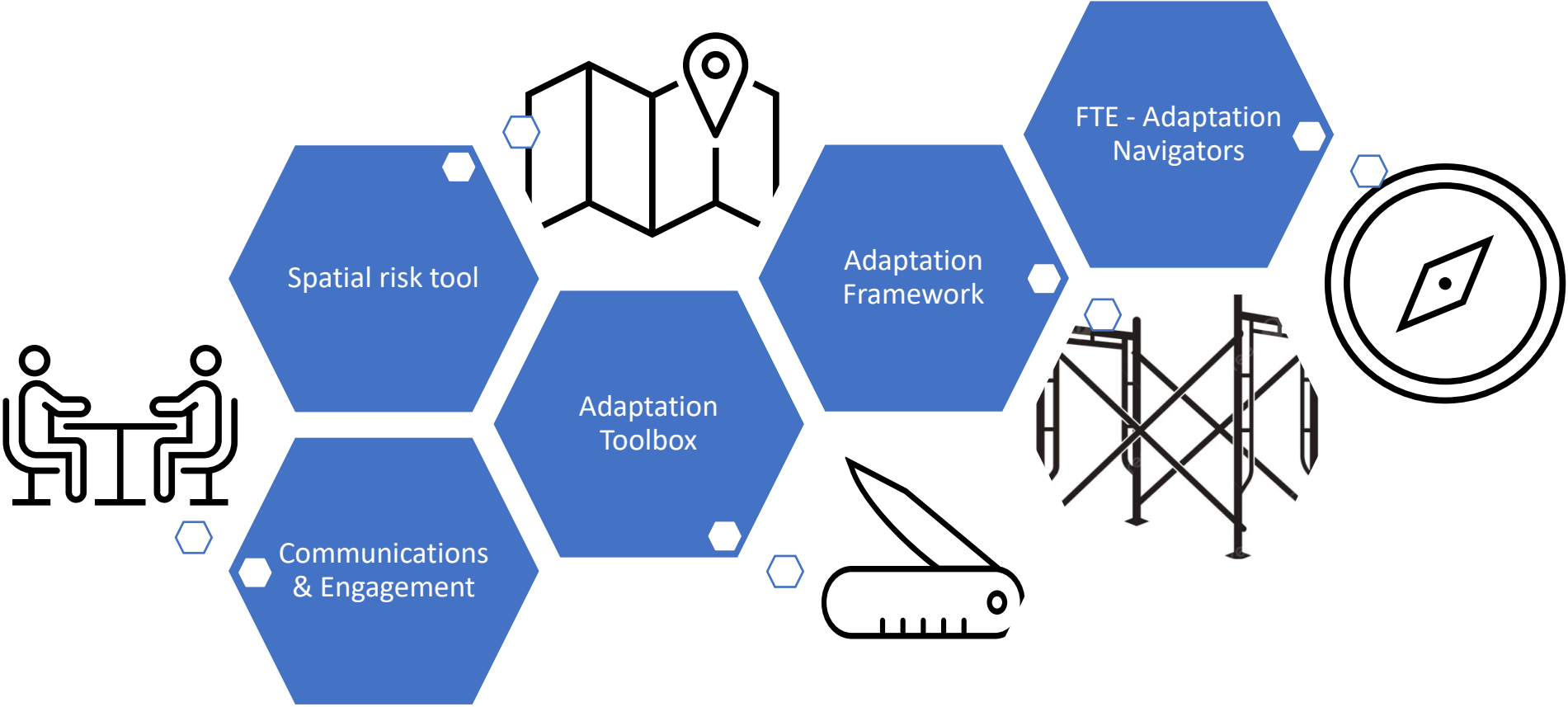
**= LESS RISK**

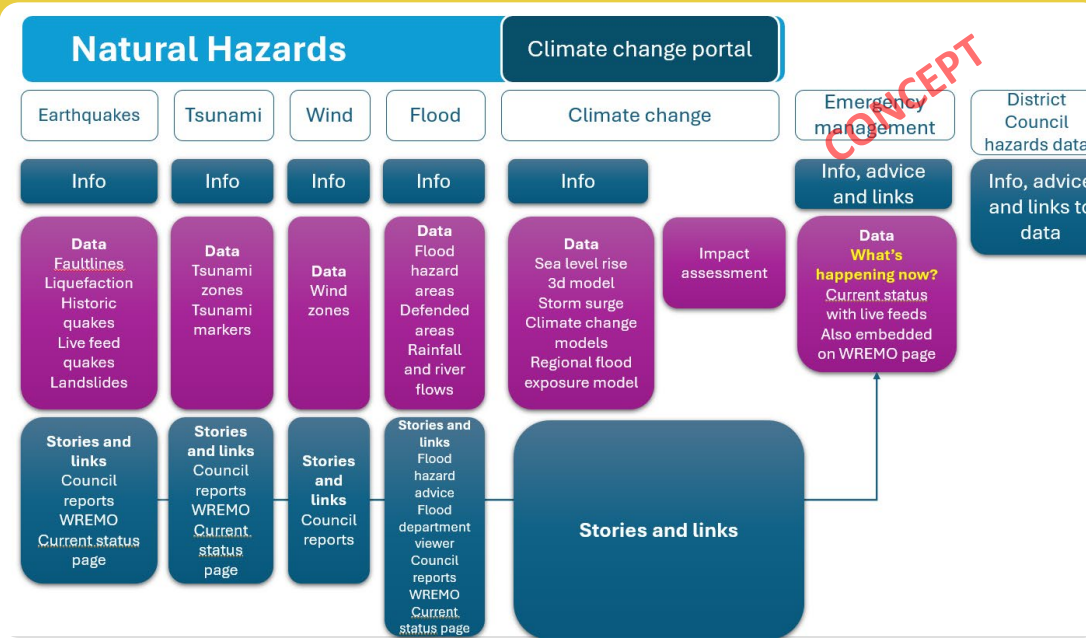
**= BETTER DECISIONS**

**→ THRIVING TAIAO  
and COMMUNITIES**



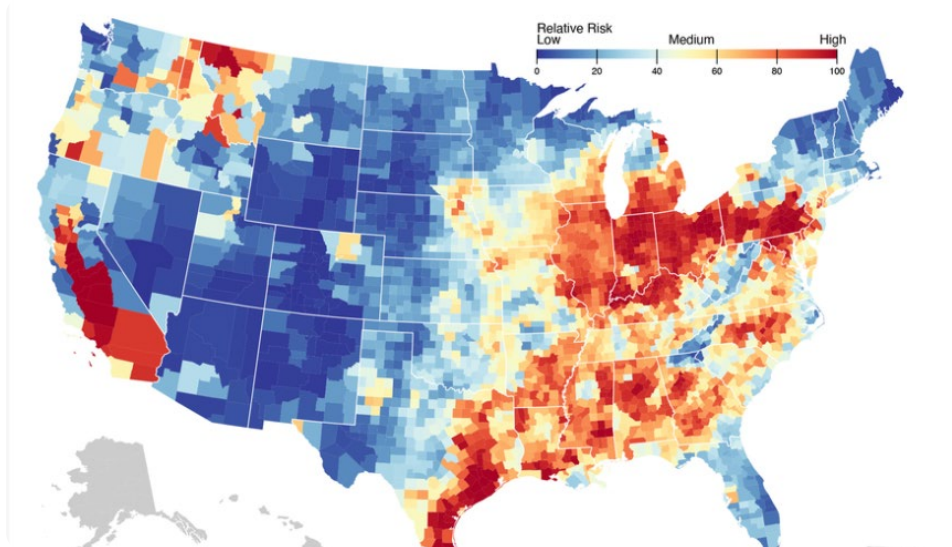
# Deliverables





# Spatial risk explorer

- *Currently multiple disparate tools, using the same data with overlapping functions*
- New SHARED, ACCESSIBLE spatial hazard risk tool to act as foundation for adaptation planning
- Tied in with Lifelines Groups Resilience Project + PCC + WCC adaptation mahi
- Builds on significant volumes of data collated and created as part of WRCCIA
- Can include new climate projections and other updated data and meet multiple needs e.g. natural hazards & LIM.
- Provides for adaptation decision-support – key part of TOOLBOX
- Embeds consistent data architecture – scalable





## (A) Spatial Risk Methodology Overview



Evaluate **Hazard** Information



Assess **Exposure**



Assess **Vulnerability**



Assess **Indirect, Cascading, & Cumulative Risk**

Quantitative Assessment

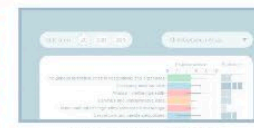
Take the information we have about hazards in the region.

Add the information we have of the places and things we care about and rely upon to understand what is exposed.

Look at the sensitivity and adaptive capacity of assets to understand what is most vulnerable.

Model the [inter] dependencies between infrastructure networks and their end users to understand who will be indirectly impacted by direct, cascading, or cumulative risk.

Informed Qualitative Assessment



Prioritise Risk



Engage **Stakeholders**

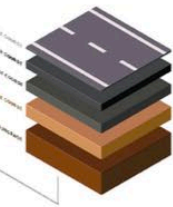
Enable Informed **Decisions**

Provide councils, communities, iwi & stakeholders the information required to make effective adaptation decisions.

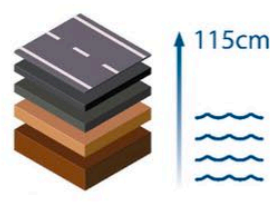
## (B) Vulnerability Methodology Overview



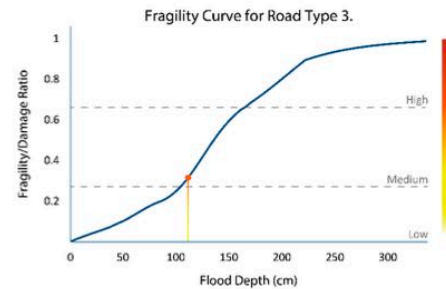
Identify **Assets & Locations of Interest**



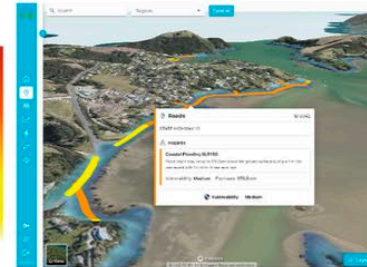
Evaluate Asset **Characteristics**



Assess **Exposure**



Assess **Vulnerability**



**Risk Communication**

Identify the assets, people, and places that we care about.

Integrate our knowledge of the asset or location in question to better understand how it may react to a hazard.

Evaluate the level or intensity of exposure (e.g. flood depth) that the asset may receive in a given hazard scenario.

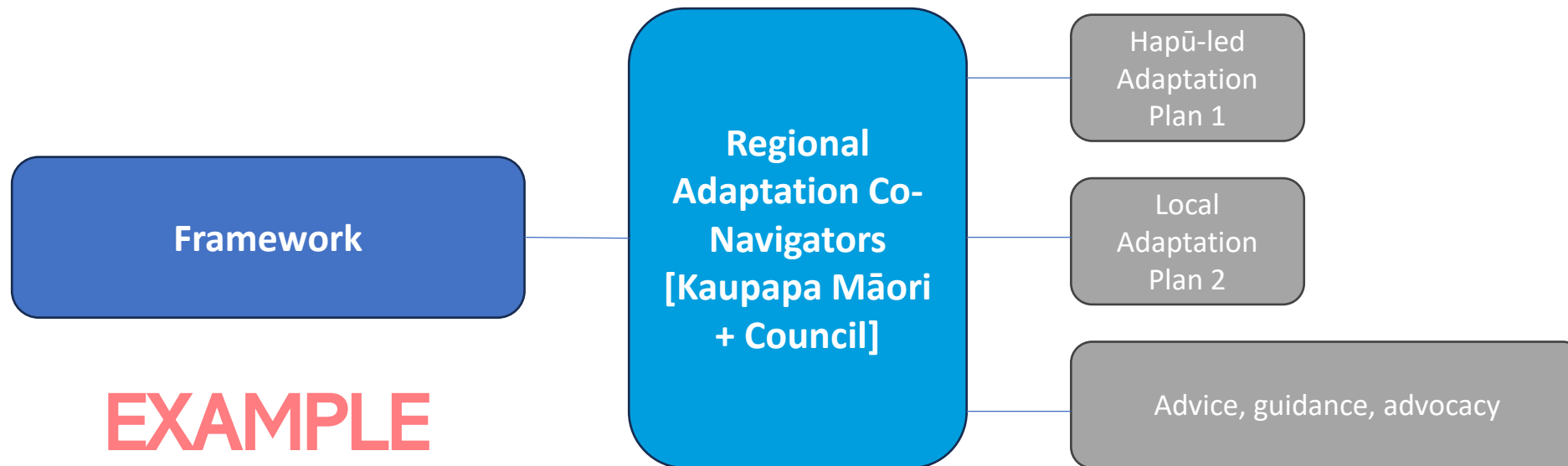
Utilise international literature and expert information to assess the vulnerability of the asset in question. This is usually done with fragility curves or pre-determined exposure thresholds. Fragility curves are a function of the exposure intensity and the characteristics of an asset. The output of a fragility function describes the probability of exceeding a certain damage state or vulnerability.

Communicate the results to inform stakeholders and staff.

CONCEPTUAL

# FTE: 2x Adaptation Co-Navigators

- Shared resourcing provides an opportunity to build capability within this space and positively impact our collective capacity to navigate an uncertain future
- Support, guidance, advice, peer review and relationships can be provided
- Efficiencies and improved 'bang for buck'
- Co-design built into the regional approach to adaptation from the beginning
- Reflects Te Tiriti across partnership – on-ground to governance
- Empowers communities and builds Community of Practice



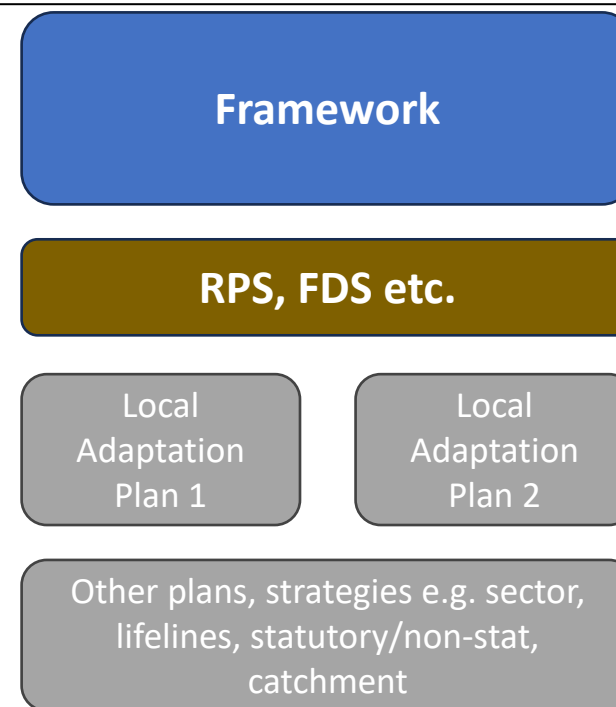


# Adaptation Framework & Toolbox

- Development of a new **FRAMEWORK** is required – supports structured, flexible local adaptation planning
  - Includes joint statement of intent, partnership and commitment e.g. roles and responsibilities, common foundations
  - Provides a mechanism for connecting
  - Reflects and operationalises Te Tiriti partnership
- 
- Supported by a **TOOLBOX** – collating and leveraging what’s worked, learning from what hasn’t and developing new supports
  - Needs to be online and accessible to all practitioners (even those who don’t yet identify as practitioners)

1 <sup>st</sup> Order (least detailed)	National Adaptation Plan	Data and information relevant for national-level decision-making
2 <sup>nd</sup> Order	Regionally significant adaptation	e.g. Lifelines, big rivers
3 <sup>rd</sup> Order	Local Adaptation Plan	e.g. TLAs, neighbourhood data
4 <sup>th</sup> Order (most detailed)	Asset Management, Household	

Table 1 broad conceptual model of adaptation data architecture, how it needs to work across scales and how it must relate directly to the decisions being made.



**EXAMPLE**

# So what's in them?

## What's in the TOOLBOX?

- A common set of climate scenarios to test policy and plans against
- Data standards and architecture e.g. flood models, building type/asset fragility
- New hazard info e.g. climate-driven landslides regionally, coastal erosion, downscaled AR6 climate variables and district summaries
- New ecosystem, social, cultural knowledge (where appropriate)
- Cascading risks + engagement
- Engagement collateral e.g. serious games, education
- Local Risk Assessment method & templates (including prioritization criteria)
- Local Adaptation Plan method & templates

## What needs to be in the FRAMEWORK?

- Relationship between regional-local hazard risk assessment and adaptation planning e.g. Local Adaptation Planning
- Legislative components and linkages e.g. LTP and infrastructure, RLTP, rivers, RMA, urban development, water resilience
- A commitment to use common set of climate scenarios
- Data standards and architecture e.g. flood models
- Governance risks
- Adaptation relevant knowledge strategy e.g. what new information do we need?
- MERL – agreed indicators, reporting and feedback loops

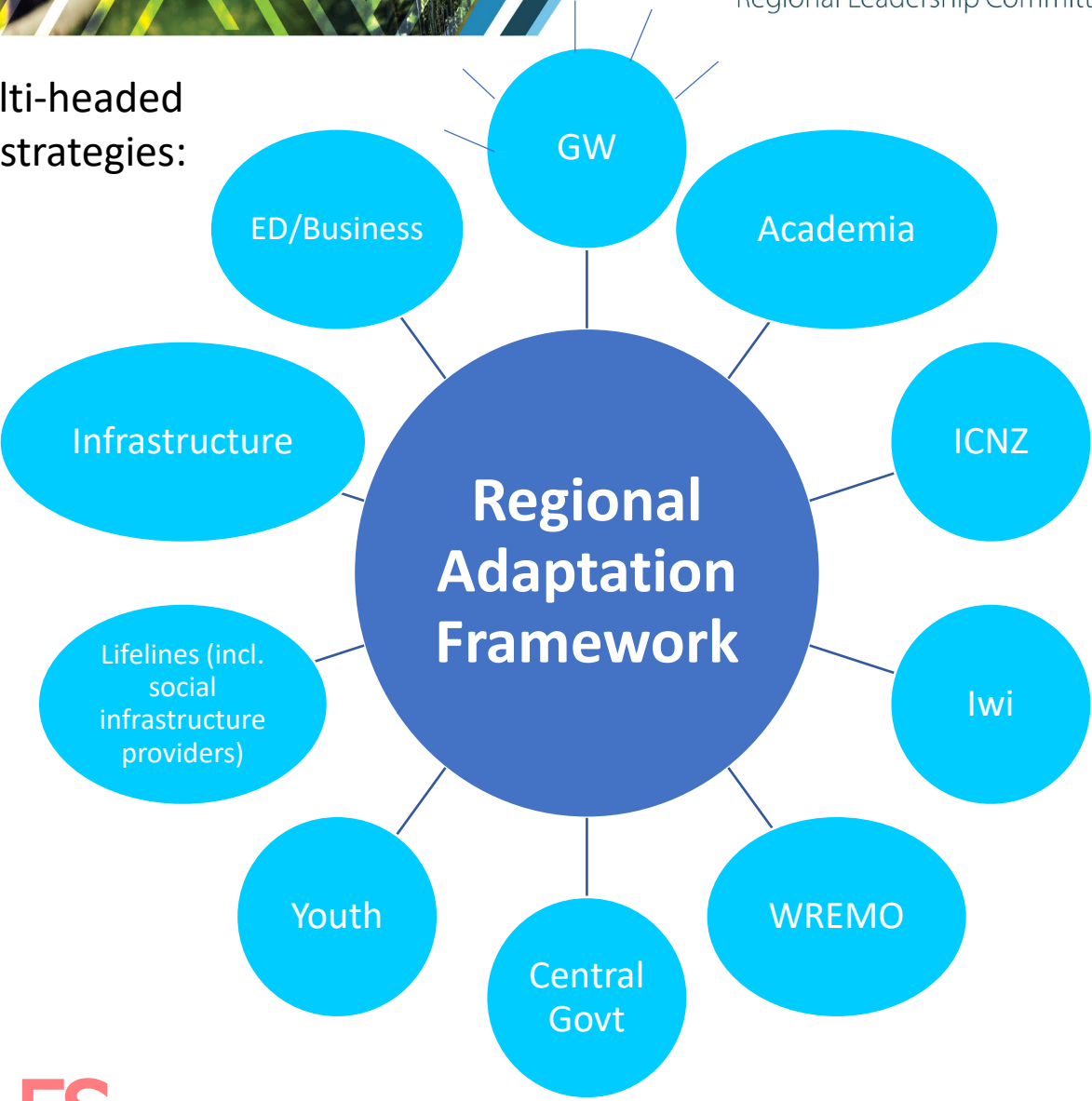
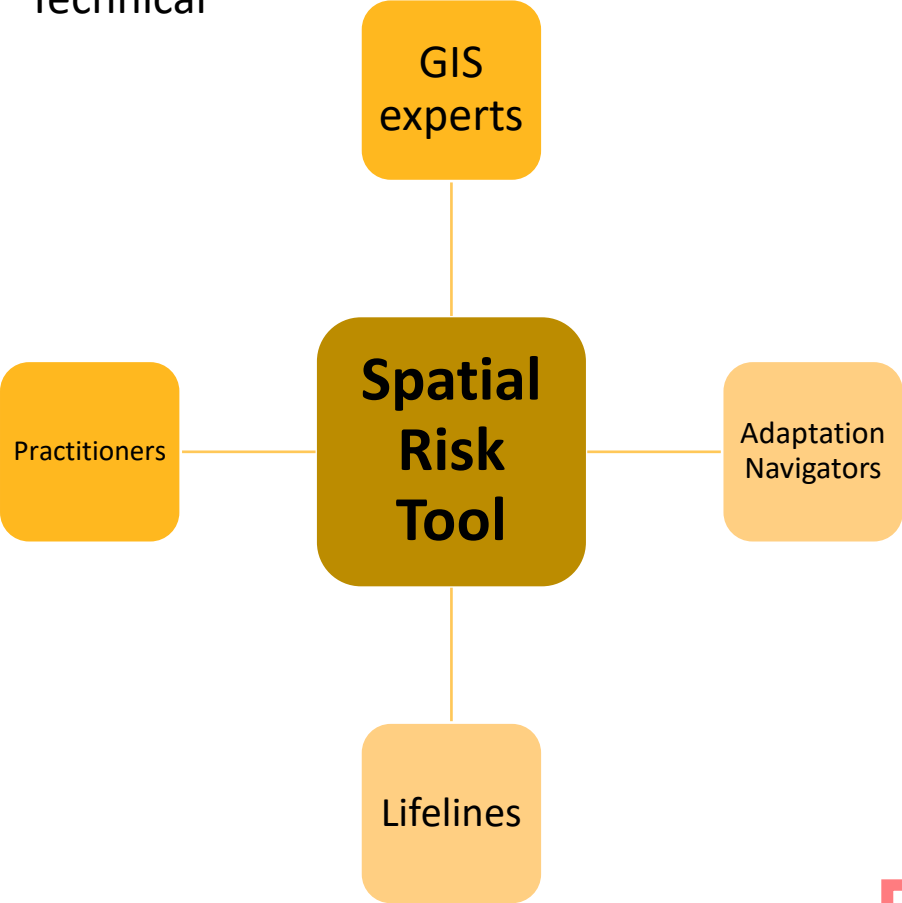


- Good comms and engagement is central to any adaptation mahi – it can make or break
- Develop a **regional communications and engagement plan** including:
  - Foundational/common principles across the region, acknowledging bespoke, culturally and socially relevant approaches needed at local level
  - Identify key tactics to support adaptation planning at local scale e.g. campaign, channels, juries, fora etc.
  - Identify relevant timing and key decision points e.g. new LIM requirements, data publication
  - Identify stakeholders, milestones, key messages
  - Identify key risks, opportunities and mitigations
  - Establish appropriate project governance for key deliverables
  - Seek new opportunities for raising awareness, participation and education e.g. CoastSnap, games
  - Embed adaptation in positive narrative
- **Undertake delivery:**
  - Produce shared collateral to support adaptation planning (toolbox)
  - Develop replicable engagement methods and activities
  - Support engagement around the region
  - Push out and coordinate relevant comms

# Indicative Project Governance

Project governance will be set up, will be multi-layered and multi-headed and worked through in detailed project plans and engagement strategies:

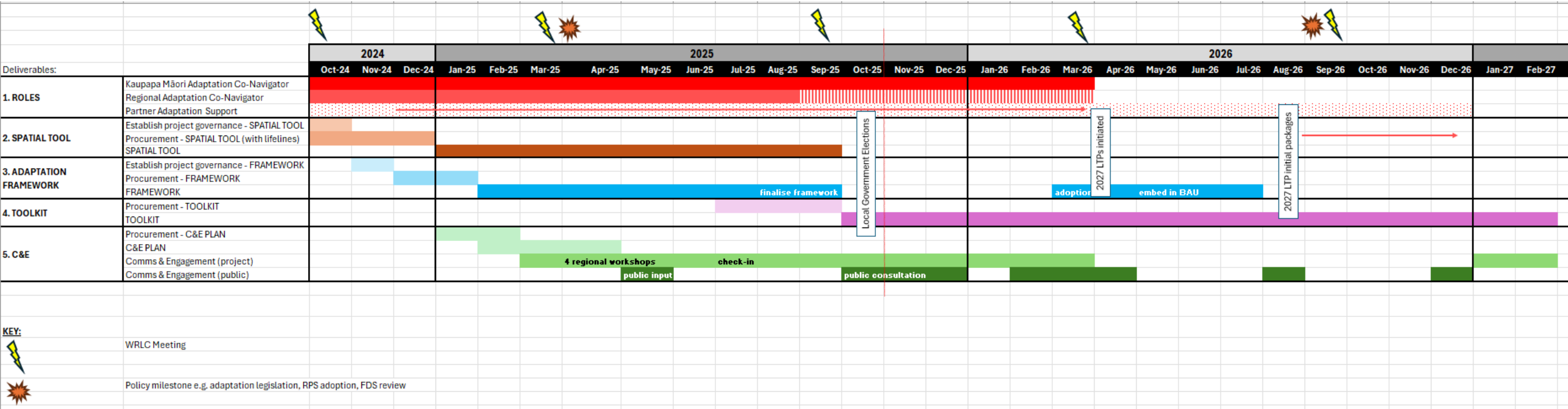
- Governance (using existing where appropriate)
- Technical



EXAMPLES



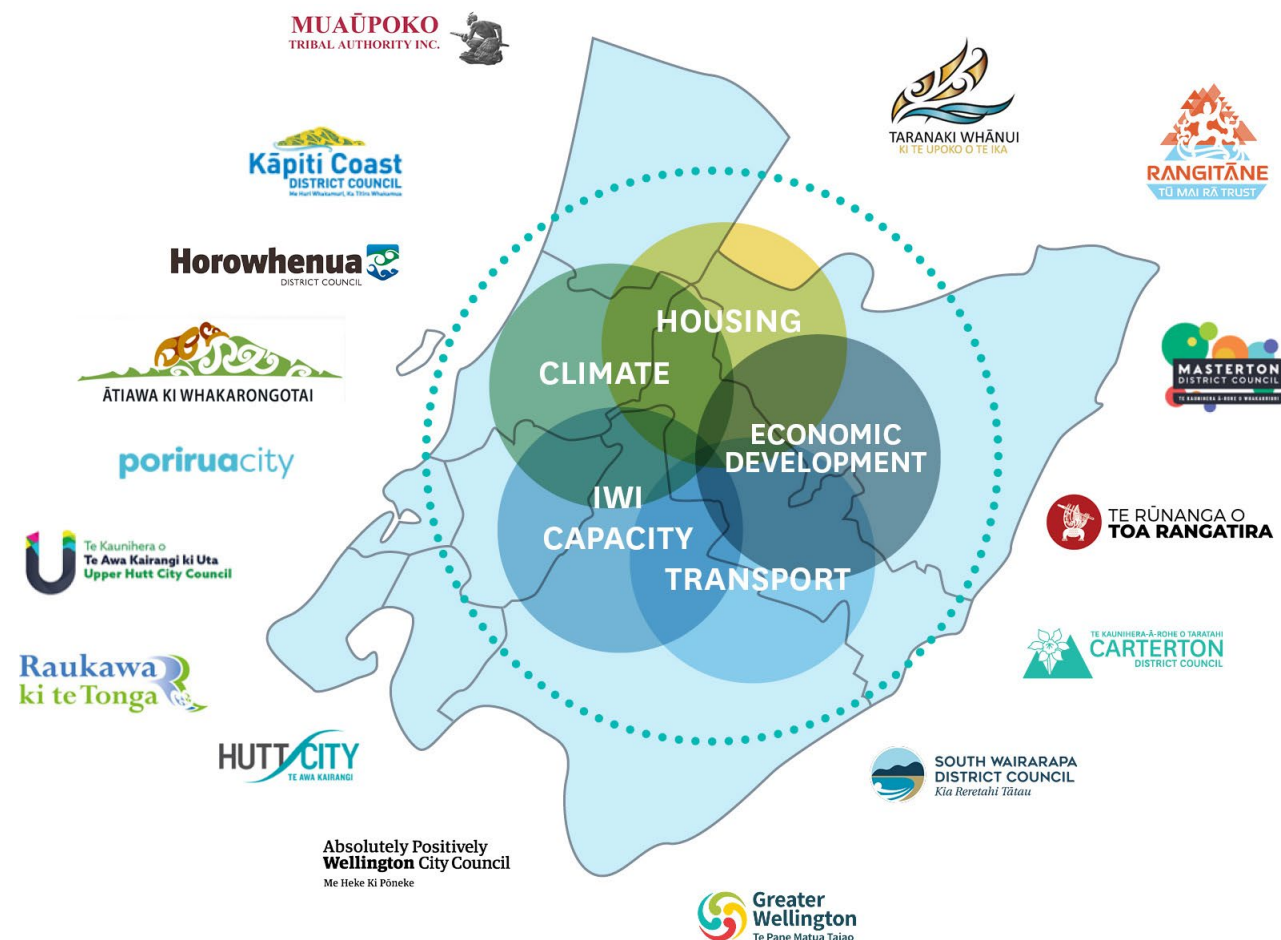
# Timing



\*See enclosed spreadsheet

# Conclusions

- There is much adaptation already happening
- Central government policy development (1) and inquiry (2) poses both risks and opportunities
- Adaptation is local BUT occurs as part of a system.
- Actions are interconnected – there is a need for regional framework
- Te Ao Māori approach offers a unique perspective and a way to connect
- Adaptation practice in NZ and Wellington is emergent
- Framework needs to be enabling – supported by toolbox, ‘how to’ guides and underpinned by learning
- Shared resources offer efficiencies, collective learning and a united front
- Adaptation is ongoing, and ultimately needs to be embedded in a new ‘BAU’ – change management is required
- Engagement, participation, education and innovation are critical





That the Committee:

- **Notes** the significant engagement undertaken as part of this scoping
- **Approves** the scope of work and associated RAP key deliverables, particularly:
  - the establishment of a new fixed-term position of Kaupapa Māori Adaptation Co-Navigator with immediate commencement
  - the development of a regional spatial risk tool, for use by all members and in partnership with Lifelines (WELG/WELA)
  - the development of a regional adaptation framework and associated toolbox for practitioners
  - the development of a regional communications and engagement plan
- **Notes** that this work is a critical enabler to support the intent and implementation of key regional policy imperatives, such as the implementation of the Future Development Strategy, spatial planning and regional policy direction.