

**Mā te haumarū ō ngā puna wai ō  
Rākaihautū ka ora mo ake tonu:  
Increasing flood resilience across Aotearoa**

**Science – Practice Roadshow 1  
Summary**

December 9th 2021

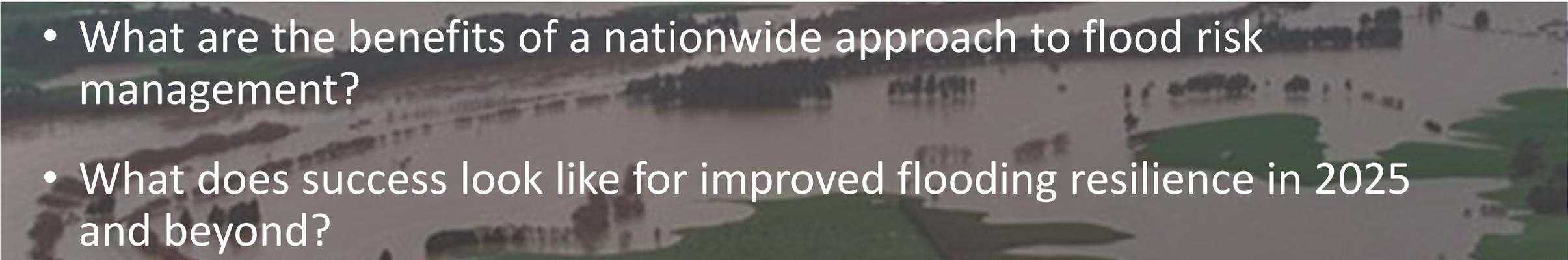
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A photograph of the International Space Station (ISS) in orbit above Earth. The station's complex structure, including solar panel arrays and various modules, is visible against the bright blue and white clouds of the planet. The perspective is from a slightly elevated angle, showing the station's orientation relative to the Earth's surface.

# Road show I Agenda/overview (28 Oct 2021)

- Stakeholder Panel discussion session
- Three group discussion sessions
  - Societal impacts
  - Maximising usability of research outputs
  - Economic impacts

# Part 1: Stakeholder Panel – overarching questions

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- What are the benefits of a nationwide approach to flood risk management?
  - What does success look like for improved flooding resilience in 2025 and beyond?

# Q 1: What are the benefits of a nation-wide approach to flood risk management?

## 1) Consistent approach to flood risk management

- Taking into consideration that communities are served very differently by current defences/supports/available information and have different expectations
- Standardised baseline approach, with baseline data or information requirements
- One-stop shop for quality flood risk information, using a common language that we all understand, that is suitable for disclosure standards, regulatory standards, planning, and managing (not eliminating) risk

## 2) Enabled collaboration

- Gain an overarching view of the increasing flood risks and the management options. Use the project as a platform to be more effective and efficient (at gaining the national perspective) than individual regions working by themselves and then trying to share information/stitch together a nationally-consistent approach/view.

# Q 1: What are the benefits of a nation-wide approach to flood risk management?

## 3) Providing access to quality information

- Provide national-wide information in a way that is accessible (to government, banks, insurers), but most importantly, to the people on the ground; to the people that make decisions every day (landowners, house owners, council planners, etc)

## 4) Ensuring Equity

- For communities across the country regarding mitigation and avoidance measures and supports for better flood risk management



## Q2: What does success look like, for improved flood resilience in 2025 and beyond?

### 1) Assessment criteria to measure success

- Have criteria to measure flood risk exposure (reduction or increase)
- Use criteria to evaluate the outcomes of different options and approaches, and learn from it

### 2) Access to quality information

- Good information and data are available, easily accessible to guide decisions, and scalable
- Decision-making at all levels (government through to individual landowners) is supported by information that is robust, accurate, consistent, and understandable

### 3) Equity

- Flood risk is managed equitably (leading to equitable solutions), no matter where you live in Aotearoa, for renters and home owners

## Q2: What does success look like, for improved flood resilience in 2025 and beyond?

### 4) A flood resilient planning system

- Stop developing at risk areas
- National direction on natural hazard risks (including flooding) across the board, including recovery issues, not just mitigation or avoidance actions
- A framework to guide timely decisions regarding managed retreat before and after events, so that decisions are robust during time compression



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## Q2: What does success look like, for improved flood resilience in 2025 and beyond?

### 5) Policy alignment to avoid trade-offs

- Policies that are consistent/aligned (e.g. avoid current situation with policy statements for intensified development vs. management of natural hazards)
- A joined-up institutional architecture for risk assessment across agencies and across the different hazards, considering uncertainty of climate science and impacts



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## Part 2: Group discussions

*How can this research programme contribute to improved flooding resilience in 2025 and beyond?*

- 
- Societal impacts – improving community resilience
  - Maximising usability – incorporating outputs into your work programmes
  - Economic impacts – supporting decision-making

# Group 1: Societal Impacts

- What types of communities will be impacted by flood?
- What sort of impacts might we expect on those communities?



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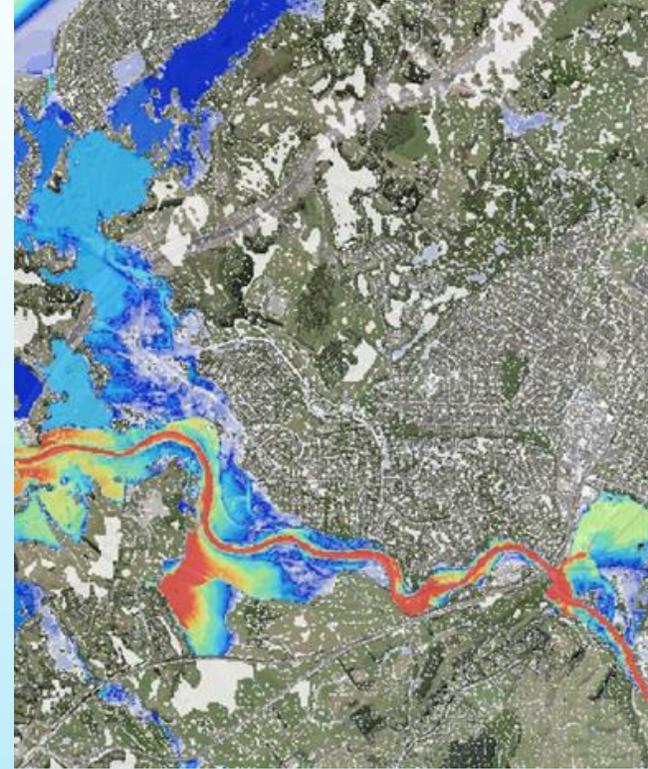
TANGIBLE  
(infrastructure and services)

INTANGIBLE  
(perceptions, psychological, other?)

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## Group 2: Maximising usability of research outputs

- What will you use this national-scale flood information for? How can we ensure the new knowledge created by this programme is incorporated into your work?
- How frequently will data need to be updated?
- How do we ensure that the maps have longevity beyond the programme?



## Group 3: Economic Impacts

- How can this research support decision making for fair and equitable outcomes (e.g. prioritise funding allocation)?
- What information and tools are needed for supporting discussion on costly and contested issues that have potentially low public and political acceptability (e.g. retreat from flood-prone land)?



# Overarching theme 1: Recognising the diversity of our communities and their vulnerability to floods

- **Vulnerability**

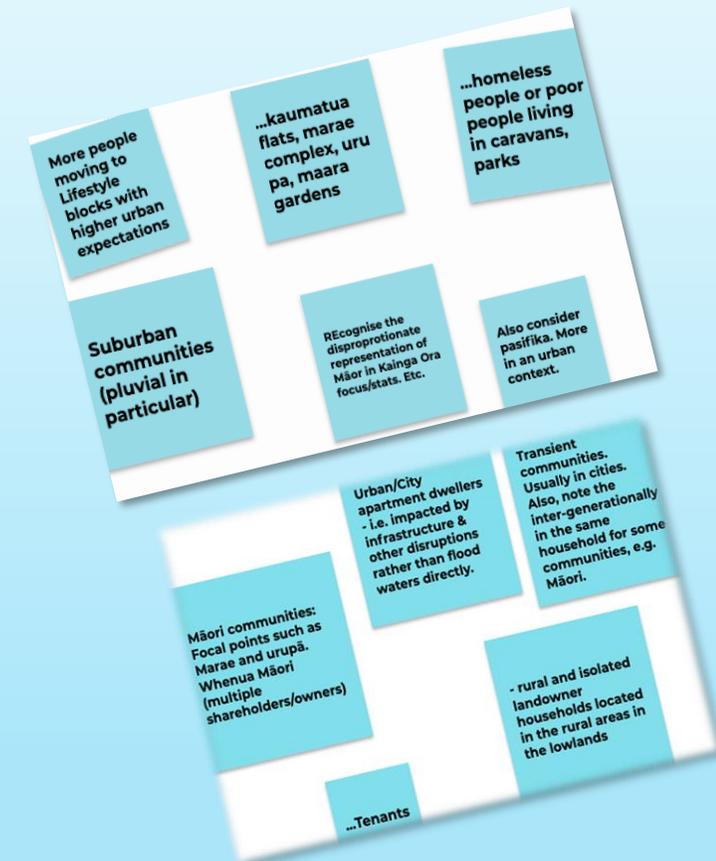
- Most vulnerable and marginalised people are resilient to floods (protection, recovery)
- A 'zero' tolerance to flooding

- **Diversity**

- Diversity of issues, perspectives, experiences and living situations (e.g. urban, rural isolation, Māori traditional land, transient, homeless)
- Focus on social justice
- Research outputs take into account the Aotearoa/NZ reality – Māori views and approaches, other aspects that make us different to other countries

- **Risk**

- Perceptions of risk and losses differ for people, and change over time
- Define what is tolerable and intolerable to individuals, communities, governance



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## Overarching theme 2: Access to decision support tools at all levels

- Institutional level

- Aotearoa/NZ has a baseline flood model/map, so that all regions have access to a rational, reliable and consistent methodology for decision-making
- New risk assessment methodology to better capture societal impacts well, especially for vulnerable people and the diversity of impacts based on individual circumstances
- EQC's portal will have risks/hazards information

- Community level

- Output formats (e.g. tools) that support people's decision making (e.g. rural people and Māori landowners who face making decisions about their land use, that they may have had links to over many years/generations)
- Tools support the distribution of consistent and equitable recovery support (e.g. small communities don't miss out)

- Knowledge base

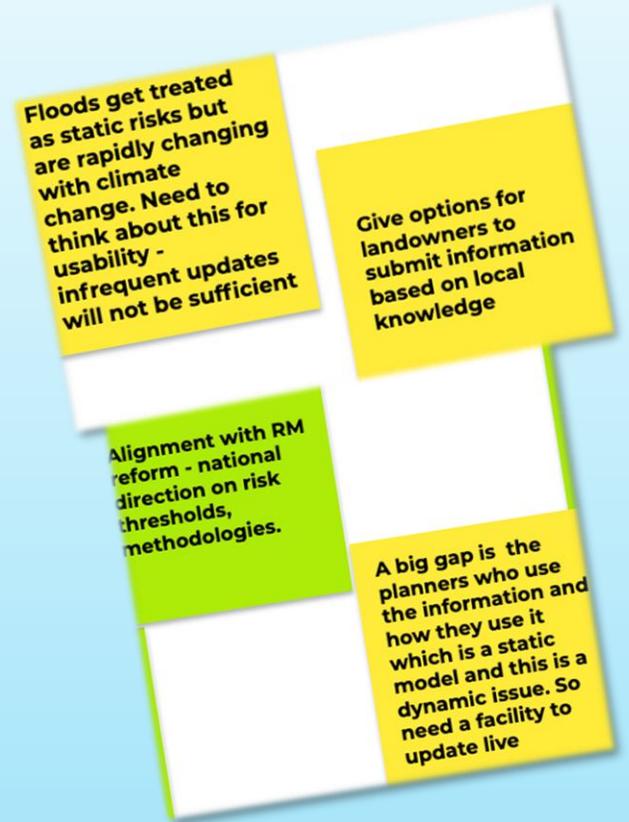
- Wellbeing data on marginalised, vulnerable communities
- User guides on how to use tools for a range of professionals
- Regular update of information as they become available (dynamic system, not static map)



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## Overarching theme 3: Policy review and changes

- Scale
  - Consider resilience to flooding and other hazards when planning (embed redundancy in infrastructure)
  - Expedite regional policy implementation for dynamic, changing risk
  - Focus on communities instead of individuals
  - A new Flood Risk Act setting out rules and responsibilities across the country
  - A total catchment approach to flood risk management and funding flood resilience
- Risk
  - Avoidance of risk via land use planning (eliminate residual risk)
- Cultural focus
  - Cultural significance of places, sites (events, marae, urupā)
- Communication
  - Clarity of standards to manage expectations regarding services and assistance
  - Clarity about the hierarchy of models/maps to avoid conflict with existing maps



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## Overarching theme 4: Better understanding of economic impacts on [differing] communities, regions and places

- **Society**

- Social and economic impacts are experienced together; e.g. losses of infrastructure cause stress, and potentially cascades to further (economic) losses and societal impacts
- Use stories, narratives to communicate social and economics costs of flooding
- Cost-benefits analyses include value of ecosystem services, public amenities of stop banks, to make a case for funding for flood protection
- Consistent methodology for capturing direct and indirect (societal) impacts

- **Funding**

- Need for a longer view of the impact of decisions, so that economic costs and benefits that accrue to (future) residents are accounted for
- Consider how we cost and account for intergenerational impacts – past, present and future

The risk matrix approach referenced. The flaw in the system is not just economics. More than just that – Society and environment

We keep bringing this back to \$\$\$ - impact on people as \$\$\$ - using this as a proxy. But that doesn't capture the real feel – in relation to tolerance for risk before c.f after.

Have we captured the social impacts into our decision making process – have they been quantified? NO there is no mandate to do things for private property. Just private risk – Councils can do it for infra and productivity but not

Disconnection of Māori to whenua and whakapapa.

...losses can have huge impact on wairua, hinengaro, tinana, whanaungatanga in terms of being relocated, permanent change to the land, whakapapa losses of taonga tuku iho

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## List of participants

- Ministry for the Environment
- National Emergency Management Agency
- Ministry for Primary Industries
- Wellington City Council
- Kāinga Ora
- Treasury
- Dept PM and Cabinet
- VUW Climate Change Research Institute
- Greater Wellington Regional Council
- Ministry of Housing and Urban Development
- EQC
- Wairewa Runanga/Maiora Wekepiri Consultancy
- Lifelines Council
- Te Puni Kōriri
- Unitec
- Bay of Plenty Regional Council
- Auckland Council
- Westpac

**A more detailed report is coming in 2022.**

***Meri Kirihimete!***

***Stay safe this summer***



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