

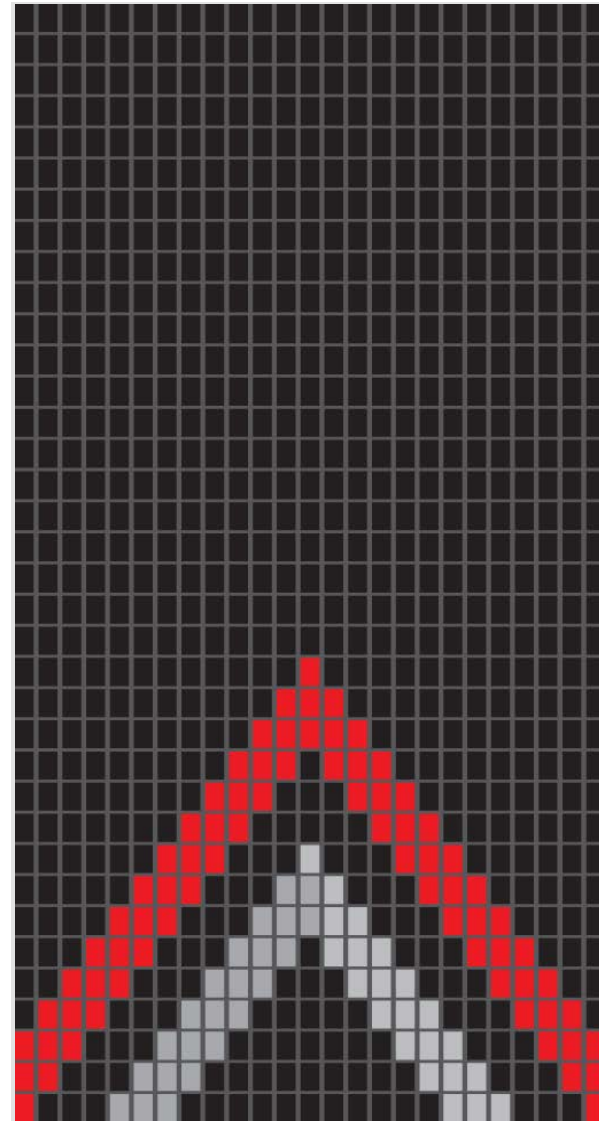
# Data and Development: Maori Interests in the Data Eco-System

Maui Hudson, Kirikowhai Mikaere and Andrew Sporle

(on behalf of Te Mana Rauranga)

Treasury Speaker Series

12 December 2016





# An overview of Maori data Sovereignty

SECTION 1

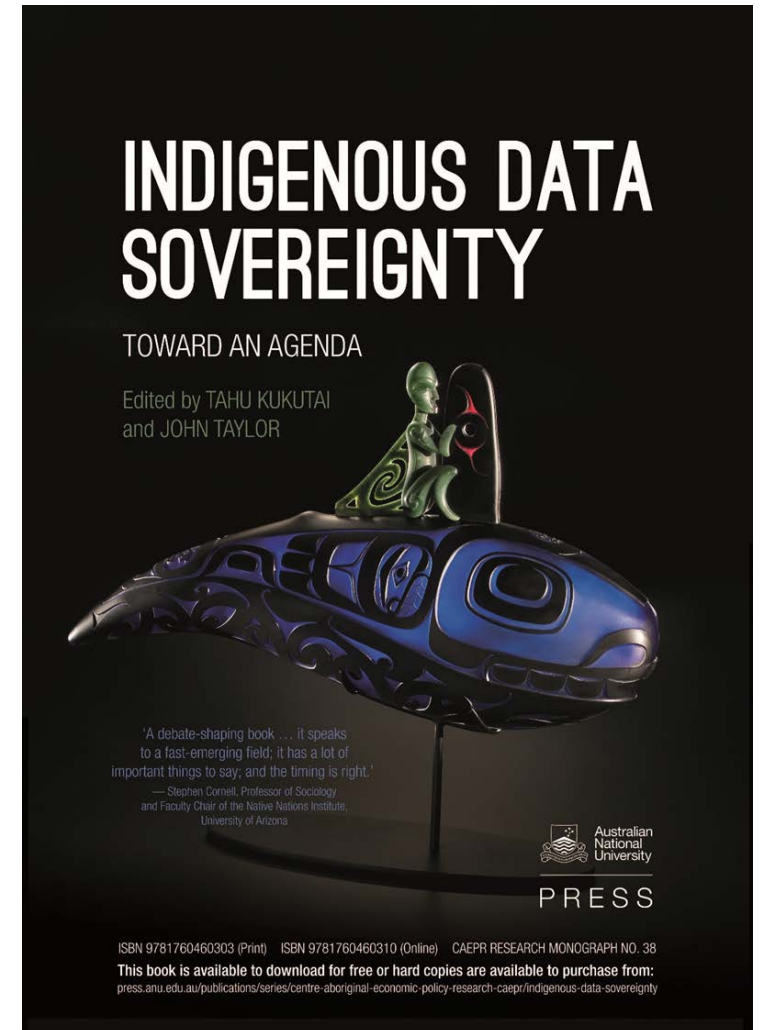
Associate Professor Maui Hudson



# Indigenous Data Sovereignty

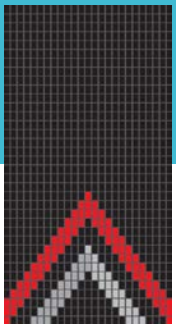
**Data Sovereignty** states that data is subject to the laws of the nation **within which it is stored**

**Indigenous Data Sovereignty** states that data is subject to the laws of the nation **from which it is collected** (including Tribal nations)



**Free to download  
From ANU press**

**Indigenous  
Data  
Sovereignty is  
already  
happening  
internationally**



**International Group  
for Indigenous  
Health  
Measurement  
- since 2005**

**United Nations**

- Dept of Economic and Social Affairs
- Special Rapporteur on the rights of Indigenous peoples
- Permanent Forum on Indigenous Issues

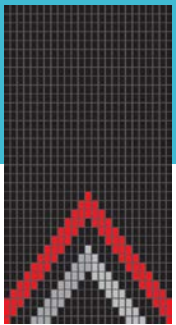
**ASSA  
International  
Workshop  
Canberra 2015**

**Native American and  
Indigenous Studies  
Association 2016 conf**

**FNIGC- OCAP<sup>©</sup>**

- Ownership
- Control
- Access
- Possession

# Indigenous Data Sovereignty is supported by International Policy



## 2007 UN Declaration on the Rights of Indigenous Peoples – Article 15

“Indigenous peoples have the right to the dignity and diversity of their cultures, traditions, histories and aspirations which shall be appropriately reflected in education and public information”

## 2008 WHO’s Commission on the Social Determinants of Health

a ‘Minimum Health Equity Surveillance System’. As part of the system, ‘good-quality data on the health of Indigenous Peoples should be available, where applicable’.

**In Aotearoa,  
Data  
Sovereignty is  
already a  
significant  
issue**

**Iwi wanting access  
to and possession of  
data for their own  
development (OIA,  
Treaty claims and  
now IDI)**

**Regional health data  
sharing agreement  
includes data  
sovereignty**

**Treasury /  
SNZ hui**

**Iwi Chairs  
Forum  
Data  
Leadership  
Group**

**Independent  
Maori  
Statutory  
Board :  
Data Strategy  
Expert Panel**



**Te Mana  
Raraunga**

# Māori Data Sovereignty

**Is the right of Māori to access, to use, to have governance and control over Māori Data.**



# Māori Data Sovereignty

is concerned with

- **protecting** Iwi/Māori rights of access to data,
  - **participation** in data integration activities
  - **partnership** in the governance and/or ownership of data.
- supports the realisation of **Māori and Iwi aspirations.**
  - recognises that **Māori data should be subject to Māori governance.**
  - is a key mechanism for enabling **self-determination and innovation.**





# What is Māori Data?

## **Data from Māori (self-generated)**

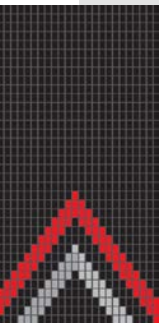
- From Māori organisations and businesses

## **Data about Māori (generated by others)**

- Used to describe or compare Māori collectives

## **Data about Māori resources (generated by self and/or others)**

- Emerges from research on Māori resources



# Data and the Treaty

- '**Maori Data Sovereignty**' recognizes that Māori data should be subject to Māori governance (**Article 1**)
- The '**Cultural License**' focuses on the impact of data integration and data sharing on the social contract between Crown and Iwi through their Treaty relationship (**Article 2**).
- The '**Social License**' relates to a social contract or expectation that the government will act in the interest of its citizens. (**Article 3**)

# Te Mana Rauranga: Māori Data Sovereignty Network

## Advocacy

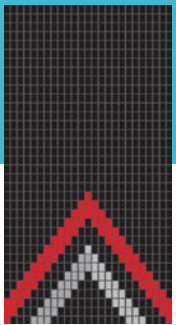
Statistics legislation review  
Tribal classification review  
Data users networks  
NZ Data eco-system policy

## Initiatives

IDS book contribution  
Tribal GIS data boundaries  
Māori data audit tool  
Māori outcomes visualiser  
IDS summit + Workshops

## Future

Build capacity  
Build capability  
in people + infrastructure





# Data for Māori Development

SECTION 2

Kirikowhai Mikaere



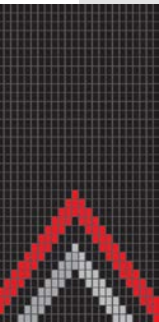
# Why we want Data Sovereignty

## **Access and Use**

to transform the lives of our people.

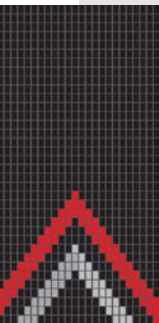
## **Governance and Control**

to ensure the data is relevant and responsive.



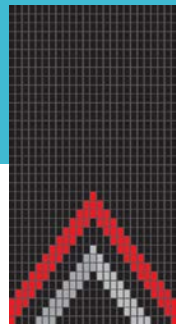
# Māori Data Projects

- **Māori Plan**  
Independent Māori Statutory Board
- **Te Kete Tū-Ātea**  
Information framework for the Rangitīkei Iwi Collective
- **Ruapehu Whānau Transformation**  
Stats, Stories, Solutions
- **Ngāti Whakaue Identity impact investment**  
Tipu ki roto, tipu ki waho

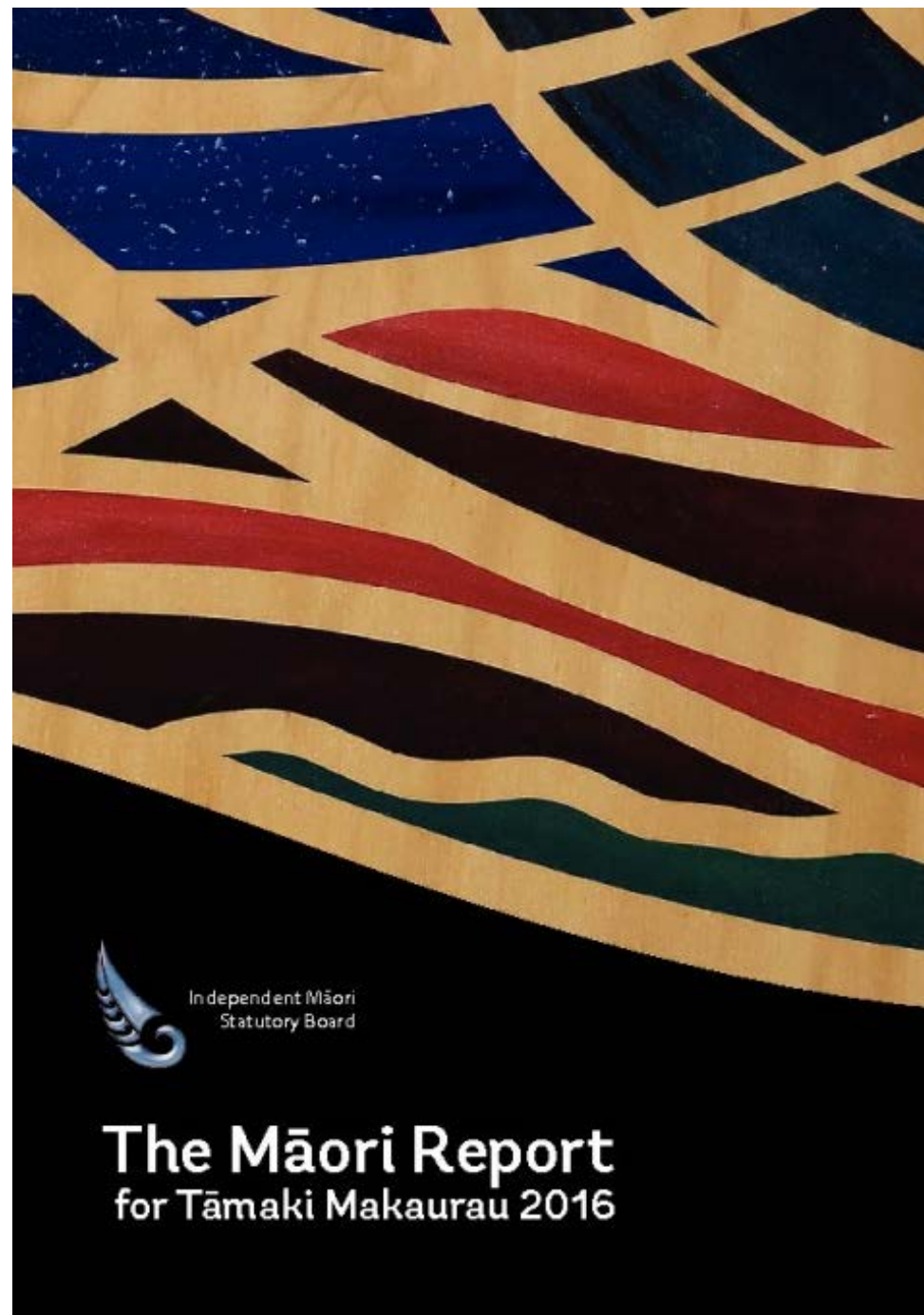
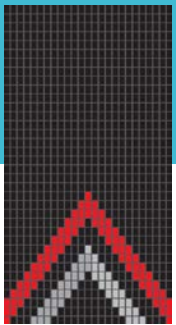


# Māori Plan : Independent Māori Statutory Board

KEY DIRECTIONS					
WHANAUNGATANGA		RANGATIRATANGA			
DEVELOP VIBRANT COMMUNITIES <i>"A city/region that caters for diverse Māori lifestyles and experiences."</i>		ENHANCE LEADERSHIP & PARTICIPATION <i>"People engaged in their communities."</i>			
CULTURAL	Māori communities are culturally vibrant across Tāmaki Makaurau The use and significance of marae Accessibility to Māori culture	Māori are actively participating and demonstrating leadership in the community Mana Whenua as treaty partners Mataawaka as treaty partners Youth participation and leadership	Māori communities are culturally strong and healthy The use of te reo Māori Participation in wānanga, kura and kōhanga reo Connection to iwi	Māori heritage of Tāmaki Makaurau is valued and protected Māori cultural values and heritage Sense of pride and belonging	Māori cultural wellbeing is future-proofed Investment in Māori arts and culture Mātauranga Māori and Mātauranga-ā-iwi
	Māori communities are connected and safe Access to transport and public facilities Safe and connected whānau and communities Participation in communities	Māori are decision-makers in public institutions Māori representation in public institutions Trust in public institutions Participation in elections	Māori enjoy a high quality of life Health and wellness Access to health services Participation in mainstream education	Māori social institutions and networks thrive Urban Māori authorities and Māori NGOs Sport and leisure	Whānau wellbeing and resilience is strengthened Social equity Whānau wellbeing Papakāinga
	Māori have the skills to realise economic opportunities Māori in tertiary study Māori workforce capability	Māori are active across all sectors of the economic community Employment across businesses and sectors Māori in management and leadership positions	Māori are earning income and returns that fulfill their lifestyle expectations Income – individuals and whānau High quality and affordable housing Māori land and assets	Māori businesses are uniquely identifiable, visible and prosperous Māori businesses Māori involvement in networks	Māori businesses are improving and enhancing the quality of their people, asset and resource base Investment in Māori economic development New opportunities and markets
	Te Taiao is able to support ngā uri whakatipu Mahinga kai and wāhi rongōā Wāhi tapu and wāhi taonga	Māori are actively involved in decision-making and management of natural resources Co-governance of natural resources Resource management planning processes and activities Mātauranga Māori and natural resources	The mauri of te taiao in Tāmaki Makaurau is enhanced or restored for all people Access to clean parks and reserves Sustainable energy use Water quality	Taonga Māori are enhanced or restored in urban areas Māori urban design principles Indigenous flora and fauna	Māori are kaitiaki of the environment Investment in Māori environmental projects Capacity of tangata whenua to support the environment
SOCIAL			MANAAKITANGA	WAIRUATANGA	KAITIAKITANGA
			IMPROVE QUALITY OF LIFE <i>"Satisfaction with our environments and standard of living."</i>	PROMOTE DISTINCTIVE IDENTITY <i>"Recognised sense of identity, uniqueness and belonging."</i>	ENSURE SUSTAINABLE FUTURES <i>"Intergenerational reciprocity"</i>



**Māori Report  
2016 :  
Independent  
Māori Statutory  
Board**





# Te Kete Tū-Ātea : Iwi Information Framework

# TE KETE TŪ-ĀTEA

AN INFORMATION FRAMEWORK FOR THE RANGITĪKEI IWI COLLECTIVE

## DOMAINS

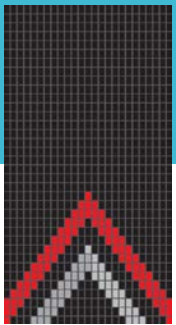


## GOAL DIMENSIONS



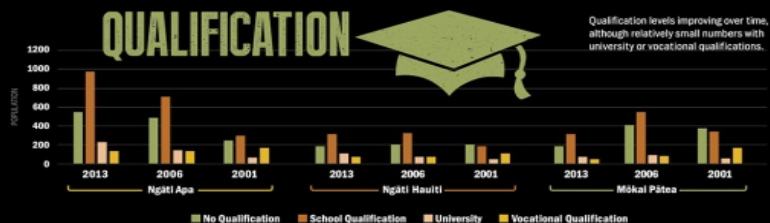
A framework developed by and for the Rangitīkei Iwi Collective.  
To help the Iwi make informed decisions on the development  
of our people and resources.

**IWI INFORMATION + IWI ANALYSIS = BETTER IWI FUTURES**

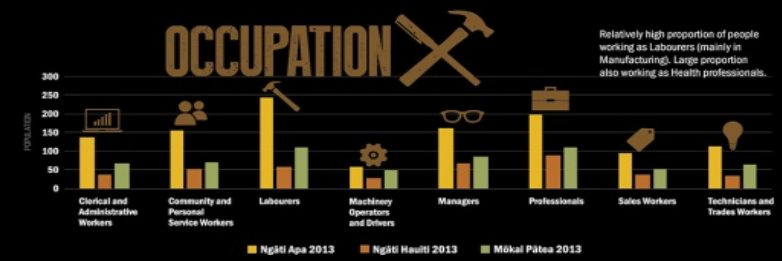
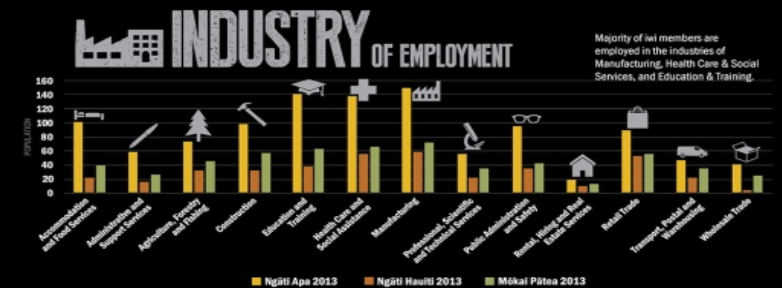
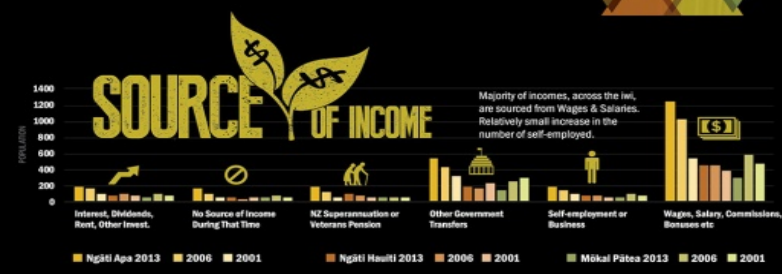


# Te Kete Tū-Ātea : Economic Domain

## ECONOMIC DOMAIN – RANGITĪKEI IWI COLLECTIVE



Note: The numbers for Mōkai Pātea were based on the average for 'other iwi' and those who identified themselves as Mōkai Pātea.





**RUAPEHU  
WHĀNAU**  
TRANSFORMATION  
PLAN

# THE SOLUTIONS



# RARANGAHIA TE TAURAWHI TE TANGATA KIA HUA AI TE MARAMA BRINGING PEOPLE TOGETHER TO MAKE A DIFFERENCE



## Focus areas >

## Opportunities >

## Solutions >

## Our Purpose >

### EDUCATION

- Increase Numeracy & Literacy attainment
- Increase school leavers attaining NCEA Level 2 or above

1. Ruapehu Learning Journal
2. Whānau Reading, Literacy & Numeracy Programme
3. Community Tagging
4. NCEA & Whānau events

### EMPLOYMENT

- Connect local jobs & local workers
- Local workforce has the right capacity

5. Community Work Broker
6. Community Careers Expo
7. Trades Training
8. Local Skill Needs Analysis
9. Community Learning Centre

### HOUSING

- Increase available houses to rent
- Increase % of healthy homes

10. Housing Needs survey and Action Plan
11. Sponsored Home Ownership programme
12. Healthy Homes Initiative
13. Property WOF
14. Research alternative housing developments

### HEALTH

- Increase availability & access to local services
- Collaborate across service providers

15. Hauora Navigator
16. Wellbeing Expo
17. Hauora Yellow Pages
18. Integrated Service Centre – a one stop shop

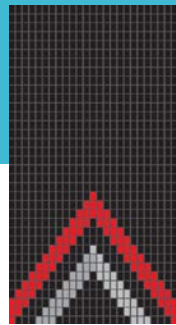
### SOCIAL

- Stronger whānau
- Connected, Cohesive, Collaborating Communities

19. Ruapehu TopTown
20. Extend Kaitoko Whānau programme
21. Community Values (Maunga, Tangata, Tukotahi)
22. Community technology hub
23. Street by street initiative

To enable whānau transformation in the Ruapehu rohe

# Ngāti Whakaue : Identity investment



## Te reo māori o Ngāti Whakaue

Proportion of Ngāti Whakaue who can hold a conversation in te reo māori

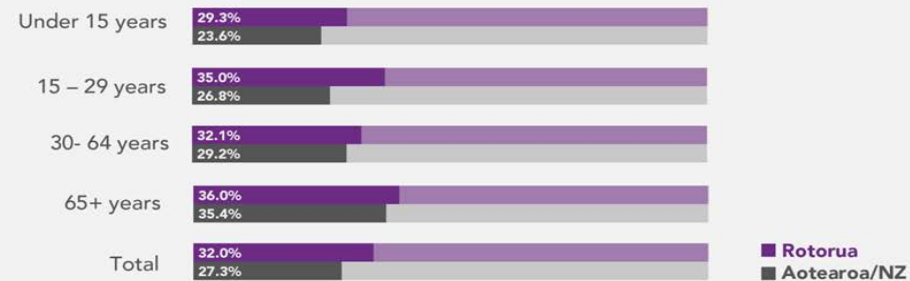


CURRENT STATE



**21%** Ngāti Whakaue speak māori well/very well

Ngāti Whakaue – Te reo māori speakers, 2013



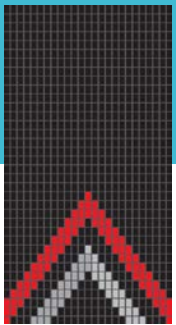
“Ko te reo te hā o te Whakauetanga”

2045

FUTURE

# Ngāti Whakaue : Identity investment

WHAKAWHITI O TE RĀ  
Whakaāio Whenua  
Mai i Waimihia ki Waingaehe  
Te Kuraeoteihu o Tamatekapua  
Ko Ngōngōtaha te maunga  
Ko Te Rotoruanui-a-Kahumatamomoe te moana  
Ko Te Papaīouru te marae  
**Ko Ngāti Whakaue te iwi**  
**Ko Te Arawa te waka**





# Realising the potential for Maori development

SECTION 3

Andrew Sporle

# The Potential of Data to inform Maori development is recognised

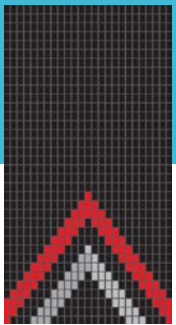
## Maori providers and researchers moving rapidly into this space – but...

To what extent can **Maori engage** with and **benefit** from the data resources?

- Measures and approaches must match Maori aspirations
- Technological and skill barriers to engagement
- Social licence/consent/partnership/ or control?

A **Top-down approach** does not match up well to

- **Maori development parameters**
- **Models of engaged partnership**





# Issues with current Data resources for Maori

Require ancestry and iwi information

Availability of Maori-defined measures

Deficit or development measures

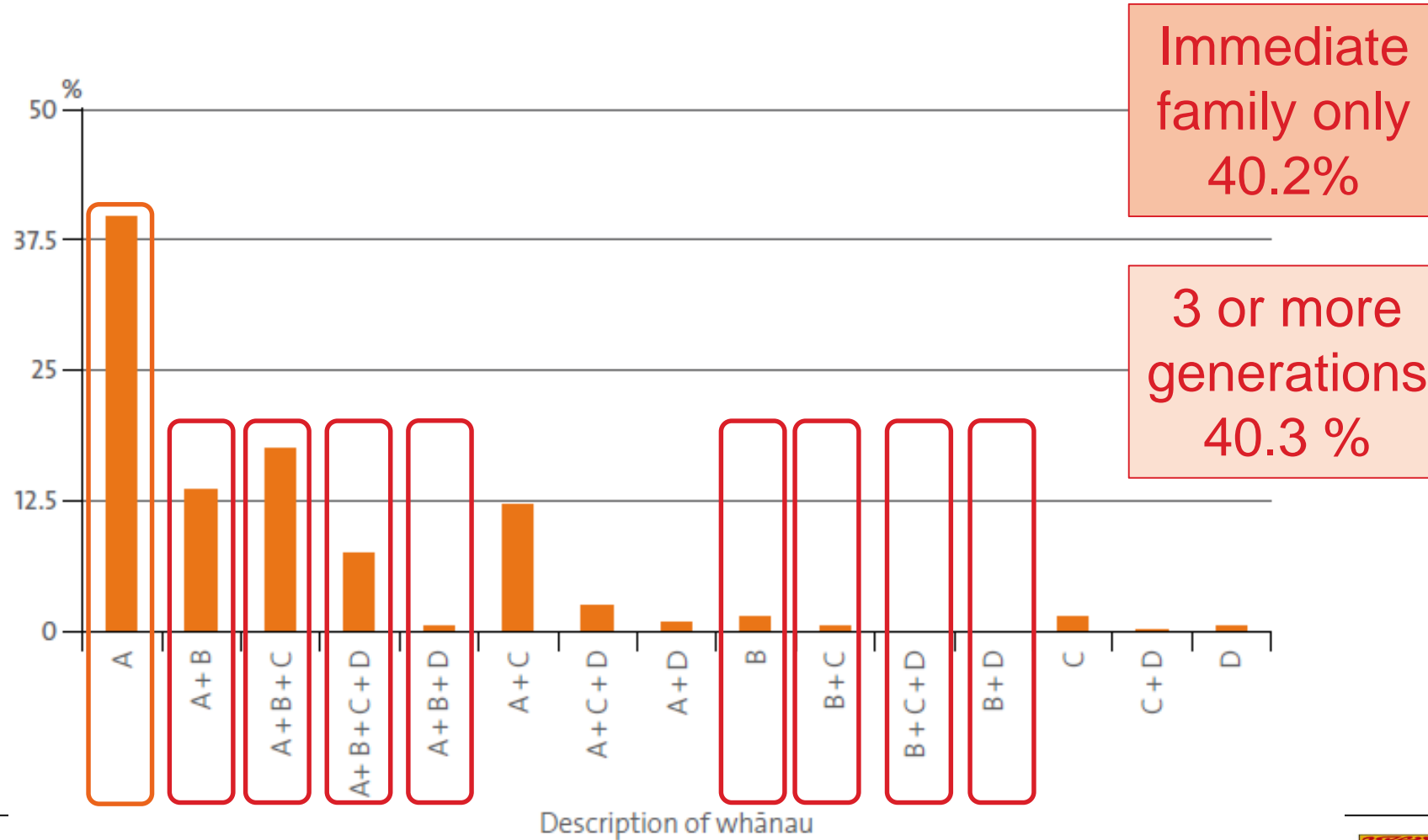
Census link can provide these  
**BUT:**

- Census participation varies by ethnicity, gender and age
- Matching not complete ?similar variation
- Iwi list not comprehensive
- Iwi data quality ?

**PRECISION** – more important for smaller populations



# Distribution of responses by whānau category in Te Kupenga



- A – immediate family
- B – other generations
- C – other kin
- D – non-kin

Description of whānau



## Issues with current analytic approaches

Deficit or development approaches?

Inclusion of Maori-defined determinants and outcomes

Application of existing knowledge first

Focus on identifying

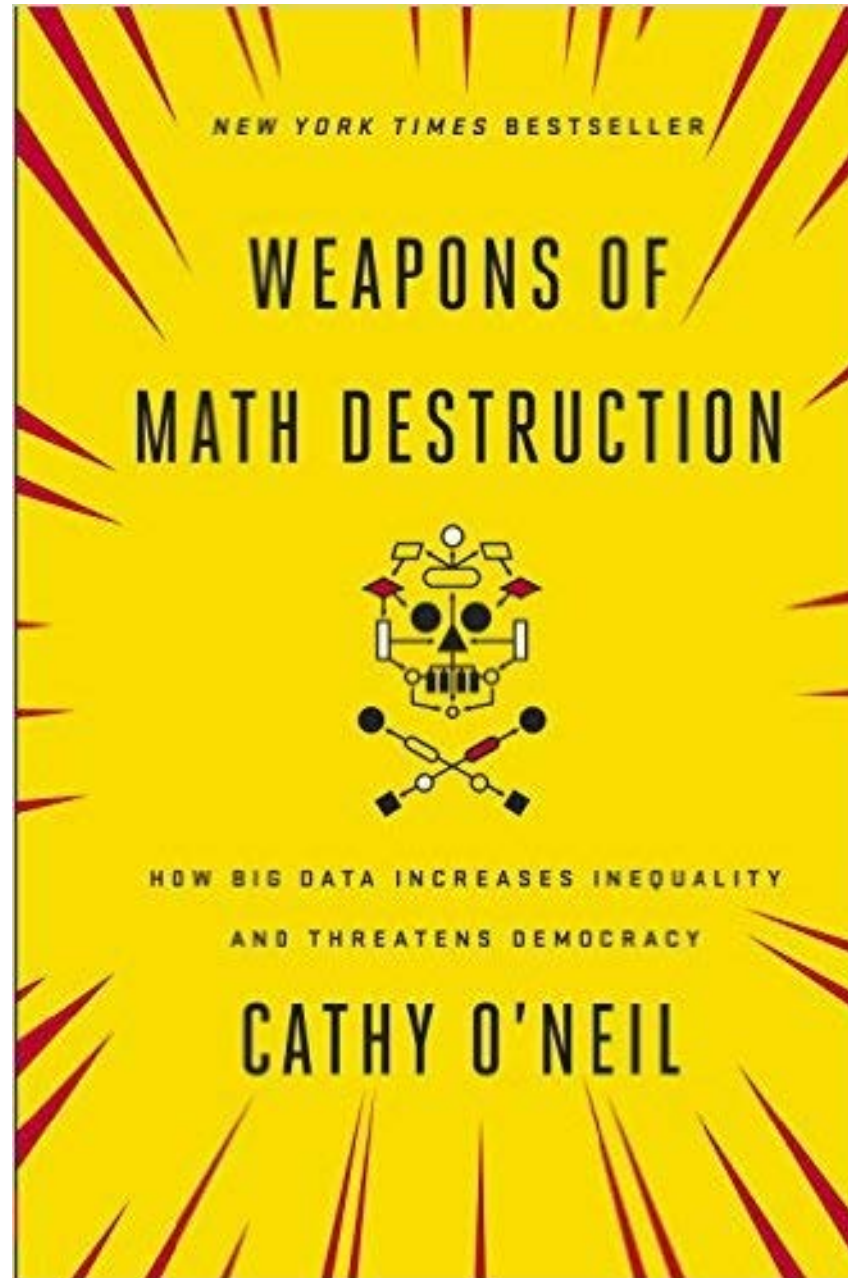
- individuals
- determinants

as locus of intervention

Approach confirmed PRIOR to Social Licence consultation

Building and maintaining TRUST is paramount

**Data is a  
social product  
– and so is  
analysis**



**"big data increases inequality and threatens democracy."**

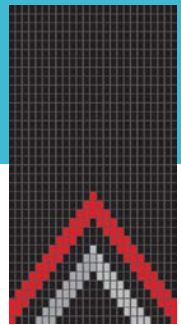
Imperfect data, imperfect models, embedded values can create self-fulfilling feedback loops.

**Solution:  
transparency and  
engagement**

# Data Initiatives and Māori Development

Māori Development parameters (some)	Data Exchange	IDI
Māori as data providers	✓	✓
Engagement with Māori		✓
Consultation with Māori		✓
Ownership and use resolved	<b>Risks</b> <ul style="list-style-type: none"><li>▪ Maori development dividend</li><li>▪ Data system backlash</li></ul>	
Co-design		
Co-collection		
Statutory protections and independence		✓
Transparent methods		✓
Māori methodology		
Protecting Māori interests		
Maintaining Social and Cultural licence		
Māori capacity building		

# Changing the data infrastructure



## Stats NZ Pilot Project “Adding a Maori GIS capability to the Official Statistics System”

- Creating iwi-defined GIS boundaries within the data structure
- A **permanent structural change** to the data resource.

## Data Visualiser

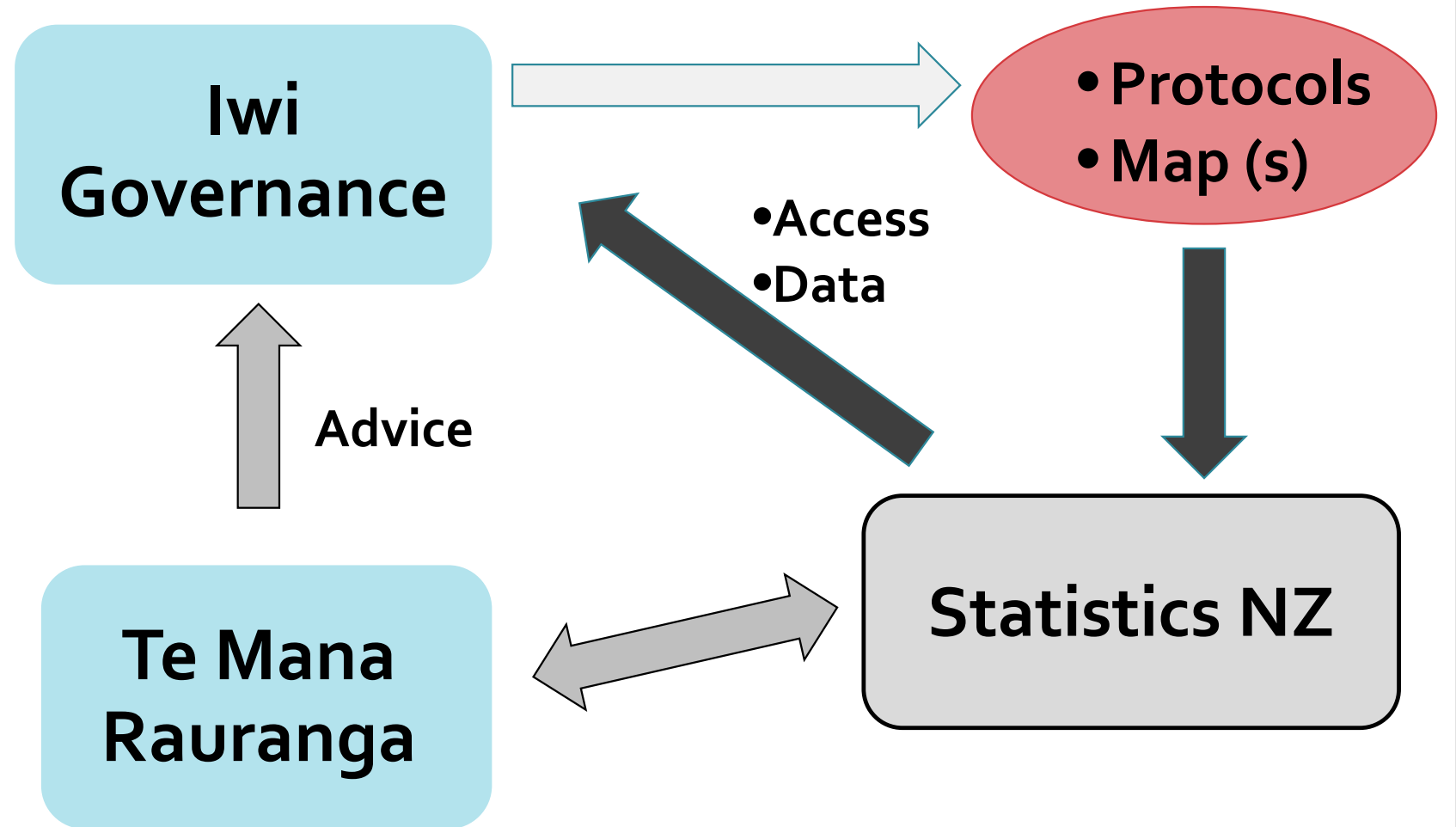
Point and click tool  
Statistically robust  
outcome comparisons

## HRC Development Project Project

### “Building a Maori longitudinal capability within the OSS”

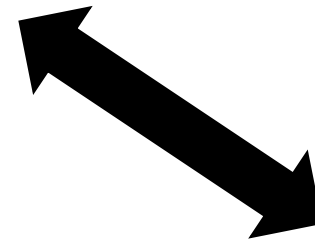
- Outcomes aligned with Maori objectives
- A **permanent structural change** to the data resource.

**Statistics NZ  
Pilot project  
Iwi defined  
GIS maps**



**Iwi defined  
GIS maps –  
build  
relationships  
and process**

**Iwi  
Governance**



**Statistics NZ**



# Population Outcomes Tool

## Population Data Visualiser - Beta

Select a country:

New Zealand

Select a number of populations:

1  2  3  4

Project trends?

Select a geographic type:

National

Select an age grouping:

Total

Select a type of standard:

External

Select a standard:

WHO

Select baseline for relative and attributable risk:

Population 1 (default)

### Population 1

Select issue

Cancer - Gastric Death

Ethnicity

Total

Gender

Total

Year range (start and end)



Select an option to increase accuracy:

None

### Population 2

Select issue

Cancer - Gastric Death

Ethnicity

Maori

Gender

Total

Year range (start and end)



Select an option to increase accuracy:

None

### Population 3

Select issue

Cancer - Gastric Death

Ethnicity

Non-Maori

Gender

Total

Year range (start and end)

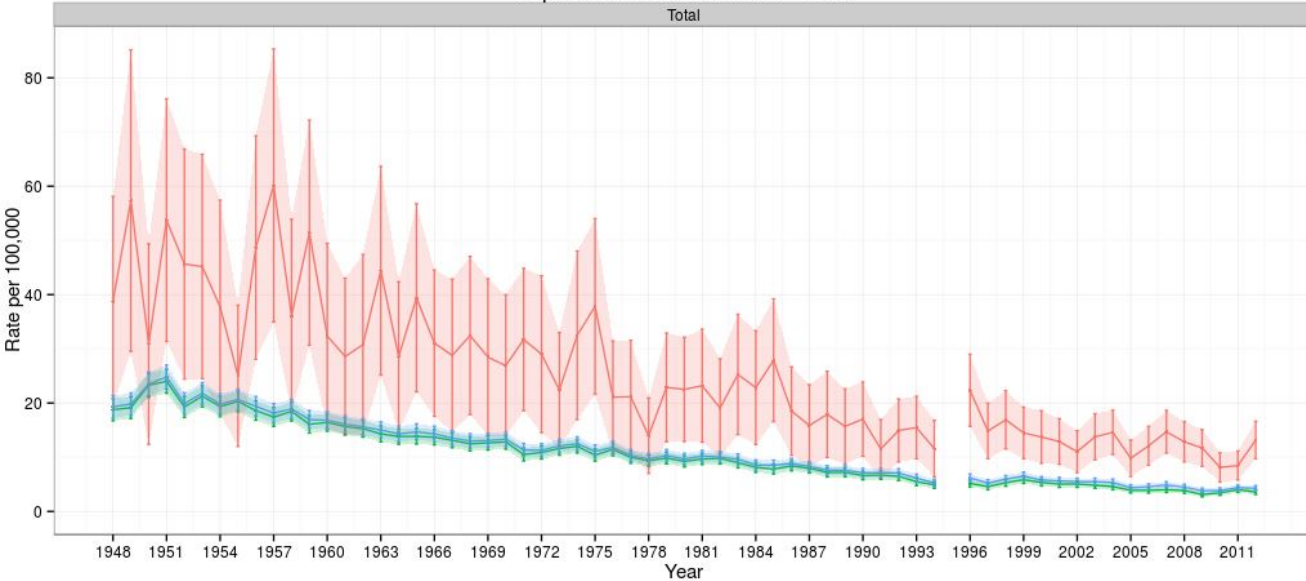


Select an option to increase accuracy:

None

# Population Outcomes Tool

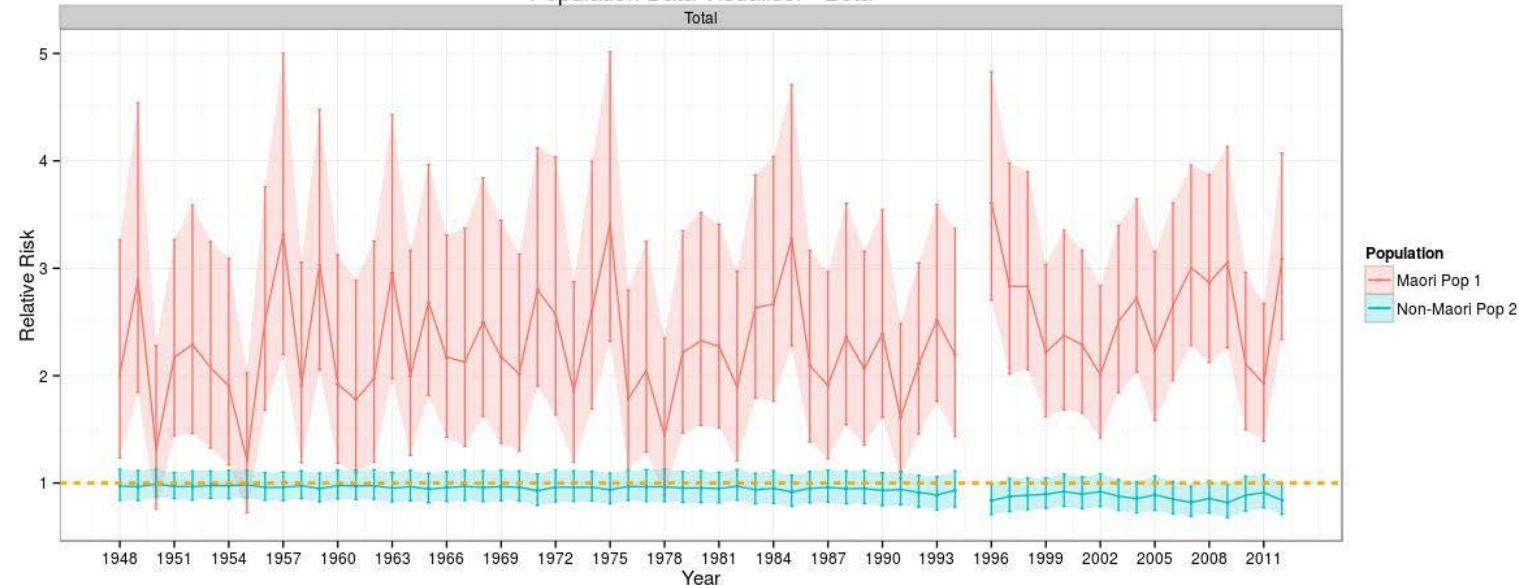
Population Data Visualiser - Beta



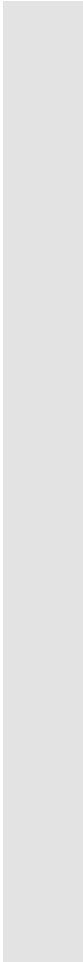

Statistically robust  
Rates with error margins

Statistically robust  
Population comparisons

Population Data Visualiser - Beta



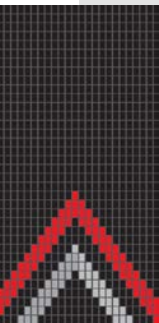
Project funded by



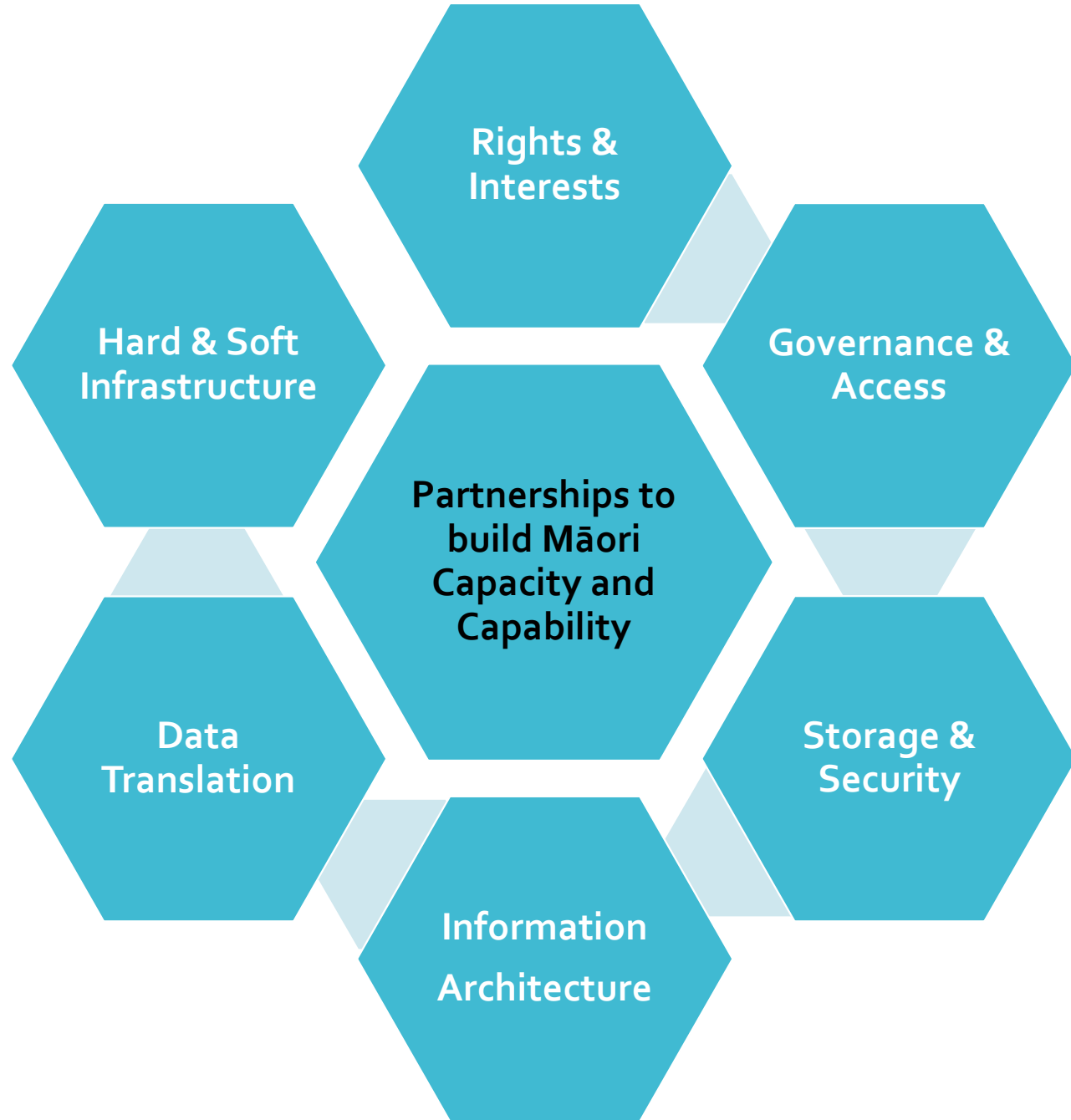
# **Section 4: Building a responsive Māori data Eco-system**

# Building Trust and Value for Maori

- How do we set up a system that recognises use of data as **dependent and dynamic**?
- How will Maori trust the system that **governs the use** of data? (managing risk)
- How will **Maori derive value** from the use of data? (realising benefits)



# Ideal Māori Data Ecosystem



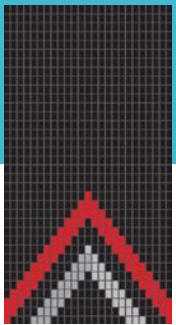
# Partnership: Mana-Mahi Framework

## Mana (Governance)

- Whanaungatanga
- Rangatiratanga
- Kotahitanga

## Mahi (Operations)

- Whakapapa
- Manaakitanga
- Kaitiakitanga



# Partnership in Action

**MANA**

**Tribal  
Leaders**

Tribal Leaders'  
Data Group +  
Technical Advisors

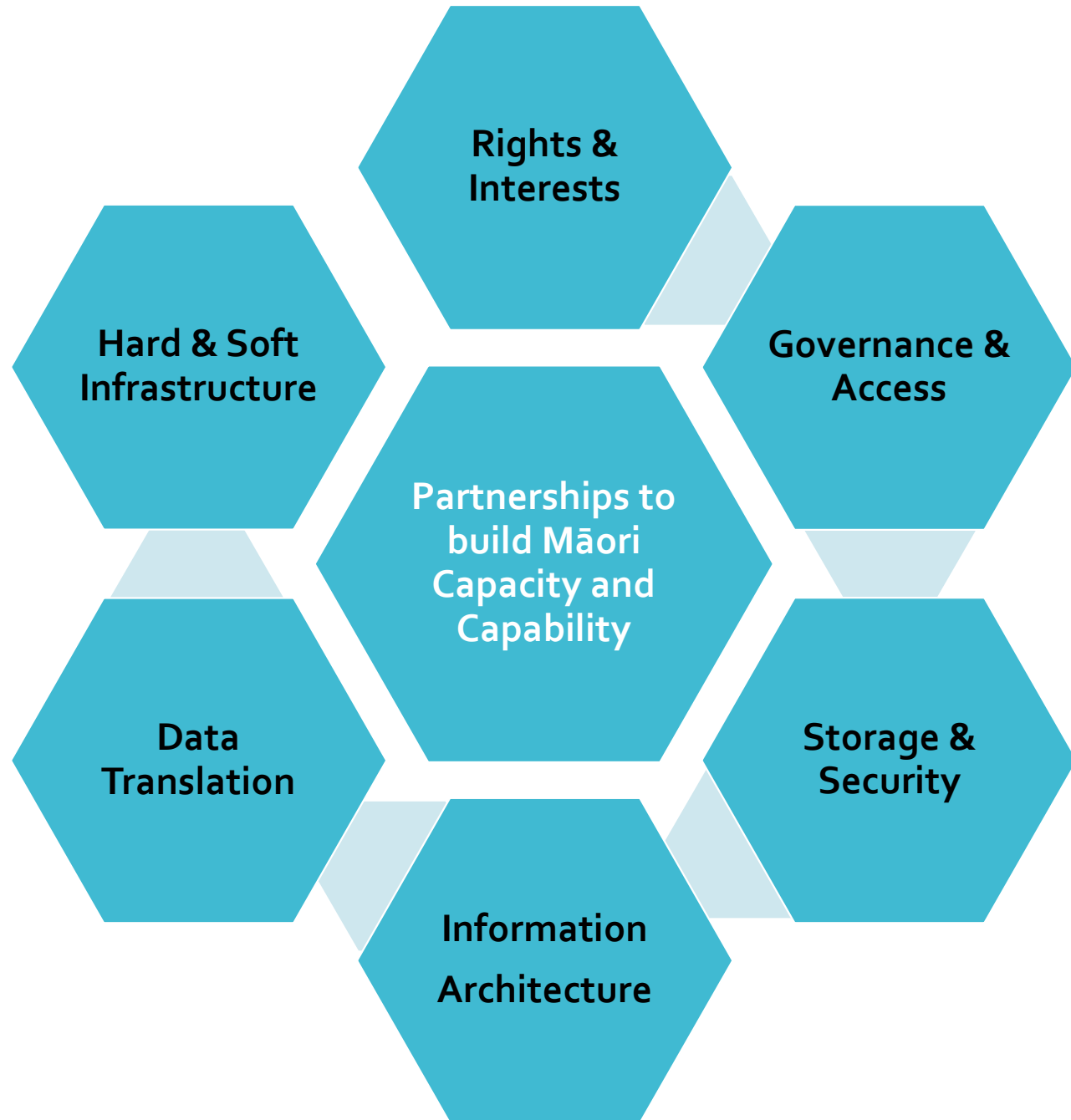
**MAHI**

**Te Mana  
Rauranga**

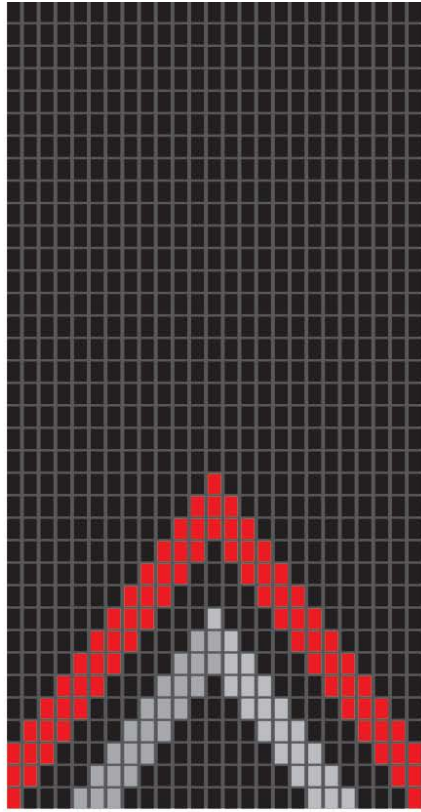
**Government  
Ministers**

**Government  
Agencies**

# Resourcing a Maori responsive Data Eco-system







# TE MANA RARAUNGA

Māori Data Sovereignty Network

**Advocating for the development of capacity and capability across the Māori data ecosystem including:**

- Data rights and interests
- Data governance
- Data storage and security
- Data access and control

<http://www.tmr.māori.nz/>