



REFRAMING DATA AS A TAONGA

A MĀORI DATA SOVEREIGNTY FRAMEWORK

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DISCLAIMER

This framework is intended for multiple audiences, and because of this, it is written broadly. It is written for hau kāinga first and foremost, as it was designed to protect their data in the Predator Free 2050 System. However, a secondary audience is research organisations, government, and crown departments to provide them with a good way of engaging with community. We believe that for this framework to be put to its best use, the ideas encompassed in it must be taken and tailored to your own context.

We are also aware that this framework does not exist in a silo and that other frameworks advocating for Māori data sovereignty exist and are doing excellent jobs (the frameworks from Te Mana Raraunga and Te Kahui Raraunga are good examples of this). Therefore, we encourage you to take what you need from this framework, change the language to suit your context, and, ultimately, use it as a guide to either create a data sovereignty programme or bolster an existing one.

Although we use He Whakaputanga (the Declaration of Independence), Te Tiriti o Waitangi (the Treaty of Waitangi), and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) as backings to create this framework, you are also welcome to include additional documents that you think would help boost your ability to protect data (the Mataatua Declaration is one you may consider including and there are plenty of Indigenous scholars who have done good work on data sovereignty). We chose our foundations to keep the document simple, accessible, and applicable but strongly encourage you to build on those foundations to suit your context.

In summary, please take this framework and make it yours. It is meant to be flexible and used bit-by-bit if need be. Let the ideas guide you to what you need and what is best for the hau kāinga you are working with.

REFRAMING DATA AS A TAONGA IN TE AO MĀORI

Data as a Taonga & Colonial Data Systems

In te ao Māori, te ao tūpuna, data is more than just information—it is a taonga intrinsically linked to whakapapa, hence the ethos of identity and the sacred roles of kaitiaki of their hapū and hau kāinga* rohe and the creation, taiao. As a result, tangata whenua have a duty of custodianship that is passed down through the generations to care for their hapū rohe. This care of duty extends to all data and mātauranga that describes their worldview. Thus, the collection of, access to, protection of and utilisation of data and Mātauranga is a sovereign responsibility affirmed in Article 2 of he Whakaputanga o te Rangatiratanga o Nu Tireni and reaffirmed in Article 2 of Te Tiriti o Waitangi. These two documents recognise and guarantee rights and responsibilities as Rangatira pertaining to all data and Mātauranga and set the precedent for the framework contained in this document.

For tangata whenua, data is a reflection of identity and a manifestation of relationships and responsibilities. Every piece of data created or collected is inherently unique and sovereign, tied to the individual, the whānau, the hapū and their connection to the environment and that connection is pivotal. Unsurprisingly, this approach fundamentally differs from the utilitarian view of data in colonial systems. In te ao Māori, data collection is driven by the need to sustain and enhance these relationships and fulfil the role of kaitiaki - a duty that is governed by a whakapapa link.

Modern data systems, however, are often deeply embedded in colonial paradigms. These systems tend to prioritise capitalist goals—enhancing productivity, gaining insights into behaviours, monitoring activities, and ultimately, generating profit. This fundamentally contrasts with te ao Māori, where data is seen and used through the lens of tikanga, and relationships with the environment. This means that data becomes integral to the identity and roles of tangata whenua as kaitiaki, rangatira, and tohunga of te taiao (the Creation).

Colonial data frameworks, by design, frequently marginalise tangata whenua perspectives and deny them sovereignty over their taonga. However, Māori are often compelled to adopt these systems, which fail to honour their unique worldviews and suppress their ability to express their identity and sovereign custodial responsibilities. This framework intends to offer a pathway to give hapori an alternative to these systems. Specifically, one that achieves Māori data

^{*}Hau kāinga and community are used as synonyms in this framework.

sovereignty at a community level, enabling Māori to exercise their responsibilities in environmental protection while, at the same time, shifting power away from institutions.

Shifting Towards Data Sovereignty - A Māori Data Sovereignty Framework

The goal of the framework that follows is to transform existing colonial data systems into ones that respect and uphold data and mātauranga sovereignty. It seeks to restore and revitalise the authority and decision-making power over data and mātauranga to tangata whenua, allowing them to exercise their roles as protectors of the creation and stewards of their cultural heritage.

To achieve this (Māori data sovereignty) at a hapū and hau kāinga (local people of the marae) community level, the framework outlines a path that shifts responsibility back to hau kāinga collectives. This involves recognising and honouring the unique ways in which hau kāinga collectives collect, store, and use data, grounded in their tikanga kawa and whakapapa relationships. Additionally, it provides a model for external entities to genuinely partner with Hau Kāinga collectives, respecting their sovereignty and supporting their stewardship roles. Through this framework, we can build a data system that not only honours a tangata whenua worldview but also enables meaningful partnerships that respect and uphold the sovereignty of tangata whenua, data and mātauranga.

Origins and Purpose of the Framework

This framework has been crafted with the generous support and funding from the Department of Conservation (DOC), particularly through the Predator Free 2050 (PF2050) Mātauranga Māori project funding. It is designed to empower Māori communities engaging with the PF2050 initiative by providing a robust structure to safeguard Māori data sovereignty within both individual and broader system-wide projects.

Guidance and Adaptability for Communities - The framework is meant to serve as a guide for communities interacting with the PF2050 system and for any participants within it. It presents a collection of concepts, tools, and philosophies in the form of templates that can be adapted to fit the unique contexts of different hau kāinga communities.

We encourage communities to take these templates and modify them—whether it's adjusting terms, words, or clauses—to ensure they resonate with and are relevant to their specific situations. While the tools provided can be used as they are, we strongly recommend tailoring them to meet the precise needs and circumstances of

each hau kāinga collective. This adaptability is what makes the framework most effective. Moreover, we envision this framework and its tools extending beyond the PF2050 context. It is designed to be a versatile guide applicable to any program, project, or initiative that involves data - environmental or otherwise. The core principles of data sovereignty upheld in this framework are universally relevant. Whenever data is involved—and it almost always is—Māori have the inherent right to govern and control it. This framework contains universal applicability of these sovereignty principles, advocating for the rightful management and protection of data across all sectors and subject matter.

Goals of the Framework

Empowering Māori Data Sovereignty - The foremost goal of this framework is to provide a clear, actionable guide for the meaningful expression of Māori data sovereignty within any given project. We envision this framework as a catalyst for shifting decision-making power over data away from researchers and institutions and placing it firmly into the hands of Māori communities. Achieving this goal means driving systemic change in how data is conceptualised, collected, used, and stored—reorienting these processes to honour Māori sovereignty and values.

Embedding Tikanga-Based Processes - A secondary objective of this framework is to illustrate that data, along with its analysis, and the resulting insights emerges from processes deeply rooted in tikanga handed down and tested across many generations. Without this foundation, the respect for sovereignty over data cannot be genuinely upheld. The process outlined in this framework aims to ensure that data serves as a vehicle for expressing both hapū and whānau collective identities in a way that is inherently sovereign and culturally aligned.

Assumptions Underpinning the Framework

To fully grasp the principles and structure of this framework, it is crucial to understand several foundational assumptions that have guided its development:

It is a starting point for communities

This framework is crafted for communities who are at the early stages of their data sovereignty journey. However, we also know, acknowledge and celebrate that numerous communities across Aotearoa have already made significant strides in establishing data sovereignty processes. Therefore, this framework is designed to be adaptable, allowing communities to engage with it at any point in their journey. Communities should be able to identify their current stage in the data sovereignty

process and selectively use the templates and tools provided to enhance their existing procedures. This includes integrating parts or all of these tools into their own templates or agreements as needed.

Foundational Documents and Legal Backing

The framework is built on the foundational principles outlined in He Whakaputanga (the Declaration of Independence), Te Tiriti o Waitangi (the Treaty of Waitangi), and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). The use of UNDRIP in this sovereign process is deliberate, as it aligns but does not depend on, a global network of Indigenous sovereign movements around the world. These documents all underpin the moral justification for Māori sovereignty over data and form the core of the framework. While we assume familiarity with these key documents, we have included references to them for further exploration and understanding.

Community Capacity and External Support

We recognise that the capacity communities have to implement the processes recommended in this framework may vary. While the framework assumes a certain level of capacity and resourcing within communities to lead and control these processes, we also acknowledge the need for support from external parties (e.g., researchers, the Crown, institutions). These external entities should contribute significantly to the capacity and resource-building efforts, ensuring that hau kāinga communities are not solely burdened with the work. Communities are expected to have authority and control over the processes, but the execution should be a collaborative effort, respecting the sovereignty and resource limitations of Māori.

Intended Audiences for the Framework

This framework is primarily designed for Māori communities. Its core purpose is to equip these communities with the necessary tools to assert, exercise and maintain data sovereignty. This focus is not only reflected in the goals we have outlined but also deeply embedded in every stage of the process described herein. It emphasises that the position of power should reside within the community, rather than with institutions, the Crown, or researchers. By doing so, it underscores how data sovereignty can be a crucial expression of Māori identity and self-determination in Aotearoa.

Additionally, this framework serves as a guide for the Crown, institutions, and researchers, including those involved in the PF2050 system. It delineates the

processes they must adhere to in order to honour their responsibilities as Tangata Tiriti (people of the Treaty). This framework sets out the minimum standards they need to meet when engaging with Māori communities on any project involving data. It is intended to provide clear guidance for those who may be unfamiliar with or new to working with Māori data, ensuring that their interactions respect and uphold Māori data sovereignty.

How the Framework was Conceived

At a high level, the purpose of this project was focused on enabling Māori organisations engaged in the PF2050 program to maintain kaitiakitanga of the data and mātauranga required for the program. In reality, the abstract purpose manifested itself following some heavy lifting in the following areas:

- A series of interviews with four case study areas from the far north to the bottom of the country; a deep dive into several key areas that informed the final documentation
- Two wānanga with case study kaitiaki
- Consultation with kaumātua
- Peer review of the key document
- Consultation with the ethics committee of Te Tira Whakamātaki (TTW)

First, it was important to define 'data' in te reo terminology and then render this into English rather than the other way around (refer to the paragraph on the definition of data). Aligned with this was the prevailing ethos of Kaitiakitanga that was issued from the interviews; both formed the backbone of the pathway forward.

Analysis & Process - Once the interview data was rendered down to some fundamental premises, this was followed by intense research into the following areas: Equity and Trusts; the role of doctrines, principles and their application; how tikanga and kawa work in the abstract and reality; constitutions; common law; Te Tiriti o Waitangi and He Wakaputanga; a legal personality and obligations per the law, a sovereign personality and obligations to the kaitiakitanga ethos. This led to the creation of all the documentation contained herein, moreover, it led to the creation of a Kāhui Rangatira instantiated by a Council Order (Tuhi Rangi); in other words, a sovereign responsibility versus a legal responsibility, required by the fundamental premise that tangata whenua have a kaitiakitanga ethic to observe with the taiao.

The first version of the Tuhi Rangi and Kāhui Rangatira was sent out for peer review to six smart, connected and well-informed knowledgeable people. Once all comments were received, this was followed up with the first of two wānanga with the four case study participants, the kaitiaki kōrero, to refine the premise of the Tuhi Rangi. This was followed by review by the Ethics Committee of TTW. This process was followed by consultation with three Kaumātua, from three different regions who were not related to the project, but who displayed an interest in the idea of a Kāhui Rangatira. One was at a hapū papakāinga level, one kaumatua was at the public service level, the other kaumatua was at the iwi level.

Several versions of the framework later, the second wānanga for Kaitiaki kōrero was convened, taking into consideration the choice of words (English) and the support of the premise of all the documentation. This was then followed with a te reo rangatira version of the Tuhi Rangi. The term Tuhi Rangi was chosen on purpose as a reflection of a 'living document'. The Tuhi Rangi is founded on the ethos of sovereignty found in article 2 of He Wakaputanga o te Rangatiratanga o Nu Tireni, and article 2 of Te Tiriti o Waitangi. This will enable the kaitiakitanga ethos of tangata whenua engaged in the PF2050 program to flourish and grow beyond 2050.

What Do We Mean When We Say 'Data'?

Throughout this framework, we often use the word 'data' and because it is fundamentally different in a colonial perspective, it is important to define for this context because the entire framework is built on a sovereign way of thinking and acting towards data.

Data then, in this project, is defined as an expression and extension of identity as/for tangata whenua, mana whenua, kaitiaki whenua, and rangatira whenua. It embraces all data that defines an explicit (physical) and implicit (metaphysical) relationship and connection between tangata and whenua, mana and whenua, kaitiaki and whenua, and rangatira and whenua (Marsden, 2003). It encompasses the connection and relationship to the sentient ethos of all living beings in the taiao (Marsden, 2003), including, but not limited to, all bodies of water, trees, plants, animals, birds, all foods, and rongoā (Mark et al., 2017); and all things that regulate the ebb and flow of the taiao, such as the Maramataka (Makiha et al., 2023). It also includes a relationship to all mountains, hills, sacred sites, sites of cultural and ritual significance, cloud formations, stars, the rain, and the sun (Wakefield et al., 2006).

This interconnectedness between tangata and all elements of the taiao is deeply rooted in the belief that all living beings, including tangata, are essential elements of the Creation, and derive their whakapapa, mana, wairua, and tapu from the Creator,

known as Io in Māori lore (Marsden, 2003). Each has a vital role in the balance and harmony of the taiao. Thus, the interconnectedness of all things generates a responsibility as kaitiaki and stewards towards the taiao and all living beings therein (Marsden, 2003). Therefore, it is incumbent upon current kaitiaki to protect and care for the taiao and all living beings within, for those who are yet to come.

Hence, data is an expression of sovereignty (West, 2022). It is a collective and intergenerational resource that plays a vital role in the sovereign expression and extension of identity for tangata whenua and their descendants. It is a taonga (Article 2, Te Tiriti) that allows us to understand the intimate connections between all living beings and the Taiao, providing us with valuable knowledge to fulfil our role as kaitiaki (Marsden, 2003). The protection of data as a storied taonga requires careful consideration of collection methods, maintenance, stewardship, standards, storage, access to, and sharing across the project platform.

The Components of the Framework – What is it made of?

The framework consists of a community-based governance body and four supporting tools. Each component is complimentary to one another and is built to enable the sovereignty described within He Whakaputanga and reinforced by Te Tiriti o Waitangi and UNDRIP. Templates of each of these components can be found on the **TTW Website**, but their individual roles are described below. How they work together to form a 'framework' is described immediately after that.

KĀHUI RANGATIRA: Central Pillar of Data Governance and Accountability - The Kāhui Rangatira forms the heart of the governance structure within this framework, serving as the central decision-making body for all matters related to data in projects under hau kāinga jurisdiction. Comprised of respected leaders from the community, the Kāhui Rangatira is entrusted with the crucial role of upholding data sovereignty throughout every phase of the process.

Guided by the principles enshrined in UNDRIP, Te Tiriti o Waitangi (the Treaty of Waitangi), and He Wakaputanga o te Rangatiratanga o Nu Tireni (the Declaration of Independence), as interpreted and understood by the community, the Kāhui Rangatira acts as the custodian of all forms of data and mātauranga. They recognise these elements as living expressions of Hau Kāinga identity, culture, and connection to ancestral landscapes.

Key Responsibilities and Authority of the Kāhui Rangatira - In this framework, the Kāhui Rangatira has the authority to set the terms for data collection, storage, and usage, ensuring that these terms are aligned with the community's values and needs, rather than those imposed by external researchers, institutions, or governments.

They bear the responsibility of ensuring that the data rights of individuals within the community are respected and protected. Furthermore, they ensure that the benefits of any project blow back to the community and hold external entities accountable for their actions.

Establishing the Kāhui Rangatira: The Tuhi Rangi - To guide the establishment and operation of the Kāhui Rangatira, we have provided a template called the Council Order, or Tuhi Rangi, found **here** (note that we recommend using a te reo Māori version of this document, which is found **here**). **This is what makes this framework unique or different from others**, as it outlines six guiding articles we see as essential for the formation and function of the group. These articles detail the foundational authority under which the group is formed (such as He Whakaputanga), offer examples of a vision and purpose for the group, and suggest operational guidelines for data governance.

Guiding Principles for Data Governance - The template includes example data principles designed to steer the decision-making of the Kāhui Rangatira. These principles are rooted in the commitments established under Te Tiriti o Waitangi and He Wakaputanga o te Rangatiratanga o Nu Tireni. They encompass key aspects such as:

- **Data Collection:** Ensuring that data gathering processes respect the cultural context and rights of the community.
- **Data Storage**: Safeguarding data to protect its integrity and the community's control over it.
- Data Access: Regulating who can access data and under what conditions, in line with community preferences.
- Data Sharing: Outlining how and with whom data can be shared,
 maintaining sovereignty and consent.
- **Data Integrity**: Upholding the quality and accuracy of data to reflect the true values and realities of the community.

Through these commitments, the Kāhui Rangatira ensures that data governance not only meets sovereign standards but also aligns with the cultural and ethical values of the community it serves. Additional key principles to ensure data sovereignty contained in the Tuhi Rangi template include:

- Sovereignty over Data and Mātauranga: All data and mātauranga related to hau kāinga collectives shall be governed by the Kāhui Rangatira, in close consultation with the hau kāinga community for the specific project at hand. This principle ensures that the control and decision-making regarding data and mātauranga remain firmly within the community, respecting their unique insights and needs.
- **Kaitiakitanga**: Stewardship and governance of data and mātauranga shall be guided by the principle of kaitiakitanga, emphasising stewardship that benefits the taiao, tāngata (the people), and mokopuna (future generations). This stewardship approach ensures that data practices align with the community's commitment to caring for their environment and people, ensuring sustainable and longterm benefits.
- Tino Rangatiratanga: The Kāhui Rangatira advocates for Tino Rangatiratanga, reflecting the community's right to self-determination and autonomy in all aspects of data and mātauranga management. This includes the collection, management, architecture, transfer, storage, creation, and use of data, as defined by the Kāhui Rangatira. This principle empowers the community to maintain full control over their data processes and practices and is backed by He Whakaputanga, Te Tiriti o Waitangi, and UNDRIP.
- Taonga Tuku Iho: All data and mātauranga shall be regarded as taonga and must be protected, shared, and used in a manner that respects their cultural significance, origins, and potential benefits. This involves ensuring that data is used for its intended purpose and that its use recognises and upholds the sovereignty and heritage of the community from which it originates.

Sample Policies for Data and Mātauranga Access and Sharing in the Tuhi Rangi

The Tuhi Rangi also provides sample policies for data and mātauranga access and sharing, which communities are encouraged to adapt to their specific contexts. These policies include:

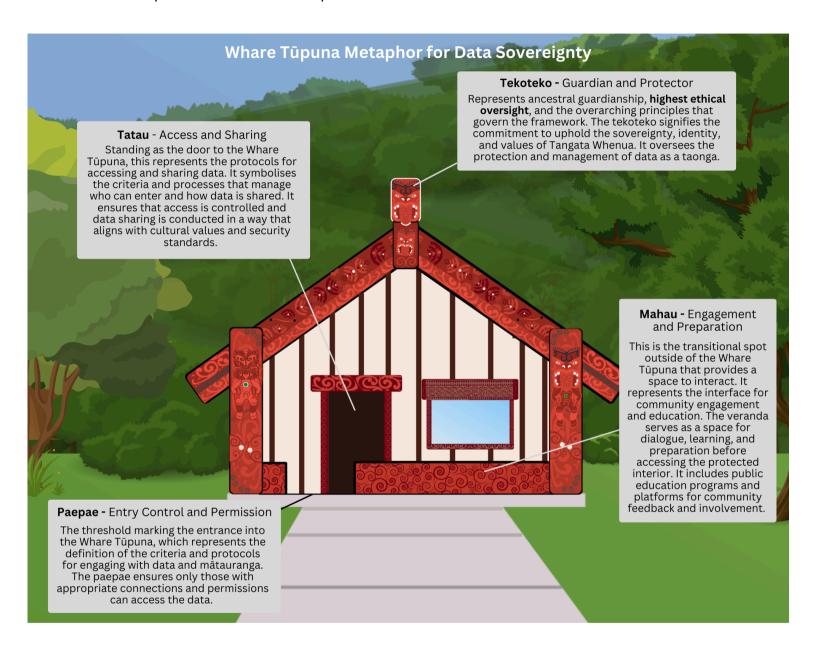
- Data consent and approval processes that outline clear procedures for obtaining consent and approval for data collection and use, ensuring that all actions are transparent and agreed upon by the community.
- A policy on data transparency and mutual benefit, which establish guidelines to ensure that data practices are transparent and that the benefits of data use are shared equitably with the community.
- Cultural sensitivity and protection, which is about implementing policies to protect the cultural integrity of data and mātauranga, respecting its significance and the values of the community.
- Wording on equitable access and capacity building, which promote
 policies that ensure fair access to data and resources and support
 capacity building within the community to manage and utilise their
 data effectively.
- A policy on monitoring and compliance, which helps set up mechanisms to monitor data practices and ensure compliance with the established principles and policies, safeguarding the community's sovereignty over their data.

As with all aspects of this framework, it is essential to tailor these principles and policies to your community's specific context. You may already have a Kāhui (council or governance body) responsible for data or one that could be adapted to include these responsibilities. Regardless of how they are established, the governance bodies are crucial for upholding data sovereignty and ensuring that data practices reflect and respect the community's values and rights.

The Whare Tupuna Metaphor: Components for Data, Mātauranga Protection and Management

These principles and policies do not act in silos, meaning they are constantly interacting with one another to prop up data sovereignty. Therefore, they should be thought of as a set of components that each play their own role to create a system of data sovereignty. To assist users of the framework in seeing how this may happen, we have created a diagram that show how these principles and best practices are comparable to the parts of a Whare Tūpuna (ancestral house; Wharenui), all of which need to be in place for the process to work. We believe that most readers of this

framework will have visited or are a part of a marae with a Whare Tūpuna. It is our hope that mapping the components of the Kahui Rangatira and Tuhi Rangi onto the different parts of the Whare Tūpuna can make it more concrete and relevant.



Beginning on the outside of the Whare Tūpuna, the first component is the tekoteko. Located at the top of the whare, this usually represents guardianship, protection, and is the highest source ethical oversight. In the framework, the tekoteko represents the commitment to uphold sovereignty, identity, and values of tangata whenua by all parties involved (enforced by the Kāhui Rangatira). The tekoteko oversees the protection and management of data as a taonga and represents the ancestral right for guardianship and protection of the principles that guide this framework.

Next is the entry way to the Whare Tūpuna, more specifically the boundary to the area before entry inside, called the paepae. Crossing this threshold is only done by those who have the appropriate permissions to do so, which translates into this framework as the criteria and protocols for engaging with data and mātauranga defined by the Kāhui Rangatira and hau kāinga. This can only be crossed by those who have the appropriate connections and permissions to access the data (i.e., those with whakapapa and the right of kaitiakitanga).

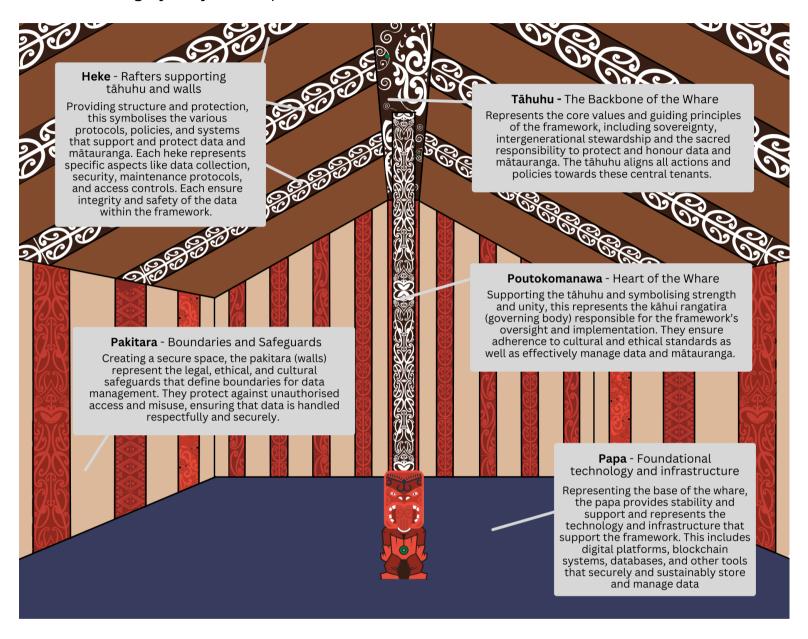
Moving past the paepae is the next symbolisation of the framework – the mahau. This is the veranda space past the paepae but before you enter inside the Whare Tūpuna. The mahau provides shelter and a space to interact with hau kāinga, which represents a space for community engagement and education on the project in the framework. It is intended to represent the need for dialogue, learning, and preparation before accessing the protected interior of the whare (i.e., before accessing data). The mahau also includes spots for public education programs, platforms for community feedback, and involvement.

The final exterior part to the metaphor is the door to the Whare Tūpuna, or the tatau. Physically and metaphorically, this allows access to the interior of the whare and, in the case of this framework, access to the remainder of the process necessary to collect, store, and use data. It represents the protocols set by the Kāhui Rangatira for accessing and sharing data and symbolises the criteria and processes that manage who can enter, how data is shared, and what is allowed to 'leave' the whare. The tatau ensures that access to data is controlled and shared in a way that aligns with cultural values and security standards.

Moving inside the Whare Tūpuna (after entry, engagement preparation, and permission to access have been given), the core values and guiding principles of the framework are represented by the tāhuhu. In the Whare Tūpuna, this is the backbone of the whare that supports the entire structure. Without it, the whare would fail, as would a project and sovereignty if the sacred responsibility to protect and honor data and mātauranga is ignored.

To help prop up the tāhuhu, a poutokomanawa is used. This is usually a supporting pillar(s) in the Whare Tūpuna and is referred to as the heart of the whare and symbolises strength and unity. In the framework, this is represented by the Kāhui Rangatira, or the chief governing body for the data. They are responsible for the oversight and implementation of data sovereignty as well as ensuring adherence to cultural and ethical standards. They help effectively manage data and mātauranga within a project and metaphorically align with the policies and actions the tāhuhu

represents. Both work in unison and, without one component, the house (data sovereignty) may be compromised.



Staying on the roof of the Whare Tūpuna, the next component is the heke or the rafters that support the tāhuhu and walls (pakitara). Providing structure and protection, each heke represents various policies, protocols, and systems intended to protect data and mātauranga. Many examples of these are contained in the Tuhi Rangi, but can be things like data collection policies, security of data, maintenance protocols, and access controls. Each ensure the integrity and safety of the data within the framework, just as heke ensure the safety and security (shelter) of the Whare Tūpuna.

Next are the physical walls of the whare, called the pakitara. Metaphorically, the pakitara create a secure, enclosed space and are representations of the legal,

ethical, and cultural safeguards that define boundaries for data management. These are enacted and enforced by the Kāhui Rangatira and sampled in the Tuhi Rangi. The pakitara also help protect data from any outside or unauthorised access and misuse, ensuring that the data is handled respectfully and securely via the paepae and tatau mechanisms described earlier. They ensure that there is only one entry point to access data and that it is through the tikanga governing the use of the Whare Tūpuna (the Kāhui Rangatira in this framework).

The last component representing the policies and principles in the Tuhi Rangi is the floor or base of the Whare Tūpuna. This is called the papa, and it represents the foundational technology and infrastructure that supports data sovereignty. It provides stability and support for the elements of the framework and can include things like digital platforms, blockchain systems, databases, and other tools that help securely and sustainably store and manage data.

When taken together, it is easier to see how the various components of the Whare Tūpuna can represent separate, yet vitally interconnected, parts of the data sovereignty framework. Each play their own role, but are all in place to ensure that cultural protocols are in place to guarantee sovereignty and the expression of hau kāinga identity. Larger versions of these diagrams can be downloaded here.

The Remaining Components of the Tuhi Rangi

To further assist the Kāhui Rangatira to implement this framework, the Tuhi Rangi also contains descriptions of the scope of the data, how interconnectedness plays a role in data sovereignty, and how data is represented as sovereignty.

The Scope of Data - The scope of data should encompass all relationships, meaning data includes both explicit (physical) and implicit (metaphysical) relationships and connections between tangata whenua and the land (whenua). This covers all elements of the taiao such as all bodies of water, trees, plants, animals, birds, foods, and traditional healing practices (rongoā).

It should also be regulated by natural rhythms. This includes elements that regulate natural cycles like the maramataka, and extends to geographical and celestial features like mountains, sacred sites, stars, sun, wind, rain and weather patterns.

Interconnectedness - Data and sovereignty are rooted in whakapapa. Therefore, the framework acknowledges that all living beings, including tangata, derive their whakapapa, mana, wairua, and tapu from Io (the Creator), forming an integral part of

the Creation. This leads to concepts of balance and harmony, which emphasises the essential role of all beings in maintaining the balance and harmony of the taiao, and the responsibility of current kaitiaki to protect and care for the Taiao and its inhabitants. All of this is enabled by this data expression and sovereignty.

Data as Sovereignty - As stated, data should be treated as an expression of identity. Therefore, the Tuhi Rangi advocates that data is a vital resource for expressing and extending the identity and sovereignty of tangata whenua. It is a taonga that facilitates understanding the intimate connections within the taiao and supports the role of kaitiaki. Logically, that data needs to be protected and stewarded. The Tuhi Rangi template outlines conditions that ensure careful consideration in the collection, maintenance, and stewardship of data, reflecting its status as a storied taonga. This includes robust standards for storage, access, and sharing.

Additional Parts of the Framework

Data Sharing Agreement (Supporting Tool) - One of the first responsibilities the Kāhui Rangatira will have is to create a data sharing agreement. To be clear, this agreement should be dictated and written by the Kāhui Rangatira as opposed to being presented one by external project leaders. To assist with this, we have provided a template of what this could look like here (one specifically designed for a PF2050 initiative). It recognises the articles contained in the Tuhi Rangi and helps set out the 'rules of data engagement' between the researcher, institution, and or Crown with the community and is based on components of He Whakaputanga, Te Tiriti o Waitangi, and UNDRIP.

We recommend that the project does not proceed without a data agreement like this in place at the start. We also view it as an opportunity for community, specifically the Kāhui Rangatira, to demand authority over data and dictate processes so it remains sovereign. This document will be a failsafe should people or the data be misused or disrespected.

Research Information Sheet (Supporting Tool) - Once the Kāhui Rangatira and data sharing agreement are in place, the next tool in this framework is called a research information sheet. This document is intended for the researchers, organisation, and or Crown to use when they are approaching individual community members for data (note that the Kāhui Rangatira would have allowed this to take place through their Tuhi Rangi, rules of engagement, and the work of the data sharing agreement). It contains an introduction to the research, the agreements made in the data sharing agreement, and a commitment to uphold their rights as mana whenua and participants. An example of this can be seen here. This document is the first point of

contact between the external party and sovereign individuals supplying data, meaning it is important it contains the right information describing the project, its benefits, and the data rights participants have.

Consent Form (Supporting Tool) - Alongside the research information sheet, a consent form should be used when reaching out to individual participants or at the start of any data collection. This document outlines all the terms, protections, and procedures when interacting with an individual's sovereign data, including how it will be handled, stored, and used. Unique for this framework, it also outlines how the researcher(s) will uphold He Whakaputanga, Te Tiriti o Waitangi, and mātauranga from hapū, iwi and hapori. This consent form is as much about how the researcher commits to upholding the principles of data sovereignty, as defined by the data sharing agreement and enforced by the Kāhui Rangatira, as it is about getting permissions from individuals. This framework is built on the assumption that individuals' have sovereignty over their own data and have the rights to choose when and if they share that data and the consent form can be used to start enacting that process in a transparent, consistent, and grounded way and provide protection to all parties. A template of a consent form can be found here.

Non-Disclosure Agreement (Supporting Tool) - The final tool in the framework is a non-disclosure agreement, which was created to provide protection to both individual community members and the external party. This document sets out the terms for confidentiality on behalf of the researcher, including what is and is not considered confidential (as defined by the data sharing agreement, Kāhui Rangatira, and individual participant). It also outlines how long data will be kept, how it will be used, and where it will be protected. Ultimately, however, this non-disclosure agreement is a legal reason for the external party to not disclose any information on the research project when they are asked by outside sources. It also bounds them to the participant via the data sharing agreement to maintain that confidentiality until an agreed upon time. This document is an important reassurance for the researcher and protection for the one giving the data. An example of this form can be found here.

How the Framework Components Work Together

While each component of this framework can be used independently, they are designed to function cohesively as a comprehensive suite to facilitate the enactment of Māori data sovereignty. To illustrate this integrative process, we have developed a diagram that outlines the implementation pathway from start to finish. This visual guide serves to underscore the critical importance of process, procedure, and data tikanga for researchers, institutions, and the Crown. Additionally, it offers a

practical implementation roadmap for communities that may be new to the principles of data sovereignty.

Emphasising Process, Relationships, and Trust - Central to this suite of resources is the understanding that Māori data sovereignty is a process deeply interwoven with relationships, tikanga, and trust. For tangata whenua, data is more than a by-product of research; it is a profound expression of identity: both individual and collective. The diagram highlights how this plays out in practice, establishing clear expectations for the capacity and resources needed at each stage.

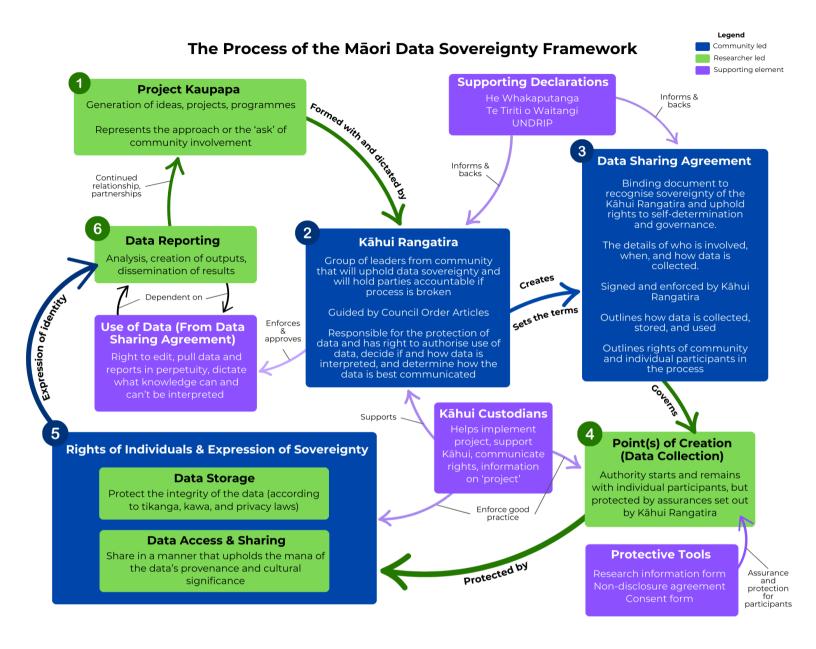
For hau kāinga collectives that already have elements of this framework in place, such as a Kāhui Rangatira, the diagram serves as a tool to enhance and expand their existing data sovereignty measures. For example, if you already have a functioning Kāhui Rangatira, you might focus on developing or strengthening your data sharing agreements using the templates provided in this framework.

Framework Flow and Partnership Dynamics

The diagram uses color-coded boxes to differentiate the roles and responsibilities within the process:

- Green Boxes: Represent tasks typically led by researchers.
- Blue Boxes: Denote activities that should be led by the community.
- Purple Boxes: Indicate supporting elements that facilitate the process, ensuring smooth progression and balance between parties.

These colours are intentionally chosen to reflect the principle that the community should retain the majority of control and authority, while external parties are responsible for contributing their share of capacity and support. This approach aims to maximise Hau Kāinga empowerment while clearly delineating the roles of external entities. The diagram is explained in detail in the following paragraphs, but it is displayed below so the reader can follow along with the description. **A larger version can also be downloaded here.**



We emphasise that the provided process is a general guide meant to be adapted to suit your specific circumstances. The framework's flexibility allows it to be customised to fit the unique context and needs of the Hau Kāinga. Whether you are beginning your journey toward data sovereignty or looking to refine and enhance existing practices, this process offers the tools and guidance necessary to navigate the complexities of data governance and sovereignty effectively. By following the outlined flow and adapting it as needed, communities can ensure that their data practices are rooted in tikanga, foster strong relationships, and build trust, ultimately supporting the enduring expression of sovereignty and identity.

From Idea to Implementation: The Framework's Flow

The journey of implementing the framework begins with the conception of a project, program, or initiative, represented in the top left corner of our diagram and labelled '1'. This initial step often originates from an external party—such as researchers—seeking community involvement. Although the project idea may come from outside, we advocate for the community to shape and define the final Kaupapa and the approach to data handling, ensuring that it aligns with their values, principles and needs.

Establishing the Kāhui Rangatira

The next step involves forming the Kāhui Rangatira if it has not already been established. This governance body, supported by declarations such as He Whakaputanga, Te Tiriti o Waitangi, and UNDRIP, serves as the sovereign and moral foundation for asserting sovereignty over data as a taonga. The Kāhui Rangatira, comprised of community leaders, will oversee the remaining process, ensuring accountability and upholding the community's sovereignty over data. They will have the ultimate authority on what data is collected, stored, used, and how it is interpreted. Appendix A provides more details on the formation and role of the Kāhui Custodians who assist in this process.

Creating the Data Sharing Agreement

Once the Kāhui Rangatira is established, they will collaborate with the external party to develop a data sharing agreement. This binding document acknowledges the sovereignty of the Kāhui Rangatira and supports Tino Rangatiratanga (article 2 of Te Tiriti) in data and mātauranga matters. It lays out the terms for data collection, storage, and usage, including specifics on who collects the data, when, and for what purpose. The agreement also specifies the rights of individual community members, the Kaitiaki Mātauranga, contributing data, covering aspects like intellectual property, compensation (koha), and the ability to revoke or amend data and its interpretations. This phase is crucial as it translates the principles guiding the Kāhui Rangatira into concrete terms for the project. At this stage, related documents such as research information forms, non-disclosure agreements, and consent forms should be drafted to reflect the terms agreed upon by the Kāhui Rangatira and the external party.

Data Collection: The Point of Creation

Following the agreement, the process moves to data collection, referred to as the 'point of creation' in the diagram. This stage is where data is voluntarily provided by sovereign individuals to the external party. The supporting documents created earlier—such as consent forms and non-disclosure agreements—should be utilised

here to ensure the integrity and consent of data collection. Sovereignty over the data remains with the individuals who provide it, giving them control over its use. While tracking this data throughout the project may be challenging for individuals, the Kāhui Rangatira takes on the responsibility of ensuring that the data is managed according to the agreed terms, maintaining its sovereign status throughout the process.

Role of Kāhui Custodians

To support the Kāhui Rangatira in safeguarding data, community members or project staff, referred to as Kāhui Custodians, play a vital role. These individuals act as the 'eyes and ears' of the Kāhui Rangatira, facilitating project implementation and ensuring that the rights and intentions of data contributors are respected. They oversee data collection, storage, and access, and handle requests from the external party on data use, guided by the terms set by the Kāhui Rangatira and the data agreement.

Data Protection and Integrity

As data collection progresses, the principles established earlier safeguard it, ensuring that it reflects both individual and community sovereignty. The community dictates how data is stored, accessed, and shared, thereby shaping the expression of their knowledge, ideas, and identity. The external party must adhere to these rules, with the Kāhui Rangatira ensuring that data integrity and privacy are maintained according to tikanga (customs), kawa (protocols), and privacy laws. If these standards are not met, individuals have the right to withdraw their data, preventing its use by the external party. This system of checks and balances is crucial for expressing and protecting data sovereignty.

Reporting and Output Creation

Once data collection concludes, the focus shifts to reporting and creating the agreed-upon outputs. Although the external party provides the capacity for these tasks, the Kāhui Rangatira ensures that data usage remains appropriate and respectful. They oversee what data is used and determine whether it is suitable to interpret the data and mātauranga. The Kāhui Rangatira approves the reporting process, and the external party must honour their decisions. After both parties approve the outputs, the cycle can continue with new projects or ideas, reflecting the dynamic and ongoing nature of data sovereignty.

Continuing the Cycle of Data Sovereignty

The framework illustrates that the process of data sovereignty is continuous, evolving with each project and the community's ongoing expression of identity. The Kāhui Rangatira and individuals retain rights to refuse, edit, and control the data

perpetually, as outlined in the data sharing agreement. This ongoing cycle underscores the living nature of data and the perpetual need to protect and express sovereignty over it.

What happens if the process is broken?

We recognise that complications can arise, and the processes within this framework must remain adaptable to evolving contexts. The governance structure of the Kāhui Rangatira provides the necessary flexibility to accommodate these changes. However, it is also important to acknowledge that, historically, colonial entities have often disrupted processes meant to safeguard Māori sovereignty. To address potential breaches—whether intentional or unintentional—we recommend that the Kāhui Rangatira establish a clear procedure to handle such situations. This procedure should be explicitly detailed in the data agreement and enforced by both the Kāhui Custodians and the Kāhui Rangatira. An example of such a procedure could include:

1. Issuing Breach Notices:

The Kāhui Rangatira should issue a formal notice to the external party indicating that they have breached the terms of the data agreement, thereby violating data sovereignty. This notice should include a specific timeline for compliance (e.g., within 7 days) and allow for a maximum of three warnings.

2. Escalating to Legal Action:

If the external party fails to comply after the allotted warnings, the Kāhui Rangatira should proceed with legal action based on the agreements signed. This step reinforces the serious commitment to upholding data sovereignty and ensures that breaches are addressed promptly and effectively.

Conclusion: A Pathway to Reclaiming Sovereignty

This framework represents a significant step toward reclaiming and reaffirming Māori control and authority over their data. By recognising data as an expression of identity and sovereignty, and embedding te ao Māori within data practices and in all the templates, it provides a clear pathway for hau kāinga to protect their taonga and

fulfil their responsibilities as kaitiaki.

At its core, this framework challenges the colonial foundations of current data systems, advocating for a fundamental shift in taiao responsibility to hau kāinga collectives. It provides a way to ensure that data collection, storage, and use are aligned with sovereign values, tikanga relationships, and identities, all inherently connected to the taiao.

Beyond being a set of guidelines, this framework is a call for systemic change. It emphasises the crucial role of process and relationships in achieving true data sovereignty. The governance structure of the Kāhui Rangatira, supported by the tools provided, offers a comprehensive approach to data management. This enables communities to confidently assert their rights and responsibilities while shifting the system.

By integrating principles from He Whakaputanga, Te Tiriti o Waitangi, and the ethos of UNDRIP, the framework ensures that data sovereignty is not only recognised but actively practiced and respected by all involved parties. Doing so underscores that data is more than an end product; it is a living expression of whakapapa, and cultural identity, requiring diligent stewardship and protection.

This framework, therefore, serves as both a practical guide and a visionary declaration for the future of Māori data sovereignty, advocating for a balanced partnership where the sovereign voices and rights of Māori voices are at the forefront of all data-related activities.

Tūrou Hawaiki.

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