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**Data ethics – a key enabler of social acceptability****Data ethics – Perspectives from Aotearoa New Zealand****Prepared by New Zealand***Summary*

With a focus on Aotearoa New Zealand's priorities for a more integrative and inclusive government data system and more and better data for and about Māori, this paper shares the practical steps we are taking to better manage and safely access New Zealand's data.

This paper offers a snapshot and does not attempt to cover the breadth of valuable work currently being undertaken in this space. Included within this are a set of data ethical considerations related to other communities where the paper has taken an intentional focus on the Aotearoa New Zealand experience of having an indigenous community.

A glossary of te reo Māori words is provided in Annex 1.

This document is presented to the 2023 Conference of European Statisticians' session on "Data ethics – key enabler of social acceptability".

## **I. Data landscape: Aotearoa New Zealand**

1. A defining characteristic of the New Zealand data system is the intersection between data and Māori wellbeing. Success depends upon our ability to set up a system that treasures our cultural heritage and is informed by te Tiriti o Waitangi. Data has a vital role in preserving Māori identity and telling stories about iwi Māori and whakapapa. However, often the way that data is managed and used is done according to Western frameworks, approaches, and values.
2. Given the increasing importance of data, we also need to address systematic issues where some communities in New Zealand cannot see themselves represented in the data we use, or where data might not reflect all aspects of the community – which could often be the case for Māori. A successful system is one where Māori interests are acknowledged and given effect to, where data can empower Māori communities. A successful system is also one where data informs and supports the growth of Māori economies.
3. Te ao Māori provides a natural framework for data ethics, reflecting the unique importance of data as an expression of identity and an input to a self-determinative way of life. An explanation of te ao Māori is provided in Annex 2.
4. Through the trusted and ethical use of data, Tatauranga Aotearoa Stats NZ, seeks to collect information about Aotearoa to benefit Aotearoa. As part of our wider stewardship role, the Government Chief Data Steward (GCDS) is building the foundation – the stewardship framework and toolkit – to enable government to better manage and safely access New Zealand’s data.
5. With a focus on our priorities for a more integrative and inclusive government data system and more and better data for and about Māori, this paper looks at the practical steps we are taking to better manage and safely access New Zealand’s data.
6. With our unique, te ao Māori lens, New Zealand offers an insightful perspective to the data ethics landscape. Data forms part of mātauranga Māori (knowledge systems) and has deep value in telling stories of whakapapa, whanaungatanga and connection, and in building a rich sense of identity and history.

## **II. Trust in data**

7. Advances in data use and data-driven emerging technologies are evolving rapidly. These advances can enhance our lives in powerful and positive ways – but they also come with significant risks. One misstep with data could have chilling effects, inhibiting innovation and efforts to open data.
8. Trust is fundamental to data being shared, and underpinning trust are the rules set by government and the ethical practices of all the players in the data landscape.
9. We want to ensure we have mechanisms in place to support data innovation while balancing potential harms. This is critical for building a secure, trusted data environment and improving the flow of data.

## **III. Data ethics: New Zealand’s framework**

10. At the 67<sup>th</sup> plenary session of Conference of European Statisticians in June 2019, we [presented a paper](#) on our broadening role in New Zealand’s data system which included details on the work we are doing to help protect people’s data and ensure that data is used safely. In this paper we focus on a selection of recent, practical initiatives in the data ethics space which build on this work. An extensive list of our data ethics initiatives can be found in Annex 3.

## A. Government Data Strategy and roadmap

11. Reflecting the rapidly changing data landscape, the refreshed Government Data Strategy and Roadmap 2021 seeks to create an inclusive and integrated data system that supports innovation safely.

12. A commitment to upholding the principles of te Tiriti o Waitangi, authentic partnership with Māori, and an understanding of te ao Māori, are fundamental to the activity outlined in the Strategy. The four core components of an inclusive and integrated government data system are data, capability, infrastructure, and leadership. Importantly, this is underpinned by a responsibility to uphold te Tiriti o Waitangi and a commitment to maintaining and enhancing public trust and confidence. The following principles are reflected in the Strategy.

- Manaakitanga: Respect and uphold the mana and dignity of the people, whānau, communities, and groups who share their data and information.
- Mana whakahaere: Empower people by giving them a choice and enabling their access to, and the use of, their data and information.
- Kaitiakitanga: A shared culture of respect, guardianship, care, and protection for data as a strategic and valued resource, recognising that for some Māori, Māori data is a taonga and Iwi Māori are kaitiaki over their taonga.
- Rangatiratanga: Leadership that focuses on common purpose whilst also respecting the autonomy and independence of individuals, groups and agencies.
- Whanaungatanga: Strong transparent relationships through respect, integrity, empathy, and commitment to the kaupapa.

## B. Broadened mandate of the Government Chief Data Steward

13. Late last year, a refreshed mandate was approved for the Government Chief Data Steward (GCDS). This helps strengthen the way data is managed across government, to achieve effectiveness, efficiency, and sustainability across the data system, and further embeds the role of the System Leader for data.

14. The work programme of the GCDS is centred around clear areas of focus:

- Investment in new data systems and maintenance of current systems.
- Building data capability across government agencies and beyond.
- Enabling effective data access and sharing by embedding common data standards.
- Supporting the data system to deliver for, and with, Māori.
- Fostering trust and ethics in the way data is managed and used.

15. The requirement to set system-wide tools to foster the trusted and ethical use of data, as well as ensuring the data system delivers for and with Māori, are key components of the refreshed GCDS mandate. These are significant components at the heart of a well-performing data system for New Zealand.

16. The GCDS has a number of tools that deliver across these focus areas. Some of the tools are existing, like the Algorithm Charter for Aotearoa New Zealand, and some are areas in development, like a system model for Māori Data Governance.

17. We consider that, with the refreshed mandate, the GCDS has the levers and tools to be able to deliver a shift in the system across these focus areas. However, these need to be used more effectively by having the GCDS actively steward the system; and being directive where necessary.

18. Particularly important is ensuring the foundation is set and critical enabling tools for the government data system are properly embedded. In the focus area of Trust and Ethics, this includes the Data Ethics Advisory Group and the new Centre for Data Ethics and Innovation.

### **C. The Algorithm charter for Aotearoa New Zealand**

19. The Algorithm charter for Aotearoa New Zealand demonstrates a commitment to ensuring New Zealanders have confidence in how government agencies use algorithms.

20. This charter is a commitment by government agencies to carefully manage how algorithms are used. With care, we can minimise unintended bias, better reflect the principles of te Tiriti o Waitangi, and strike the right balance between making sure we access the power of the algorithms to ensure we deliver better services to New Zealanders whilst still maintaining the trust and confidence of New Zealanders in the use of those algorithms.

21. This is an evolving piece of work that needs to respond to emerging technologies and be fit-for-purpose for government agencies. In December 2021, an independent review of the Charter was completed to ensure it is achieving its intended purpose – improving government transparency and accountability without stifling innovation or causing undue compliance burden. Stats NZ is now commencing work to consider and implement the findings of the review.

### **D. The Data Ethics Advisory Group**

22. The GCDS convened the Data Ethics Advisory Group (DEAG) to help maximise the opportunities and benefits from new and emerging uses of data, while responsibly managing potential risk and harms. DEAG helps government agencies to test ideas, policy, and proposals related to new and emerging uses of data. It also provides advice on trends, issues, areas of concern, and areas for innovation.

### **E. Centre for Data Ethics and Innovation**

23. The Centre is a new initiative to help us achieve a secure, trusted data environment. We are progressing the Centre in two phases – first standing up an interim Centre with seed capability now, while building a case for a wider mandate and a scaled-up work programme over time.

24. The interim Centre will provide leadership in the safe and ethical use of data. It will promote public awareness and improve transparency among organisations using data and data-driven technologies. It will support innovation and help manage risks through the development and dissemination of standards and ethical guidelines for the public and private sectors. By setting expectations and frameworks for how data should be collected and used, the Centre will help ensure that the benefits of data innovation are shared equitably across society.

25. The interim Centre will:

- Act as a cross-agency, centralised hub to support the integration and coordination of relevant work programmes across agencies
- Use a network model to draw on and leverage knowledge and expertise from across the system and develop shared-interest networks
- Provide visibility, advice, and guidance, and promote public awareness and engagement.

26. Its key objectives are to:

- Define data ethics within the unique context of Aotearoa New Zealand, te ao Māori, and te Tiriti o Waitangi
- Build public trust and promote transparency
- Provide leadership and coordination, and facilitate collaboration
- Foster improved capability across the public and private sectors
- Ensure that data driven innovation accounts for the needs and attributes of diverse groups.

## IV. Data ethics: an indigenous perspective

27. Data has a strong role to play in giving effect to rights. Indigenous data sovereignty and indigenous data rights are becoming increasingly considered and recognised as a fundamental part of modern data systems. This global shift provides indigenous peoples with more control over data, including access and management – improving or influencing wellbeing, or producing benefits for indigenous people and communities. Another aim of indigenous data sovereignty is to reduce or avoid harm caused by data and data management which excludes the voice of indigenous people.

28. New Zealand’s current data system has not been designed in partnership with iwi and Māori. Nor do we have a te ao Māori lens across the wider official data system that may support both Iwi Māori and government aspirations for data.

29. This has resulted in challenges including a lack of trust and confidence by Iwi Māori, inadequate Iwi Māori participation in the data system, and missed opportunities for Iwi Māori to add value to the official data system through te ao Māori insights and innovations.

30. To achieve a credible and trusted data system, it is integral that we work with Māori, honour te Tiriti o Waitangi, and enable a more meaningful role for Māori in decision-making across systems, and in setting the guiding frameworks.

### A. Ngā Tikanga Paihere

31. Ngā Tikanga Paihere draws on ten tikanga (Te ao Māori - Māori worldview concepts) to help establish goals, boundaries, and principles that guide and inform data practice.

32. Asking the questions inspired by ngā tikanga at the beginning of data use helps:

- Guide safe, responsible, and culturally appropriate use of data.
- Ensure data use is carefully considered.
- Ensure data practices occur in good faith.

33. Ngā Tikanga Paihere was originally designed to help Stats NZ manage access to microdata in the Integrated Data Infrastructure. However, we are also exploring many other areas in which Ngā Tikanga Paihere can guide responsible and ethical data use.

### B. Mana Ōrite Relationship Agreement

34. The purpose of the Mana Ōrite Relationship Agreement, signed in 2019 between Stats NZ and the Data Iwi Leaders Group (DILG) of the National Iwi Chairs Forum (NICF), is to work together with Iwi Māori to realise the potential of data to make a sustainable, positive difference to outcomes for iwi, hapū, and whānau. A work programme defines annually agreed outcomes.

### C. Māori data governance (MDG) model

35. As part of the Mana Ōrite Relationship Agreement a Māori data government (MDG) model has been developed by a group of experts in Māori data sovereignty to inform the development of an approach to data governance that reflects Māori needs and interests in data.

36. As it has only recently been released, the model does not reflect official policy for the New Zealand government. However the model can act as a guide to support the aspiration of a te Tiriti-based data system – one that recognises the cultural importance of data to Māori, the significant role Māori play in managing, handling, using, collecting, narrating, and protecting data (especially their own data), and the need for culturally grounded models of protection.

37. It sets out guidance for the system-wide governance of Māori data, consistent with the Government's responsibilities under te Tiriti o Waitangi, and gives direction on the actions, processes and activities needed to achieve a te Tiriti-centric data system.

38. The more substantive layers of the Model includes eight Data Pou (pillars). These Pou explore the challenges and opportunities that would be involved in shifting to a te Tiriti-based system and contain both general ideas and specific policy proposals to get there. The model has been designed so that data ethics is a cross cutting feature as opposed to being a standalone Pou / pillar.

## **V. Integrative and inclusive data system**

39. Currently, too many people are invisible in data and too little data is routinely disaggregated. We know that within Aotearoa New Zealand, richer data is needed for Māori, Pacific Peoples, ethnic communities, women, gender diverse peoples, disabled people, older people, children, and geographic communities (e.g., rural and suburban communities).

40. The NZ Treasury Living Standards Framework incorporates a wider set of factors that contribute to wellbeing than have been typically applied in most economic analyses. The framework includes factors that affect individual and collective wellbeing, institutions and governance, and wealth. The framework reflects a broad view of wellbeing including te ao Māori and Pacific perspectives as well as children's wellbeing. In addition, there are various frameworks that articulate and encapsulate a holistic view of wellbeing from a Māori perspective. To complement the Living Standards Framework and provide data for the Sustainable Development Goals indicators, Stats NZ developed and maintains Indicators Aotearoa New Zealand Ngā Tūtohu Aotearoa. The indicators cover New Zealand's current wellbeing, future wellbeing (what we are leaving behind for future generations), and the impact New Zealand is having on the rest of the world. Under these dimensions are a list of topics and indicators developed to measure wellbeing.

41. Indicators Aotearoa New Zealand seeks to understand the most important aspects of wellbeing for New Zealanders. Therefore, the selection of indicators was not driven by the availability of data. The initial set of indicators includes gaps in data, ranging from a complete absence of data to limitations on the ability to break information down to useful and meaningful levels for different communities. The development of the indicator suite was achieved through an intensive and national engagement initiative and reflected rich perspectives from communities and organisations across the motu country. The gaps in data are included in the Data Investment Plan and will be filled as new and reprioritised investment allows.

### **Pacific data equity**

42. Past and present data systems have led to inequities for Pacific peoples. Some of these issues include the lack of Pacific worldviews in data design, an undercount of Pacific peoples in official statistics, and an underrepresentation of Pacific data professionals. These inequities mean that the stories the data tells do not represent the realities experienced by Pacific peoples.

43. To drive positive outcomes for Pacific communities through data, a memorandum of understanding was signed in August last year between Stats NZ, the Ministry for Pacific Peoples, and the Pacific Data Sovereignty Network. It reflects Stats NZ's dedication to work for and alongside Pacific peoples in Aotearoa and to build enduring relationships to harness the power of data for Pacific communities.

44. This signing committed all three parties to long-term work programmes that acknowledge the value of the Pacific voice in the data system. This reflects a commitment to do everything we can to capture and understand the experiences of our Pacific communities in official data and statistics.

## **VI. The future of data ethics – the opportunities, challenges, and choices**

45. As data continues to assume a fundamental and growing importance in all areas of human activity, an opportunity exists to be at the forefront – positioning New Zealand to take economic and social advantage of data-driven innovation, delivering for and with Māori, meeting a range of data needs, and contributing multi-laterally as global conventions are developed.

46. New Zealand is only one contributor in a much larger international system. In complex systems such as this, there are many institutions and players – both domestically and abroad. Within this context and as a receiver of data and technology from other parts of the world, it is important to us that we retain our own unique perspectives on data. One that reflects our te Tiriti o Waitangi commitments and te ao Māori.

47. New Zealand, being a small nation with high levels of trust, can build momentum and achieve critical mass when it comes to domestic problems that need solving – but we also need to keep a strategic view of international shifts to ensure we can continue to dock into larger-scale systems and be a valuable contributor on the international stage.

48. To support improved levels of trust in how data is used in New Zealand it will be important for our settings to recognise and reflect te ao Māori, and for Māori to be enabled to participate as equal partners. There will be some strategic choices to make about how we create a national data system that encompasses our values – a data system that provides equitable opportunities, is te Tiriti-based, and that New Zealanders can trust.

## Annex I

### Glossary of te reo Māori words

**Hapū:** kinship group, clan, tribe, subtribe - section of a large kinship group and the primary political unit in traditional Māori society. It consisted of several whānau sharing descent from a common ancestor, usually being named after the ancestor, but sometimes from an important event in the group's history. Several related hapū usually shared adjacent territories forming a looser tribal federation (iwi).

**Iwi:** extended kinship group, tribe, nation, people, nationality, race - often refers to a large group of people descended from a common ancestor and associated with a distinct territory.

**Kaitiaki:** trustee, minder, guard, custodian, guardian, caregiver, keeper, steward.

**Kaitiakitanga:** guardianship, stewardship, trusteeship, trustee.

**Kaupapa:** topic, policy, matter for discussion, plan, purpose, scheme, proposal, agenda, subject, programme, theme, issue, initiative.

**Manaakitanga:** hospitality, kindness, generosity, support - the process of showing respect, generosity, and care for others.

**Mana Māori motuhake:** this is a phrase in the Māori language that means self-determination, with the principle being autonomy and control. It is sometimes translated to the concept of sovereignty.

**Mana whakahaere:** governance, authority, jurisdiction, management, mandate, and power.

**Mātauranga Māori:** a modern term for the traditional knowledge. Māori traditional knowledge is multi-disciplinary and holistic, and there is considerable overlap between concepts. It includes environmental stewardship and economic development, with the purpose of preserving Māori culture and improving the quality of life of Māori over time.

**Pou:** pillar.

**Rangatiratanga:** kingdom, realm, sovereignty, principality, self-determination, self-management - connotations extending the original meaning of the word resulting from Bible and Treaty of Waitangi translations.

**Taonga:** treasure, anything prized - applied to anything considered to be of value including socially or culturally valuable objects, resources, phenomenon, ideas, and techniques.

**Te reo Māori:** the Māori language is known as te reo Māori or simply te reo (the language). It is the language of the Māori people of New Zealand. Te reo Māori is an official language in New Zealand, along with New Zealand Sign Language.

**Te Tiriti o Waitangi:** The Treaty of Waitangi/te Tiriti o Waitangi has two texts: one in te reo Māori and one in English. Te Tiriti o Waitangi, New Zealand's founding document, was meant to be a partnership between Māori and the British Crown. Although it was intended to create unity, different understandings of the treaty, and breaches of it, have caused conflict. From the mid-1980s, several dozen acts of Parliament included references to te Tiriti o Waitangi. As with the Treaty of Waitangi Act 1975, each of these acts referred (with some variation) to the principles of the treaty. These acts allowed the courts to interpret the Successive governments have continued to address the challenge of securing te Tiriti o Waitangi's original aim – to reconcile the Crown and Māori. This has included many formal treaty settlements, negotiated between the Crown and iwi to resolve historic and contemporary breaches of te Tiriti o Waitangi.

It has also included projects to give all New Zealanders an understanding of a national vision of two peoples living under te Tiriti o Waitangi. extent to which treaty principles were raised in any case covered by the legislation.

**Tikanga:** correct procedure, custom, habit, lore, method, manner, rule, way, code, meaning, plan, practice, convention, protocol - the customary system of values and practices that have developed over time and are deeply embedded in the social context.



**Whakapapa:** genealogy, genealogical table, lineage, descent - reciting whakapapa was, and is, an important skill and reflected the importance of genealogies in Māori society in terms of leadership, land and fishing rights, kinship, and status. It is central to all Māori institutions.

**Whanaungatanga:** relationship, kinship, sense of family connection - a relationship through shared experiences and working together which provides people with a sense of belonging. It develops because of kinship rights and obligations, which also serve to strengthen each member of the kin group. It also extends to others to whom one develops a close familial, friendship or reciprocal relationship.

## **Annex II**

### **Te ao Māori**

1. Te Ao Māori denotes the Māori Worldview. While simple in definition, it is rich in meaning and vast in breadth and depth.
2. The Te Ao Māori view of success is a collective success in cultural retention and dissemination, and the achievement of social outcomes for people. When economic, cultural and social outcomes of success are attained as joint outcomes then we are more likely to be achieving Māori wellbeing.

## **Annex III**

### **Data ethics initiatives**

#### **A. Algorithm charter for Aotearoa New Zealand**

1. This charter is a commitment by government agencies to carefully manage how algorithms are used. With care, we can minimise unintended bias, better reflect the principles of te Tiriti o Waitangi, and strike the right balance between making sure we access the power of the algorithms to ensure we deliver better services to New Zealanders whilst still maintaining the trust and confidence of New Zealanders in the use of those algorithms.

#### **B. Broadened mandate of the Government Chief Data Steward**

2. Late last year, a refreshed mandate was approved for the Government Chief Data Steward (GCDS). This helps strengthen the way data is managed across government, to achieve effectiveness, efficiency, and sustainability across the data system, and further embeds the role of the GCDS as the system leader for data.

#### **C. Data Ethics Advisory Group**

3. The Data Ethics Advisory Group (DEAG) seeks to maximise the opportunities and benefits from new and emerging uses of data, while responsibly managing potential risk and harms. DEAG helps government agencies to test ideas, policy, and proposals related to new and emerging uses of data. It also provides advice on trends, issues, areas of concern, and areas for innovation.

#### **D. Data Protection and Use Policy**

4. The Data Protection and Use Policy describes what ‘doing the right thing’ looks like when collecting or using people’s data and information. The principles focus on values and behaviours to help ensure data practices focus on the wellbeing of people and communities.

#### **E. Government Data Strategy and Roadmap 2021**

5. Reflecting the rapidly changing data landscape, the refreshed Government Data Strategy and Roadmap 2021 seeks to create an inclusive and integrated data system that supports innovation safely.

## **F. Indicators Aotearoa New Zealand – Ngā Tūtohu Aotearoa**

6. Indicators Aotearoa New Zealand is being developed by Stats NZ as a source of measures for New Zealand’s wellbeing. The set of indicators will go beyond economic measures, such as gross domestic product (GDP), to include wellbeing and sustainable development. Ngā Tūtohu Aotearoa – Indicators Aotearoa New Zealand aim to help monitor progress around New Zealand’s social, economic, and environmental wellbeing.

## **G. Mana Ōrite Relationship Agreement**

7. The purpose of the Mana Ōrite Relationship Agreement is to work together with Iwi Māori to realise the potential of data to make a sustainable, positive difference to outcomes for iwi, hapū, and whānau. A work programme defines annually agreed outcomes.

## **H. Māori data governance (MDG) model**

8. Stats New Zealand is working with the Data Iwi Leaders Group (DILG) of the National Iwi Chairs Forum (NICF) to co-design a Māori data governance (MDG) model. The model aims to support the aspiration of a te Tiriti-based data system – one that recognises the cultural importance of data to Māori, the significant role Māori play in managing, handling, using, collecting, narrating, and protecting data (especially their own data), and the need for culturally grounded models of protection.

## **I. Ngā Tikanga Paihere**

9. Ngā Tikanga Paihere draws on ten tikanga (Te ao Māori - Māori worldview concepts) to help establish goals, boundaries, and principles that guide and inform data practice.

## **J. Principles for the safe and effective use of data**

10. Guidance, oversight, and transparency are essential to fostering trust, confidence, and integrity around the use of data the government holds on behalf of New Zealanders. It is important for Kiwis to understand how their personal data is used. These principles support safe and effective data and analytics. They will underpin the development of guidance to support government agencies on best practice for the use of data and analytics for decision-making. The principles were jointly developed by the Chief Government Data Steward and the Privacy Commissioner.

## **K. The Centre for Data Ethics and Innovation**

11. The Centre is a new initiative to help us achieve a secure, trusted data environment. It will provide leadership in the safe and ethical use of data and promote public awareness and improve transparency among organisations using data and data-driven technologies. The Centre will support innovation and help manage risks through the development and dissemination of standards and ethical guidelines for the public and private sectors. By setting expectations and frameworks for how data should be collected and used, the Centre will help ensure that the benefits of data innovation are shared equitably across society.

## **L. The Five Safes framework**

12. We only provide access to integrated microdata if all our ‘five safes’ conditions are met: safe people, safe projects, safe settings, safe data, and safe output.

**M. The Privacy, Human Rights and Ethics (PHRaE) Framework**

13. The Ministry of Social Development developed the Privacy, Human Rights and Ethics Framework – the PHRaE – to identify and address risks associated with the collection, use and disclosure of personal information, and to ensure that information is used in a responsible, transparent, and trustworthy way. The framework is a set of capability and tools with which users of information interact to ensure that people’s Privacy (P), Human Rights (HR) and Ethics (E) are considered from the design stage of a new initiative.

14. It incorporates the Privacy Act 2020 and guidance relating to te Tiriti o Waitangi, the Data Protection and Use Policy, and the Algorithm charter for Aotearoa New Zealand.

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