

Chair

Government Administration Committee

STRENGTHENING DATA LEADERSHIP ACROSS GOVERNMENT TO ENABLE MORE EFFECTIVE PUBLIC SERVICES

Proposal

- 1 This paper seeks agreement to empower the Government Chief Data Steward to set mandatory standards and direct the adoption of common data capabilities, enabling a common approach to the collection, management and use of data across government.

Executive Summary

- 2 In response to the demand across government for data and analytics to drive decision making, the State Services Commissioner established the Government Chief Data Steward role in 2017 as the functional leader for data across government.
- 3 The proposals in this paper seek to empower the Government Chief Data Steward to set mandatory standards and direct the adoption of common data capabilities. This authority is necessary in enabling a common approach to the collection, management and use of data, further positioning the State Sector to realise the full potential of its data assets.
- 4 Trusted and credible data is a critical asset for government. The goal is for the State sector to utilise data to produce meaningful insights, ensuring that the way government designs and delivers services is better informed; the evidence base for policy development is strengthened; and data supports operational decision-making. Improving data practices will also mean that we are better able to meet the growing expectations of New Zealanders for quick, effortless and smart services.
- 5 While there are pockets of significant progress in the way that data is managed and used across government, data has not been designed consistently and managed with all-of-government needs in mind, nor is it straightforward to share data where permitted and safe to do so. The focus for standards and common capabilities, are in areas of, and issues experienced, by the vast majority of system agencies.
- 6 A framework has been developed to ensure that the standards developed by the Chief Data Steward are fit for purpose across all government agencies, and for standards developed by other agencies to be endorsed by the Chief Data Steward, elevating them for use across the data system. The emphasis here is on understanding and identifying good practice, and where it already exists within government, lifting it up as an exemplar to share with the system.
- 7 The immediate focus is to issue standards for data content (how to collect data) and data context (information about how the data was collected) to improve interoperability essential for sharing and for forming a single view for better analysis, within existing privacy and security settings. For example, standards for the way 'official name', 'street address' and 'location' are collected by government agencies have already been developed collaboratively and are ready to be approved via the framework and set by the Chief Data Steward.
- 8 The proposals in this paper support the Minister for State Services' work on State Sector reform. They also connect with the Minister for Government Digital Services' work to strengthen the role of the Government Chief Digital Officer. Both the Chief Digital Officer and the Chief Data Steward are working to position the State service to respond to

opportunities resulting from rapidly changing digital technology, and the accompanying expectations, to deliver better services and outcomes for New Zealanders, while ensuring privacy is protected. The proposals and the framework underlying the proposals, complement the Minister for Social Development's engagement on, or implementation of, the Data Protection and Use Policy for the social sector.

The role of the Government Chief Data Steward

- 9 The Government Chief Data Steward role was established by the State Services Commissioner in 2017 as the functional leader for data across government – empowering agencies to use data more effectively while maintaining the trust and confidence of New Zealanders. This role is filled by the Chief Executive of Stats NZ.
- 10 Since its establishment in 2017, the Chief Data Steward has worked in partnership across the state sector to:
 - set the strategic direction for government's management of data with the development of a Data Strategy and Roadmap underway focussed on unlocking the value of data for all New Zealanders (developed in consultation with data and policy agencies);
 - lead the state sector's response to new and emerging data issues, most recently by fast-tracking work to strengthen transparency of, and accountability for, government's use of algorithms;
 - begin development of a Data Stewardship Framework (alongside a number of other agencies) enabling agencies to manage data as a strategic asset and benchmark their data maturity;
 - lead the government's commitment accelerating the release of open data, including the adoption of the International Open Data Charter.
- 11 This work aligns with the issues facing national statistics offices across the world, as many re-define their strategies to adapt to the digital era where data continues to increase at an exponential rate and people are able to obtain real-time information in many areas of their lives. There are expectations that national statistics offices look to:
 - improve time-frames for publishing official statistics and data – responding to demands from policy makers and citizens for statistics that are as close to real-time as possible, providing a much stronger platform to represent the pulse of society;
 - respond to expectations for granular data that is locally relevant; and
 - address the need for trusted, high-quality data that can cut through an increasing supply of material that has the potential to be unreliable, contradictory, unethical and without context¹.

The need for strong data system leadership

- 12 Government holds a vast amount of data on behalf of New Zealanders. This data has the potential to be an immensely valuable asset both for government, and outside of government, driving innovation and contributing to economic, social, and environmental progress.
- 13 Utilising data to produce meaningful insights will ensure that the way we design and deliver services is better informed; the evidence base for policy development is strengthened; and data is used in operational decision-making. Improving our data

¹ OECD Statistics and Data Directorate Committee on Statistics and Statistical Policy (30 May 2018). *Which Strategies for NSOs in the Digital Era? Towards 'Smart Data' Strategies*. 15th meeting of the Committee on Statistics and Statistical Policy 20-21 June 2018.

practices will also mean that we are better able to meet the growing expectations of New Zealanders for quick, effortless and smart services.

- 14 There are pockets of significant progress in the way that data is managed and used across government. However, the system as a whole has not been designed and managed with all-of-government needs in mind, nor is it straightforward to share data between agencies. A lack of system-wide management of data limits its use and diminishes returns for all New Zealanders. I am also cognisant of the need for government to genuinely consider Māori perspectives on data.
- 15 We need to ensure that the public service is organised to be able to take a collective approach to the collection, management, and use of data. Often agencies focus on supporting their own operations as effectively and efficiently as possible, which reduces the value of data for other purposes. This means that much of government's data still cannot be joined up within, let alone across, sectors.
- 16 At the same time, increased use of sophisticated data analytics to drive decision making (e.g. artificial intelligence and algorithms) within government elevates the need for strong common data practices to maintain trust and confidence, ensure privacy is protected, and to foster the ethical use of data.

Proposal to empower the Government Chief Data Steward

- 17 This paper seeks agreement to empower the Government Chief Data Steward to:
 - set mandatory standards and guidelines for the collection, management and use of data by government agencies; and
 - direct agencies to adopt common data capabilities, such as data tools, linking infrastructure, or sharing platforms (subject to an opt-out process).
- 18 Experience shows that without a strong mandate to set mandatory standards, our system will not change and the problems we face will deepen. While there is a lot of valuable data activity underway, agencies don't always pull together in the same direction. The role of the Chief Data Steward is to support agencies and coordinate activity.
- 19 The approach aligns with the Cabinet-agreed mandates held by the other government functional leads (e.g. digital, procurement and property functional leads). To date, these authorities have been successful in driving whole-of-government approaches which generate benefits from economies of scale and standardised approaches.
- 20 The proposals, will establish the foundations necessary for agencies to manage and share data so that it provides a useful base to inform decisions, within existing privacy and security settings.
- 21 The ability to set mandatory standards and ensure agencies adopt common capabilities will help to facilitate a government data system where:
 - the public have confidence that government will carefully manage their data in ways that they are comfortable with, and which are ethical and transparent;
 - we are able to source new data (in an environment where access to data is considered one of the most fundamental obstacles to overcome);
 - data is managed to produce new and meaningful insights and evidence for policy (based on the policy problems we want to solve which cannot progress with current data sources and practices);
 - new platforms are developed where data is shared, facilitating open research and boosting innovation, enabling better service provision, including the digital services alongside the Government Chief Digital Officer; and

- data is made open by removing personally-identifiable information and after appropriate risk, privacy assessment and mitigation.
- 22 It will also help deliver to New Zealand's commitment to the Open Data Charter, and accompanying Open Data Action Plan, through improved data management.
- 23 I also expect the Chief Data Steward's approach to align with this government's commitment to recognise the position of Māori in government decision-making, and to be guided by The Treaty of Waitangi. The Chief Data Steward works closely with the Data Iwi Leaders Group and is currently working to co-design new approaches to data governance which genuinely provide for Māori perspectives on data to be embedded in each agency's approach and management of data.
- 24 The component parts of a successful data system listed above align strongly with recent work carried out by the OECD which focusses on the future priorities of statistics departments². The proposed standard setting power is part of a wider work programme led by the Chief Data Steward in realising the desired future data system. Other work is underway focussed on system skills gaps, legal settings and ethics frameworks, data quality and methodology, data technology, and governance.
- 25 I also seek Cabinet's invitation to report back to the Government Administration Committee:
- in October this year on the Data Strategy and Roadmap which sets the direction and identifies opportunities to unlock the value of data; priority areas for the data system; and options for data governance;
 - in March 2019 on the standards set and progress of data activity; and
 - in the second half of 2020 on the progress of the data system and any implications of data system developments for the scope and mandate of the Chief Data Steward role.

A framework to develop and/or endorse standards that are fit for purpose and manageable

- 26 The Chief Data Steward will not dictate standards to agencies, and then sit back to measure how well they perform. The Chief Data Steward will work in partnership to define standards that work for the whole system, and support agencies to build capability and capacity to meet them.
- 27 Since the role was established, the Chief Data Steward's approach has been to support, empower, and work alongside agencies, to ensure data is used more effectively. The setting of mandatory standards and direction of common capabilities will be implemented using the same approach – with areas of focus for standards being largely driven by agency demand.
- 28 To complement the approach, a framework has been developed by the Chief Data Steward to ensure that system standards and common capabilities are fit for purpose across all government agencies.
- 29 The framework can also be used to endorse standards developed by other agencies – providing for a robust and common approach to testing a standard, and also providing for the Chief Data Steward's endorsement, elevating a standard for use across the system. For example, as a potential outcome of the Data Protection and Use Policy, the

² OECD Statistics and Data Directorate Committee on Statistics and Statistical Policy (30 May 2018). *Which Strategies for NSOs in the Digital Era? Towards 'Smart Data' Strategies*. 15th meeting of the Committee on Statistics and Statistical Policy 20-21 June 2018.

Social Investment Agency could use the framework to elevate new or required social sector standards for system wide impact.

Understanding the financial implications for agencies in an environment with tight baselines

- 30 The framework will provide for agencies to come together (as a community of practice) to determine the highest value standards needed within the system. Standard setters within government will then assess proposed standards against a set of agreed principles.
- 31 A senior cross-agency group will consider financial, and other, implications for agencies adopting a standard, while also considering the needs of the system. The role of the Chief Data Steward would be to approve and mandate standards on the advice of the group, which will include understanding any downstream costs for agencies.
- 32 Developing standards through a co-design process, then elevating them as mandatory system standards:
 - ensures wide support while providing a common point for coordination and agreement, and
 - reduces duplication of effort and encourages government to work together to solve problems from a citizen or business-centric point of view, and
 - enables agencies to proactively communicate, and then manage any downstream costs through their existing prioritisation or funding mechanisms.

Standards will focus on areas of commonality across the system

- 33 The immediate focus for the Chief Data Steward is to issue standards for data content (how to collect data) and data context (information about how the data was collected) to improve interoperability essential for sharing and for forming a single view for better analysis, within existing privacy and security settings.
- 34 The Chief Data Steward has already commenced work with the cross-government community of practice to understand where the priorities are and to develop standards accordingly. As such, standards for the way 'official name', 'street address' and 'location' are collected by government agencies have been developed collaboratively and are ready to be approved via the framework.
- 35 In a preliminary assessment of the data variables that are commonly collected across government, it was discovered that as an initial focus, over 100 different data variables could be condensed into 20 standard variables. For example, there are various different ways of collecting name data across government (including given name, official name, and known as name), posing barriers to interoperability. Future priorities have been identified by the community of practice for data content standards targeting the way data is collected on relationships, country and date of birth.

Supporting agency or sector-specific standards

- 36 The work of the Chief Data Steward focuses on issues that are experienced across the system. There is no intention to cut across agency or sector-specific data standards. For example:
 - within the health sector, data standards align with international standards e.g. so that clinical terminology can be referred to in the same way worldwide;
 - within the education sector, some data standards are common with Australia so that data can be exchanged e.g. year level; and
 - any potential standards developed as a result of work already underway within sectors (e.g. as a potential outcome of the Data Protection and Use Policy, data shared between NGOs and agencies in the social sector).

- 37 The role of the Chief Data Steward is to understand and identify good practice. Where it already exists within government, the Chief Data Steward will raise it as an exemplar to share with the system.
- 38 Agencies are encouraged and supported to utilise the Chief Data Steward's framework to test their standards and have them endorsed by the Chief Data Steward, elevating the standard for applicability across the system.

Standards aren't intended to place an unmanageable burden on agencies

- 39 The intention is to consider, when needed, delayed or phased implementation for agencies that face barriers to embedding new standards, while also providing support from a dedicated team within Stats NZ. To manage any potential tension between agency and system perspectives, exceptions to implementing standards will be decided collectively by State Sector chief executives who currently make-up the Digital Government Leadership Group (to be formalised as the Digital Government Board by the State Services Commissioner), who support the goal of a single, coherent digital and data system to support public services. Other reasons for seeking exemption, may be where there are specific requirements for data that form part of an international commitment.
- 40 Where agreement at this level cannot be reached and, depending on the strategic nature of these implementation issues, there will be escalation to Ministers as appropriate. I expect that this escalation process to be used very rarely. I am working with the Minister for Government Digital Services, to involve other Ministers in the direction setting for, and work of the Chief Data Steward and Chief Digital Officer, in embedding digital and data practice across all portfolios.
- 41 The Chief Data Steward will use the directive powers in consultation with other key sector lead agencies, including the Ministry of Social Development, Ministry of Business, Innovation and Employment, Social Investment Agency, Ministry for the Environment, Ministry of Health, Ministry of Education, and Ministry of Justice.

Scope and alignment

- 42 The standards are considered a key tool in shepherding system change – designed to have a broad scope and be flexible enough to not only deliver to the Chief Data Steward's Data Strategy and Roadmap and the Digital Government Strategy, but also to strategies and priorities of future governments.
- 43 I do not consider that a standard setting power needs to wait for all the pieces to fall into place. If anything, in our environment of rapid change and new and emerging issues, like the recent work on algorithm transparency, I consider waiting is potentially detrimental.
- 44 These proposals in no way limit the Government from making additional or separate changes to the way the data system operates as result of future work. For example, they won't limit or impinge on progress of the Privacy Bill, upcoming Cabinet consideration of the Data and Statistics Bill, or outcomes from the Data Protection and Use Policy.
- 45 The proposed authority to set standards and direct common data capabilities will apply to State Sector Public Service Departments and Departmental Agencies (specified in schedules 1 and 1A of the State Sector Act 1988).
- 46 While the scope of the other functional leads includes Crown Entities, and non-public service departments (New Zealand Defence Force, New Zealand Police, and Parliamentary Counsel Office), we propose that the scope is given further consideration once the role of the Chief Data Steward is further embedded, potentially as part of the report back to the Government Administration Committee in 18 months time.

- 47 As is the case with other functional lead approaches, government departments and chief executives will retain responsibility for activity within their own agencies including data management, data use and data breaches.

Working with the Government Chief Digital Officer and other system roles

- 48 The Chief Data Steward works closely with the Government Chief Digital Officer, the functional leader for digital. The Minister for Government Digital Services and the Chief Digital Officer are focussed on driving digital transformation³ to ensure the State sector can operate in a digital future and keep pace with rapid change. They describe digital as more than improving IT systems and processes. Digital means doing things differently in an increasingly connected world – using new mind-sets, skillsets, technologies and data to benefit people, government and the economy.
- 49 The Chief Data Steward will also work with the new functional leads for information security and protective security, once established.
- 50 Aligned with its current approach, the Chief Data Steward will continue to work alongside other agencies and positions with statutory powers that relate to different aspects of data. These include the Chief Archivist, the Government Statistician, the Inland Revenue Commissioner, and the Surveyor-General. For example, the Chief Data Steward and the Chief Archivist will work together to ensure requirements under the Public Records Act and any set by the Chief Data Steward are aligned and are clear for agencies. The inclusion of Deputy Chief Executives from these agencies on the Digital Government Partnership (working groups that support the Digital Government Leadership Group) further supports this.
- 51 The Chief Data Steward will continue to work alongside the Privacy Commissioner and the Government Chief Privacy Officer to support and promote best practice and ensure people's privacy is protected. The Chief Data Steward and Privacy Commissioner jointly released *Principles for the safe and effective use of data and analytics* in May this year.
- 52 The Chief Data Steward will also support and contribute to the work of the Chief Technology Officer in their role to develop a digital strategy for New Zealand.
- 53 The Chief Data Steward also works alongside sector leads. The Social Investment Agency's current work to develop a Data Protection and Use Policy for the social sector is an example of sector leadership, contributing to how our system as a whole manages and uses data.

Working together at Ministerial level to provide direction in a complex data system

- 54 I appreciate that there is a lot of activity underway within the data system. It is my view that progressing together as a system, is the best way to achieve results for government.
- 55 The public service can only go so far. As Ministers, we need to come together to support stronger collaboration towards a unified vision.
- 56 Data is a horizontal enabler that adds value to all of our portfolios and feeds into all Cabinet committees. I am working with the Minister for Government Digital Services, to involve other Ministers in the direction setting for, and work across digital and data issues. I seek your agreement to expand on this cross-portfolio work in order to foster trust and confidence, maximise opportunities, and ensure alignment across the system. This may involve establishing a Ministerial grouping and programme of work, pending discussion and further work with colleagues across a number of portfolios. At the very

³ Through improving investment, building capability, setting digital standards and policy, managing services, and providing assurance.

least, the Minister for Government Digital Services and I expect to meet regularly with relevant Ministers to coordinate efforts in this area.

State Sector Reform

- 57 The establishment of the Chief Data Steward role by the State Services Commissioner, and the proposals in this paper, support the Minister for State Services work on State sector reform. The Minister for State Services has put in place a process to change the State Sector Act to include incentives for chief executives to achieve the broader outcomes the government is seeking, including effective service delivery for citizens by a connected public service. The State sector reform programme seeks to address tensions between an agency focusing on its own outputs and the need for it to contribute to the collective.

Consultation

- 58 Stats NZ has prepared this paper, in close collaboration, and with the support of, the State Services Commission and the Department of Internal Affairs, including the GCDO.

- 59 The Department of the Prime Minister and Cabinet has been informed.

- 60 9(2)(f)(iv)

- 61 The following agencies were consulted on the proposals in this paper: ACC, Ministry of Business Innovation and Employment, Oranga Tamariki – Ministry for Children, Department of Corrections, Crown Law, Ministry of Culture and Heritage, New Zealand Customs, Department of Conservation, Ministry of Defence, Education Review Office, Ministry of Education, Ministry for the Environment, Ministry of Foreign Affairs and Trade, Government Communications and Security Bureau, Ministry of Health, Inland Revenue, Ministry of Justice, Land Information New Zealand, Ministry of Pacific Peoples, Pike River Recovery, Ministry of Primary Industries, Ministry of Social Development, Serious Fraud Office, Security Intelligence Services, Social Investment Agency, Te Puni Kōkiri, Treasury, Ministry of Transport, and the New Zealand Transport Agency.

- 62 In addition to agency consultation the proposals in this paper have been circulated to members of the Digital Government Partnership.

Financial Implications

Agencies

- 63 The directive powers for the Chief Data Steward set out in this paper may pose costs for agencies as new processes and capability requirements are adopted. When setting mandatory standards or directing the adoption of common capabilities the Chief Data Steward will consider, in consultation with agencies, the short-term costs for agencies against longer-term benefits for the system. When needed, consideration will also be given to delayed, phased or exception to implementing standards.
- 64 The need for standards will be determined in consultation with agencies and the Digital Government Leadership Group to ensure they are developed and set in a way which is customer-driven and supported by agencies.
- 65 Mandatory standards for the collection of data can reduce compliance costs for services providers. Whole-of-government arrangements have already offered significant opportunities for agencies to benefit from economies of scale and standardised approaches.

Stats NZ

- 66 Stats NZ has used a combination of baseline and new funding to establish the Chief Data Steward's leadership role. Specifically, \$2.3 million over three years was provided in 2017 from the Data and Analytics contingency to deliver best practice advice, data standards, and a data strategy and roadmap. Funding has enabled significant progress in the year since the role was established.
- 67 The proposals in this paper do not have specific financial implications for Stats NZ in the short term. To meet the total cost of the work of the Chief Data Steward and a number of other new self-funded initiatives in 2018/19, Stats NZ is utilising insurance revenue (a one-off funding mechanism). In future years, trade-offs or new funding will be required to address cost pressures across a range of Stats NZ functions, including the broader Chief Data Steward role (e.g. capability building) 9(2)(f)(iv)

Human Rights

- 68 The policy proposals in this paper are consistent with the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993.
- 69 Strengthened data leadership and a shared best practice approach to data management will improve compliance with existing settings, improve data quality, protect privacy and support policy development.
- 70 Standards and guidelines relating to data about people will comply with the Bill of Rights Act, Human Rights Act, and the Privacy Act.

Legislative Implications

- 71 There are no legislative implications resulting from this paper.

Regulatory Impact Analysis

- 72 A regulatory impact analysis is not required for this paper.

Gender Implications

- 73 There are no gender implications resulting from this paper. Strengthened data leadership and a shared best practice approach to data management will improve compliance with existing settings, improve data quality, and support policy development.

Treaty of Waitangi Implications

- 74 There are no Treaty of Waitangi implications resulting from this paper. Stats NZ is working with Māori and Iwi to protect and recognise Māori data sovereignty.
- 75 Māori data sovereignty recognises that Māori data is a taonga and that it should be subject to Māori governance and support Māori tribal sovereignty. I recognise, alongside the Data Iwi Leaders Group, the Chief Data Steward and many others, that Māori data sovereignty is a significant contemporary Treaty policy issue. This paper references this principle in guiding the Chief Data Steward's work, and approach, to empowering improved data use across government.

Disability Perspective

- 76 Currently disability data is collected by a variety of agencies, often with different purposes in mind e.g. to measure disability prevalence, attitudes to disability, employment rates etc. Strengthened data leadership and shared best practice should work to enhance the public sector's approach towards the consistent collection, collation and high quality analysis of disability data so that it can lead to meaningful outcomes for disabled people.

- 77 More effective and consistent approaches to the collection and use of disability data has been identified as a key issue by the United Nations Committee on the Rights of Persons with Disabilities. It has been identified as an issue in the monitoring of progress against outcomes and indicators in the New Zealand Disability Strategy 2016-2026 and “better disability data” has been identified as a key issue to be responded to in the new Disability Action Plan, to be agreed by Cabinet in 2019.

Publicity

- 78 I propose to proactively release this paper, subject to any redactions made under the Official Information Act 1982.

Proactively released

Recommendations

79 I recommend that the Committee:

- 1 **note** that the increased use of data to drive decision making within government elevates the need for strong common data practices across government to maintain trust and confidence, and to ensure privacy is protected;
- 2 **agree** to provide the Government Chief Data Steward, working collaboratively with other system and sector leaders or regulators, with authority to:
 - 2.1 set mandatory standards and guidelines for the collection, management and use of data by government agencies; and
 - 2.2 direct agencies to adopt common data capabilities, such as data tools, linking infrastructure, or sharing platforms, subject to an opt-out process.
- 3 **note** that the proposals are supported by a framework that can be used by other system and sector leaders or agencies to develop or endorse system data standards, and provides a way to ensure standards are fit for purpose and wont result in an unmanageable burden as agencies adopt the standard.
- 4 **direct** the Minister of Statistics, together with the Minister for Government Digital Services, and in consultation with the Minister of State Services, Minister of Justice, Minister for Social Development, Minister of Health, Minister of Internal Affairs and Minister for Youth, to work together to progress cross-government digital and data activity and determine early priority areas of work.
- 5 **invite** the Minister of Statistics to report back to the Cabinet Government Administration Committee:
 - 5.1 in October 2018 on the Data Strategy and Roadmap, priority areas for the data system and options for data governance;
 - 5.2 in March 2019 on the standards set and progress of data activity; and
 - 5.3 in the second half of 2020 on the progress of the data system and any implications of data system developments for the scope and mandate of the Chief Data Steward role.
- 6 **note** that standards and guidelines relating to data about people will comply with the Bill of Rights Act, Human Rights Act, Privacy Act, and any requirements for consent when sharing between agencies and organisations.

Authorised for lodgement

Hon James Shaw
Minister of Statistics