

**Open Government Data Chief Executives'
Governance Group**

**New Zealand
Open Government Information and Data:
2015 Progress Report**

Wellington
New Zealand Open Government Information and Data Programme
Secretariat

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New Zealand Government

Contents

1. Executive Summary.....	3
2. Context.....	5
3. Progress on central government’s adoption of the Declaration on Open and Transparent Government	6
4. Progress on Local Authority & Crown Research Institute Adoption of the Declaration.....	13
5. Engagement with Civil Society	15
6. Impacts from Re-use of Open Government Data	16
7. Programme Updates for 2014/5	17
8. Benefits measurement	19
9. Next Steps	19
10. Appendix One: Intersections of Open Government Data and NZ Data Futures Programmes	20
11. Appendix Two: Case Studies.....	21
12. Appendix Three: Definitions.....	23

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Executive Summary

1. The Declaration on Open and Transparent Government (the Declaration), approved by Cabinet in August 2011 [Cab Min (11) 29/12 refers], requires departments and encourages or invites agencies from across the wider public sector to release their high value¹ public data for re-use by third parties. They must comply with the New Zealand Government Open Access and Licensing framework (NZGOAL) [Cab Min (10) 24/5A) refers] by placing licensing statements on the content and publications they release for re-use. The Open Government Data Chief Executives Governance Group² is now reporting as expected to Ministers on agencies' progress adopting these policies.
2. This work complements the Better Public Services programme, is an action of the Government ICT Strategy and Action Plan to 2017, and is aligned with the NZ Data Futures Partnership.
3. In the annual report in 2014 Cabinet noted good progress and sought acceleration in public data release across the public service [CAB Min (14) 28/11 refers]. It agreed a detailed programme of work with five data-intensive departments³. The targets for 2015 were to increase listings on data.govt.nz and progress towards reaching a future state where all departments release high value public datasets as part of their business as usual activities.
4. This targeted approach has had good results. On the supply side, the number of datasets listed on data.govt.nz has increased by almost 37%. Three of the five departments (the Ministry for Primary Industries, Ministry for the Environment (MfE), Ministry of Business Innovation and Employment) now release public data as a core business activity and have moved towards systems that are 'open by design' with their data licensed for legal re-use. MfE launched its own Data Service in March 2015. The Ministry of Social Development and Ministry of Health are committed to open data release and good progress is expected in the coming year.
5. This success was supported by direct work by the Open Government Information and Data Programme (the Programme), in particular, providing the technical data-related capability they lacked. An active training programme has seen 150 staff across the public service receive open licensing training, and they can now refresh their skills using a series of 13 online training videos. These activities were possible through additional resourcing (secondment from the Department of Internal Affairs and two fixed-term staff in the Secretariat).
6. This success is reflected internationally where New Zealand is seen as an

¹ High value data is data that users wish to use to create economic, social value or efficiencies

² This Governance Group replaces the Data and Information Re-use Chief Executives Steering Group

³ Ministry for Primary Industries; Ministry for the Environment; Ministry of Health, Ministry of Social Development and Ministry of Business, Innovation and Employment

Open Government data leader, and regularly invited to attend international meetings. The Global Open Data Barometer's 2015 rating of New Zealand as 4th equal in the world in terms of open data readiness, implementation and impact, maintained its 4th score from 2013.

7. Adoption of the Declaration and NZGOAL is not yet self-sustaining across government. We have not yet reached a tipping point where agencies are working in an 'open by default' mind-set. Four departments (Canterbury Earthquake Recovery Authority, Land Information New Zealand, Ministry for the Environment and Statistics New Zealand) are fully meeting current requirements; 19 departments are partially or inconsistently meeting requirements; and a final 13 agencies have uneven or limited progress.
8. Broader state sector work is embryonic with only three Crown Research Institutes and the NZ Transport Agency engaged with the Programme at this stage. The 24 local councils that were surveyed had only joined the programme in early 2015. They are at a very early stage of readiness. (Others have recently joined).
9. Barriers to further progress include those agencies having immature data management processes, open data formats that are not consistent, manual publishing processes, and some data still only released in proprietary formats such as Microsoft Excel. Agencies report challenges prioritising internal resourcing, understanding open and shared data, aggregating restricted data to allow its release as open data, and the long-term costs of sustaining public data release.
10. On the demand side, those working with users advise that re-use is contributing to economic and social growth as anticipated by Cabinet. They report data innovation, efficiencies from using other agencies' data, new collaborations between government, the private sector and civil society, and improved civic engagement in decision-making.
11. However, the public has low awareness of what public data is available, there is little visibility of data.govt.nz, users want fully open formats, and progress responding to requests for key datasets identified as high value has been slow. Some of these are not fully publicly-funded and users see the lack of progress in opening these up as evidence that government is not accelerating the release of open data. These messages are consistently fed back from open data events such as the recent GovHack 2015.
12. Many agencies do not work with their users to find out what data is of high value to them, and they have no mechanism for feedback on how this data was used and users' assessment of the department's delivery of the data.
13. Over the next 12 months the Programme will continue its direct contact with agencies at executive and operational levels. It will draw up best practice guidance for application across the public sector, and encourage regular engagement with users and customers.
14. On the demand side the Programme will continue to meet up with the users identified by agencies, document how public data is re-used and the impact of that re-use, and work with civil society and business.

Context

15. *Action 4: Accelerate the release of public information and data for re-use* of the Government ICT Strategy and Action Plan to 2017 was approved by Cabinet in June 2013⁴. It is delivered by the Programme⁵, hosted at Land Information New Zealand. This work complements the Better Public Services (BPS)⁶ programme, in particular, ensuring that progress reports are published, along with the raw data and the Programme is aligned with the NZ Data Futures Partnership⁷.
16. The Programme drives adoption of the Declaration⁸ approved by Cabinet in August 2011, which requires departments to release their high value data for legal re-use. Cabinet anticipated that this re-use would result in increased economic and social value through the creation of new tools, products and knowledge, more efficient government through appropriate sharing and alignment of data and activities, and increased transparency of government and participation in policy development.
17. Public service departments were directed to adopt the Declaration and apply the New Zealand Government Open Access and Licensing framework (NZGOAL)⁹. Other agencies across the public sector, including CRIs and local government, were encouraged or invited to do so.
18. This progress report to Ministers presents results from an annual survey of all departments and some CRIs and local councils. This includes progress by five data-intensive departments identified by Cabinet in September 2014.
19. A total of 36 state services agencies (29 public service departments, 1 crown entity (NZ Transport Agency), 3 non-public service departments, 3 Crown Research Institutes) responded to the annual survey on the Agency Adoption of the New Zealand Declaration on Open and Transparent Government¹⁰.

⁴ The Action Plan was updated in 2014: <https://www.ict.govt.nz/strategy/action-plan-2014-new/>

⁵ The Open Government Data Chief Executives' Governance Group and the Open Government Data Steering Group govern the Open Government Information and Data Programme – see <https://www.ict.govt.nz/governance-and-leadership/governance-groups/open-data-governance/>

⁶ <http://ssc.govt.nz/better-public-services>

⁷ http://www.stats.govt.nz/about_us/what-we-do/our-publications/cabinet-papers/data-futures-partnership-cabinet-paper.aspx

⁸ <https://www.ict.govt.nz/guidance-and-resources/open-government/declaration-open-and-transparent-government/>. Cab Min (11) 29/12 refers.

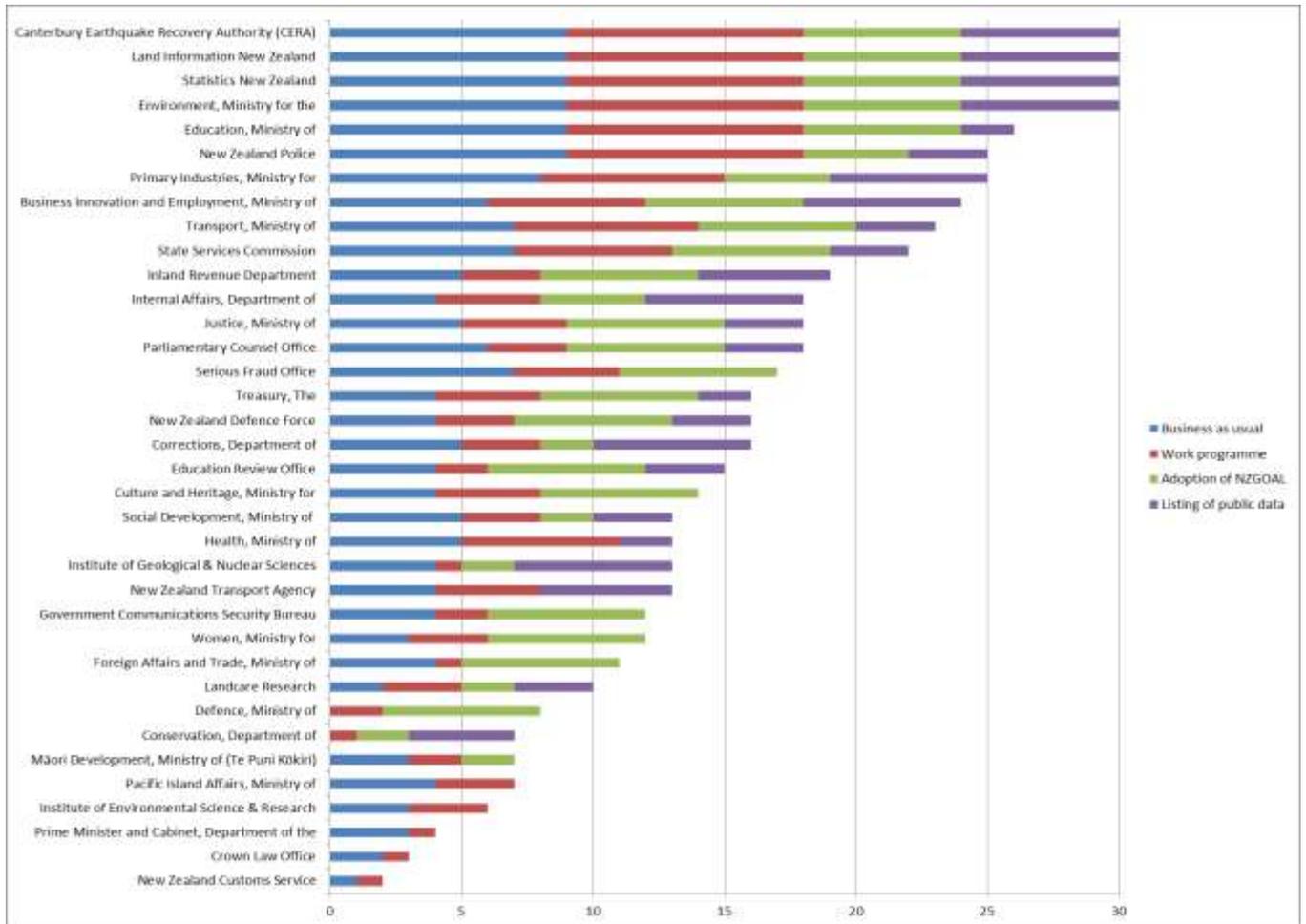
⁹ Licensing framework to allow legal re-use, approved by Cabinet in August 2010 [Cab Min (10) 24/5A refers]; see <http://www.ict.govt.nz/guidance-and-resources/information-and-data/nzgoal>

¹⁰ All departments responded to the survey. NZTA chose to be surveyed. CRI responses were received from GNS, Institute of Environment Science & Research, and Landcare Research. The NZ Security Intelligence Service was not included in the survey.

Progress on central government’s adoption of the Declaration on Open and Transparent Government

20. Figure 1 shows agencies’ progress against 12 criteria¹¹ in adopting the Declaration in 2015.

Figure 1: Overall Performance of Agencies on Adoption of the Declaration



21. The agencies¹² that have met 75% or more of Government’s open data and open licensing requirements are Canterbury Earthquake Recovery Authority,

¹¹ The 12 criteria, all weighted equally (totalling 30), are: senior manager as Data Champion; Declaration in current planning, will be in future planning; data released in 2014 (excluding CE expenses); plans for future releases; NZGOAL on websites and publications; NZGOAL on data released, data in open machine-readable formats, current data released on data.govt.nz, NZGOAL in future releases, future releases in open machine-readable formats (not only proprietary); and future releases on data.govt.nz.

¹² Some criteria do not apply to the Parliamentary Counsel Office because their legislation product is not subject to copyright, but is world-leading in its openness.

Land Information New Zealand (LINZ), Statistics New Zealand, Ministry for the Environment, Ministry of Education, New Zealand Police, Ministry for Primary Industries, Ministry of Business, Innovation and Employment, Ministry of Transport, and the State Services Commission.

22. Almost three quarters of central government agencies now have a formal position with responsibility for adoption of the Declaration, and two-thirds are releasing public data in open formats, allowing more automated handling of data. This progress over four years confirms Ministers' view when the Declaration was released that adoption would require a cultural change.
23. Most agencies (80%) are now adopting the NZGOAL licensing framework and applying the Creative Commons Attribution 3.0 New Zealand licence (CC-BY) to their copyrights works, including datasets, which provides a strong level of consistency across government.
24. Five agencies (13%) experienced a decrease in requests for public data that is now available online in re-useable formats.
25. There is room for improvement across the public service. While 19 agencies (59%) performed well across all requirements in 2014/2015, the remaining 13 agencies only partially met them.
26. More release of open data is required, particularly by those agencies yet to establish open data publishing policies and procedures. All agencies need to engage more actively with data users. Only half advised they had worked with key stakeholders to identify high value public data in 2014/15.
27. Agencies yet to release open data on data.govt.nz (other than Chief Executive expenses) to-date include Ministry for Women, Ministry of Foreign Affairs and Trade, Te Puni Kokiri, Ministry of Pacific Island Affairs, and the Crown Law Office.
28. Agencies still in the 'readiness' phase¹³ have immature data management processes, open data formats that are not consistent, manual publishing processes, and some data still only released in proprietary formats such as Microsoft Excel.

Progress by the Targeted Data-intensive Agencies

29. During 2014, five departments were identified as priority given their data-intensive functions and the importance of their data for re-use¹⁴: the Ministries of Business, Innovation and Employment (MBIE), Health (MoH), Social Development (MSD), and the Ministries for Primary Industries (MPI) and the Environment (MfE). Their Chief Executives were asked to submit their plans to actively release public data to their portfolio Minister(s). They were also advised that the Secretariat would work with them to identify potential datasets for release and assist them to work through any barriers to full

¹³ The Global Open Data Barometer measures open data across three phases: readiness, implementation and impact

¹⁴ CAB Min (14) 28/11 refers

participation.

30. Progress by these five departments follows:

Table 1: Overall performance of five data-intensive agencies in Adoption of the Declaration

	Business as usual	Work programme	Listing. public data	Adoption of NZGOAL
Ministry for the Environment	100%	100%	100%	100%
Ministry for Primary Industries	88%	77%	66%	100%
Ministry of Business, Innovation & Employment	66%	66%	100%	100%
Ministry of Health	55%	66%	33%	33%
Ministry of Social Development	55%	33%	33%	50%

31. The Ministry for the Environment (MfE) launched its own Data Service in March 2015 which allows free web-based access to Ministry public data. This has been possible through a shared services agreement with LINZ. MfE has been working with regional councils and the Cawthron Institute for the Environmental Monitoring and Reporting partnership, which publishes information and data about New Zealand’s environment on the LAWA website. MfE listed 51 datasets on data.govt.nz in 2014/15.

32. MfE is actively engaging with stakeholders to identify high-value data including working with technical advisory groups for the Environmental Reporting Programme. They have been working with regional councils and the Cawthron Institute for the Environmental Monitoring and Reporting partnership on modules for data collection, visualisation and release which provides a strong example of re-use of data.

33. The Ministry for Primary Industries (MPI) has a strategic priority focussed on integrated information, insight and knowledge and sees the open data programme as a key enabler of this priority. MPI has factored the Declaration on Open and Transparent Government into major business planning documents, including the Statement of Intent. During 2014 their focus was on building platforms and establishing processes and procedures to support a robust programme of future data releases. Work included producing an internal data catalogue and an information asset register. MPI listed 43 datasets on data.govt.nz in 2014/15, and they are working on embedding new platforms and processes to accelerate future data releases.

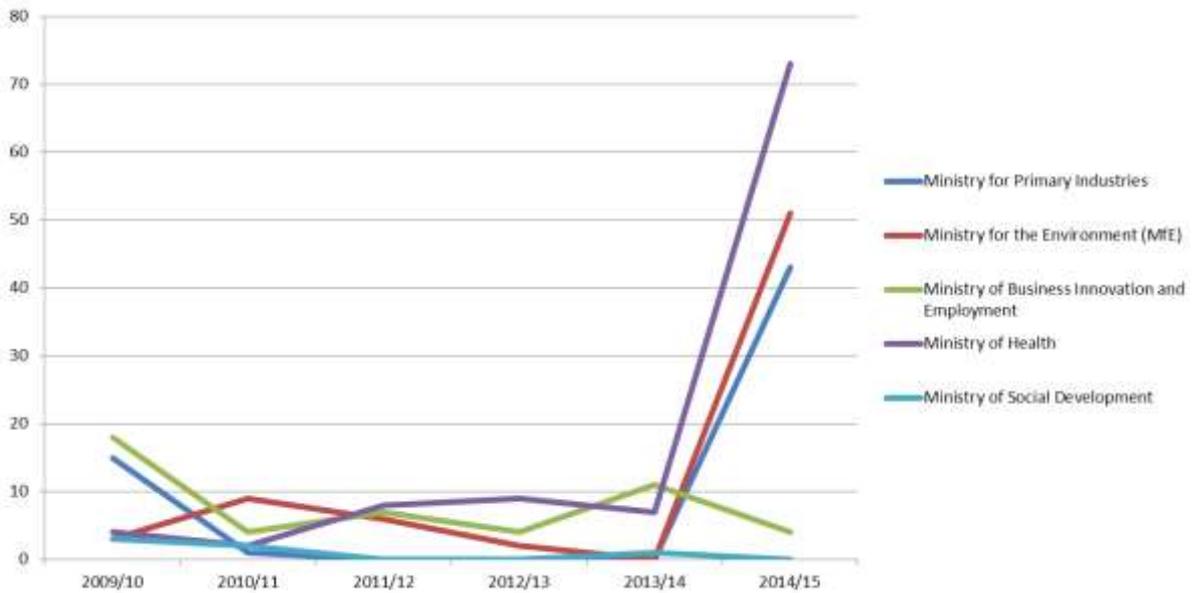
34. MPI actively engaged with their research partners to ensure relevant data is available in open format with open licensing, and notes there has been an increase in requests for public data. An example of re-use is MPI’s observer data on protected specific captures which supports Dragonfly Science’s work on interactions between protected species and fisheries.

35. Ministry for Business, Innovation and Employment (MBIE) now has an established data team which is developing a directory of datasets. MBIE has factored the Declaration into major business planning documents, including

the Statement of Intent and specific business group plans. MBIE is also developing processes to remove barriers which will enable improved use, re-use and sharing of data. MBIE listed 4 datasets in 2014/15 on data.govt.nz, and a further 6 since the survey. MBIE noted that their data release plan and funding arrangements are yet to be prioritised.

36. MBIE's re-use examples include the International Visitor Survey being used by InfoTools which makes the visualised data available to their commercial clients through their own analytical tools; and re-use of energy, rent and immigration data by Wiki New Zealand.
37. The Ministry of Health (MoH) participated in a pilot with LINZ and Wiki NZ to provide data in more open and accessible formats and they are now looking to continue this work as part of their core business. They have worked with the Secretariat to undertake a stocktake of datasets released on their websites but not listed on data.govt.nz. These releases are at more granular levels and with better discoverability. With support from the Secretariat, they are actively working with a legal adviser to implement a Creative Commons licence and updating publication policies to meet NZGOAL requirements. MoH listed 69 datasets in 2014/15 on data.govt.nz, a further 7 since the survey and will continue to update existing datasets.
38. MoH engagement with key stakeholders is underway, including consulting on data required on non-admitted patients, and mental health, alcohol and drug use. Published data around hospital discharges, cancer, mortality, mental health and maternity data are all re-used by the health sector to inform ongoing operations activities. A specific example of re-use is the Health Protection Agency's use of the New Zealand Health Survey data in their online Tobacco Control Data Repository.
39. The Ministry for Social Development's (MSD) primary focus has been on preparing a stocktake of datasets held, engaging with data users to identify and prioritise high value public data, and preparatory work to release other public data in future years. MSD noted their adoption of open data is limited by resourcing, and that they see open formats as complex and costly. They have engaged with key stakeholders to develop a new edition of the Social Report, and are now exploring new ways of providing and receiving public good information. MSD has experienced an increase in requests for administrative public data. MSD did not list any new datasets on data.govt.nz in 2014/15 but updated two previously released datasets.
40. MSD has no planned data releases for 2015; however, since completing the survey, MSD released the data behind the Contract Mapping website as open machine-readable data for re-use at GovHack hackathon held in July 2015. Re-use of the data will be monitored and could illustrate the case for MSD to further prioritise resourcing to release more public data.
41. Overall these agencies have listed a significant number of datasets on data.govt.nz since September 2014, as illustrated in Figure 2:

Figure 2: Five data-intensive agencies – data listing trend

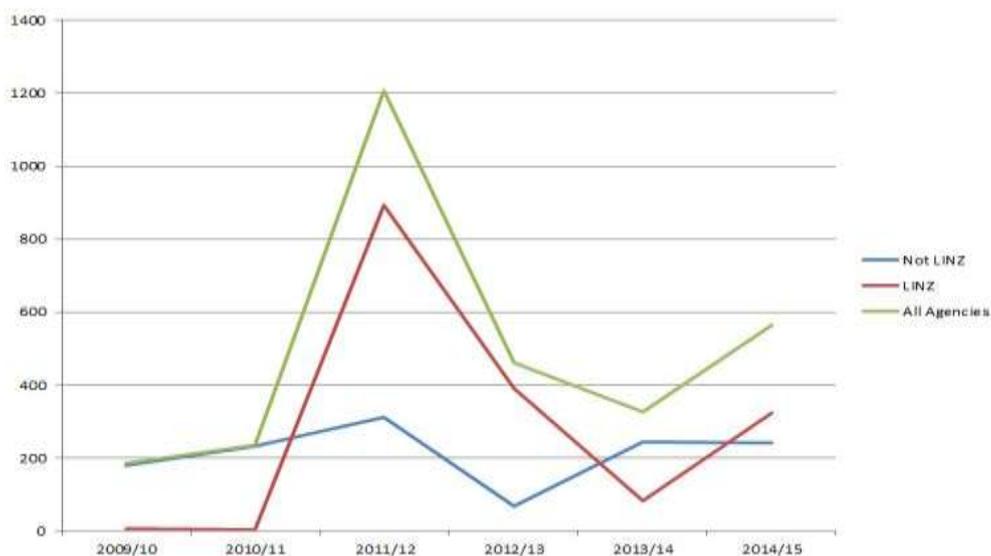


Listing on data.govt.nz

42. The data.govt.nz website currently lists 3,442 datasets¹⁵, compared with 2,518 as at 30 June 2014.

43. Figure 3 shows the total data releases listed per annum on data.govt.nz since its launch in November 2009. The large spike in releases in July 2011 was primarily driven by LINZ starting to release open data, and they continue to list the majority of datasets on data.govt.nz.

Figure 3: Total number of datasets listed on data.govt.nz



¹⁵ As at 24 July 2015

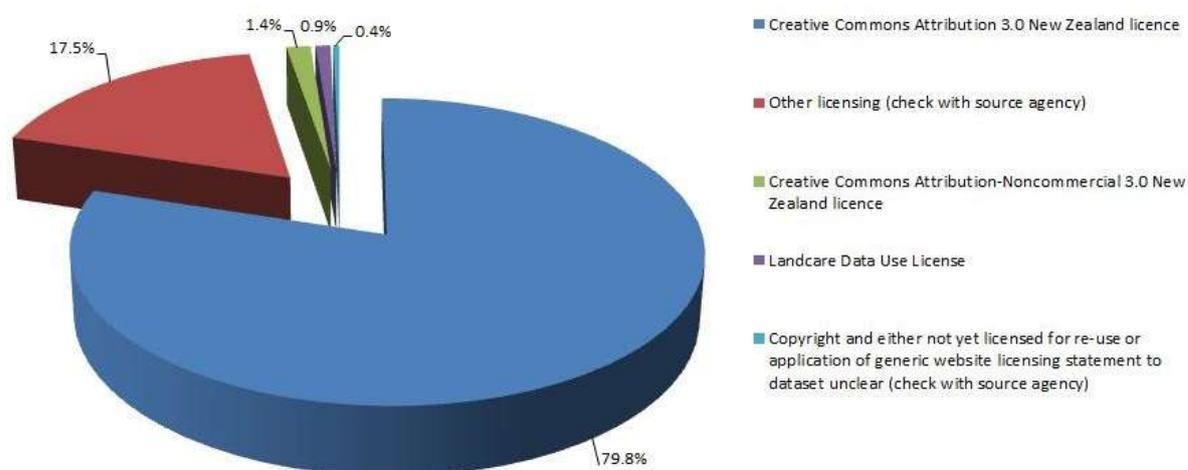
44. All agencies excluding LINZ listed 240 datasets in 2014/15 on data.govt.nz, which is on par with 2013/14 when 244 datasets were released (excluding LINZ). Between 1 April 2015 and 30 June 2015 a further 447 listings were made.
45. Twenty (55%) agencies advised they had worked with key stakeholders in 2014/15 to identify the high value public data they wish to be made available for re-use in the future. This level of engagement is similar to 2013/14 where seventeen (53%) agencies had engaged at that level.

Open Data Releases

46. Twenty-three (64%) agencies publish their data in open formats and use APIs (Application Program Interfaces). These include LINZ, DIA (Charities, DigitalNZ), MBIE (Companies Office), MfE and Landcare Research. 14 agencies (38%) state that they are increasing implementation of open formats and APIs. This suggests an increasing understanding of the importance of providing data that is both human and machine-readable, allowing the data to be used in a greater variety of ways.
47. Fifteen (41%) agencies are undertaking stocktakes of datasets held within their organisation which will, when released publicly, provide a valuable resource for users to determine their data requests.
48. Since the survey closed on 31 March 2015 there have been several new data releases of note. These include NZ Defence Force releasing their first open data via their Pacific Geonet Data Service; and Environment Canterbury and Sport NZ releasing their first open data.
49. Half of agencies (55.6%) surveyed are focussing on preparatory work to release more data in the future and on implementing open data publishing policies and procedures. This suggests low maturity across much of the sector; more engagement with data users to identify and prioritise high value public data is also needed.
50. Twenty-one agencies and eight wider government agencies (58%) notified their intention to upload new or updated data to data.govt.nz during 2014/15. New planned data releases in 2015 include Christchurch City buildings (CERA), passports issued (DIA), Corrections managed sentences (MOJ), NZ household travel survey data (MOT), Kiwis Count research data (SSC) and State Sector Remuneration (SSC).
51. Fifteen agencies surveyed stated they will not be releasing new data in 2015. The Secretariat has identified potential datasets which could be listed on data.govt.nz and will work with individual agencies to encourage their release in 2015.

Licensing

Figure 4: Adoption of NZGOAL on 2014/15 data releases



52. Almost 80% of agencies are now using the Creative Commons Attribution 3.0 New Zealand licence (CC-BY) in compliance with NZGOAL which provides a strong level of consistency across government. Only a small percent (0.4%) are releasing data that is only copyrighted or not yet licensed for re-use.

Central Government Stakeholder Engagement

53. Examples of stakeholder engagement include:

- a) MOH has been working with stakeholders on a number of projects related to mental health, alcohol and drug use to consider what information products or data are needed to support work across the sectors. They are currently consulting on what an initial data release from the National Non-Admitted Patient Collection should contain and focus on;
- b) MSD has consulted widely with stakeholders and interested groups on the development of a new edition of the Social Report, including who may use the information and what other agency data may be utilised;
- c) SSC has worked with key stakeholders to improve the data release from their Human Resource Capability and KiwisCount Survey reports. This has resulted in the development of departmental reports for public service departments;
- d) NZ Police has been actively working with local councils and community groups to meet their request for more detail about crime in specific neighbourhoods. New datasets will be opened where there is public value in doing so; 'unique victim' and 'unique offender' data is due to be released; and new crime data will be published with greater geospatial and temporal detail; and
- e) DIA has discussed local authority election statistics with a local government NZ reference group to advertise the datasets and discuss how they'd like information presented, and what other information they show interest in.

54. Eleven agencies (30%) experienced an increase in requests for their public data. These include benefit and child abuse notifications, topographic data for the Pacific, bridge data, land boundaries and farm data. Requests for data are also made via data.govt.nz, with opportunities for others to vote in support of the request. Best practice is to list the requested data on data.govt.nz once it has been supplied. Five agencies report a decrease in requests for public data that is now available on-line in re-useable formats.
55. Resourcing constraints identified in September 2014 were directly addressed through additional resourcing (secondment from the Department of Internal Affairs (DIA) and two fixed-term staff in the Programme). Departments were assisted in open data formats and listing on data.govt.nz; NZGOAL was revised to adopt the Creative Commons International 4.0 licences in line with international best practice; 150 staff attended NZGOAL training sessions, NZGOAL online training modules were prepared; and data.govt.nz was improved to increase transparency and usability.

Progress on Local Authority & Crown Research Institute Adoption of the Declaration

56. Engagement with local government and CRIs was prioritised in 2014. Local government and CRI Chief Executives were invited to appoint Data Champions in December 2014. Fifty-four local councils and five CRIs have done this to-date¹⁶. The Secretariat surveyed 29 local government and the six CRI agencies that have appointed a Data Champion to determine their needs and how best to support them in adopting open data going forward. Twenty-four councils and 3 CRIs responded. Local government's key results are:

Progress towards Business as Usual

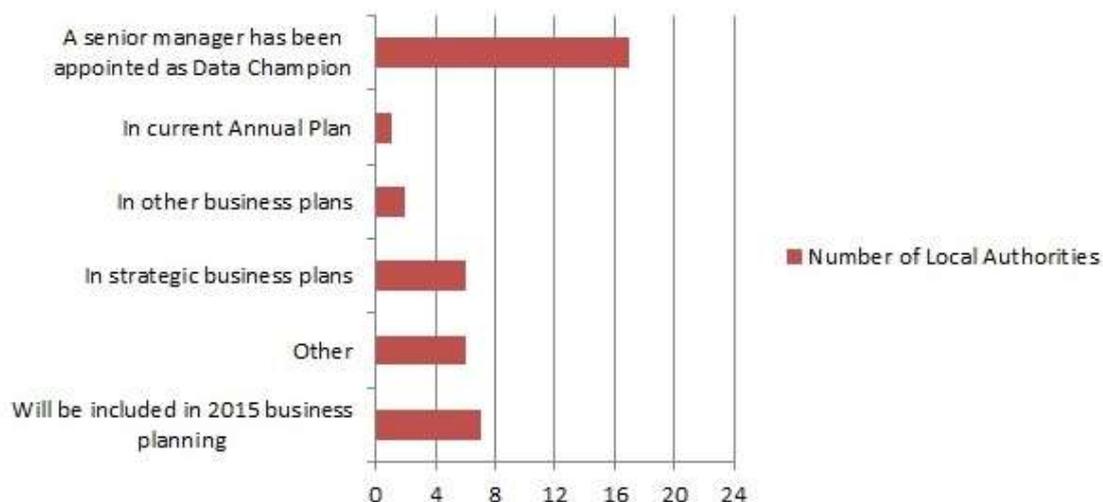
Data Champion at senior executive level	71%
Open data incorporated in current plan	29%
Open data will be in future plans	17%

57. As expected at this early stage, local government awareness is low regarding listing datasets on data.govt.nz and licensing their data for re-use using NZGOAL; however this is expected to improve with the Programme's engagement with Data Champions.
58. They also have a relatively new understanding of the Declaration (though they are not necessarily new to the concept of open data). This was reflected in some survey responses indicating confusion around the difference between

¹⁶ As at 2 July 2015

open data and geospatial data. This could relate to a misunderstanding that the Programme, being located within Land Information New Zealand, only has an interest in geospatial data rather than all government-held information and data.

Figure 5: Local Councils' Incorporation of the Declaration into Business Planning



59. Fourteen (58%) local councils are regularly releasing datasets under Creative Commons licensing formats which shows a clear understanding of the importance of open licensing and adoption of NZGOAL. The Secretariat expects this to increase over the coming year due to the release of new NZGOAL online training modules providing easy remote access for Data Champions and other relevant staff.

60. Examples of local government open data releases include portals at Otago Regional Council, Waikato Regional Council, Wellington City Council, and Auckland City Council's pilot 'Pokie Data Portal'; primary geospatial data including aerial photography; community facilities; property; roading; and planning and council assets such as water, wastewater and stormwater pipe networks. Nine of the surveyed councils (37%) have yet to release open data.

61. Ashburton District Council is currently testing its publication of spatial data via their own GeoServer service (imagery and district plan). Environment Canterbury has released its datasets via the LINZ Data Service and its own ECan data catalogue. Marlborough District Council has a well-developed Open Data website and API (Application Program Interface). Otago Regional Council has invested in creating an open data platform and releasing GIS data in standard formats. Wanganui District Council is also using the LINZ Data Service.

62. Waikato District Council is working with its IT managers group to generate an Open Data policy and then to identify and release high value datasets. Tauranga City Council is currently formulating its digital strategy which will also address release of public data. Taupo District Council has identified some high value datasets which will require additional work before publication.

63. The three main barriers identified by local councils to releasing open data are resourcing, costs, and priority. Other barriers noted include lack of knowledge

of data available, quality and management of data, data governance, revenue reduction e.g. currently on-selling rates data to Quotable Value, and legal requirements. Five local councils (20%) specifically noted they had neither identifiable nor insurmountable barriers to the release of open data.

64. The Chair of the Open Government Data Chief Executives Governance Group also wrote to CRIs and Callaghan Innovation Chief Executives in 2014 inviting them to nominate a Data Champion to manage release of nationally significant and other publicly funded databases for re-use. Five CRIs have nominated Data Champions. Regular updates with CRI Data Champions have been scheduled
65. GNS Science, Institute of Environmental Science & Research (ESR), and Landcare Research responded to the survey. Their results are included in the central government results.
66. These three CRIs are not reflected highly in the table, mainly because they only recently joined the programme. They are all releasing data, but not consistently applying NZGOAL or notifying data.govt.nz. There is a willingness to release data where possible, but there is a commercial tension to be worked through for some datasets.
67. ESR noted support for the Declaration is factored into their business planning documents. GNS Science noted they are working on a data management strategy to drive public release of datasets. They also advised that releasing data publicly has generated further requests about how to understand and interpret the data from people without scientific knowledge and that this requires additional resourcing.
68. Landcare Research has established a data repository to manage and share data not previously catered for and may investigate harvesting data from this repository into data.govt.nz in future. They also noted the challenge for CRIs to balance releasing open data versus the requirement to operate as a profitable business.

Engagement with Civil Society

69. Civil society actively participates in the open data sessions at the annual NetHuis – multi-stakeholder conferences on Internet governance and policy issues. Common themes are security, communications, privacy and open data.
70. Civil society also runs *GovHack* open data competition (hackathons) where motivated New Zealanders work with government open data to innovate and create apps, infographics etc. The largest to date was held across 7 New Zealand locations from 3-5 July 2015. The Wellington event was hosted by MBIE. Government's role was to supply the open data that users wanted to use and then look at incorporating the innovations into regular service delivery.
71. The programme has ongoing interaction with Open New Zealand through its open government ninjas discussion list. This group "develops and hosts projects around transparency, participatory democracy, and generally making central and local government useful to citizens and businesses".

Impacts from Re-use of Open Government Data

72. In a well-functioning democratic society, citizens need to know what their government is doing. They also want to share and re-use data through analysis and visualisation to create greater understanding and positive contribution to social and economic outcomes.
73. Evidence of social benefits from re-use of New Zealand's open government data that has been re-used includes:
- a) an increase in availability and accessibility of resources e.g. schools and teachers using Department of Internal Affairs' DigitalNZ to access resources for their classrooms;
 - b) allowing independent monitoring of government services e.g. the Salvation Army's use of Statistics NZ and NZ Police open government data sources to inform their annual 'State of the Nation' report; and
 - c) a reduction of risk or increased level of safety e.g. health and safety alerts produced by Thundermaps with data from Environment Canterbury, NZTA, EQC, GNS Science, LINZ and Wellington City Council.
74. Evidence of economic benefits includes:
- a) fuelling economic activity through generation of new businesses or the expansion of current business e.g. Critchlow's VisualCensus2013 creating data visualisation and analysis from demographic census data from Statistics New Zealand which is then bundled and on-sold to customers;
 - b) building marketable paid apps e.g. Nest Finder mobile app provides comprehensive information for travellers and tourists in New Zealand. The Nest Finder paid premium version provides topographic maps from LINZ which significantly increases safety for the user, particularly while travelling in remote areas; and
 - c) a reduction in resourcing or processing time e.g. Kamo Place Race by Whangarei District Council which used open demographic data, maps and stocktake data for public analysis as part of their new regulatory Town Planning process, with open data contributing to 5% of the outcomes.
75. The six case studies mentioned above are further detailed in Appendix Two and on ict.govt.nz.
76. Evidence of government's performance is regularly illustrated on the New Zealand Herald's data site and regular data blog (since 2014). The election web application displayed real-time election results and past election results from the Electoral Commission down to the individual polling booth level, and census data from Statistics New Zealand. This set new records for visitors to the NZ Herald website and won the "Best innovation in Multimedia storytelling" award at the 2015 Canon Media Awards. Herald journalist, Harkanwal Singh, also won the "Best use of interactive graphics" award for his Deprivation Index Map at the awards. Both of these achievements required government's public data in open formats.
77. Capability is also added through data journalists' increasing use of

government's open data; a Data Journalism module (NCEA Level 6) for the Statistics curriculum under development by New Zealand Qualifications Authority; a proposed Data Journalism module; and the new data journalism course at Auckland University of Technology.

78. Evidence of efficiencies from re-use of data includes almost two-thirds of government agencies noting they were using other agencies' existing public data where possible rather than collecting it themselves. Reducing replication is a key reason for listing datasets on data.govt.nz. Eight agencies also receive agencies' relevant machine-readable public data directly rather than needing to manipulate it to load into their own systems.

79. Impacts from making their protected data available for re-use after it had been anonymised were identified by a small number of agencies. Positive impacts included raising the visibility of what data was available, greater collaboration across agencies, improved consideration of the ethical and legal implications of publishing open data. Challenging impacts included understanding how open to make data given potential commercial value by users, determining which licenses to apply to the data, resourcing required around licensing agreements, and determining and managing ownership of data. These replicate the general open data challenges.

80. Three local councils have good re-use examples of their open data:

- a) Marlborough District Council's Floodwatch, which manages risks to public safety associated with natural events such as riverine flooding, was featured in an Open Data Case Study by the Secretariat;
- b) Napier City Council's GIS.Napier, Napier's online mapping tool, is featured in a LINZ Case Study which highlights significant efficiency gained by Napier City Council leveraging LINZ data by using its API (Application Program Interface); and
- c) Canterbury Maps, which provides maps and applications from Canterbury local councils, is re-used by CERA to support its operational processes and formation of public policy, Boffa Miskell to inform their advisory professionals, and Interpret Geospatial Solutions for integration into their daily processes and the applications they develop for clients.

Programme Updates for 2014/5

2015 Global Open Data Barometer

81. New Zealand's open data activities were recognised internationally when New Zealand was ranked 4th equal out of 86 countries in the 2015 Global Open Data Barometer for open data readiness, implementation and re-use impact, maintaining its 2013 ranking of 4th¹⁷.

¹⁷ <http://barometer.opendataresearch.org/report/analysis/rankings.html>

New Zealand Government Open Access and Licensing framework (NZGOAL)

82. NZGOAL, Version 2, May 2015, adopts the Creative Commons 4.0 International licenses. This and other incremental changes make NZGOAL more succinct, user-friendly and up-to-date. This change does not require any retrospective action in relation to works already licensed under the previous 3.0 New Zealand licenses.

Data.govt.nz

83. Improvements to the website included adding reporting and transparency features, updating the look of the site, and tracking user behaviour to inform future improvements. Ongoing work will improve the quality of manually listed datasets, refine the data request process to support timely responses from agencies, and monitor alignment of the Programme and DIA's data.govt.nz programmes.

NZ Data Futures Forum/NZ Data Futures Partnership¹⁸

84. The Programme led Government's response to the NZ Data Futures Forum Report in March 2015 on expanding the open data agenda to include private and community sector data. It consulted with the sectors and prepared the March 2015 report to the NZ Data Futures Ministers on Expansion of the Programme. The Programme is undertaking the following activities as agreed by Ministers:

- a) "work with government agencies managing contracts for services, and the service providers, to allow valuable data to be unlocked for innovative re-use in the future;
- b) expand its engagement with the community sector to encourage better use of open government data; and
- c) work with the private sector, in particular entrepreneurs and start-ups, to stimulate the growth of new products and services using open data."

85. In essence, the Programme primarily works with and within agencies to release high value data and information that users want and the NZ Data Futures Partnership works with the private sector and innovators to facilitate and promote the re-use of data and information. Appendix One depicts the relationship between the two programmes.

Open Government Partnership¹⁹

86. The Programme is one activity of the Open Government Partnership (OGP) New Zealand Action Plan, through its inclusion as Action 4 of the ICT Strategy and Action Plan to 2017²⁰. This work requires a focus on consultation with civil

¹⁸ http://www.stats.govt.nz/about_us/what-we-do/our-publications/cabinet-papers/data-futures-partnership-cabinet-paper.aspx

¹⁹ <http://ssc.govt.nz/open-government-partnership>

²⁰ <https://www.ict.govt.nz/strategy/action-plan-2014-new/>

society which includes communities, NGOs and business. The tight timeframes to meet the international OGP monitoring and reporting deadlines are being managed through close collaboration with the State Services Commission.

International Engagement

87. The Programme undertakes regular international engagement to ensure that the programme is following international best practice. This also provides a valuable level of visibility and engagement for New Zealand, and also provides an opportunity to contribute at a strategic level with other countries' leaders.
88. The Programme is regularly invited to contribute to international open data discussions. In 2014/15 meetings were held with OECD, UK and French governments, the Open Data Institute (ODI), the Open Government Data Leaders Summit in Ottawa, and at the Open Data Agenda-Setting for Asia 2015 Workshop, held in Jakarta in February 2015. The APEC Senior Finance Official for New Zealand (Treasury) attended the Asia-Pacific Economic Cooperation (APEC) Workshop on Fiscal Management through Transparency and Reforms in the Philippines in June 2015.

Benefits measurement

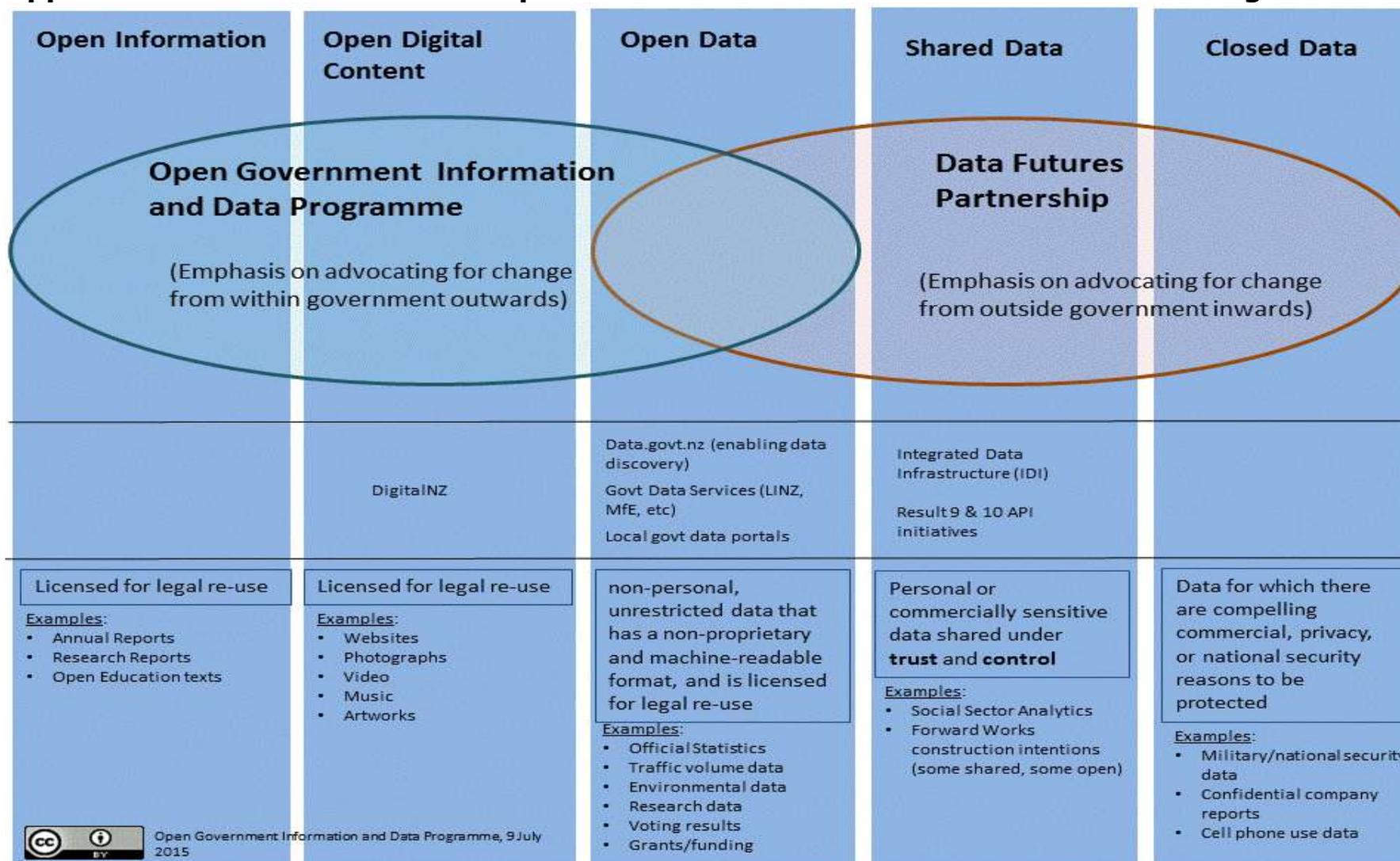
89. Thirty case studies have been published on ict.govt.nz. Consistent user feedback advises that civil society and private sector re-use is not yet mature enough to justify a detailed benefits assessment at this stage. International commentators advise this should be undertaken ten years after open government data programmes commence. The Secretariat will continue to publish case studies as the first step towards this measurement.

Next Steps

90. The open data programme has a five-fold focus for 2015/16 including:
 - a. intensive support of agencies to treat high value data release as a business as usual activity, including partnering the top and low performing agencies;
 - b. active work with Data Champions in local government and CRIs²¹;
 - c. continued work with civil society and business to understand demand;
 - d. further assessing the impact and benefits from the open data re-use; and
 - e. assessing the path to a self-sustaining open data programme.

²¹ Integrated Property Services programme, and the NZ Data Futures Partnership

Appendix One: Intersections of Open Government Data and NZ Data Futures Programmes



Appendix Two: Case Studies

CASE STUDY: Digital NZ API (DIA)

1. DIA's DigitalNZ, an arm of the National Library of New Zealand, aims to make New Zealand digital content useful, relevant, and easy to access. It allows public access to digital material from libraries, museums, government departments, publicly-funded organisations, the private sector and community groups. The DigitalNZ Application Programming Interface (API) provides a gateway to millions of New Zealand content records such as digital photos, video, documents and newspapers for automated access from across the internet.
2. Network for Learning, University of Canterbury, NZ Onscreen, Te Papa and the Ministry of Education are core users of DigitalNZ's API, accessing items for teaching and educational purposes such as in classes, exhibits, and in TV programmes). The National Library uses DigitalNZ to help users find collection items and build new-generation mobile and touch screen applications.
3. Impacts include making NZ digital material easier to find, share and use, 'legally' encouraging greater access to this material, fostering innovation in the culture and heritage sector and new insights from New Zealand's history.

CASE STUDY: Salvation Army 'State of the Nation' Report (multiple agencies)

4. The Salvation Army has published their independent monitoring report - 'State of the Nation' – for the past eight years and addresses five areas of focus: our children, crime and punishment, work and incomes, social hazards, and housing with subsequent indicators. The release of the report gains significant media coverage, including print media and television news, and is available to download from the Salvation Army website.
5. The 'State of the Nation' report uses a significant amount of government data, however only data provided by Statistics NZ and NZ Police is open data. This is available on the NZ.Stat and Infoshare free web tools run by Statistics NZ.
6. The positive impacts of using the NZ.Stat are deeper analysis and engagement, and easier visualisation, as the downloaded data can be combined with other datasets and previous years' results using statistical tools. This provides a quicker, more robust, and less manual process using the Statistics NZ and NZ Police data in comparison with the other data used in the report.

CASE STUDY: ThunderMaps (Environment Canterbury, NZTA, EQC, GNS Science, LINZ and Wellington City Council)

7. ThunderMaps collects health and safety data on location-based events and turns them into risk alert apps which work on any type of device. The software is used every day by members of the public to improve safety and provide timely and relevant information based on locations of interest to them. It is also available for organisations that can alert their staff of relevant hazards and feed the safety information directly into their databases.
8. One of the services that ThunderMaps provides is real time road hazard alerts using open data from NZTA's Traffic Road Information System (TREIS). Road

Hazards and Traffic Alerts NZ, available via ThunderMaps, alerts users who receive a text or email alert when a road incident happens in the area of interest they have selected. This provides vital information about areas of risk or hold-ups which have the potential to slow down the user's journey to their destination. This empowers the user to quickly select a more suitable route.

CASE STUDY: Critchlow's VisualCensus2013 (Statistics NZ)

9. Critchlow, a privately-owned New Zealand geospatial services consultancy, publishes the VisualCensus2013 which incorporates demographic census data into visualisation and analysis on a map. This information is then bundled and on-sold to Critchlow's customers. The VisualCensus2013 can be used to optimise retail networks, profile and acquire profitable customers, inform planning and zoning decisions, and underpin policy development in the public sector.
10. The VisualCensus2013 uses GIS/Mapping spatially enabled data from the Census published by Statistics New Zealand, as well as the Index of Deprivation for New Zealand released by the Department of Public Health, University of Otago.
11. Impacts of use of VisualCensus2013 include better return on investment (ROI) for client marketing campaigns, reduced cost of delivery for public services, improved access to critical infrastructure, and safer decisions around location of services.

CASE STUDY: Nest Finder mobile app (Department of Conservation)

12. Nest Finder is an app which provides comprehensive information about all published DOC huts, camp sites and visitor centres, as well as i-SITES, BBH hostels, YHA hostels, holiday parks and Forest and Bird lodges across New Zealand. The app contains detailed information for most locations, including facilities, how to get there, pricing etc. The app is designed for offline use so no internet connection is required to access the information which suits its travellers' market.
13. Nest Finder utilises multiple open data sources, including the Department of Conservation's Geoportals Datasets. The data available includes tracks, huts, campsites, public conversation areas, and recreational hunting permit areas.
14. Impacts include allowing travellers and tourists direct access to essential information while on the road, including accommodation and booking choices. Access to the professional paid version provides LINZ topographic maps which significantly increase safety for the user, particularly while travelling in remote areas. This is particularly important when internet connection is unavailable and battery power must be conserved. This Android app has over 10,000 downloads.

CASE STUDY: Kamo Place Race (Whangarei District Council)

15. The Kamo Place Race prepared a new regulatory Town Plan for the suburb of Kamo, Northland, in only five days using lean and agile methodologies, following six weeks of awareness raising activities. This replaced the traditional council approach of up to two years, including six months of appeals and was the first time an approach of this kind had been used by a New Zealand local council.

16. Open data such as demographic statistics, constraint maps, and resource stock-takes were distributed to the community to enable crowd-sourced analysis. The open data enabled the council to rapidly access the relevant datasets, produce an analysis or visualisation, and publish this for public consumption. This process allowed the open data to form part of, and influence, the conversations as they happened. Previously all data analysis was only carried out by specialist council staff with access to the data.
17. The impacts of open data in this process provided a higher level of transparency, creating greater levels of public trust and significant engagement. Open data use was 5% of the total benefit of the overall project.

CASE STUDY: Land, Air, Water Aotearoa (MfE and Regional Councils)

18. Land, Air, Water Aotearoa (LAWA) has been established to help local communities find the balance between using natural resources and maintaining their quality and availability.
19. Initially a collaboration between New Zealand's 16 regional and unitary councils, LAWA is now a partnership between the councils, Cawthron Institute, Ministry for the Environment and Massey University and has been supported by the Tindall Foundation. It allows data collected at individual councils to be shared and compared.
20. LAWA's data is used by NIWA and other CRIs for national-based studies and tools development. For example, NIWA is carrying out a two-year programme to develop an up-to-date regional flood estimation tool for New Zealand and drawing together data from over 600 monitoring sites across the country. The principal impact of LAWA is to give the public information around the state of and trends for New Zealand's national water resources, from local to national scale.

CASE STUDY: Interactive Graphic: Where the Budget money goes (Treasury)

21. NZ Herald created an interactive visualisation for Treasury's Budget 2015 figures using Google's Trendalyzer interactive bubble chart which provides a legible breakdown of expenditure. The data visualisation shows where Budget money is allocated either through expenditure by department or by classification. Users can hover their mouse over the relevant section to obtain a drop-down box showing the amount of funding received in Budget 2015, the percentage of funding change since 2014, and a brief summary of the scope of the funding.
22. The major impact of using this visualisation is encouraging greater public engagement about Budget 2015 through simple communication of complex data.
23. Other data visualisations by NZ Herald have recently received two awards at the 2015 Canon Media Awards: 'Best innovation in Multimedia Storytelling' for their Election web application and 'Best use of interactive graphics' for their Deprivation Index Map interactive.

Appendix Three: Definitions

Public data is non-personal, unclassified and non-confidential data:

- collected, commissioned or created by the agency in carrying out its functions or statutory responsibilities;
- publicly funded and for which there is no restriction:
 - a) in the case of copyright works, to its release and re-use, in accordance with NZGOAL , under any of the Creative Common NZ law licences, or
 - b) in the case of non-copyright material, to its open release and re-use.

Protected data is personal, classified or confidential data that is:

- Collected and used by the releasing agency for its core functions
- Aggregated and anonymised for use by other authorised users
- Made available to authorised users (ie. specific government agencies and/or registered users eg. via a semi-controlled environment at Statistics NZ, Statistics NZ’s Integrated Data Infrastructure.

High value public data is data which, when re-used, has one or more of the following impacts:

<p>Economic & social outcomes</p>	<p>Business can use it to add value, innovate & create new products to spur economic growth</p> <p>Business and communities can use it to:</p> <ul style="list-style-type: none"> ➤ develop useful applications/new services ➤ make informed decisions about the government services they use ➤ make informed decisions that improve their quality of life <p>It provides information about sustainability and risk.</p>
<p>Transparency & democratic outcomes</p>	<p>It reports on the performance of an agency or service</p> <p>It provides details of government funding and/or expenditure</p> <p>It provides an evidence base informing & encouraging external participation in policy development</p>
<p>Efficiency outcomes</p>	<p>It supports cross-sector service delivery, e.g. other agencies & NGOs can use it to improve their services</p> <p>Releasing it for re-use could:</p> <ul style="list-style-type: none"> ➤ make it easier for government agencies to work together ➤ reduce the cost of providing an existing government service ➤ reduce the cost of accessing and processing this information for existing users <p>It helps align central & local government initiatives through a more coordinated national view of government data.</p>