

# Addressing critical gaps in the government's open data investments

A Public Good Programme Study

December 2015

# The following terms have the following meanings in this deck

## Open data

## vs Closed data<sup>1</sup>

Degree of access	Everyone has access	Access is limited to a small subset of individuals within agencies that host the data
Machine ready	Data is available in formats that can be retrieved and processed by computers	Data in formats not easily retrieved and processed by computers
Cost	No cost to obtain	Offered only at a significant fee
Rights	Unlimited rights to reuse and re-distribute data	Re-use, republishing, or the distribution of data is prohibited

## Other terms

A service delivery partner is a non-profit that delivers government-funded social services

A social enterprise is a for-profit trading organisation that uses a sizeable proportion of its profits to pursue social objectives

A pivotal job holder is an individual within an organisational who can directly support or stall an important change initiative

## Data types

### Raw data

Raw data consist of the data directly observed or collected from a specific unit of observation

### Microdata

Microdata consist of the data directly observed or collected from a specific unit of observation but where identifying information about individuals has been removed or modified to protect identity

### Aggregate data

Aggregate data are statistical summaries. Because aggregate data are often produced to provide access to data that agencies do not want to release, not all aggregate data contain the variables that a user may desire

# Executive summary (slide 1 of 2)

## Investments to open government-held data are delivering wins

Governments all over the world are investing in ways to open the data they hold. Given the scope and scale of the benefits on offer, the return on these investments can be significant.

There are a number of initiatives currently underway to open New Zealand government-held data, including the Open Government Information and Data Programme and the Data Futures Partnership. These initiatives are delivering wins: More and more businesses are using data to stimulate growth. Agencies are using other agencies' data to develop policy and strengthen their services, and this year, the government was ranked 4th equal internationally for the 'openness' of its data.

## Despite wins, the benefits on offer from government investments are at risk

While the current investments are delivering wins, change is difficult, and crucial gaps are placing the government's open data investments at risk.

**Gap 1.** There are no targets for releasing data that users outside government would like to use now, and in the future, to support economic growth and improve service delivery. Targets matter: They are crucial to the success of transformations. Baselines also matter: You cannot determine whether progress is being made, or establish targets, without them

**Gap 2.** Information required to track and manage the progress and impact of investments has not been compiled, including the size of the prize from opening government-held data sets. A size of the prize is needed to manage the realisation of benefits, and transformations that rigorously track progress and manage benefits are over seven times more likely to succeed.

**Gap 3.** No work has been done on the mindset shifts that are crucial to public servants opening data. Mindsets also matter: Transformations that understand and shift mindsets that either limit or enable change are also more likely to succeed.

# Executive summary (slide 2 of 2)

## Three projects can help strengthen the government's open data investments


**Project 1.** Establish a baseline and access targets for public service-held data, including microdata, that service delivery partners want to use now, and in the future, to reduce costs and improve services.

**Project 2.** Establish the size of the prize from opening public service-held data , including microdata, that service delivery partners want to use now, and in the future, to reduce costs and improve services.

**Project 3.** Identify the mindsets limiting pivotal job holders from opening public service-held data, including microdata, that service delivery partners want to use now, and in the future, to reduce costs and improve services.

In addition to addressing crucial programme-level gaps in the current suite of open data investments, the projects respond to demands from NGO and Maori service delivery partners (in particular) for access to public service-held data, including microdata. With changes announced last year about the way social services for vulnerable children are expected to be managed, the projects will also support the government's approach to social investment. Finally, while the projects are scalable, their scope reflects our assessment that the greatest near-term opportunities to open data remain in the public service.

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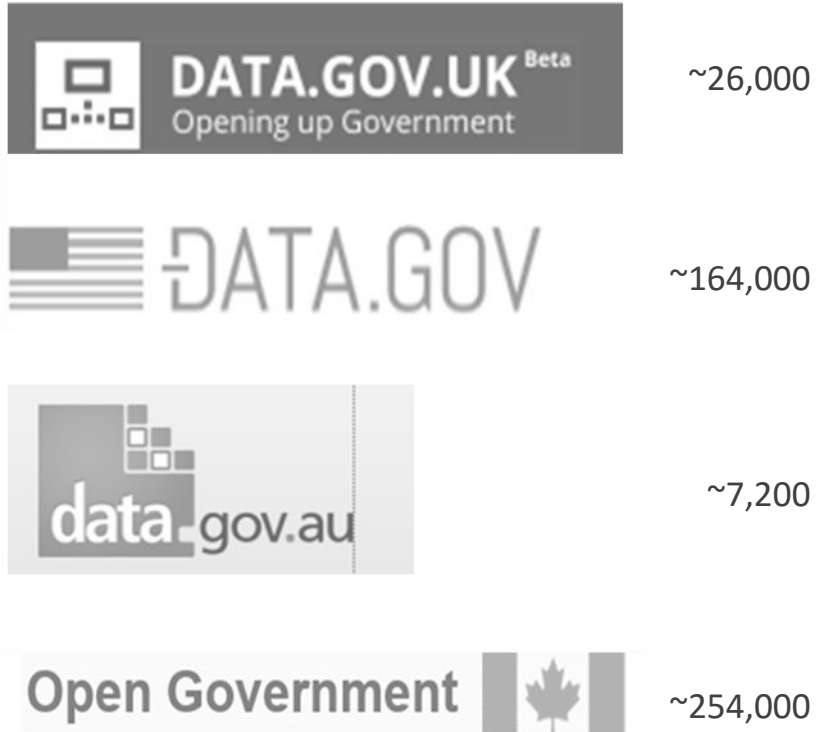
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# Governments all over the world are investing in ways to open the data they hold

## Portals

## Open data sets



## Goals of open data initiatives

1. Support economic growth
2. Improve the delivery and impact of social services
3. Strengthen the transparency and accountability of government
4. Provide opportunities for businesses, communities, and individuals to be involved in government decision-making processes

# Given the scope and scale of the benefits on offer, the return on government investments can be significant



Open government data can help unlock **AUS\$25-63 billion pa**<sup>1</sup>



Over **£200m pa** could have been saved from opening government data on one class of prescription drugs alone<sup>3</sup>



Open government data can help unlock **USD\$3-5 trillion pa** across seven sectors<sup>2</sup>



Open government data exposed **C\$3.2 billion** of misuse of the charitable status tax code in Canada<sup>4</sup>

# There are a number of initiatives currently underway to open New Zealand government-held data

NOT EXHAUSTIVE

## Open Government Information and Data Programme

Set up in 2008, the Programme aims to make non-personal government-held data and information more widely available and facilitate agencies' release of the data and information that people, communities, and businesses want to use

## The Government's ICT Strategy and Action Plan to 2017

The Action Plan, which brings together a number of cross-agency programmes, has six guiding principles for change, including Openness and Transparency: Non-personal information is a public asset that must be open by default for economic and social benefit

## Data Futures Partnership

Re-formed by the Government in October 2015, the partnership is a cross-sector group of influential people working together to undertake a range of activities, including launching catalyst projects, to expand the use of data

[data.govt.nz](http://data.govt.nz)

[data.govt.nz](http://data.govt.nz) is a directory of publicly available New Zealand government datasets. There are currently ~3,500 open data sets available on the portal



# These initiatives are delivering wins: More and more businesses are using data to stimulate growth

NOT EXHAUSTIVE

## Mogeo

Using data from the Department of Conservation, Mogeo developed CamperMate, a smart phone application, to provide information about local facilities to campers/travellers throughout New Zealand

## Real estate company

Using data from Wellington City Council, LINZ, and the Ministry of Education, a real estate company developed [www.watchmystreet.co.nz](http://www.watchmystreet.co.nz) which allows the public to monitor property-related leader boards

## Omega Tech

Developed a message system that alerts users to changes on the road network based on their commonly travelled routes

# Agencies are using other agencies' data to develop policy and strengthen their services ...

NOT EXHAUSTIVE

## Use of other agencies' data is happening ...

Number of departments using other agencies' public data to improve service delivery

= 22 (72%)  
and increasing



Number of departments allowing other departments and authorised users to access restricted data for policy development

= 6  
and increasing



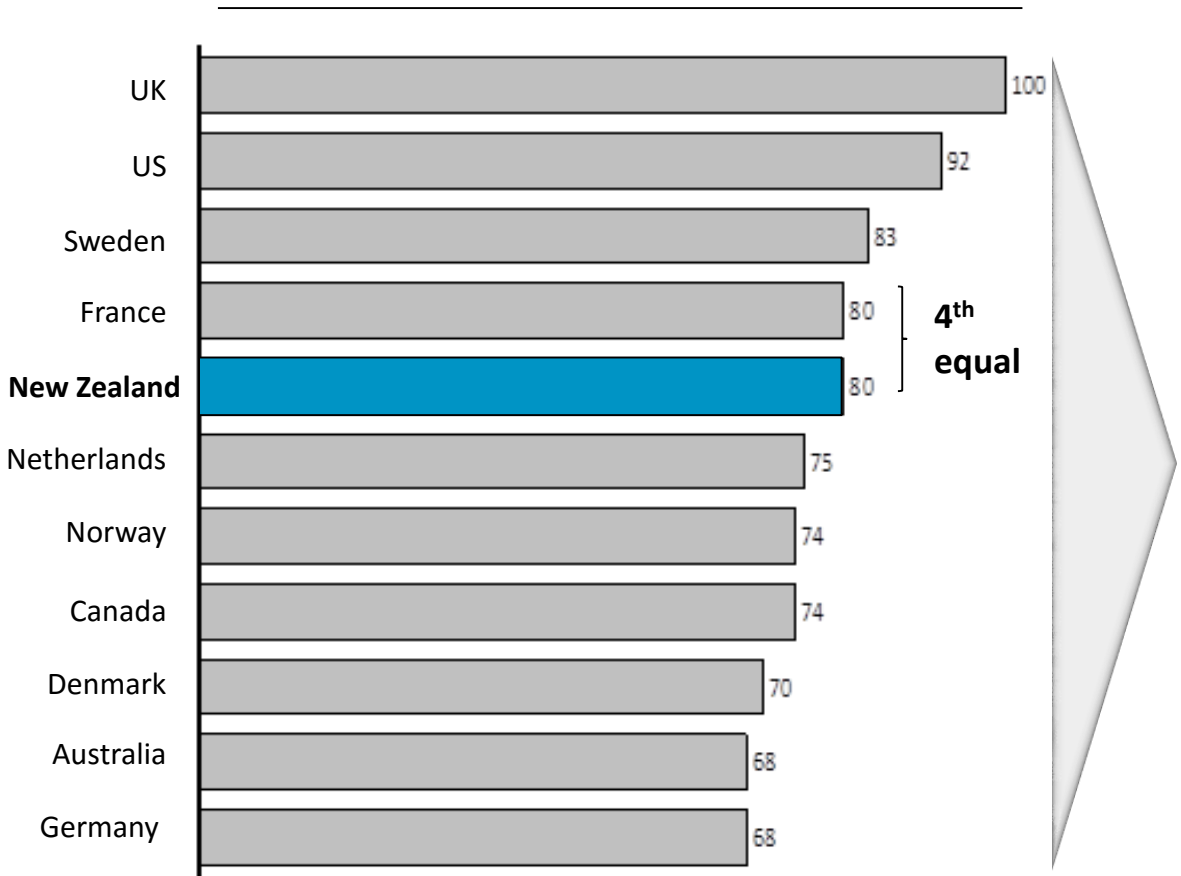
## ... and this use is delivering returns

Impacts from the use of other agencies' data in 2014 included:

- Efficiencies for the Christchurch rebuild (Canterbury Earthquake Recovery Authority)
- Time saved in setting up data sharing agreements with separate agencies (Corrections and Ministry of Justice)
- Improved secure access for authorised users in a secure environment (Ministry of Social Development)
- Benefits of joining the department's data with other data in the IDI (Ministry of Justice)

... and this year, the government was ranked 4<sup>th</sup> equal internationally for the 'openness' of its data


**Top 10 of 86 jurisdictions ranked by the Open Data Barometer, Openness, 2015**



**The Barometer defines 'openness' in two broad ways**

1. Data and content that can be freely used, modified, and shared by anyone for any purpose
2. Open means anyone can freely access, use, modify, and share for any purpose (subject, at most, to requirements that preserve provenance and openness)

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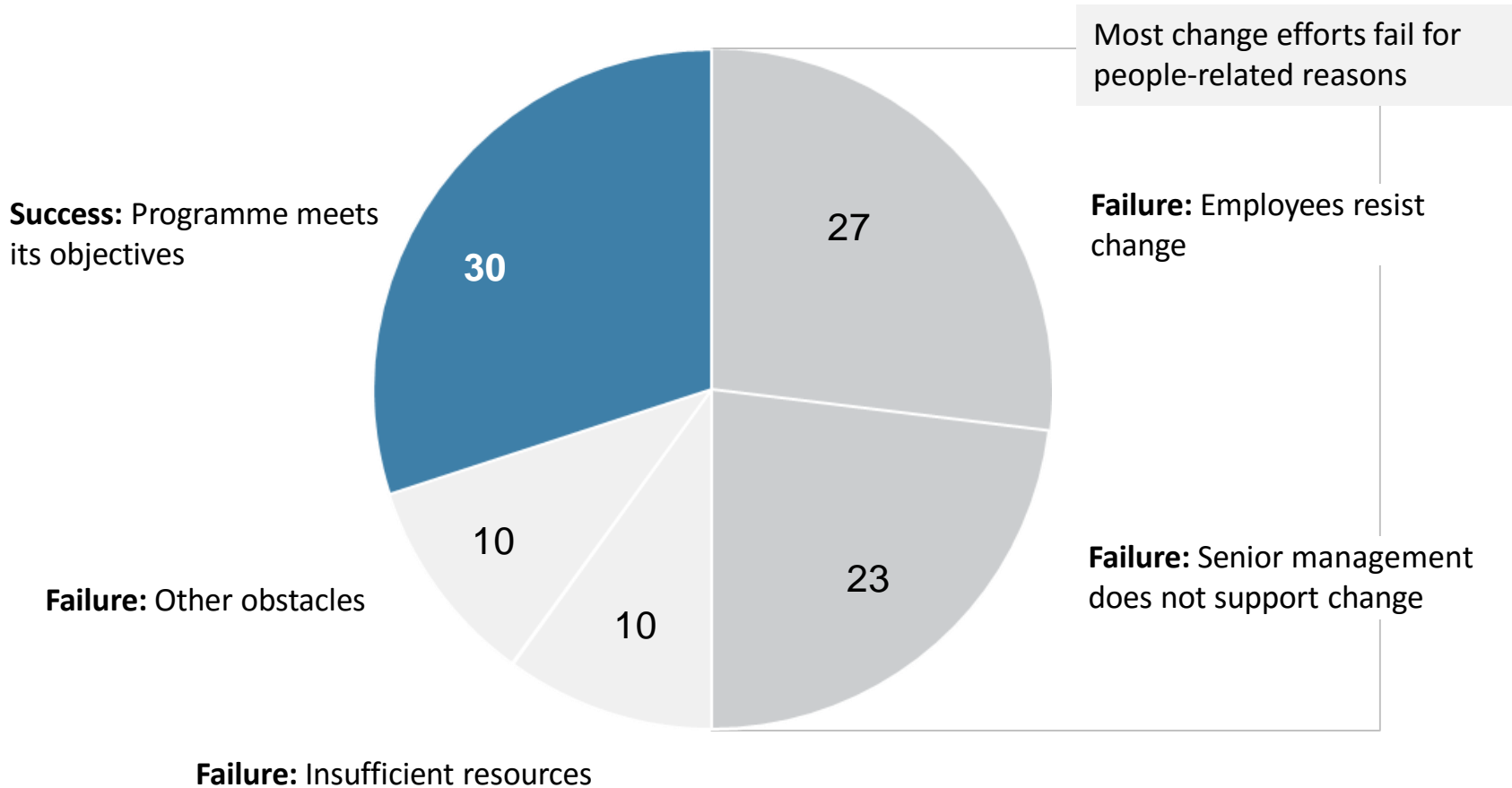
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# While the current investments are delivering wins, change is difficult ...

## Transformation success rates and reasons for failure

Percent, 100% = ~2,260 large scale, complex change programmes



# ... and crucial gaps are placing the government's open data investments at risk

## 'Best in class' transformation programme change tactics<sup>1</sup>

## The current suite of investments<sup>2</sup>

Crucial gaps

1. Have a compelling vision for change that includes a set of tough but doable customer-facing performance targets

Do not have a single set of tough but doable targets for data that users outside government would like to use now, and in the future, to support economic growth and improve service delivery

2. Rigorously track and manage progress and impact

Have not yet collected the information required to rigorously track and manage the progress and impact of investments, including the size of the prize from opening government-held data sets

3. Have a coherent structure with initiatives that cascade logically from a single vision for change and a set of performance targets

Have a coherent structure supported by the Better Public Services Reform Programme

4. Focus on identifying and shifting mindsets that limit change

Have not yet identified the vital few mindset shifts that are crucial to public servants opening data

5. Conduct solid assessments of an organisation's capability to change

Have conducted some assessments

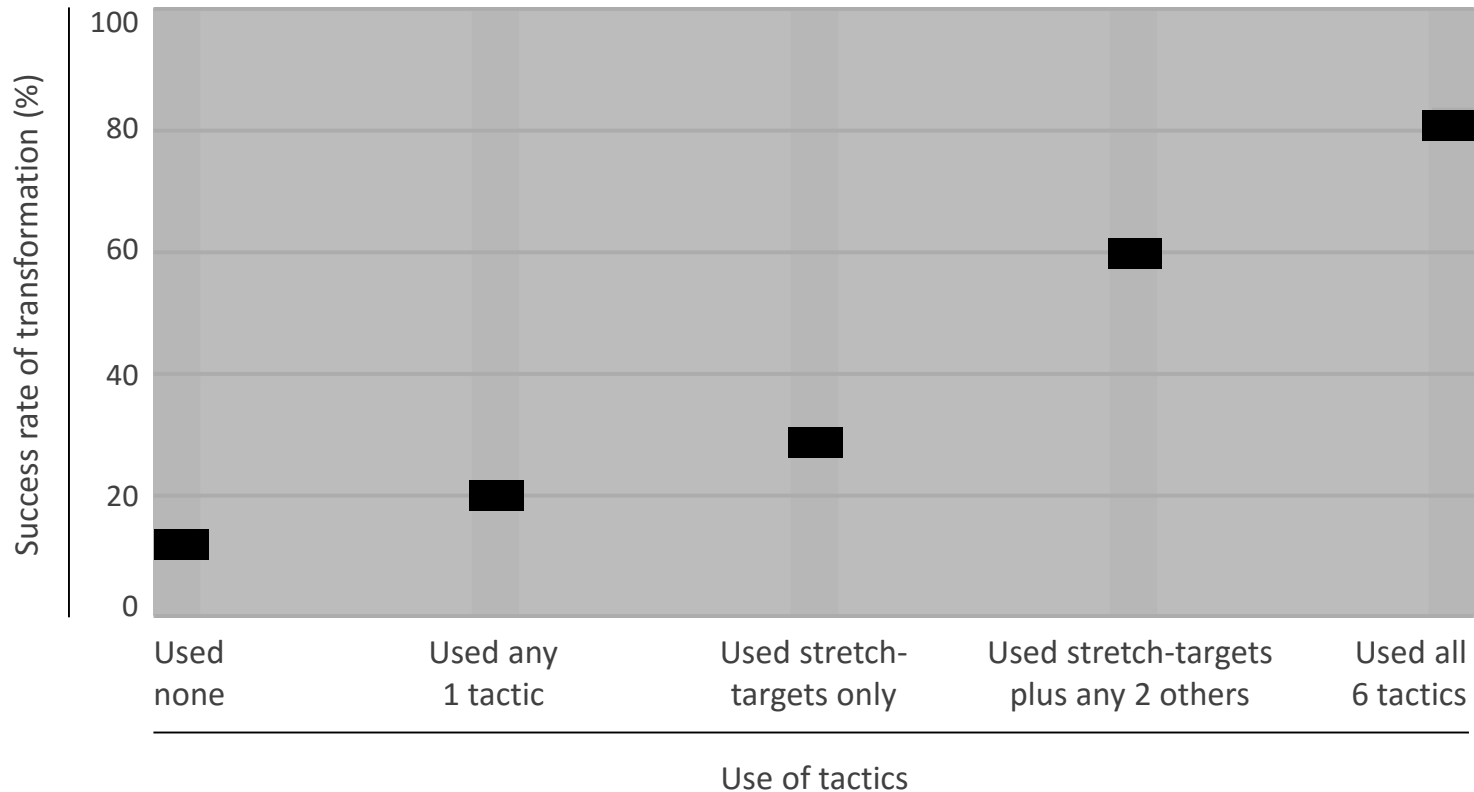
6. Have a group of committed leaders with the authority and accountability for achieving change

Are led by a group of committed leaders with the accountability (but not full authority) to achieve change

# Targets matter: They are crucial to the success of transformations

## Share of transformation described as very/extremely successful

Percent of respondents, n = 2,994



### Change tactics

1. Have a compelling vision for change that includes a set of tough but doable customer-facing performance targets
2. Rigorously track and manage progress and impact
3. Have a coherent structure with initiatives that cascade logically from a single vision for change and a set of performance targets
4. Focus on identifying and shifting mindsets that limit change
5. Conduct solid assessments of an organisation's capability to change
6. Have a group of committed leaders with the authority and accountability for achieving change

When executives were asked what they would do differently if they undertook their organisation's transformation again, the number one response was "set clearer targets"

# Baselines also matter: You cannot determine whether progress is being made, or establish targets, without them

Despite calls for improvement in 2011/12<sup>1</sup> ...

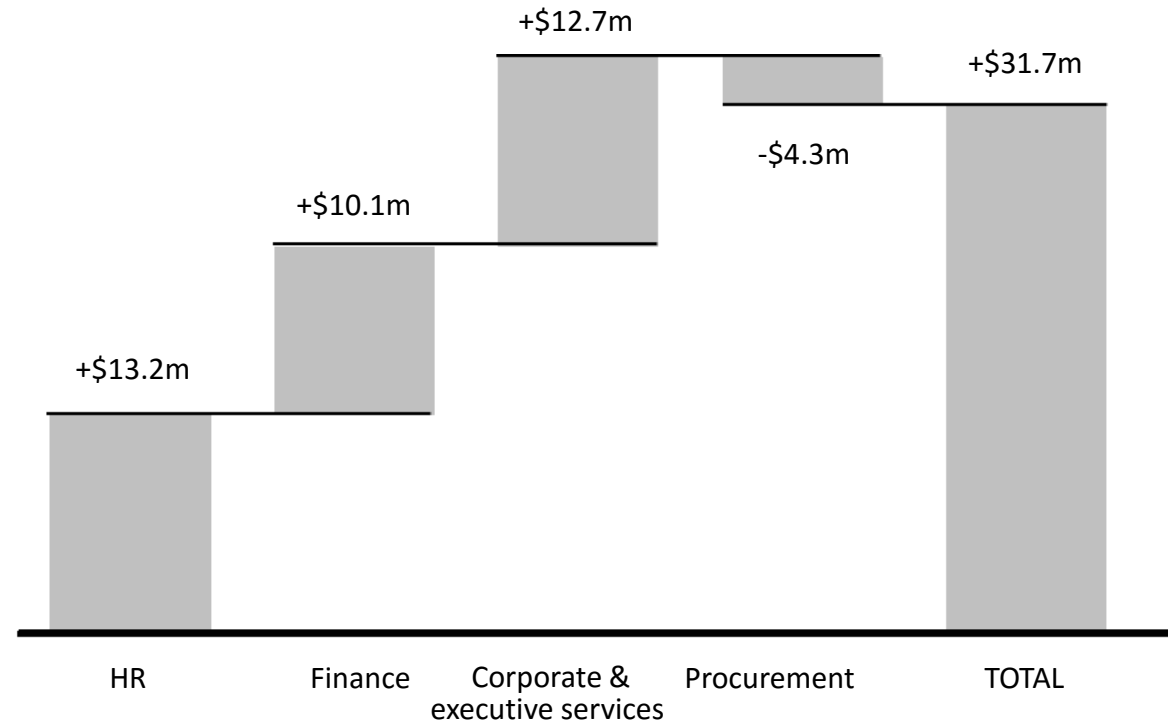


*'Significant gains can be made in reducing administrative and support service costs'*

**Hon. Bill English, Minister of Finance**

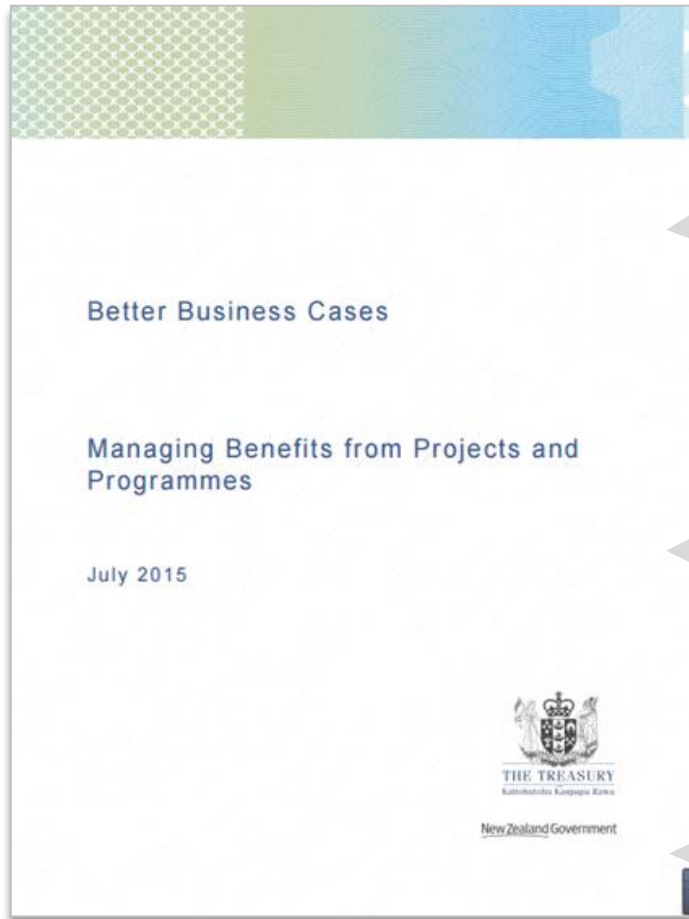
... spending on administrative and support services has increased in all but one area over the past three years without consequent improvements in service quality<sup>2</sup>

Change in public service spending on administrative and support services between 2011/12 and 2013/14  
\$m





# A 'size of the prize' is needed to manage the realisation of benefits ...



Benefits management is crucial in assuring that an investment achieves what it set out to do, otherwise why do it?

It is important to identify costs along with the benefits to determine if the overall benefits are worthwhile

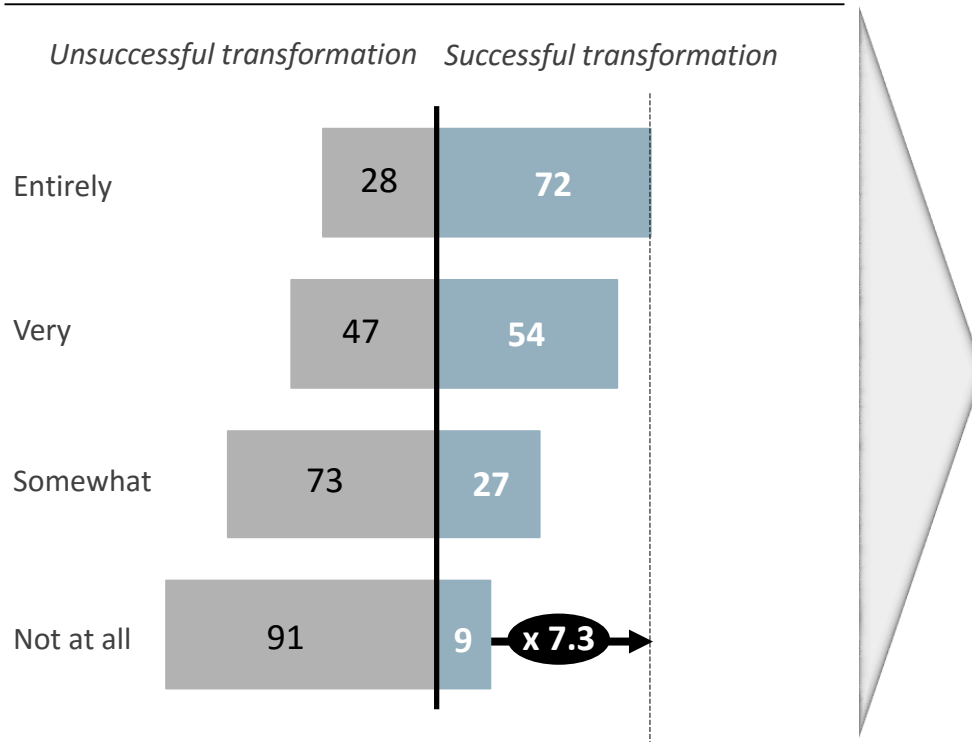
Benefits realisation reporting must continue well after the project or programme has closed

## Without the following information, benefits realisation is not possible<sup>1</sup>

1. A clear definition of the benefits, including the financial benefits of change
2. A detailed plan and schedule that outlines:
  - How each benefit will be measured and tracked
  - When each benefit will be realised and by whom
  - Who is accountable for achieving each benefit
  - The costs associated with realising benefits

... and transformations that rigorously track progress and manage benefits are over seven times more likely to succeed

**Clear metrics and milestones were in place and progress and impacts were rigorously tracked and managed**, %, n = 2,044<sup>1</sup>

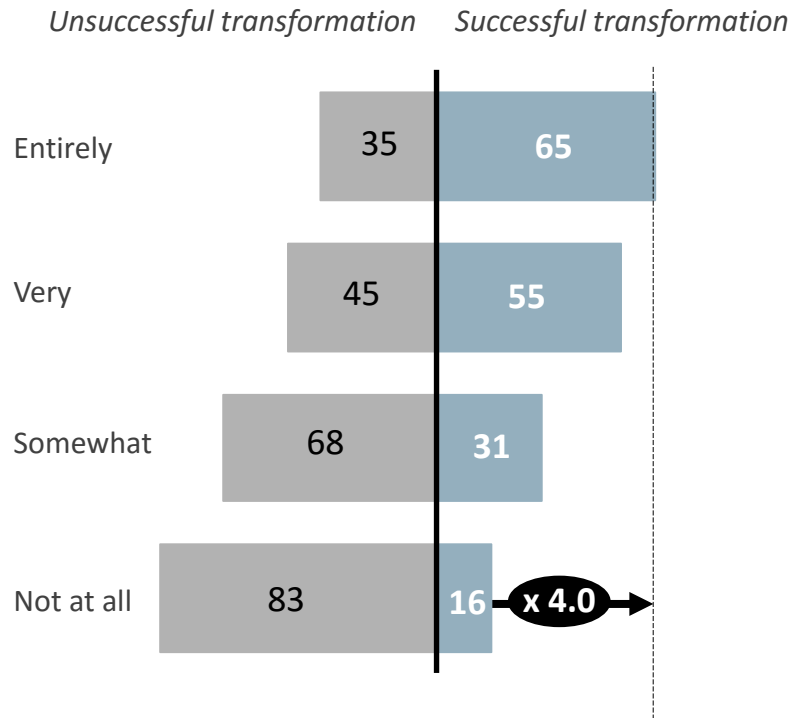


**Information required, but not yet collected, to track progress and impact<sup>2</sup>**

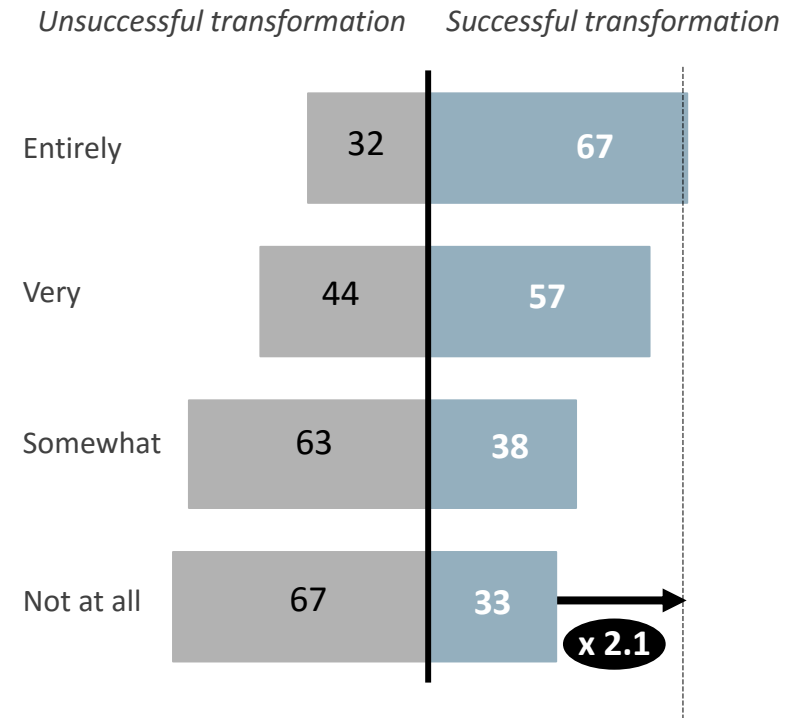
- Baselines of data that businesses, service delivery partners, and social enterprises want to use now, and in the future, to support economic growth and improve service delivery
- The size of the prize or prizes on offer from opening government-held data sets

# Transformations that identify and shift mindsets that limit change are also more likely to succeed


**How explicitly did you identify the mindsets that needed to change to reach the transformation's goals?** %, n = 2,032



**To what extent were transformation initiatives aimed primarily at changing mindsets and behaviours?** %, n = 1,396



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## Project 1

### **Project goal**

Establish a baseline and access targets for public service-held data, including microdata, that service delivery partners want to use now, and in the future, to reduce costs and improve services

## Project 2

### **Project goal**

Establish the size of the prize from opening public service-held data, including microdata, that service delivery partners want to use now, and in the future, to reduce costs and improve services

## Project 3

### **Project goal**

Identify the mindsets limiting pivotal job holders from opening public service-held data, including microdata, that service delivery partners want to use now, and in the future, to reduce costs and improve services

# The projects will address crucial programme-level gaps in the current suite of open data investments

## The current suite of investments<sup>1</sup>

Crucial gaps

1. Do not have a single set of tough but doable targets for opening data for users outside government want to use now, and in the future, to support economic growth and improve service delivery

2. Have not yet collected the information required to rigorously track and manage the progress and impact of investments, including the size of the prize from opening government-held data sets

3. Have a coherent structure supported by the Better Public Services reform

4. Have not yet identified the vital few mindset shifts that are crucial to public servants opening data

5. Have conducted some assessments

6. Are led by a group of committed leaders with the accountability (but limited authority) to achieve change

Project 1 will address the baseline and targets gap in the current suite of investments

Project 2 will address the size of the prize gap in the current suite of investments

Project 3 will address the lack of work on mindsets limiting pivotal job holders from opening public service-held data, including microdata

# With changes announced last year about the way social services for vulnerable children are expected to be managed ...

## From ...

Having different outcome and activity measures for clients
Often lacking a consolidated view of services provided to at-risk children and young people; services can also be loosely defined
Having piecemeal or independent service improvements and adjustments made with occasional assessments done of the possibility of replicating existing programs elsewhere
Commissioning services at the centre that respond to gaps in the coverage of programmes delivered to clients
Maintaining the separation of funding between departmental and non-departmental providers

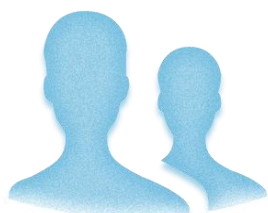
<b>Performance management</b>
<b>Service relevance &amp; integration</b>
<b>Service adjustments and growth</b>
<b>New programme development</b>
<b>Funding</b>

## ... To

Setting a consistent set of cross-sector government outcome measures for clients, and using measures to benchmark services
Having a consolidated, cross-sector view of all services that are well-defined and aligned fully with the outcomes sought for priority clients
Ensuring that service adjustments and improvements are made on the basis of benchmarking and that possibilities of scaling up existing services to meet needs in other areas are frequently assessed
Assessing gaps in the ability of existing services to meet priority client needs and commissioning innovative services that respond to client needs
Moving funding to the most cost-effective services irrespective of whether they are provided by government or non-government agencies or cut across existing channels

... the projects will also respond to calls from iwi providers and support the Government's social investment approach

### Iwi service providers at Joining the Data Dots Hui, September 2015<sup>1</sup>



'We should have the data that you and your officials have'

'Data and analytics give us the ability to go back to funders and give them surety that this programme is working'

'We want to use data to make decisions that really transform the lives of the most at risks people in our whanau and in our communities'

### Hon. Bill English, Minister of Finance on data sharing and social Investment<sup>2</sup>



- Data sharing is critical [to social investment] and this is an area where we need to do better
- Communities need to know what is happening in their area, so we'll be increasing the sharing of anonymised data with the public
- Social services providers need to understand their clients so that they can better tailor their services
- The government as the funder of services needs to know what interventions make a real difference



Finally, while the projects are scalable, they reflect our assessment that the greatest near-term opportunities to open data remain in the public service

Data, including microdata held by ...

Public sector organisations, including Local Government			
State sector organisations			
Public service departments	<b>Scope of the proposed projects</b>		
	Service delivery partners	Service delivery partners + social enterprises	Service delivery partners + social enterprises + commercial businesses

Concerns raised by Crown entities and State Owned Enterprises about the tension between a requirement to open data and their operating models signal that opening data held by entities in the wider State sector and beyond will be challenging<sup>1</sup>

Data, including microdata used by ...

## About NZIER

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NZIER also carries out self-funded public good studies to provide leaders in the public and social sectors with thoughts on challenging policy issues.

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For more information, see our website at [www.nzier.org.nz](http://www.nzier.org.nz)

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