DATA FUTURES PARTNERSHIP

CONTENTS

INTRODUCTION

1

The success of New Zealand's social investment, health, justice, transport and infrastructure, and economic growth initiatives all depend on data. Data unlocks opportunity for new ways of doing things. It brings transparency to what is working and where improvements can be made. New Zealand needs more people looking at our complex problems. Not all the answers can come from the public service.

In 2014 the Ministers of Finance and Statistics established the New Zealand Data Futures Forum to explore the future of data-sharing between the public and private sectors.

In July 2014 the Forum produced a set of recommendations about how New Zealand can safely manage and optimise data use. The Forum's recommendations were based on four principles:

→ **Value** – New Zealand should use data to drive economic and social value and create a competitive advantage

→ **Inclusion** – All parts of New Zealand society should have the opportunity to benefit from data use

→ **Trust** – Data management in New Zealand should build trust and confidence in our institutions

→ **Control** – Individuals should have greater control over the use of data about them.

In February 2015 Cabinet endorsed these principles, and in August agreed to establish the Data Futures Partnership, a cross-sector group of influential people working together to drive high-trust and high-value data use for all New Zealanders.

2

THE DATA-USE ECOSYSTEM – WHERE DO WE NEED TO GO?

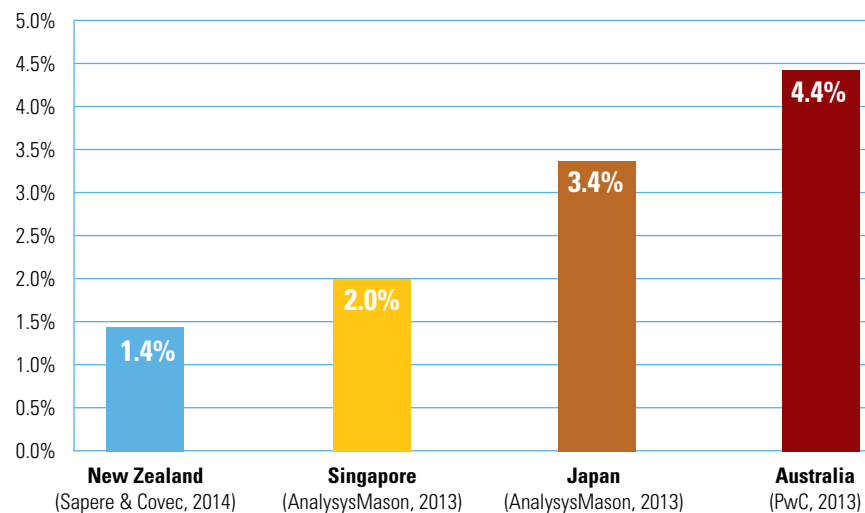### Examples of data-driven innovation in different sectors

- Retail sector – retailers use sales data and cloud-based point-of-sale software to track demand for products and manage stock levels.

- Insurance sector – the NZ Insurance Claims Register logs all claims lodged with participating insurers. The claims data is used to assess the validity of claims, decide whether to offer cover, detect fraud, and enable better pricing of insured risks.

- Health care sector – providers analyse data to determine patients' treatment needs and work to prevent the need for more costly hospital-based care.

- Transport sector – logistics and transport operators use data on road and traffic conditions to optimise operations and transport routes given traffic conditions, road repair work, and freight volumes. This data reduces transport times and vehicle emissions and is used to benchmark fleet and driver performance.

We are in the midst of a data revolution, with data becoming increasingly abundant and ubiquitous. The volume of data held by public and private sectors is growing exponentially and there is potential to create more value by effectively sharing and using many types of data, including open data and personal data.

Data-driven innovation has been estimated as contributing $2.4 billion to gross value added in New Zealand in 2014. This represents 1.4% of total economic activity across seven major sectors. If New Zealand adopts data-driven innovation at the same average rate estimated for Australian business the value would be $4.8 billion per annum.

The key to achieving more data driven innovation is harnessing the energy of organisational leaders, data users and innovators to make a difference for NZ.

Impact of DDI (% of GVA, % of GDP for Australia)

New Zealand (Sapere & Covec, 2014) 1.4%	**Singapore** (AnalysysMason, 2013) 2.0%	**Japan** (AnalysysMason, 2013) 3.4%	**Australia** (PwC, 2013) 4.4%

New uses of data will challenge concepts in legislative frameworks on privacy and information in countries around the world, such as the definition of 'personal information', the role of individual control, and principles of data minimisation and purpose limitation. New ways to maintain trust and privacy will need to be developed.

3 WHAT'S HOLDING US BACK?

> "What's often overlooked is the cost of missed opportunity

John Whitehead Forum Chair

Potential for much greater data-sharing

Public and private sector organisations have rich data but are unwilling or feel unable to share – because acceptable boundaries for sharing and reuse may be unclear.

Potential for more data re-use and innovation to create economic and social value

People and organisations are not using data as much as they could to create value – because of lack of understanding of the value, lack of access to data, fears of negative reactions, or practical barriers such as no data standards or lack of analytics capability.

The data-use ecosystem is hard to navigate

Data practices and relationships are complex and emerging, and the existing institutions and frameworks are not designed for the emerging environment. There is no clear, authoritative guidance for Ministers and policy makers, or the people and organisations sharing and using data.

Tenuous trust

Public trust in the data-use ecosystem is tenuous, and once lost, trust can be hard to restore. Maintaining trust is vital to ongoing data innovation, including government's reuse of data to drive investment decisions and target services. There is no independent trusted forum for an inclusive conversation on data use.

4

OUR JOURNEY TO FIND WHAT'S MISSING

Building on the 2014 Forum's work, Statistics NZ, with support from the Treasury, convened a series of workshops with expert stakeholders, including data holders, innovators, users and regulators to explore these recommendations in more detail.

→ Two facilitated workshops were held in Wellington with groups of stakeholders invited from the public, private, academic and NGO sectors on 11 March and 17 April 2015. The focus was on hearing views on the case for some kind of independent data body, its potential functions, the critical success factors, and potential form.

→ A series of five workshops with data innovators were held in Auckland, Wellington and Christchurch. Participants from the public, private, academic and NGO sectors shared their ideas for data catalyst projects and on an approach for jump starting those projects.
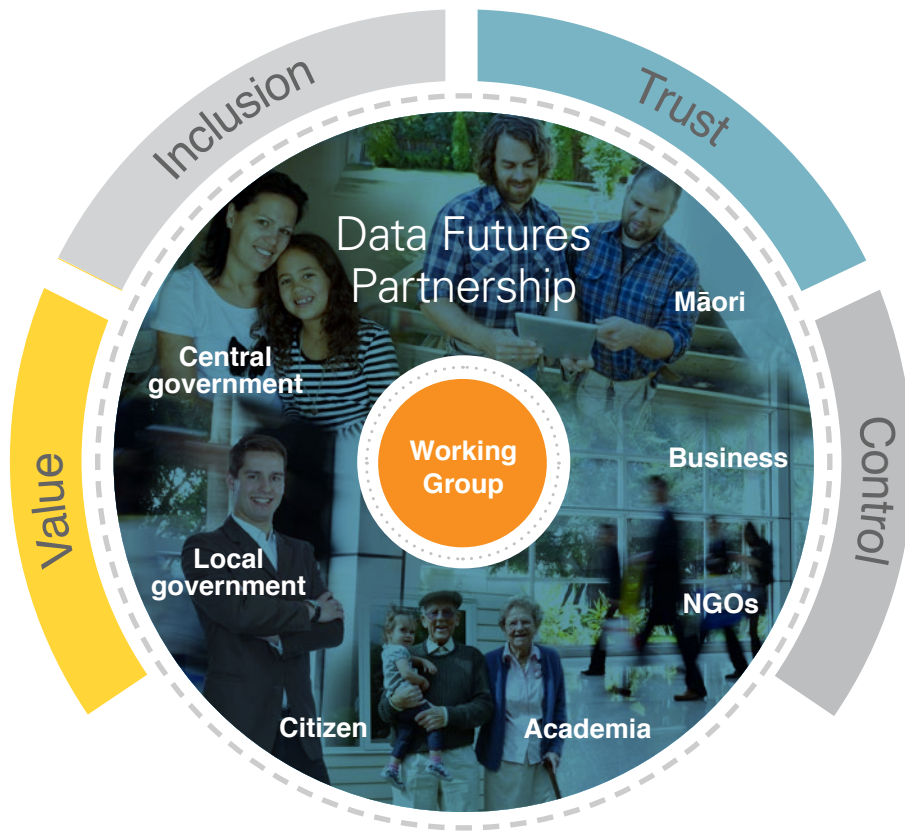
These workshops identified the following gaps or needs in New Zealand's data-use ecosystem:

→ **An inclusive public conversation about data sharing and use**

→ **A New Zealand focus on ethical data use**

→ **An independent champion for innovation**

→ **An ability to form a system-wide view and to conduct 'deep dives' into problems**

→ **Need for collaboration and co-design to address these.**

Stakeholders agreed that, while effective regulation is important, a top-down regulatory or formal advisory body (i.e. a "council") would not be capable of achieving the required increase in value, trust, inclusion, and appropriate controls. Rather, an approach supporting collective effort would be better at driving the attitudinal and behavioural changes required.

5

A DATA FUTURES PARTNERSHIP – KEY FEATURES

Inclusion

Trust

Control

Value

Data Futures Partnership

Central government

Māori

Working Group

Business

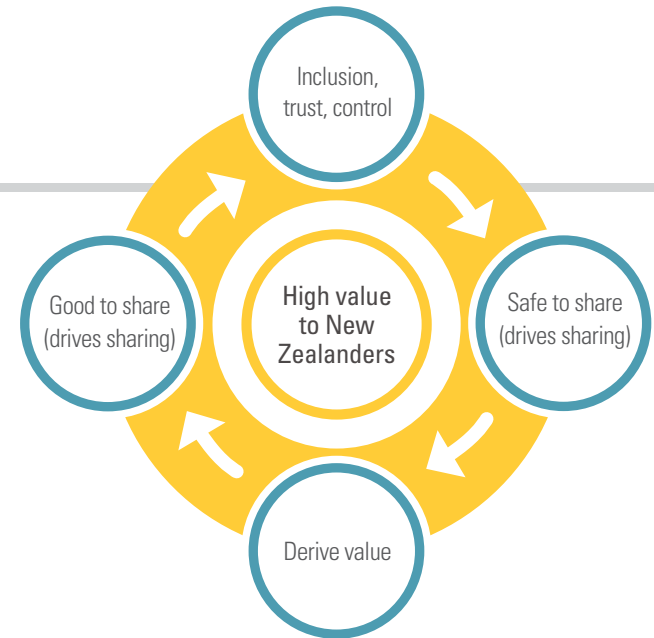Local government

NGOs

Citizen

Academia

The Partnership will exist to make a positive impact across the data-use ecosystem. It has been designed to embody the four principles of value, inclusion, trust and control.

The Partnership is a cross sector group of influential individuals working as a collective voice. It will mandated by Government and supported by citizens, the private sector, and non-government organisations to help drive change across New Zealand's data-use ecosystem.

A dedicated Working Group will drive the overall programme of work and core deliverables for the Partnership.

A Secretariat based at Statistics NZ will support the overall work programme.

Inclusion, trust, control

Good to share (drives sharing)

High value to New Zealanders

Safe to share (drives sharing)

Derive value

Realising the value of data in an ethical, inclusive and trusted way will deliver benefits to all New Zealanders. When it is safe to share and good to share data, we are likely to support social capital and trust in institutions, and to create economic value.

HOW THE PARTNERSHIP WILL WORK

To help solve these challenges and realise the economic and social benefits of data-driven innovation, the Data Futures Partnership will:

→ **Create the right environment for trusted data use in New Zealand**

→ **Increase the value generated from NZ's data-use ecosystem**

The Data Futures Partnership will be:

→ **Independent from Government** – able to issue independent advice and take rapid action

→ **Cross sectoral and inclusive** – able to represent a range of views and support engagement across all sectors including NZ citizens, Māori, government, businesses, NGOs, and academia

→ **Able to take a whole system view** – see how the different parts of the data-use ecosystem work together

→ **Focused on real impact** – a clear shared agenda with measurable goals, driving collective change, leveraging off existing initiatives, resources and generosity

→ **Open** – transparent and visible process where a range of views can be heard

→ **Adaptive and agile** – able to try different things, reflect and adjust

→ **Be a learning entity** – improve continuously and share learning with stakeholders

The Partnership needs to be aware of government priorities, and to actively coordinate with government agencies driving information sharing. This will ensure that resources are targeted and activities are mutually reinforcing, while existing accountabilities remain. Key government partners include the Ministry of Justice, the Government Chief Information Officer, Open Data, the ICT Strategy CEs group, and the social sector.

Selecting Partners

Ministers will appoint six **Working Group** members. The core Working Group will enlist around 40 voluntary members of the **Data Futures Partnership**.

Partnership members will be selected based on their enthusiasm for, and/or track record of delivering cross-sector data innovation, based on the principles of value, inclusion, trust and control. The Working Group will ensure there is an optimal ratio of private sector and public sector innovators in the Data Futures Partnership.

The Working Group and Partnership will be supported by a **secretariat** based within Statistics NZ.

HOW THE PARTNERSHIP WILL WORK

Ministers

Reporting

TOR

Free and Frank advice

Core Working Group

Data Futures Partnership
All of New Zealand

Support

Secretariat

Guiding the work programme

Lead Ministers will specify their goals and priorities via a Terms of Reference for the core Working Group, which will specify areas of focus and desired actions.

The detailed work programme of the Data Futures Partnership will be based on the Terms of Reference and on input from the Partnership members.

The core Working Group is the decision-making component of the Partnership and will be responsible for approval of the outputs of the Data Futures Partnership. They will work closely with regulators where appropriate.

The Data Futures Partnership will act as a commissioning agent for catalyst projects. It will promote catalysts alongside public and private sector organisations, and have a role in monitoring their progress, and troubleshooting where needed.

Statistics NZ will have responsibility for administering funds on direction of the core Working Group, to ensure prudent use of taxpayer funds.

WHAT THE PARTNERSHIP WILL DELIVER

Catalyst projects
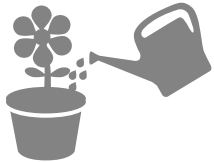
Data use projects that address real world problems.

Champion innovative data use

Brokering and stimulating increased data sharing and use.

Facilitate social licence

Public awareness and engagement programme to inform an ethical framework.

Identify problems and opportunities

Advice and reports recommending priority actions.

Find solutions

Troubleshooting activities and broader initiatives to improve the data driven innovation ecosystem.

This will provide:

→ An effective system for jump-starting catalyst projects

→ A body of practical learning, expertise and experience on how to initiate and complete useful catalyst projects (on all four principles)

→ Increased awareness of data use amongst New Zealanders

→ A clear sense of the spectrum of New Zealander's views about the data-use ecosystem

→ A framework for ethical data use

→ A stronger evidence base on core issues for the system

→ An overarching report identifying key challenges and priorities and benchmarking New Zealand's data-use ecosystem.

→ Identification and resolution of a set of "wicked" data-use ecosystem problems limiting trusted data use by government and non-government

DELIVERABLES – FIVE ACTIVITY AREAS:
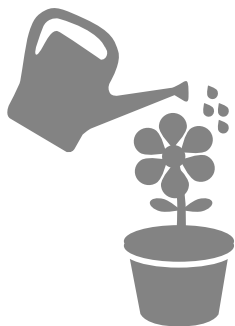
(i) Catalyst projects

What is a 'Catalyst' Project?

Catalyst projects are data use initiatives that can address real world problems.

Selecting catalyst projects

Ministers and public and private sector leaders will suggest difficult problems and focus areas. Members of the Partnership will talk with their networks and come back with suggestions for catalyst projects.

Selection criteria for catalyst projects will include:

→ Emphasis on attacking difficult real world problems (value)

→ Involving several willing public and private sector participants

→ Likely to demonstrate value of data-use to a wider audience, build trust, and/or provide some system learning

→ Each project includes experimentation and innovation in at least one data-use aspect: trust, inclusion, control, as well as value

→ Explicitly time limited (each stage no more than 4-6 months)

→ Moderate certainty of success, low cost of failure (fail fast)

Delivering and evaluating catalyst projects

Catalyst projects will be run and delivered by participating agencies, companies and NGOs, not by the Partnership or its secretariat.

Catalyst projects will take a 'minimum viable product' approach, building real working solutions rather than writing plans. They will use 'Lean Startup' style hypothesis driven validated learning, running controlled experiments with real data and users.

Where appropriate agile procurement methods will be encouraged. Controlled, secure, sand-boxed environments will be used where trusted data needs to be protected.

Catalyst projects

Catalyst projects

Catalyst projects contd...

Projects will build in rapid retrospection and extraction of learning, and have explicit permission to describe what went wrong and what went well. There will be a high tolerance for solution failure, as a necessary part of intentional experimentation and iteration.

Learning will be captured and shared, and will include how to get collaborative catalyst projects underway and how to implement the four principles.

Deliverables are likely to include

→ **30-60 catalyst projects** initiated over two years

→ **A tested and validated agile methodology** for initiating, evaluating and learning from catalysts that can be used in other public and private sector contexts

→ **Mentoring** and support for new practitioners

→ **A system-wide view** in order to learn and share lessons from real-life projects

Expected Impact

→ Improved connections between data innovators, resources, information and funding across the public and private sector

→ Larger numbers of data innovation projects that address relevant issues and have real-world benefit

Champion innovative data use

(ii) Champion innovative data use

The Partnership will undertake brokering activities to stimulate more data driven innovation across the public and private sectors. This will leverage the external reputation and capabilities of the Partnership members from the private sector (30 people) including business, non-profit, social enterprise, and iwi.

It will also leverage the government networks of the (ten) public sector members. The championing activities will add increased influence and reach to existing government data access initiatives.

These activities will support those of the Open Government Information and Data Programme. Where that programme focuses on the 'inside out' approach to open data release by government, the Data Futures Partnership will strengthen the 'outside in' view of data demand and use by the private sector, and add increased emphasis on use of trusted shared data.

Deliverables are likely to include

→ **A Data Future Partnership digital presence** – including a website and social media channels

→ **Speaking events** to promote data driven innovation

→ **Increased support for new or existing events** in collaboration with the Open Government Information and Data Programme and other initiatives, including for example data hackfests on particular domains such as transport, health, agriculture and others

→ **Brokered** relationships and connections across the data use ecosystem

→ **Success stories** to motivate more data sharing, use and innovation

→ **Growing body of practical learning,** expertise, and experience on data innovation

Expected Impact

→ Easier navigation of the data use ecosystem by a wider variety of organisations

→ Increased understanding of the value of data sharing and re-use

→ Stronger connections across the data-use ecosystem

→ More data innovation projects

Facilitate social licence

(iii) Facilitate an inclusive social licence conversation

The Partnership will facilitate an inclusive, future-focussed and two-way public conversation on data use to understand the interests, values and concerns of New Zealanders. It will provide a way for all voices, including citizen, consumer and Māori voices, to be heard.

The Partnership will take a cross sector role as different agencies and organisations seek to engage with the public in a 'social licence' conversation.

Trust is built on a number of factors including social licence, privacy protection and ethical practices.

Activities will:

→ Be fronted by the members of the Partnership and reach out to all New Zealanders

→ Include education and awareness and dialogue/public deliberation on what is acceptable

→ Have clear connections to social licence campaigns run by individual government agencies

→ Use a range of engagement methods

DELIVERABLES – FIVE ACTIVITY AREAS:

Facilitate an inclusive social licence conversation contd...

Facilitate social licence

Deliverables are likely to include

→ **A social licence assessment report** – on the level of social licence for trusted data use in New Zealand, and the range of attitudes of citizens and organisations

→ **Guidance for trusted and ethical data sharing and use** – by individuals and organisations. Developed in conjunction with regulators and other stakeholders, with guidance on the assessment of benefits and management of risks

→ **A deep-dive on effective ethics arrangements for data-use,** such as regulation and ethical review bodies to order to deal with ethics for data use in response to changing technology and data use patterns

→ **Input into proposed legislative changes** by addressing issues of trust and culture, to enable data sharing and innovation within current rules

→ **A report** on ways to maintain the social licence and build a consensus on trusted data use

Expected Impact

→ High public engagement in the conversation on social licence

→ Increased awareness and buy-in for data use, sharing and re-use

(iv) Identify key problems and opportunities facing the system

The Partnership will provide independent, cross-sector advice on data issues as they arise. This advice will inform policy and practice, supporting Ministers, government agencies and data practitioners to create an effective data-use environment.

Identify problems and opportunities

Deliverables are likely to include

→ **Free and frank advice to lead Ministers** at regular meetings with the core Working Group

→ **Research** to support advice and next steps, including deep–dives on specific issues

→ **Proactive guidance** on specific issues to guide policy and practice

→ **Sounding board for particular issues brought to the Partnership** – advice provided at Partnership events, or via a sub-group of experts from across sectors

→ **An overarching report** at the end of two years identifying key challenges and priorities for the future and benchmarking New Zealand's data-use ecosystem

Expected Impact

→ A stronger evidence base on core issues facing the system, including ethics

→ Partnership advice is expected to drive action, so that members, including government agencies, will get involved in projects that tackle the issues and realise value

DELIVERABLES – FIVE ACTIVITY AREAS:

Find solutions

(v) Find solutions to system problems

The Partnership will investigate difficult problems and work with stakeholders with a view to designing and implementing solutions. This will leverage the intellect, experience, reputation and capabilities of influential partnership members.

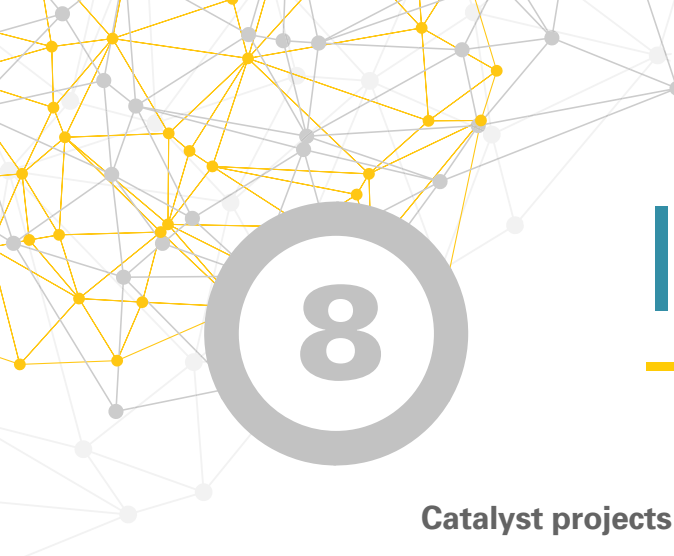Possible examples of troubleshooting actions include:

→ Providing input to resolve data release issues where businesses or the public are requesting data, but agencies are slow to provide it

→ Building capability for data innovation by working with educators and other stakeholders to develop relevant interventions

→ Finding ways to help Iwi to use their own data to support Māori development

Deliverables are likely to include

→ **Clear goals and actions for change** on agreed focus areas

→ **Resolution of 3-5 wicked problems** limiting trusted data-use by government and non-government organisations

Expected Impact

The impact of troubleshooting will be to foster confidence and support involvement in the data-use ecosystem, as well as solve particular problems.

INDICATIVE TIMELINE

	Catalyst projects	Championing innovative data-use	Facilitate social licence	Identify problems and opportunities	Find solutions
October - November 2015	→ Project challenges sought from Ministers and CEs → 3 new catalysts initiated	→ Partnership website established. Launch event. → Targeted visits to identify exciting innovation in the data-use ecosystem	→ Engagement starts, as core Working Group mobilises the Partnership → Planning for engagement in consultation with stakeholders	→ Framing of first Partnership diagnosis report on a particular issue	→ Core Working Group defines its first action areas → Trouble shooting activities underway
December 2015 - March 2016	→ 3-6 more catalyst projects started	→ Brokering more data sharing, innovation and use → Publicise case studies of data innovation → Speeches, statements, targeted visits to highlight data innovation in NZ	→ Planned engagements successfully run → Material/reports from engagement campaigns disseminated widely → A report assessing the level of social licence for trusted data use in New Zealand, including implications for government	→ Partnership agrees, prioritises and gets started on issues that require in depth work → Additional diagnosis reports and guidance → Sounding Board event → First Annual benchmarking report	→ Sub groups on agreed focus areas set up → Different models of problem solving being applied → Sub groups on additional focus areas set up if required
April 2016 - July 2017	→ 10-20 high value Catalysts well underway → 30-60 Catalyst projects underway or completed → Body of practical learning, expertise and experience on data-use projects	→ Adoption of innovative ideas and practices → Body of practical learning, expertise and experience on data innovation	→ A set of guidelines for trusted and ethical data use → A report on ways to build the social licence for data use	→ Additional diagnosis reports and guidance → A stronger evidence base on core issues for the system, including ethics → A report, signalling priorities for further action	→ Clear goals and actions for change → Resolution of 3-5 wicked data-use ecosystem problems limiting trusted data-use by government and non-government

RESOURCING

→ Government is resourcing the backbone support and core Working Group activity

→ Members of the Partnership are expected to contribute their time and resources

→ Government will provide some compensation where needed for balance and meaningful participation (eg NGOs, consumer reps)

→ Government will review the Partnership to assess its effectiveness and what resources are required in two year's time

→ A small amount of funding will be available to initiate catalyst data-use projects, with others providing additional resources.