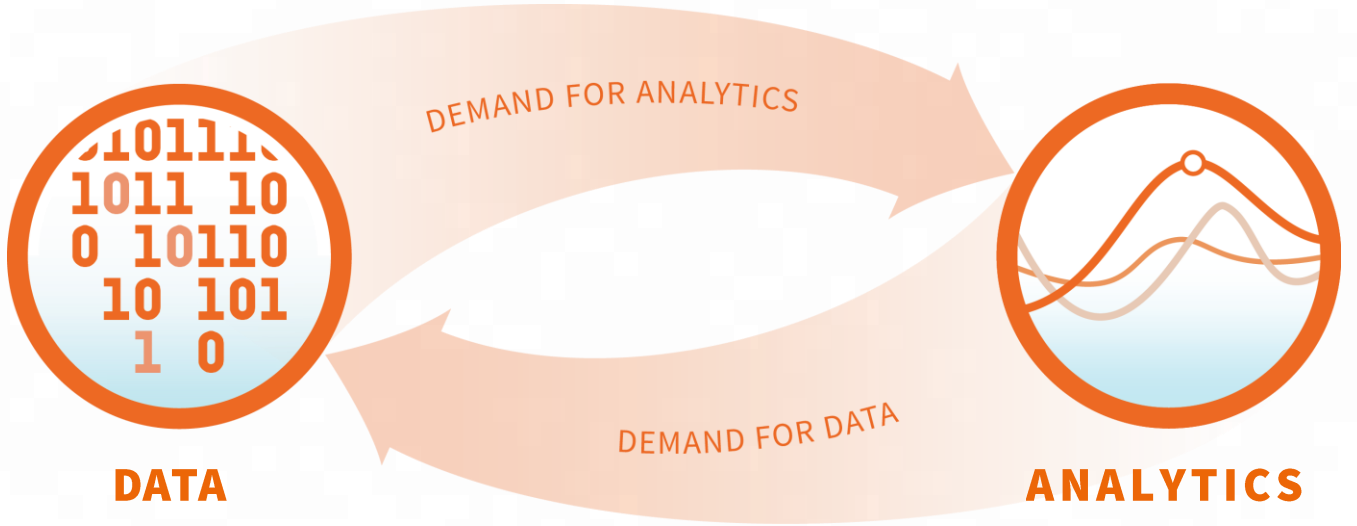
Unleashing the power of data to support social investment

Mark Sowden

Deputy Government Statistician – Data System Leadership

How is the data and analytics landscape changing?

- Variety
- Volume
- Velocity



- Expertise
- Technology
- Infrastructure
- Methodology

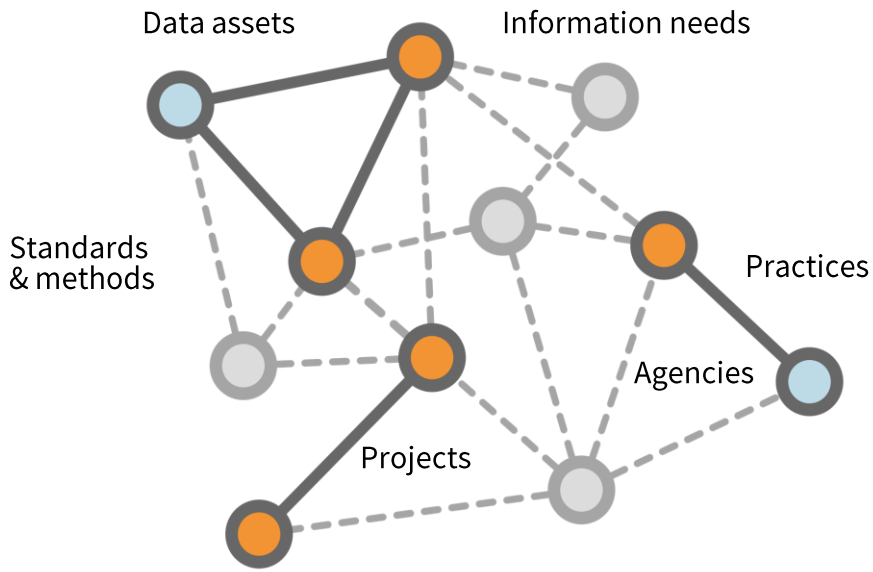
✓ Key benefits...

- Helps make sense of the world
- Enables evidence-based policy making
- Improves service design and delivery
- Drives innovation and economic development

How are we responding to these changes?

Started ‘connecting up’:

- Data Futures Forum/Data Futures Partnership (2014)
- Government ICT Strategy (2015)
- Information Group and the Data Investment Framework
- Social Investment Unit/Agency
- Privacy Act reforms and Data and Statistics Bill
- System Leadership for Data and Analytics



It’s a great start, but:

A broader, ***system-level*** approach is needed to realise the full potential of data and analytics

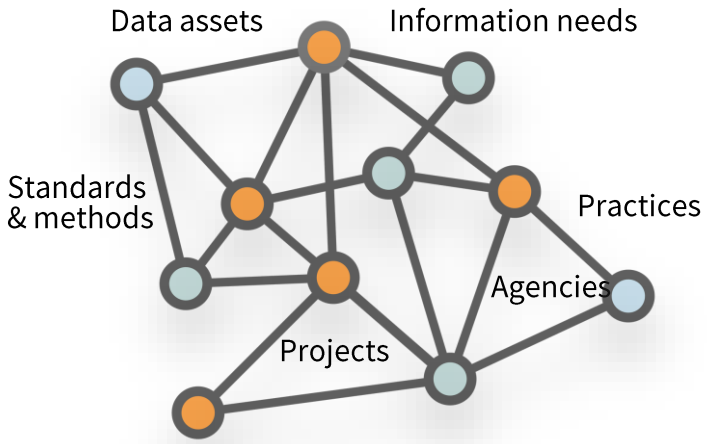
What is System leadership for Data and Analytics?

Coherence through:

- System design
- Strategic vision
- System assurance
- Capability and support channels
- Tools and enablers

Leadership approach:

- Collaborate and partner across the system
- Draw on existing networks and expertise
- Anticipate needs for and build requisite system components



What do we have underway?

Legislative review

- A legislative environment to increase value from government data
- Public trust and confidence in data use and data stewards
- Efficient production of official statistics in a modern digital environment
- Principles-based approach
- Public consultation coming soon

Data Roadmap for New Zealand

- A blueprint for a robust and sustainable future data and analytics system
- Co-designed with wider data and analytics community
- Explore key themes around the future of data and analytics

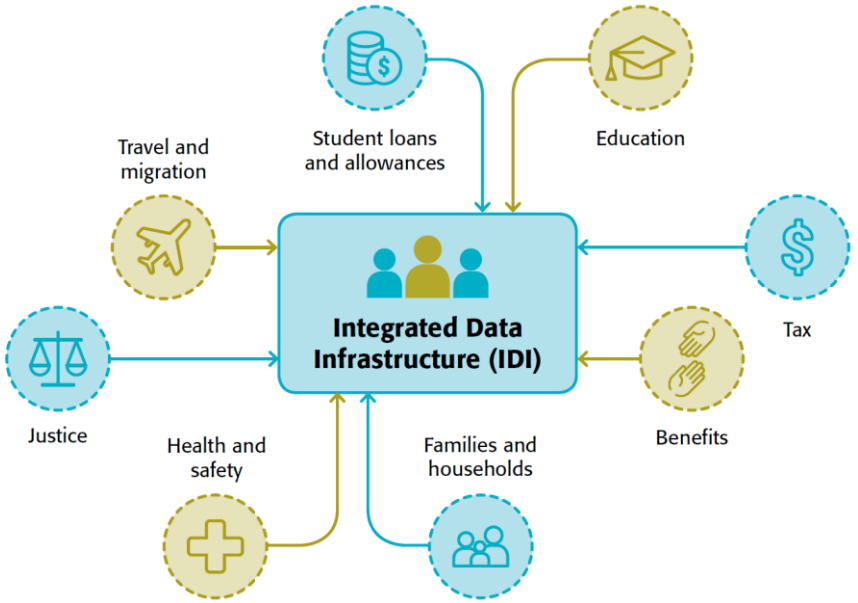
What is the Integrated Data Infrastructure (IDI)?

The IDI is a database containing microdata about people and households. The data is collected from government agencies, non-government organisations, and Stats NZ surveys.

The Longitudinal Business Database (LBD) complements the IDI with microdata about businesses.

Data in the IDI is:

- Integrated
- De-identified
- Longitudinal
- Updated quarterly



Stats NZ operates a 'five safes' environment, balancing privacy and confidentiality with data insights.

How is the IDI being used?

The social investment approach

New Zealand is using a social investment approach to improve the lives of New Zealanders by applying evidence-based investment practices to develop social services that work.

The IDI is key to developing the evidence base for this work.

Actuarial modelling

The Ministry of Justice and Oranga Tamariki use the IDI to model outcomes across people's lives to identify predictors of poor outcomes.

The IDI is also being used to…

- Evaluate outcomes of tertiary education
- Identify factors that affect wellbeing
- Evaluate social services to see what works and what could be improved
- Understand the labour market
- Measure the impact that illnesses have on people's lives and work
- Understand data needs and promote capability building with iwi/Māori and NGOs

What about the future of the IDI?

IDI: Mark II

New funding to improve the IDI over the next two years

Four key areas of improvement

- Redesign of all access pathways into the IDI
- Summary information layers and confidentiality tools
- Scalable cloud-based data storage and CPU capacity
- Redesign of the data loading pathways

Development will be

- Agile
- Continuous
- Co-designed

Data Exchange

- Stats NZ took part in the initial proof of concept
- Will now take part in the next step of development, Prod-1

Trusted consolidator model

- Exploring a model for IDI expansion of service provision data
- SIA and Stats NZ are looking at options around a trusted consolidator of NGO data

Centre of Excellence for Data

Stats NZ
Tatauranga Aotearoa

Supporting agencies to do more with data and analytics

The Centre of Excellence for Data will:

- Broker access to more data
- Support agencies to lift their data maturity
- Promote and support good practice across the system
- Join up expertise to create a cohesive and collaborative system, lifting capability

This will ensure our data and analytics system is efficient and interoperable, supporting the ability to use data to its full potential to improve outcomes for New Zealanders

What will the Centre of Excellence for Data deliver?

Stats NZ
Tatauranga Aotearoa

Agency support

- Consultancy and engagement
- Data culture maturity assessment
- Flying squads (i.e. multi-disciplinary data teams)

Good practice guidance

- Data governance framework
- Data standards
- Data management
- Releasing open data
- Supporting tools

Capability

- Capability strategy and gap analysis
- Data competency framework
- Active data and analytics system rotation
- Communities of practice

Knowledge curation

- Catalogue of data portals
- Community of practice register
- Published material linking to guidance, methodology, and research papers


Stats
NZ
Tatauranga Aotearoa