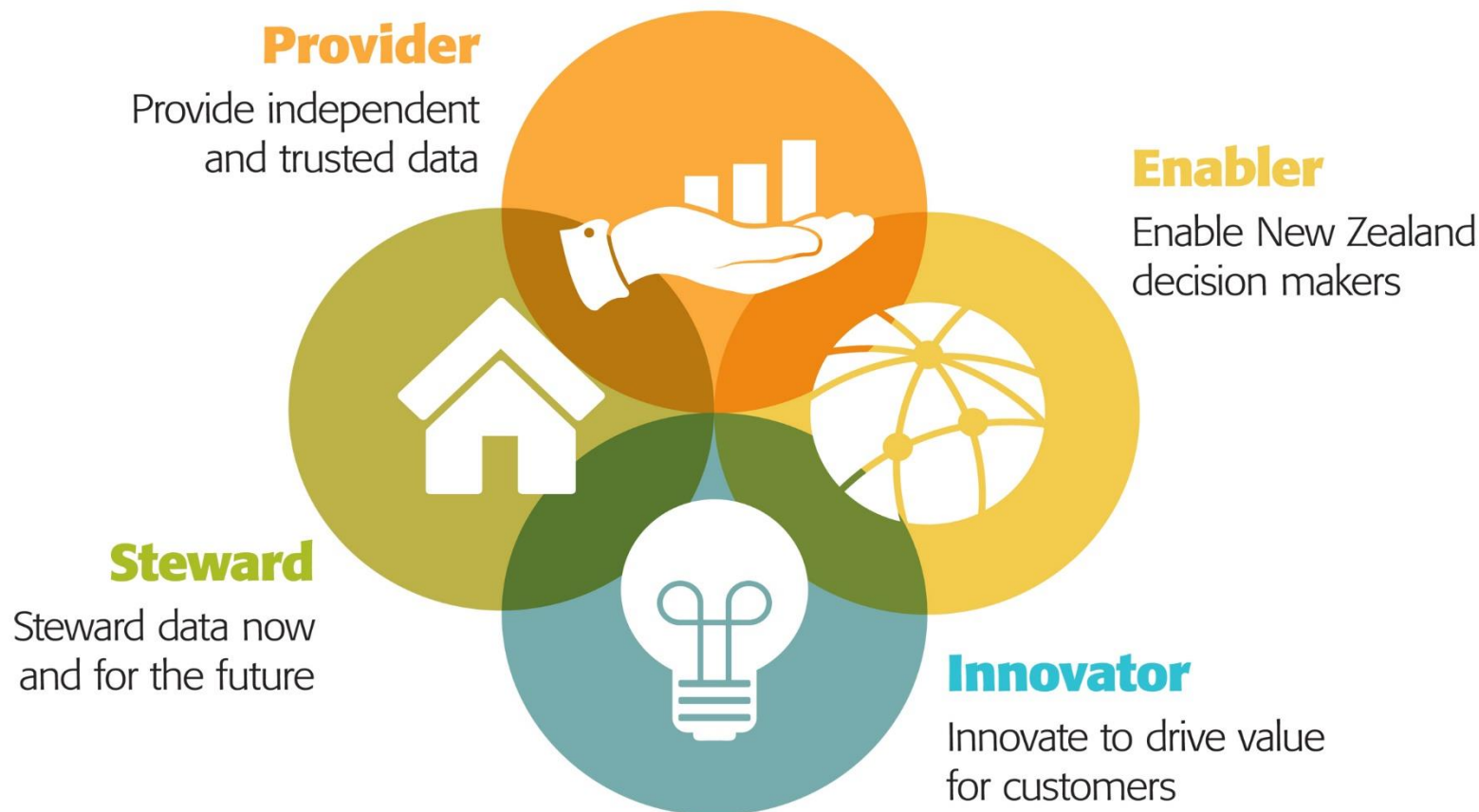


# Unleashing the Power of Data to Change Lives

## Our Roles



# Outline

- Data Futures Forum
- IDI update
- Analytical Activity at Statistics New Zealand.



WHEN WE HAVE

WE CAN  
Harness the benefits of data use... *safely*

# NZ is well placed... so what's holding us back?

## 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.

# A New Zealand Data Futures Partnership



- **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**
- **Collaboration and co-design to address these.**

# What the Partnership will deliver



Data use projects that address real world problems.



Brokering and stimulating increased data sharing and use.



Public awareness and engagement programme to inform an ethical framework.

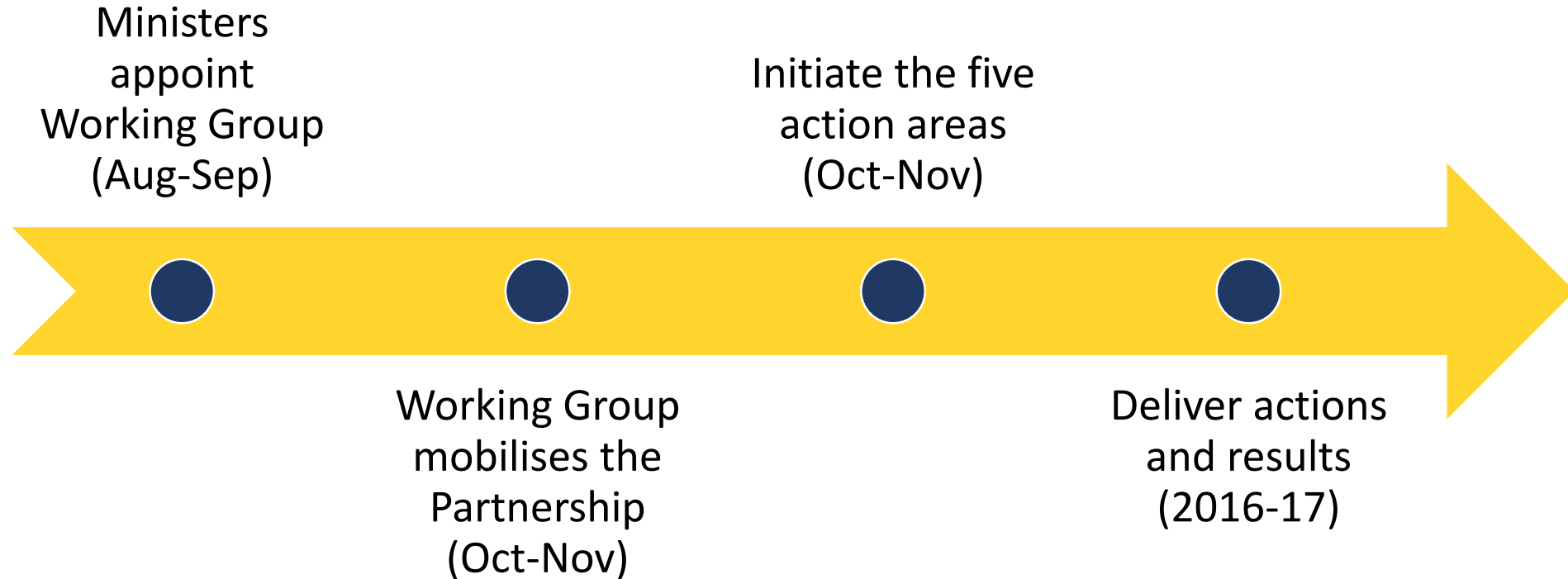


Advice and reports recommending priority actions.



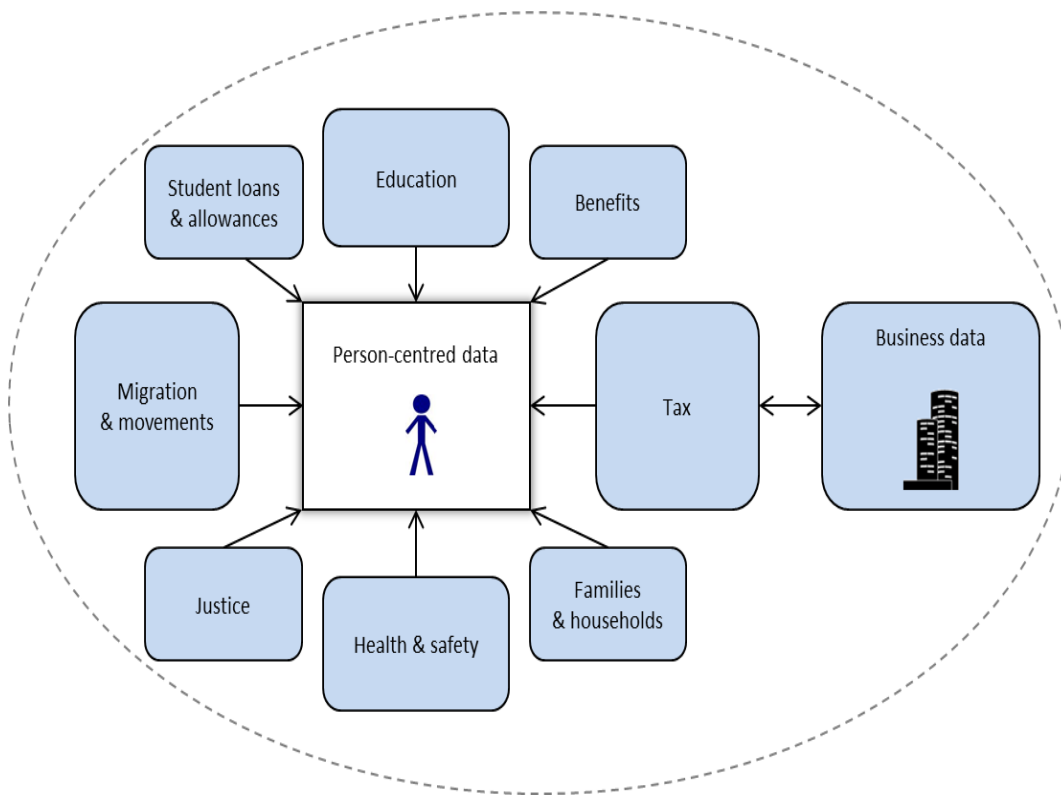
Troubleshooting activities and broader initiatives to improve the data driven innovation ecosystem.

# Next Steps – From thinking to doing

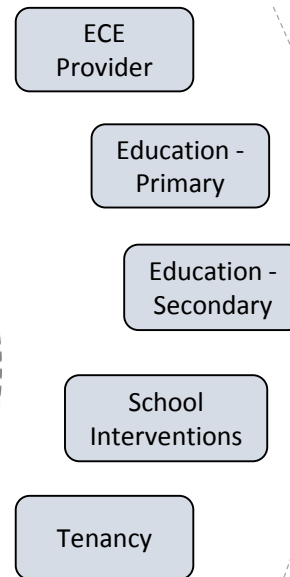


# Integrated Data Infrastructure

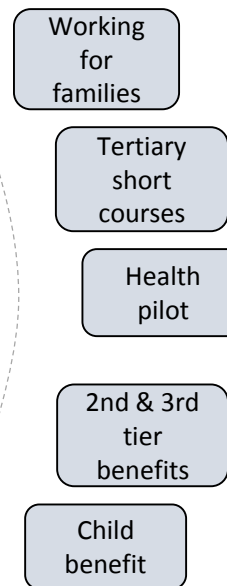
## Expanding the data



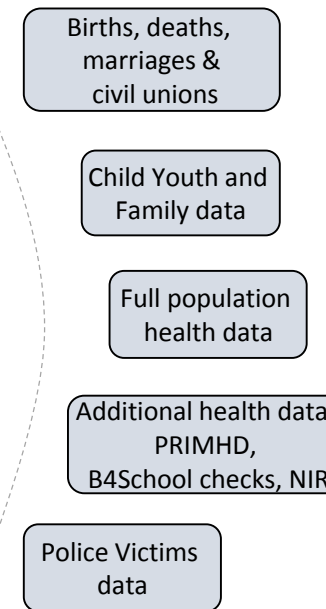
June 2014



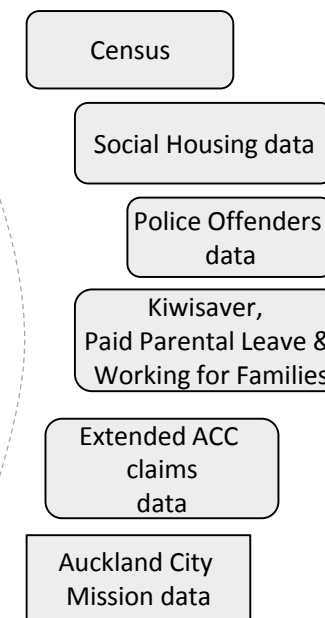
Dec 2014



May 2015



Late 2015





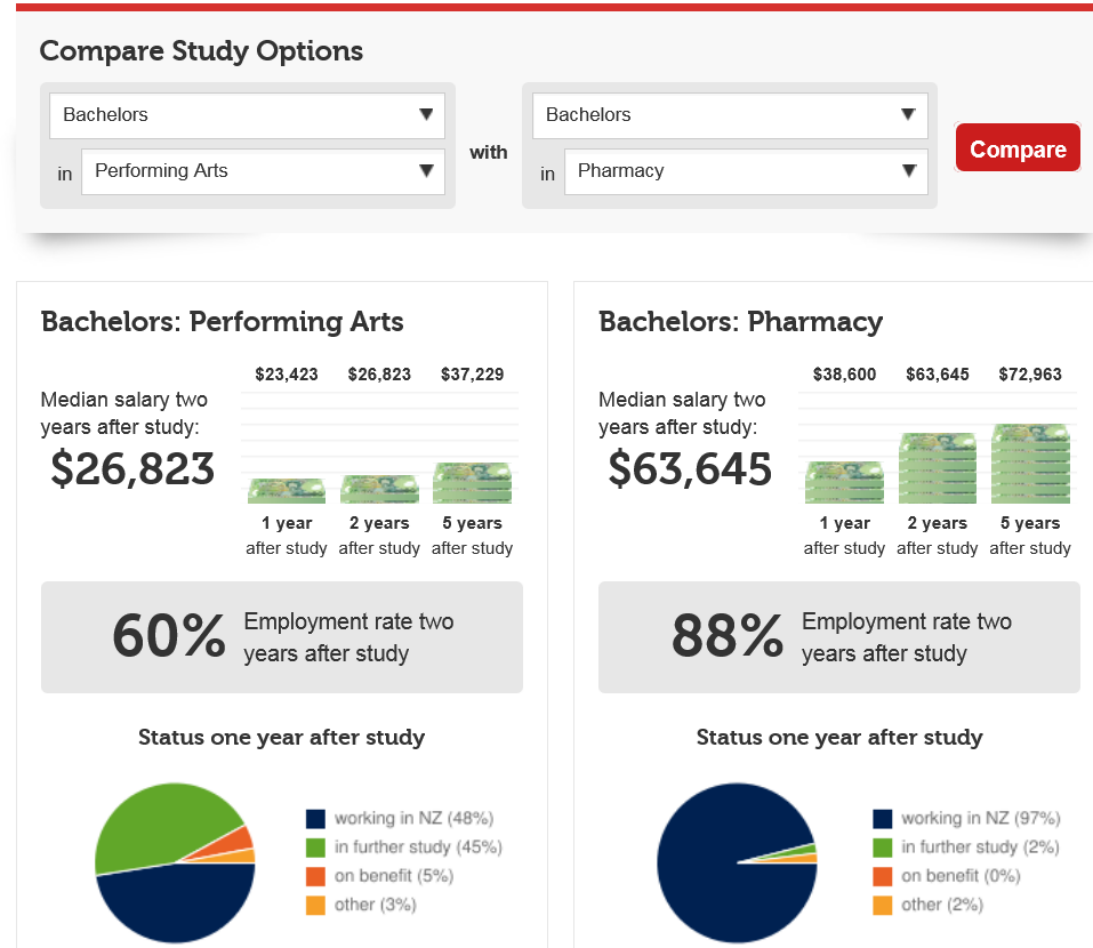
# Outcomes of tertiary study

<http://www.careers.govt.nz/tools/compare-study-options/>

## Compare Study Options

Compare earning and employment information for different study areas.

What should I study?



# Temporary migration

Should international students be allowed longer work entitlements?

 **MINISTRY OF BUSINESS,  
INNOVATION & EMPLOYMENT**  
HĪKINA WHAKATUTUKI

## Temporary Migrants as Vulnerable Workers: A literature review

March 2014



# Analytical Applications

- Price Indexes and Scanner Data
- Bayesian Hierarchical Models and population estimates
- Simulation studies of the cost of Field Activities
- Investigating alternative ways of producing a census data file.
- We have already made extensive use of EFTPOST data in Economic Statistics.
- Decision trees used in a range of Classification applications

# Analytical Plans

- Pilot trying rebuilding LEED Data Structures using RDF tools
- Modelling work loads and internet response in the Census
- Estimation of Permanent and Long Term Migration
- Exploring Machine Learning in editing contexts.

# International Statistical Office Sharing

- Big Data Sandbox ( based in Irish centre for advanced computing)
  - 70 participants from 20 countries
  - Themes of Quality, Partnership, Privacy and Methods and Tools
- Border Flow statistics (cell phone based) in Estonia
- Traffic Density (from sensors ) in the Netherlands
- Satellite data for land use (in train in a few countries)