



Australian Government  
Department of Industry,  
Innovation and Science

Office of the  
Chief Economist

# Innovation in Government Program Evaluation

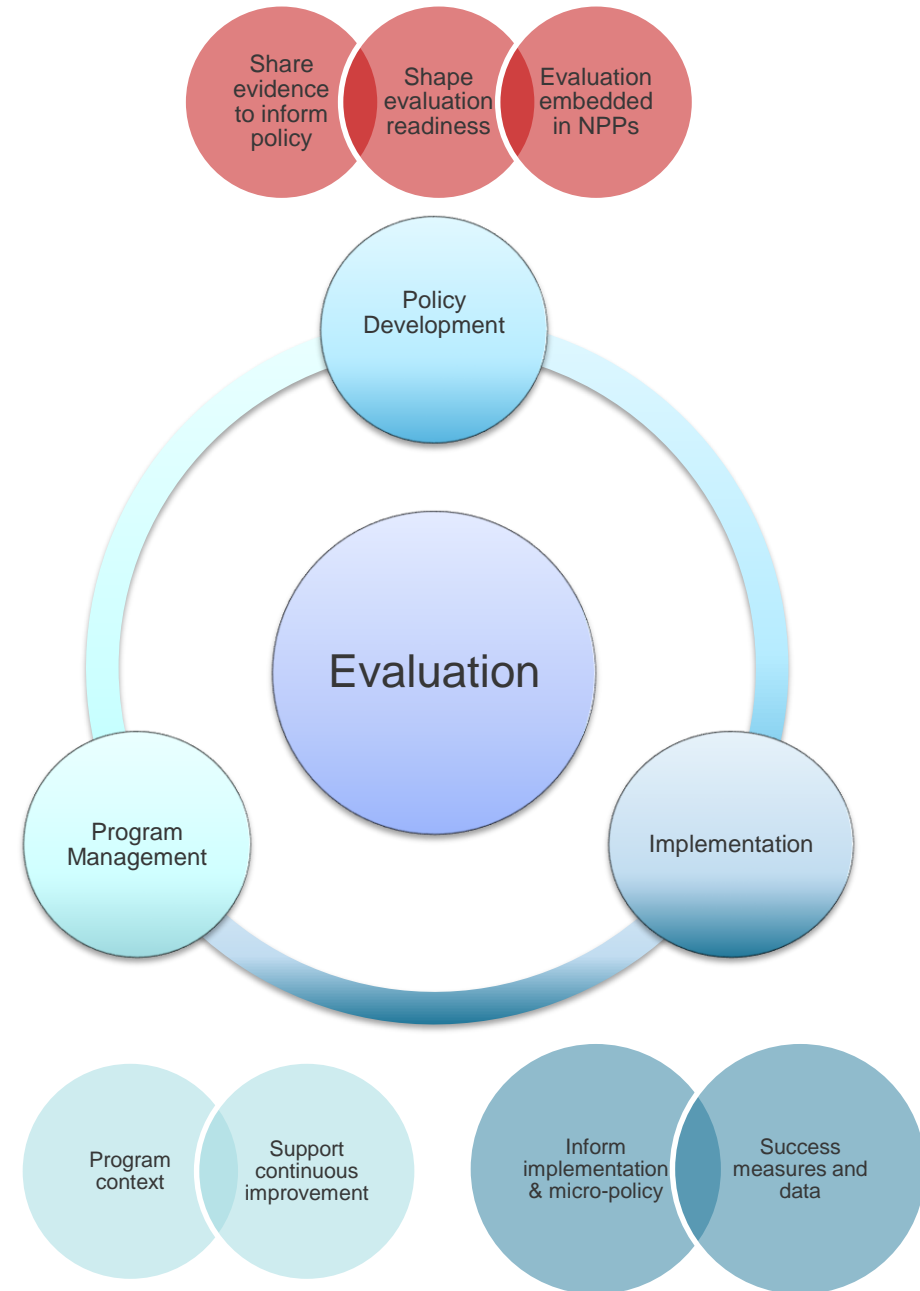
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Office of the Chief Economist  
September 2019

# Why are we innovating?

- Enhanced Commonwealth Performance Framework under the *Public Governance, Performance and Accountability Act 2013*.
- Encourage better evaluation strategies
- Review of our Evaluation Strategy.
- Improve program evaluation and policy development.
- Established a Data Management Strategy.
- ‘Close the loop’ between policy development, implementation and evaluation.



# The programs being evaluated

## Tasmanian Innovation and Investment Funds

Support investment aimed at creating sustainable new jobs and diversifying local economies.



Applicants need to demonstrate ability to co-finance projects.



Grants up to 50 per cent of eligible capital costs for projects.



Tied to specific regions.

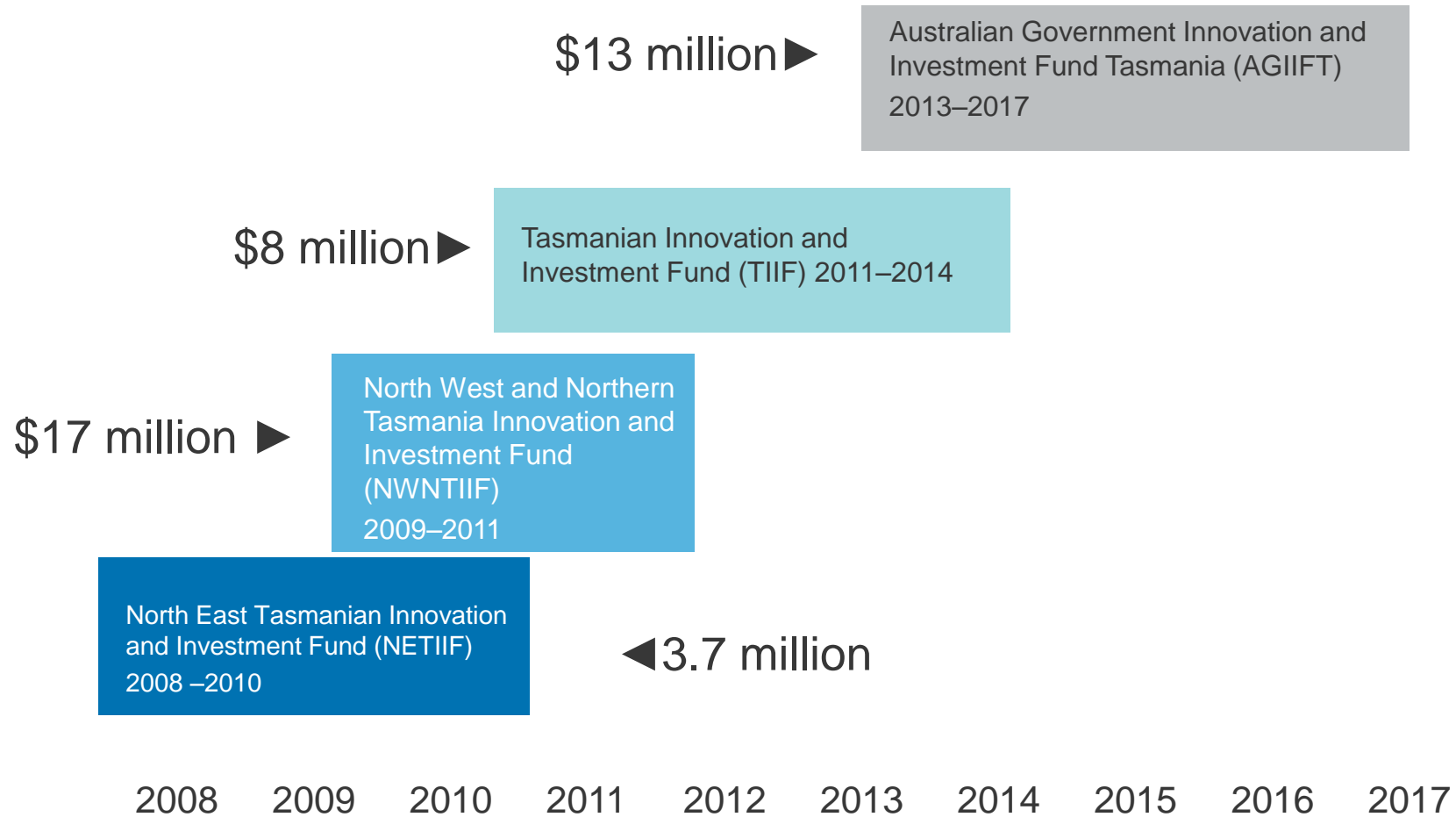
Preference for projects that introduce new innovations and/or technology.



No funding offered for retrospective project expenditures.

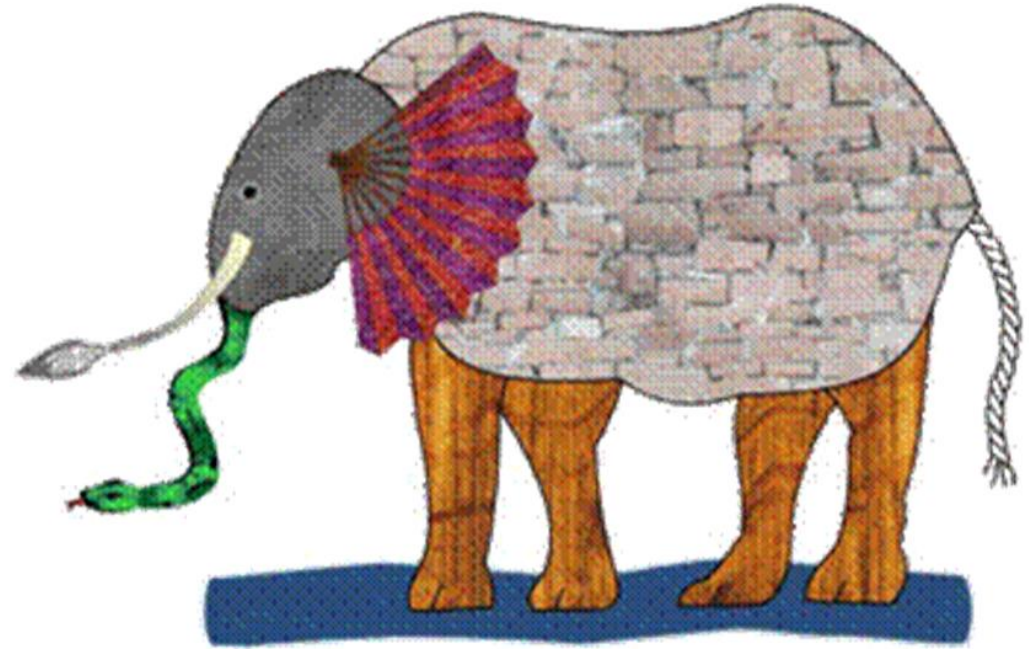
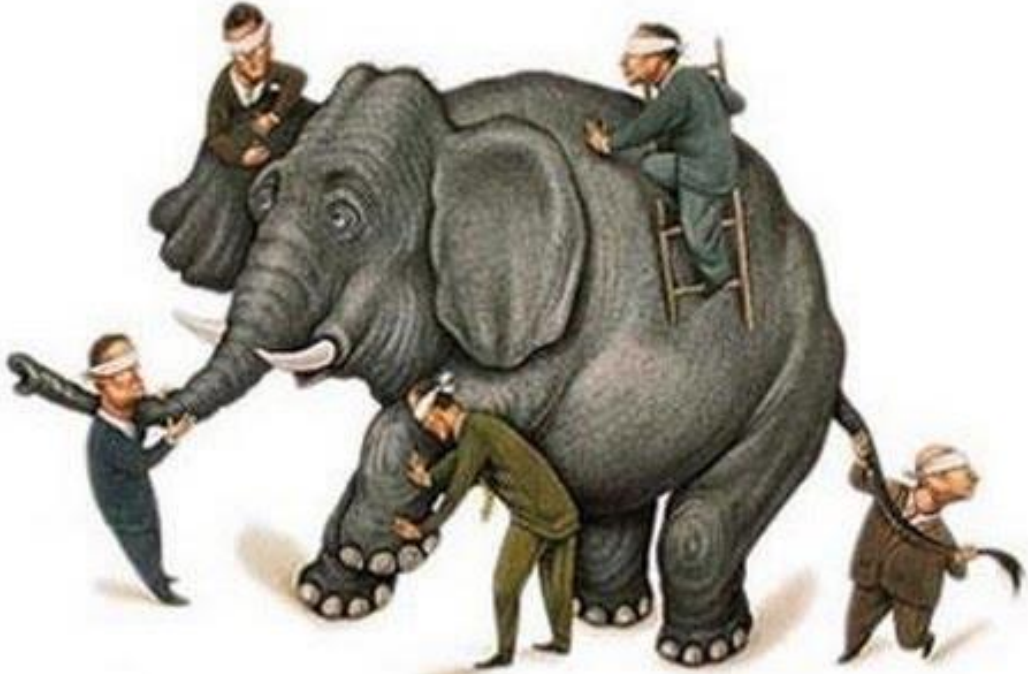


# Tasmanian Australian IIFs



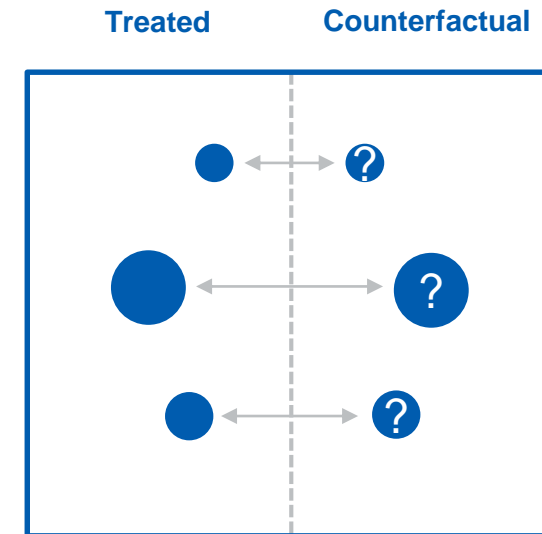
# A concurrent mixed methods methodology

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# Issues in quantifying program impact

- Without RCTs, how do we establish a sound counterfactual?
- Is financial performance data gathered in surveys reliable?
- Can we reduce our reliance on survey data?

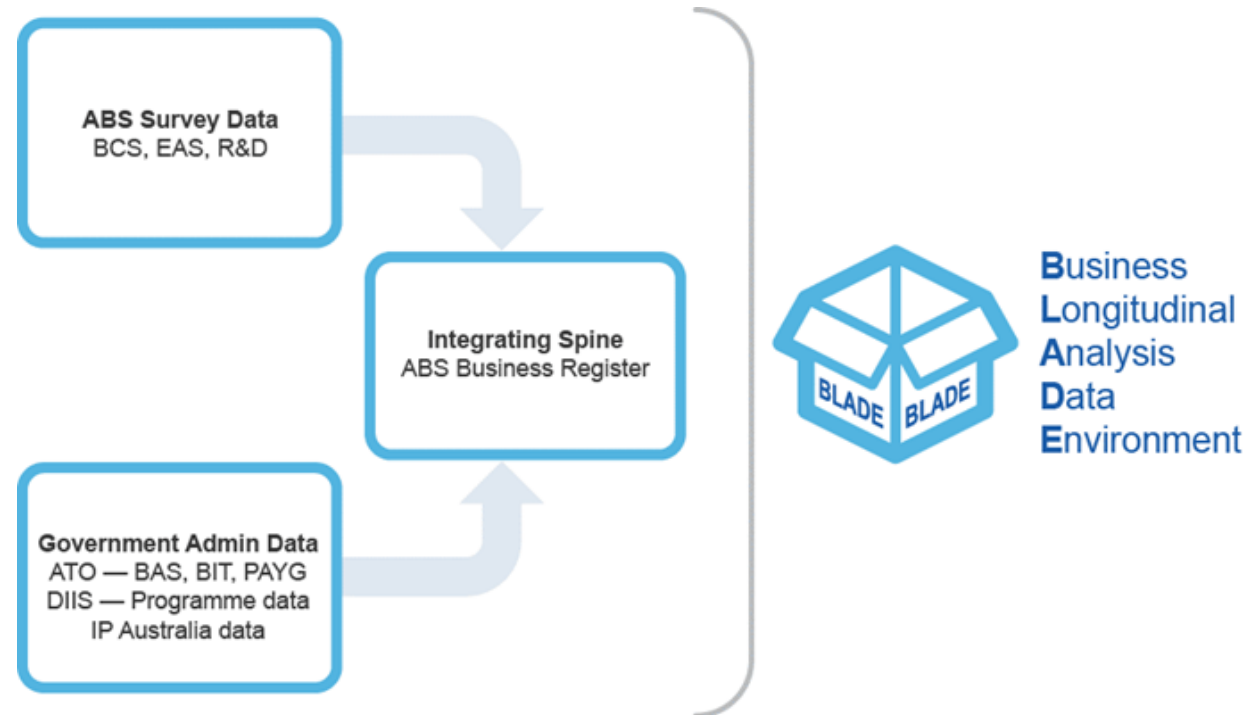


# Administrative data

# Our data and approach

## The BLADE

### An overview of BLADE

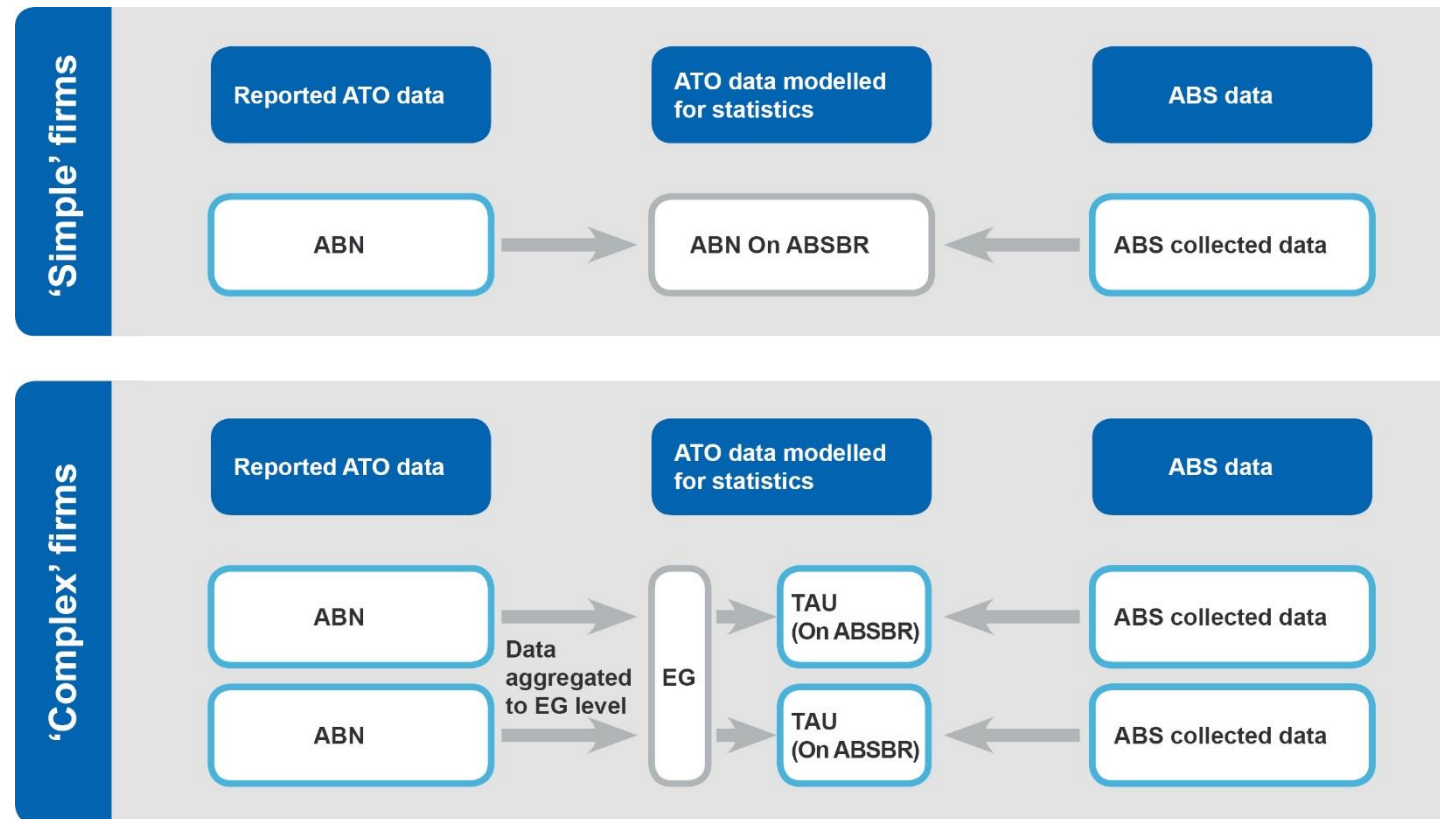


Notes: BCS refers to the Business Characteristics Survey, EAS refers to the Economic Activity Survey, BAS refers to Business Activity Statement, BIT refers to Business Income Tax, and PAYG refers to Pay as you go.



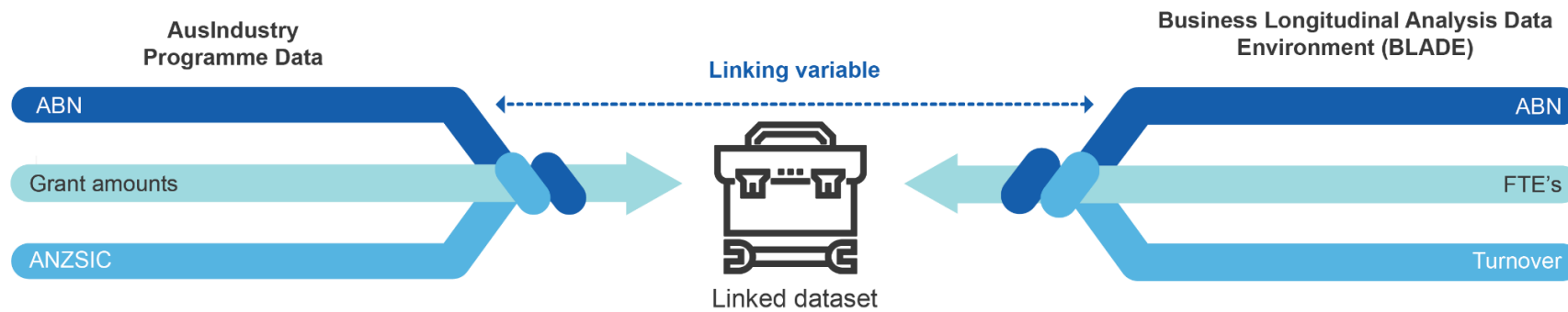
# Our data and approach

Analysis is often limited to ‘simple firms’



# Data

## The linking process

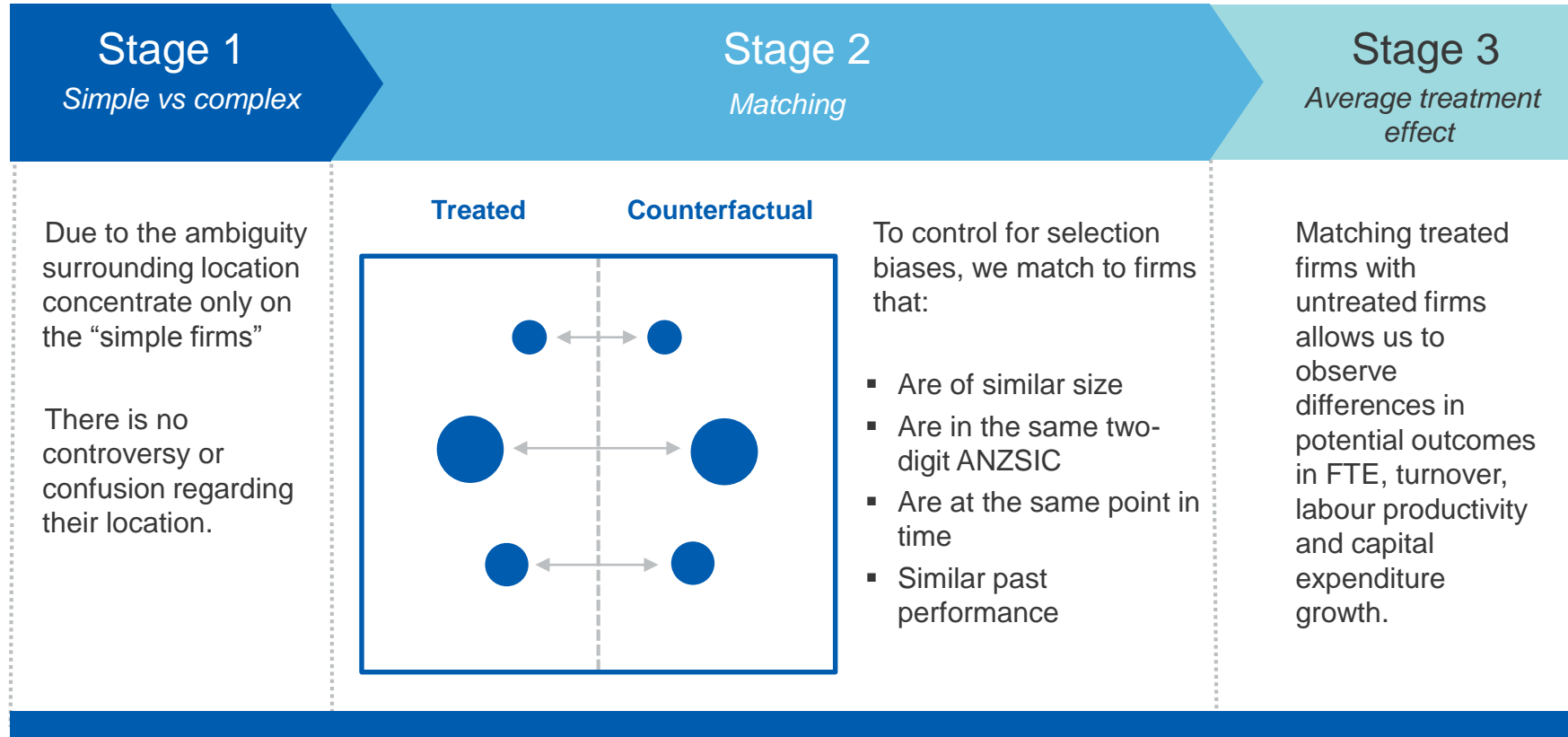


Source: Department of Industry, Innovation and Science (2019)

# Methodology

# Matching estimator

Ensuring we have a good counterfactual



# Firm-level OCE **research using matching estimators**

## **Enterprise Connect**

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- Firms had higher turnover and employment growth
- Firms had increases in export sales and survival rates.

## **457 visa paper**

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Businesses which sponsored workers under the 457 scheme had, on average, higher turnover, employment and wages than other firms.

## **Commercialisation Australia**

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CA participants had higher research and development (R&D) and capital expenditure than similar firms

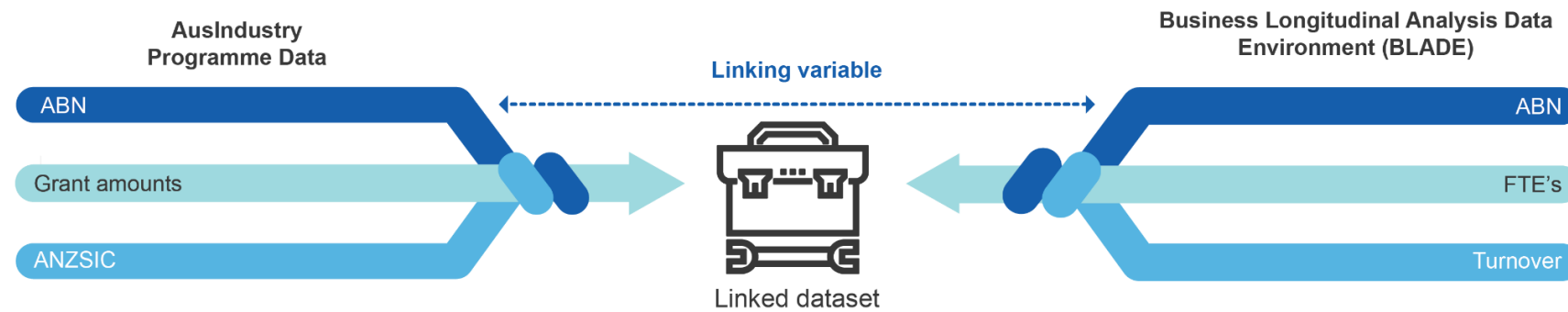
## **South Australian IIFs**

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South Australian IIFs had a positive additional impact on aspects of firm performance such as employment (FTE) and turnover.

# Data

## The linking process



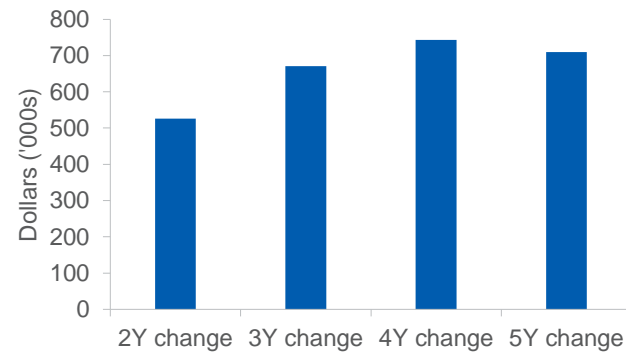
Source: Department of Industry, Innovation and Science (2019)

*111 unique firms from four Tasmanian IIFs were linked to the BLADE.*

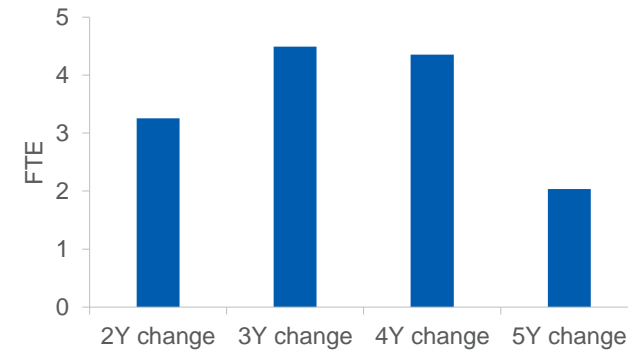
# Results

# Results

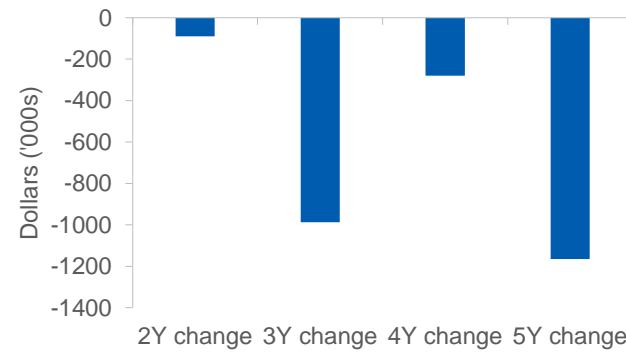
## Additionality in Turnover



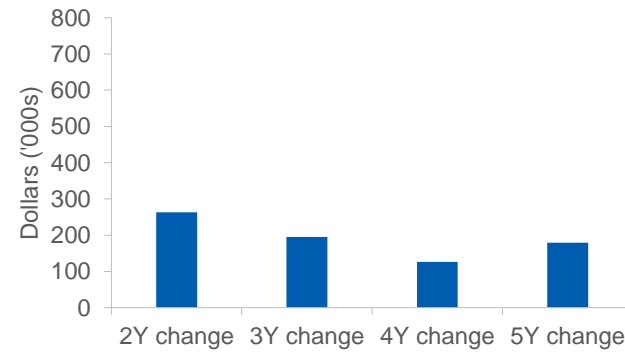
## Employment



## Labour productivity



## Capital expenditure





# Limitations of using BLADE for impact analysis



Only direct impacts on business performance can be observed



Given small sample sizes, not always possible to measure impact for each program subset



Currently cannot control for State Government assistance

# Future work



Integrate additional data into the BLADE e.g. trade data



Regression discontinuity design as another viable estimation technique

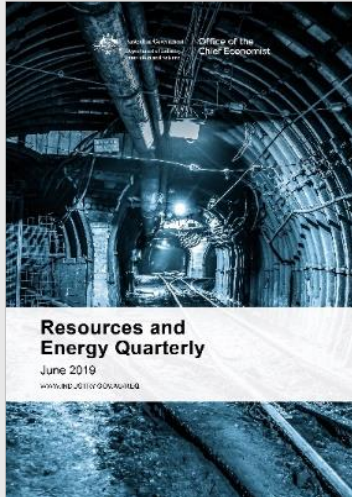


Development of methodologies to measure non-marketed outcomes

# Lessons learned

- Other agencies are **happy to share**.
- **Can be difficult to combine datasets**, as parameters are different.
- **Things change**. We have to be flexible. Get agreement for this early.
- **More time**. Allow extra time to get stakeholders on-board, to agree to terms to use their data, and to understand the different data sources.

# Further information



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