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# Understanding the Impact of COVID-19: New Data Sources, New Insights

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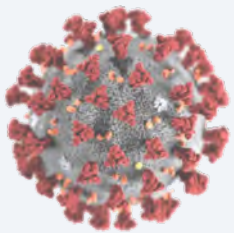
# Data Solutions

Leveraging the information content of new data sources

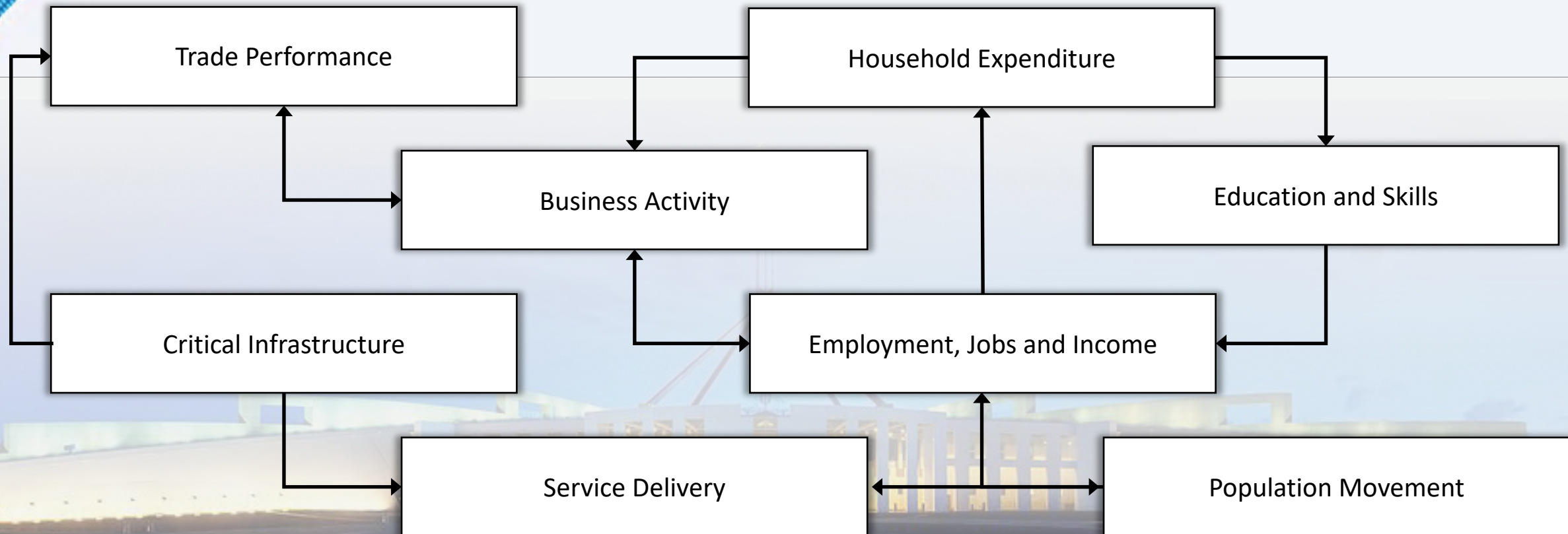
To provide insights about the impact of COVID-19

And building 'big data' capability for statistical production

- Acquisition
- Integration
- Analysis



# Policy problems



# Big data sources



- Merchandise trade transactions from Customs systems
- Retail transactions from retail point-of-sale (POS) scanners
- Payroll data from the Single Touch Payroll (STP) system
- Financial transactions from banking and accounting systems
- Smart meter measurements from energy retailers
- Spatial positioning data from applications on mobile devices
- Spatial positioning data from vehicle telematics systems
- Internet infrastructure and service usage data from ISPs
- Land coverage and utilisation data from satellite imagery
- Job advertisements from online employment portals



# A new analytical paradigm

## A System-Centric Perspective

- Join up interrelated concept and data spaces
- Connect individuals and groups in multiple ways

## Computable Semantics

- 'Meaning' of concepts is machine-interpretable
- Consistent interpretation across disparate sources
- Automated processing and discovery through AI

## Dynamically Integrated Data

- Heterogeneous and multisource
- Structured and unstructured
- Cross-sectional and longitudinal linkages

## Adaptive Analytical Pathways

- Exploration (pattern sensing)
- Explanation (model building)
- Extrapolation (system simulation)

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