How Training Development through Collaboration can Support Organisational Strategies for Safe Data Management

Yolante Jones[1], Joanna Dipnall[2], Mark Hoffmann[3], Mat Ishac[2]

[1]Australian National University, Canberra, ACT, Australia

[2]Monash University, Melbourne, VIC, Australia

[3]QCIF, St Lucia, QLD, Australia

Acknowledgement of Country

We begin this Birds of a Feather by acknowledging the Jagera and Turrbal people as the Traditional Custodians of Meanjin, where we gather today, and pay our respects to their Elders past, present and emerging. We extend this respect to all Aboriginal and Torres Strait Islander peoples here today.

Agenda

- **Project overviews**

- **Why developing training was important**

- **Process and collaboration**

- **Challenges**

- **Recommendations and future-proofing**

- **Further discussion/ Q&A**

Project Overviews

# Trusted Research Environment: KeyPoint

KeyPoint

Trusted Research Environment

Used by Queensland Universities to securely share and analyse sensitive information

Training considerations:

- User account management
- Onboarding and introduction
- Capability assessment prior to accessing the system
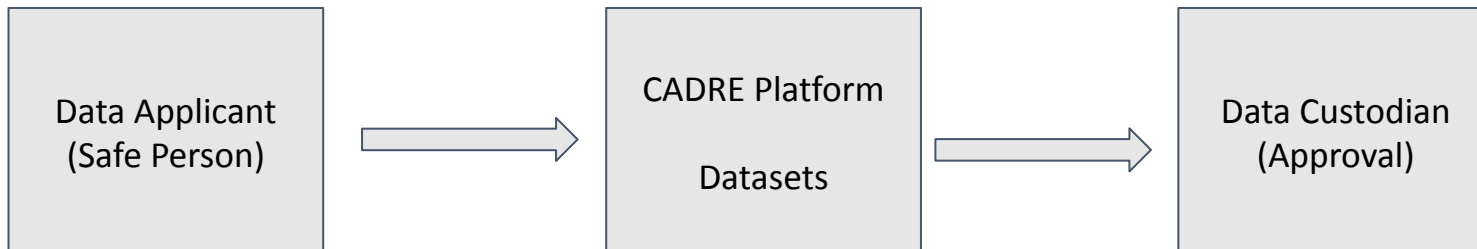- Provision of up-to-date information on key concepts, such as the Five Safes Framework
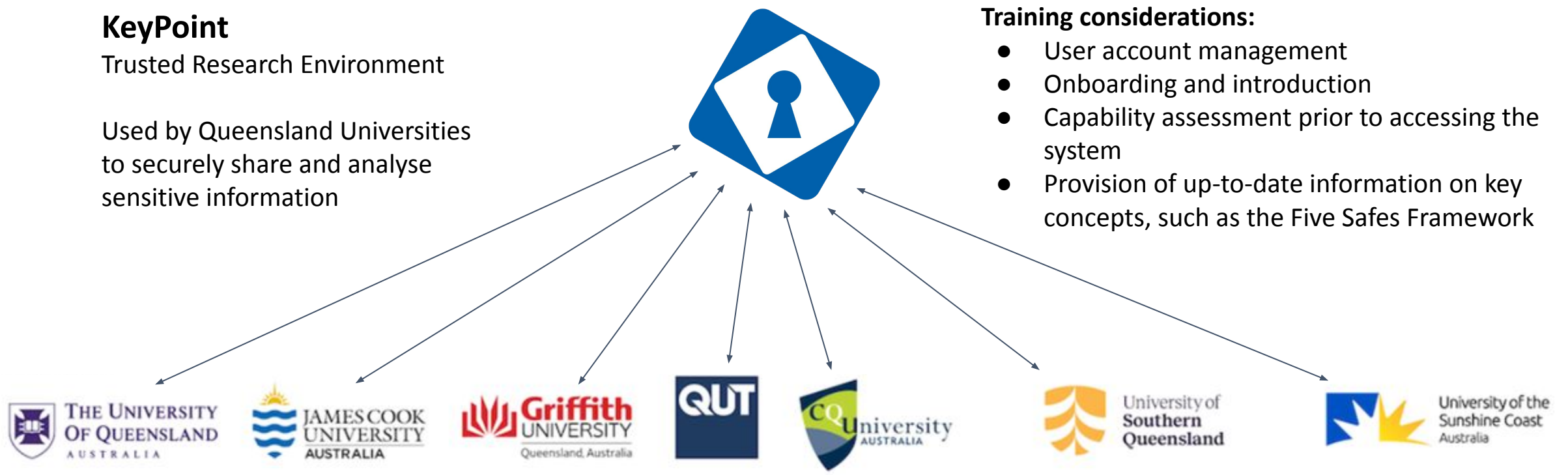
Coordinated Access for Data, Research and Environments

Operationalisation of the Five Safes

Platform for HASS researchers to apply and be granted access to sensitive data

| Data Applicant (Safe Person) | → | CADRE Platform Datasets | → | Data Custodian (Approval) |

E-mail : CADRE5Safes@anu.edu.au

Welcome to the CADRE Learning site

Please watch the below videos - thank you!

CADRE Learning Site Introduction

CADRE Learning Site Introduction from Centre for Learning and Teaching on Vimeo.

Module Navigation Overview

Thank you for your interest in learning about Data Management

Intro to Navigate the Modules

Monash SeRP

A secure eResearch platform for researchers to share and store their data in a secure, scalable and sensitive approach
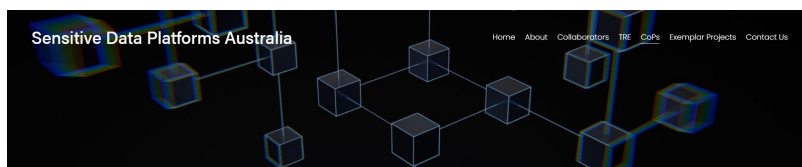
Monash Secure eResearch Platform (SeRP) is a secure environment for sharing research data for collaboration and analysis, within the control and governance of the data custodian. Monash SeRP allows the Data custodian or the delegated project manager (Data Custodian) to have visibility and control over how their data is being used by other approved researchers.

- Scalable data governance
- Simple User Interface.
- Data Linkage Module
- Full suite of analytical tools
- Store and analyse diverse forms of data.
- Large scale High Performance Computing capability.
- Secure, remote access

MONASH University

Swansea University
Prifysgol Abertawe

Summary of Community of Practice Outputs

Online Repository

https://www.sensitivedataplatforms.org/cops

Training Material
- Training Manual
- Getting Started Guide
- FAQ

Training Module
Moodle Instance @ CADRE, Monash, QCIF

Quiz Modules
- Platform
- Governance
- Five Safes
- Ethics

Can be used for platform 'accreditation'

Why developing training was important

Dr Joanna Dipnall

- Rising demand from the research community for more frequent and unrestricted access to data, and growing use of sensitive data, and particularly in health research (e.g. hospital records)
- With the use of this sensitive data confidentiality and privacy is paramount
- As researchers and data analysts, we have a lawful and ethical obligation to handle this data in a responsible manner
- As project managers we need to ensure our researchers and analysts are aware of these important obligations

AUSTRALIA'S DATA-ENABLED RESEARCH FUTURE: HEALTH AND MEDICAL SCIENCES

*"To capitalise on the opportunities to improve health and make use of the ever-increasing volume of health data, **Australia must develop an environment that enables the safe and secure use of patient data for legitimate research purposes** – balanced with protecting the rights and interests of individuals. Collaboration and coordination within and across research disciplines will be key to achieving this."*

Date of publication: June 2022
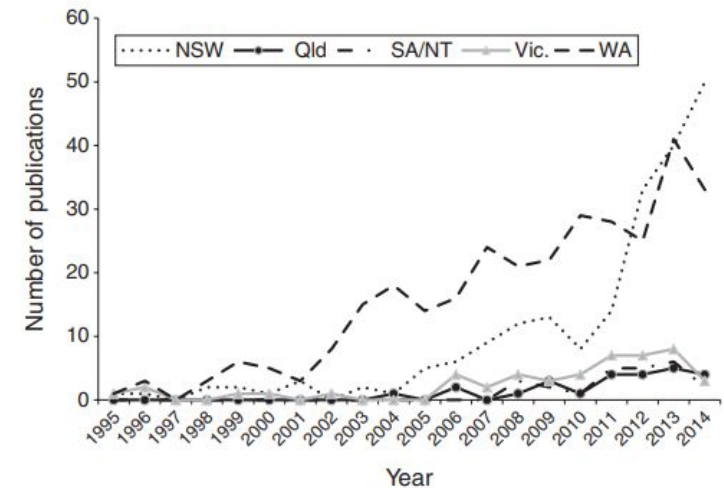*Publisher: Australian Academy of Health and Medical Sciences*

Fig. 2. Number of publications using hospital data linkage by state from 1995 to 2014. Note, the Australian Capital Territory (ACT) and Tasmania had a total of three and four publications respectively over the years and so are not shown in the figure. NSW, New South Wales; Qld, Queensland; SA, South Australia; NT, Northern Territory; Vic., Victoria; WA, Western Australia.

*Tew Michelle, Dalziel Kim M., Petrie Dennis J., Clarke Philip M. (2017) Growth of linked hospital data use in Australia: a systematic review. Australian Health Review **41**, 394-400.*

- As project managers, researchers and analysts, we are **obligated to mitigate any potential risks** associated with the use our research data
- Fig 4 from Richie 2014:
  - Risk at zero means nothing is allowed, security is extreme and data access prohibitive
  - When everything is allowed, then the risk is >0, security is lost but data access is gained
    - Ritchie (2014) discourages starting at *Risk=0* standpoint as this indicates "the outcome is likely to be more restrictive than starting from an open solution and progressively adding restrictions."
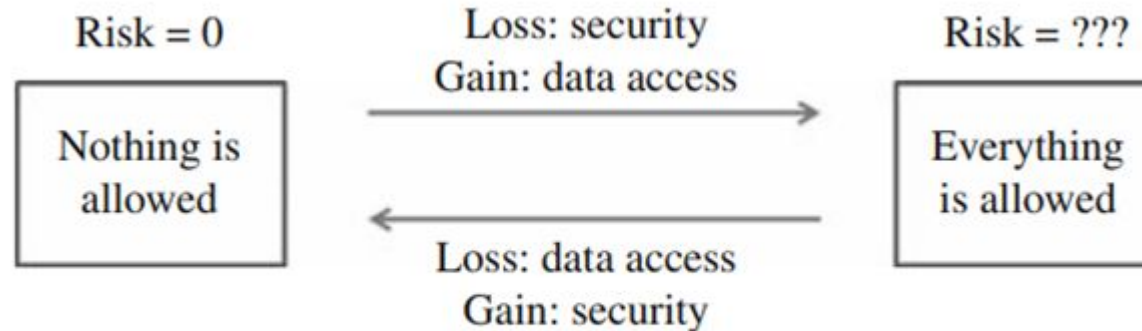

Fig. 4. *Measures and changes in risk*

- This mindset of working backwards from an open solution potentially sets us up for being able to perform responsible research in a controlled environment and under the umbrella of managed risk

National statistical offices (NSOs) **5 safes framework** manage the disclosure risk for releasing data

- 5 safes principles are to balance safe projects, people, settings, data and output against disclosure risk and utility
- Minimise the risks
  - **People**: only approved People are granted access to the research project
  - **Projects**: only approved Projects are granted access (e.g. have ethics approval)
  - **Settings**: set up a secure Setting for projects involving sensitive data
    - Access with secure VPN connection and two-factor authentication with strong password
  - **Data**: only approved Data are available to the Project
    - Remove ability for researchers and analysts to store local copies of data
    - Associated data is safe and secure with only people who have authorised use can access the data
  - **Outputs**: only approved Outputs are available outside
    - Inability to report individual-level data that would be potentially identifiable

So, training researchers and analysts to **understand the importance of the 5 safes framework** has ongoing benefits to an institution:

- Ensures resources are used in a lawful, ethical and responsible manner
- Ensures users abide by institutional policies
- Encourages safe collaboration within and across institutions

The 'Five Safes' Framework and applying it to OpenSAFELY

https://www.bennett.ox.ac.uk/blog/2023/03/the-five-safes-framework-and-applying-it-to-opensafely/

Process and Collaboration

Mr Mark Hoffmann

Finding, and aligning with, like-minded organisations.

Creating and fostering trust.

Identifying common goals.

Playing to everyone's strengths.

Being humble to accept feedback.

Challenges

Mr Mat Ishac

Knowledge Management
Knowledge management and curating valuable content are ongoing challenges. Maintain high-quality materials but also ensuring they remain up-to-date, useful, accessible, and user-friendly.

Resource Allocation
Effective resource allocation is another significant hurdle. Balancing time resources can be complex, especially in community initiatives where contributors have other professional commitments.
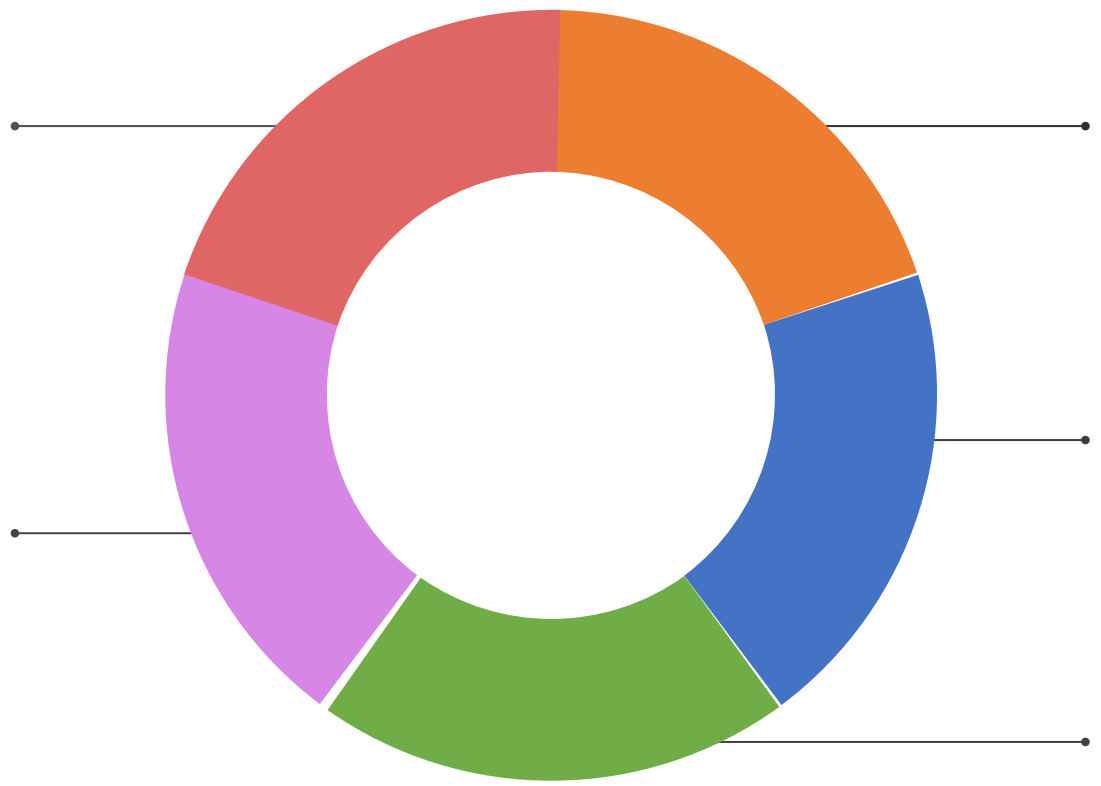
Sustainability
Overcoming obstacles, such as turnover in leadership or waning interest, can be demanding. Ensuring the community remains vibrant and continues to produce valuable outputs is crucial.

Engagement and Participation
Maintaining a sense of shared purpose, fostering discussion, and motivating members to participate in knowledge-sharing and collaborative efforts can be a constant struggle.

Impact
Determining how the outputs have influenced best practices in research is a challenge, as impacts may not always be immediate or straightforward to quantify.

Scope of Training

Data Access, Data Management, Confidentiality, Ethical and Legal responsibilities

Cyber Security Awareness

Awareness of threat types, constantly evolving threats, requires heightened awareness when using sensitive data

Data Breach Protocols

Mandatory reporting requirements, data breach procedure awareness and training

Quality Assurance

Standard continuously evolving, resource intensive, skills incentive

Continuous Training & Awareness

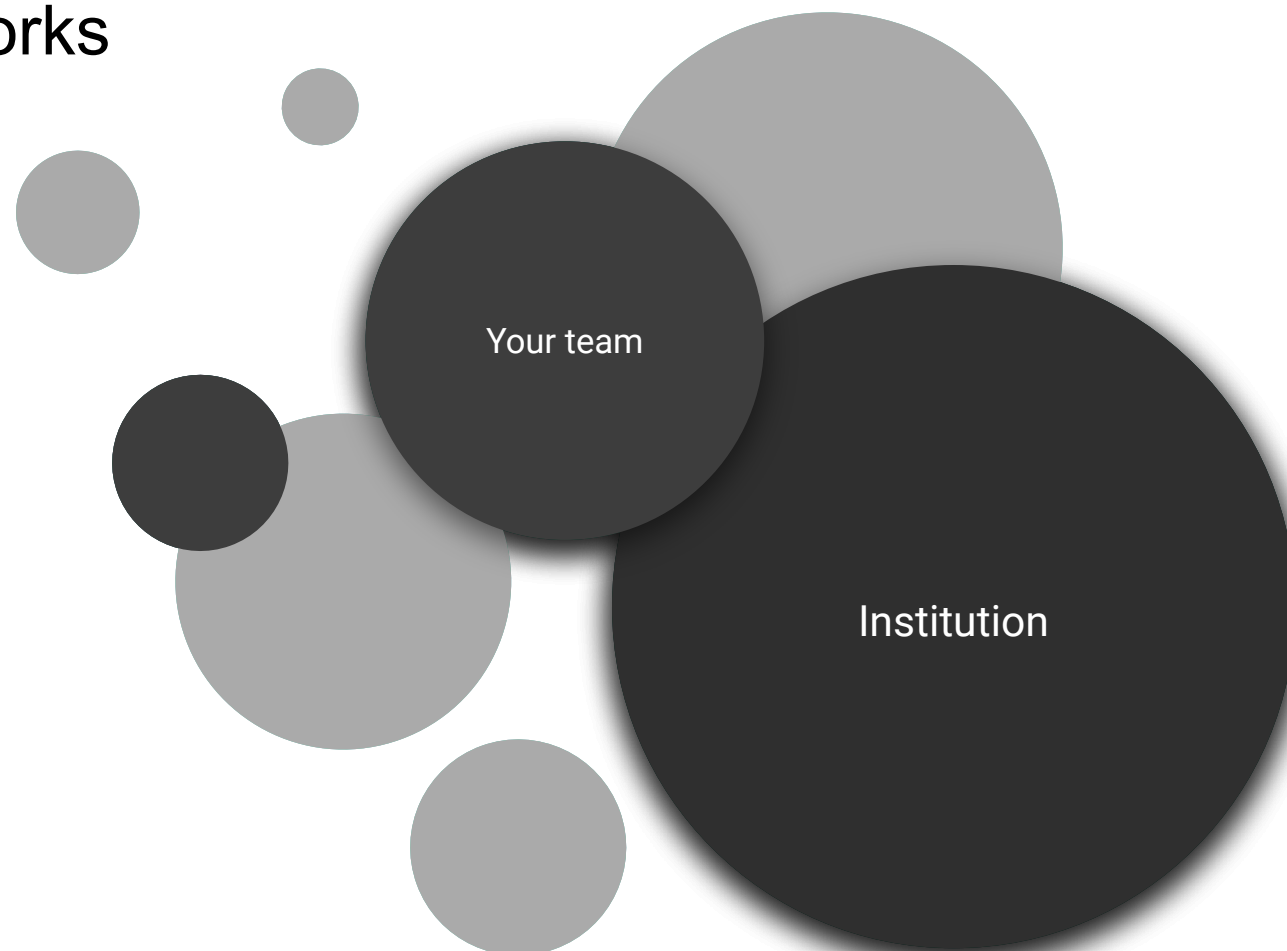Landscape continuously evolving, requirements resources to keep material, requires 'buy-in' from end users.

Recommendations + Future-proofing

Ms Yolanté Jones

Utilise your networks

Your team

Institution

Sustainability

- Resources required beyond the current project timeline

- Will there need to be updates made to the content to remain relevant?

- Identify other opportunities for your training materials

Look for synergies

Strengthening our national mission and meeting our unique responsibilities

- Develop and disseminate new ideas to increase innovation, understanding, democratic participation and prosperity
- Meet our responsibilities to the Asia-Pacific region with work informed by specialist knowledge and networks
- Test and share new ideas for the Australian higher education sector
- Chart a better future for health and wellbeing in Australia and beyond
- Contribute to global environmental sustainability
- Engage with First Nations Peoples through academic work, convening key conversations, and the study of First Nations traditional knowledge
- Pioneer a new approach to engineering and tech design and build new national capabilities in data-driven policy and business development
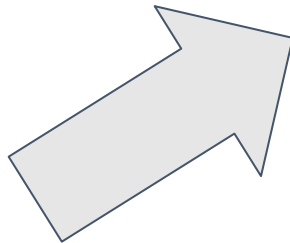
- Pioneer a new approach to engineering and tech design and build new national capabilities in data-driven policy and business development

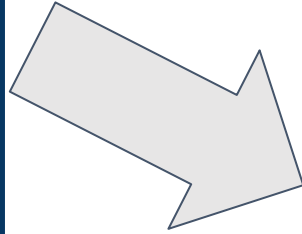# Look for synergies

Monash Research will

> provide new knowledge and extend understanding – talent enhancement and research;
> support research platforms and access to data that encourage collaboration on and development of new research knowledge and techniques – research platforms and datasets;

> build research capacity across all campuses focused on key research themes able to support strong national and international capability in relation to key global challenges – global challenge research programs;
> build doctoral programs that incorporate access to international and industry partnerships and across the Monash campuses – graduate research training; and
> develop new programs with partners to understand and provide solutions to key global challenges – networks of excellence.
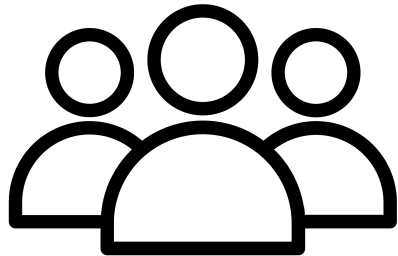
> provide new knowledge and extend understanding – talent enhancement and research;

> support research platforms and access to data that encourage collaboration on and development of new research knowledge and techniques – research platforms and datasets;

Planning, Developing, Building

Required resources

Discussion

Thank you for joining us today!