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Targeted FAIR Skills Training and Support for the Australian Grains Industry

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Outline

1. Introduction to the DataHarvest Project
2. Complexity within the Australian Grains Industry
3. Community adoption of an innovation
4. RDM workshop structure and design
5. Assessing participant confidence
6. Post-workshop support and future directions

DataHarvest

A partnership to unlock the value of RD&E data for the Australian grains industry.

DataHarvest is an investment of the Grains Research and Development Corporation (GRDC). It is led by Curtin University through the Centre for Crop and Disease Management (CCDM).

GRDC code: CUR2401-001BGX

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GRDC RD&E Data Management Policy

- GRDC RD&E data to be **as open as possible** and **as closed as necessary**
- GRDC is committed to making RD&E data from GRDC projects **FAIR**
- GRDC's Data Management Guidelines support the policy by guiding research partners how to fulfill their obligations to capture and securely store valuable data.

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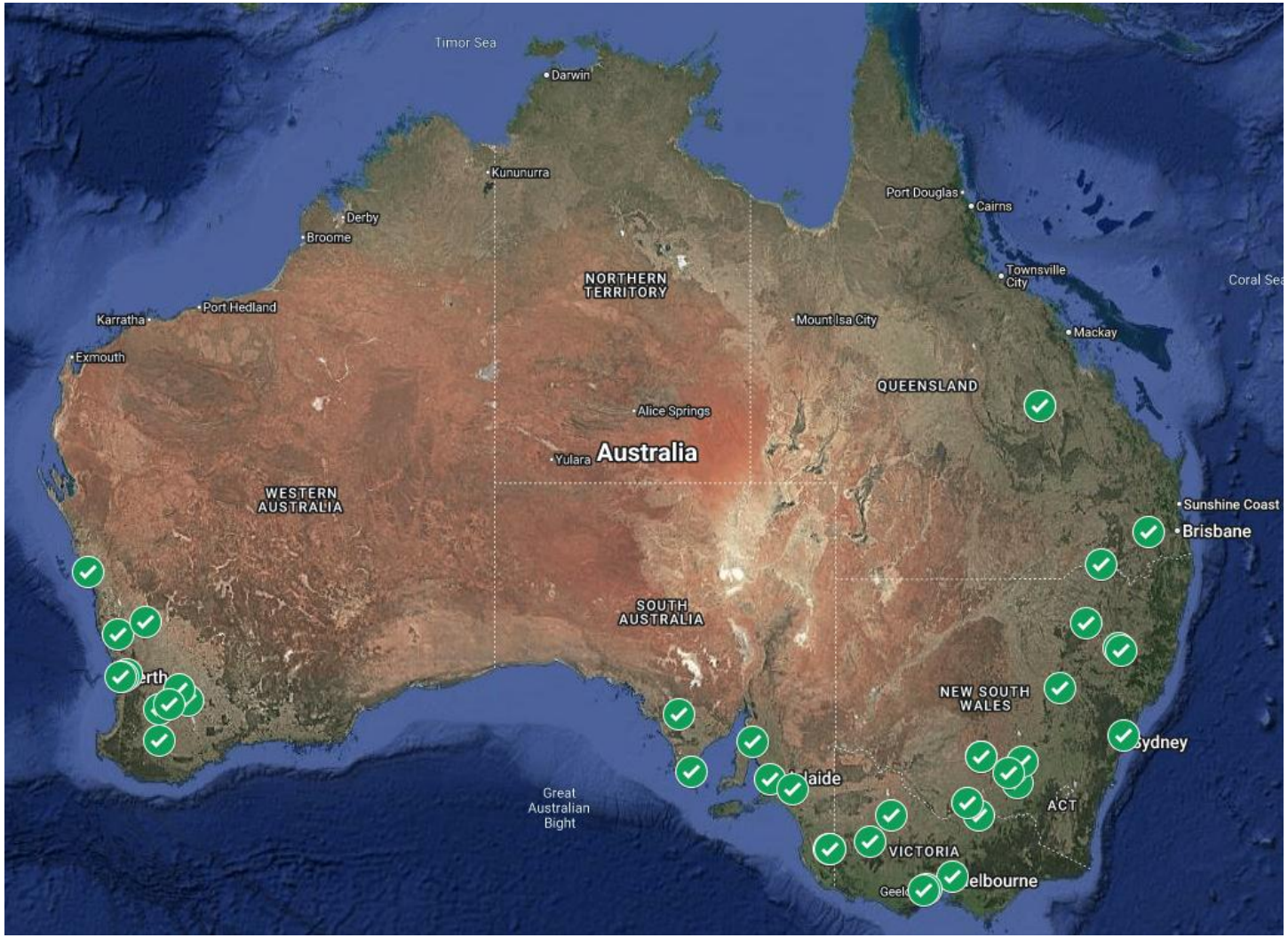
Prioritising teaching RDM face-to-face



Workshops delivered across major grain-growing regions of Australia:

- 21 workshops
- 39 organisations
- 213 Individuals

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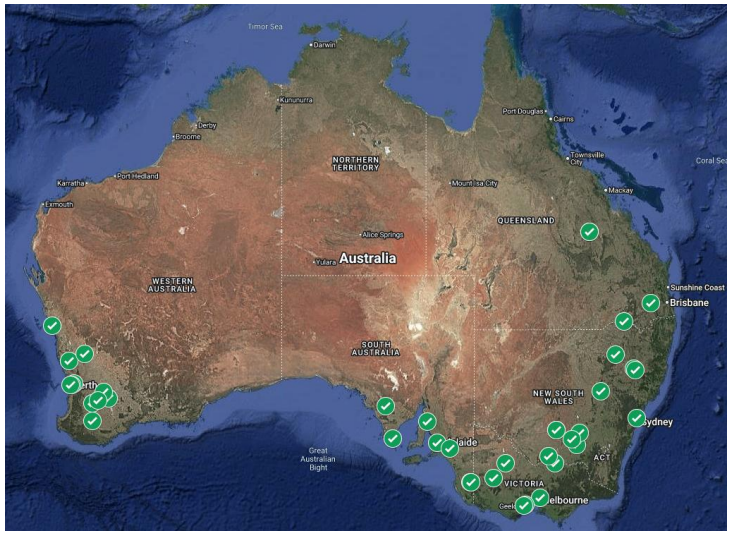
Workshops build trust with partners



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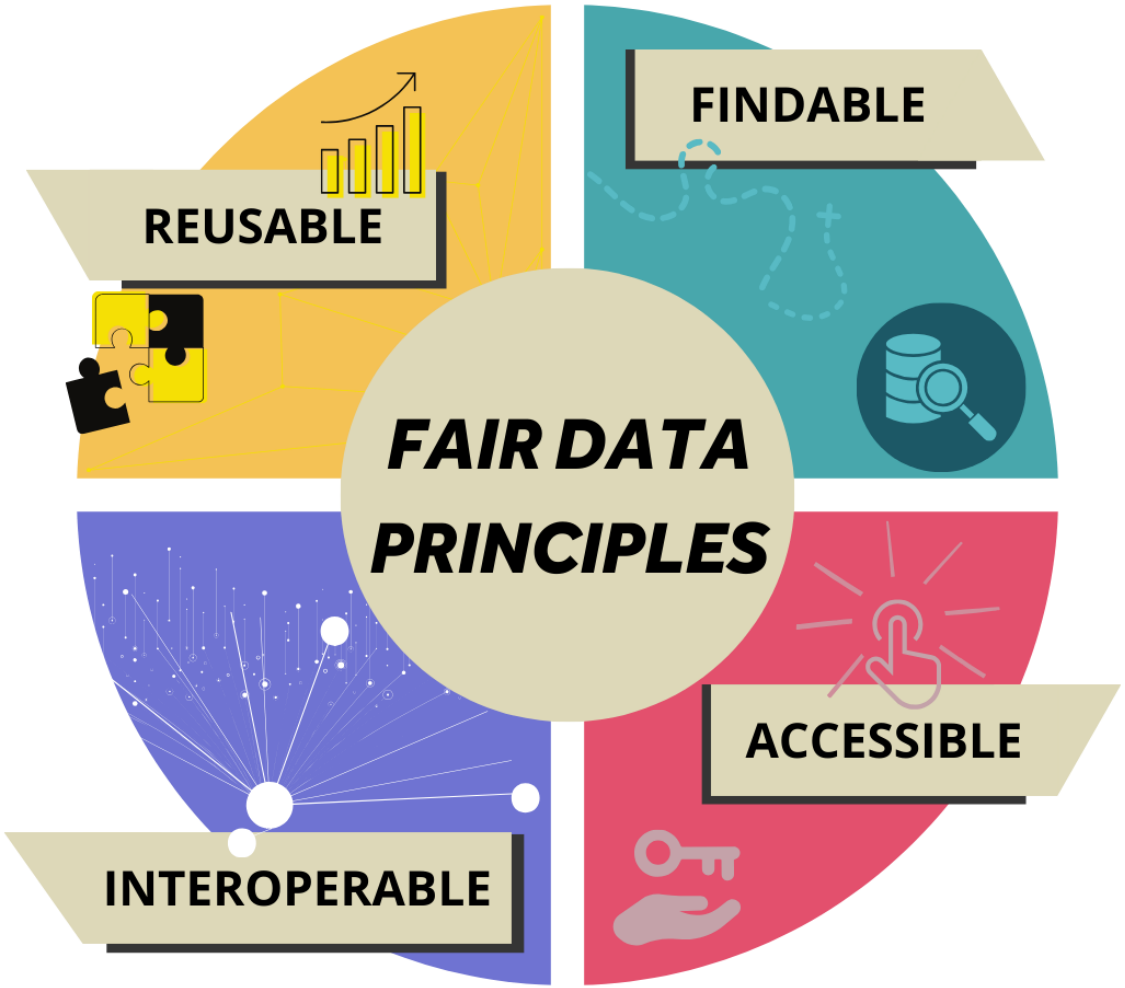
Who, What and How
Data in the Australian Grain Industry

- Digital technologies
- Complex and multifaceted datasets
- Siloed data
- Diverse web of stakeholders

The FAIR Principles



Challenges:

1. Vague, ambiguous
2. Training opportunities for those directly involved in Grains Industry
3. Limited incentives to implement to a high standard

How does an innovation spread through a community?

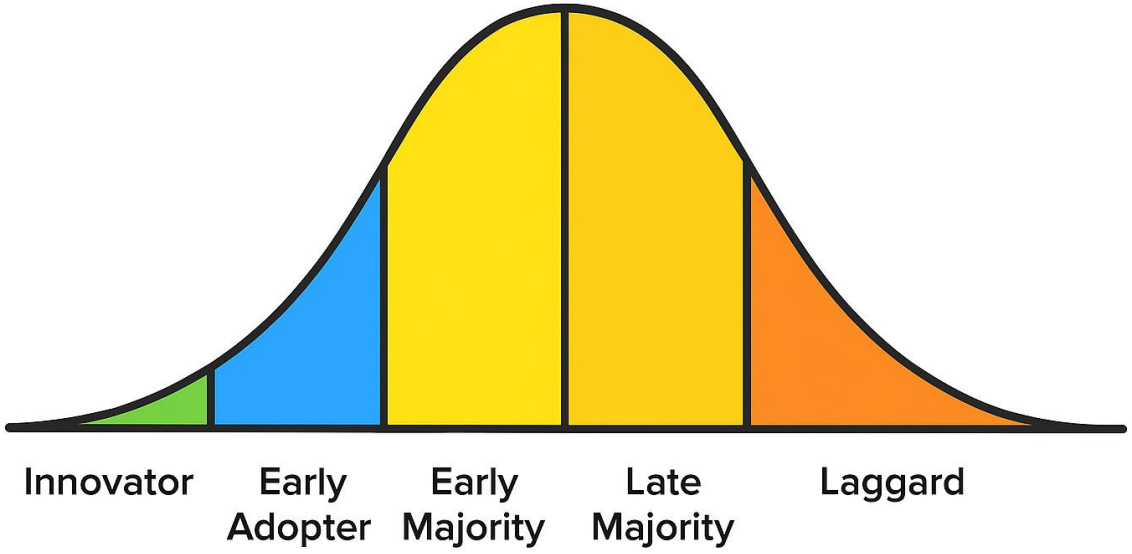
Understanding Diffusion of Innovation

Innovation: key GRDC Data Management tasks – informed by FAIR principles and best practice RDM

Community: Australian grains industry research providers (GRDC partners)

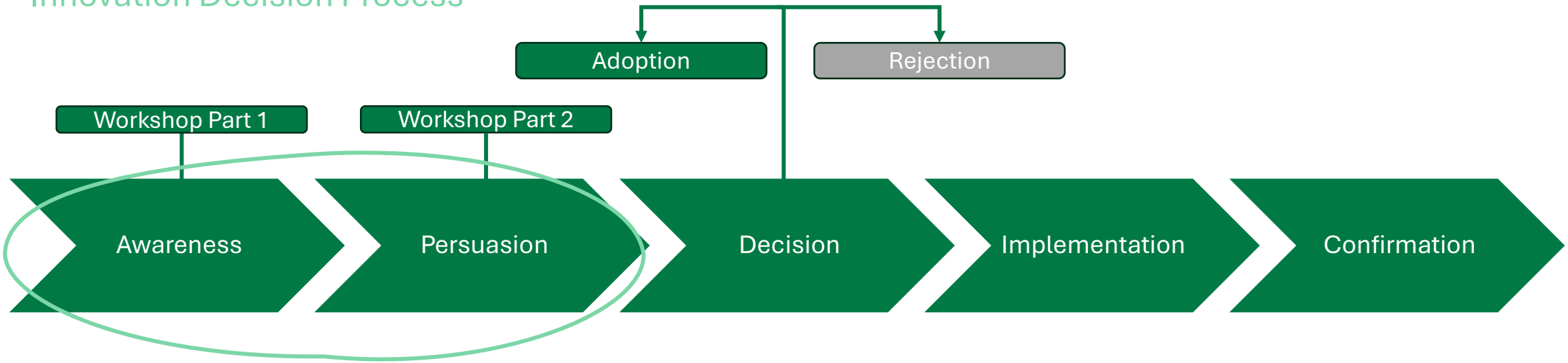
Drive FAIR adoption through training

The DataHarvest project was created to develop the capacity and capability in GRDC research partners to deliver against the GRDC RD&E Data Management Policy

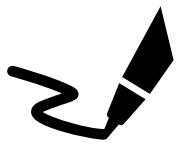


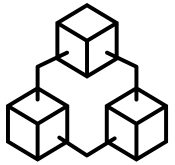
Applying Diffusion of Innovation to teach RDM

Innovation Decision Process



Recall and comprehension	Discussion with peers	Intention to try	Use of innovation	Promotion of innovation




Create a baseline of FAIR knowledge

Innovation Decision Process (workshop design)

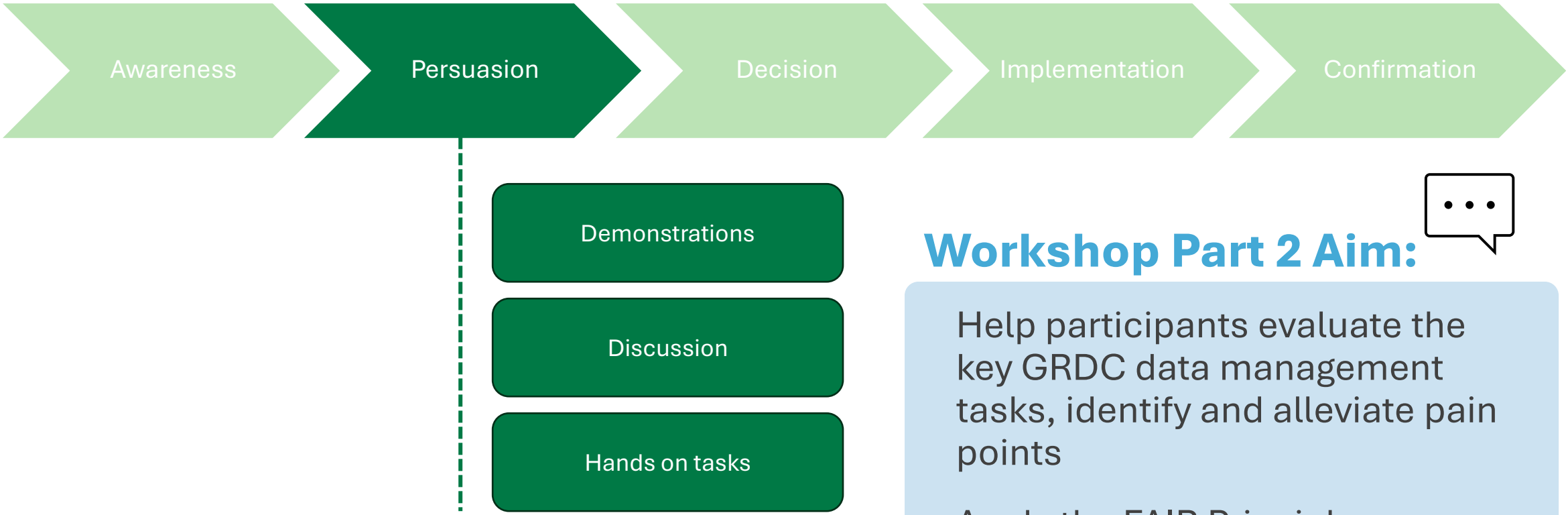
- FAIR Principles
- Key GRDC Data Management tasks

Workshop Part 1 Aim:

Set foundations for understanding the key GRDC Data Management task and the underlying FAIR principles.

Opportunities to evaluate FAIR

Innovation Decision Process



Workshop Part 2 Aim:

Help participants evaluate the key GRDC data management tasks, identify and alleviate pain points

Apply the FAIR Principles

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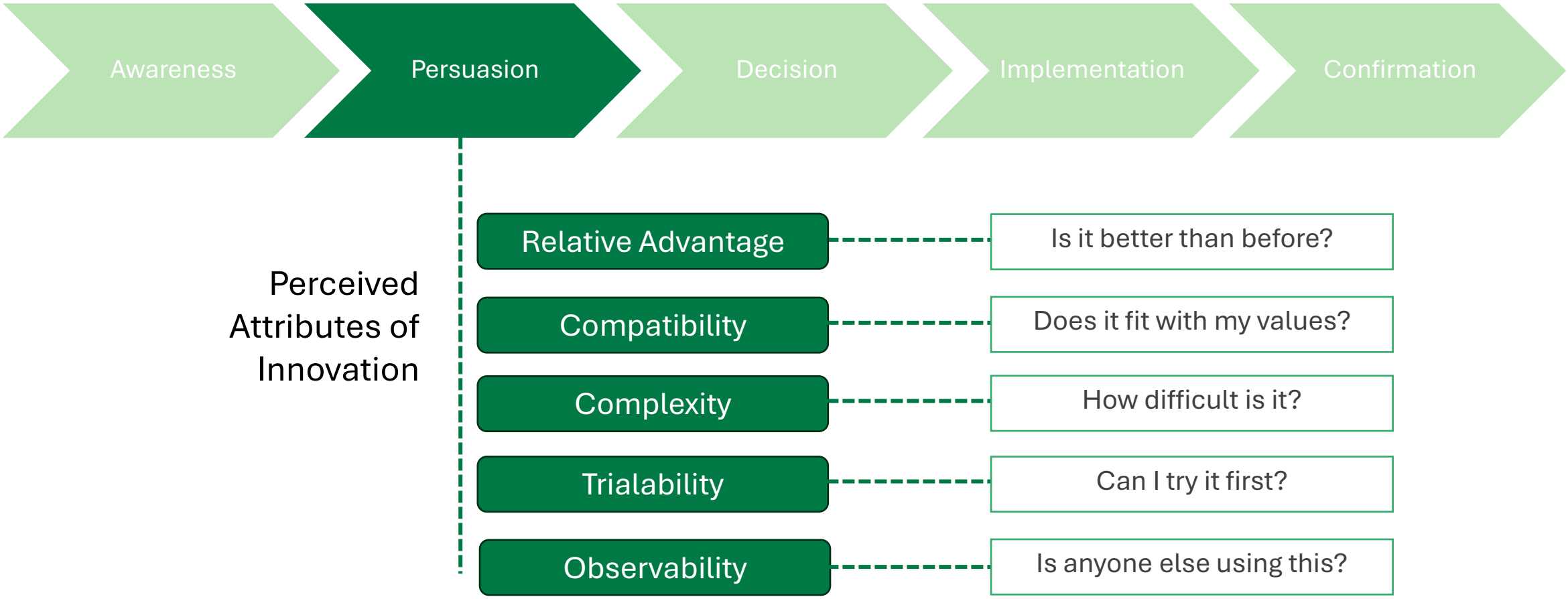
What do we need to consider about FAIR?

Innovation Decision Process: Persuasion



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Teaching FAIR through the Perceived Attributes of Innovation

Relative Advantage	▪ Value proposition of FAIR
Compatibility	▪ Peer led discussion – presence of a Data Champion ▪ DataHarvest created resources ▪ Post workshop support
Complexity	
Trialability	▪ Hands on activities for a small-scale trial of creating metadata.
Observability	▪ GRDC Data Catalogue ▪ Collaborative nature of the industry

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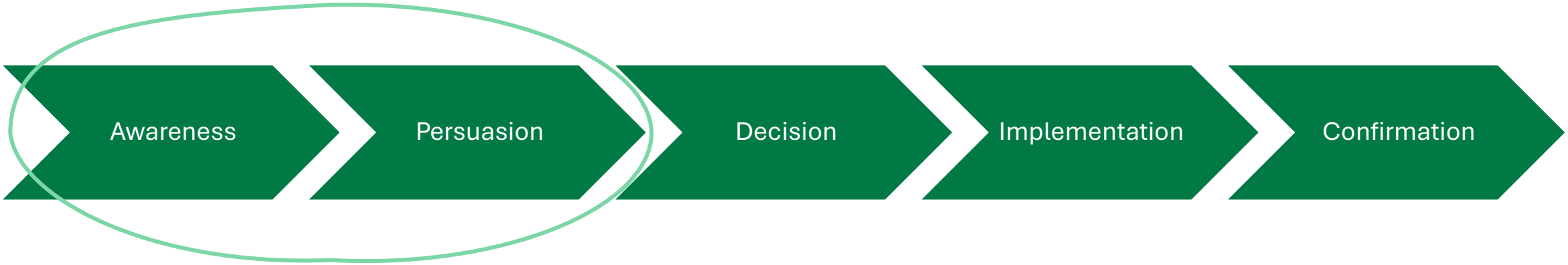
Summary:
DataHarvest Workshop Aim and Design



Workshop Aim:
To deliver capacity and capability in GRDC partners to deliver against the GRDC Data Management Policy (which has been informed by the FAIR principles)

Key workshop choices:
- Clear differentiation between Part 1 and Part 2, informed by Innovation Decision process
- Hands on activities
- Emphasis on practical benefit (may be different for each organisation)

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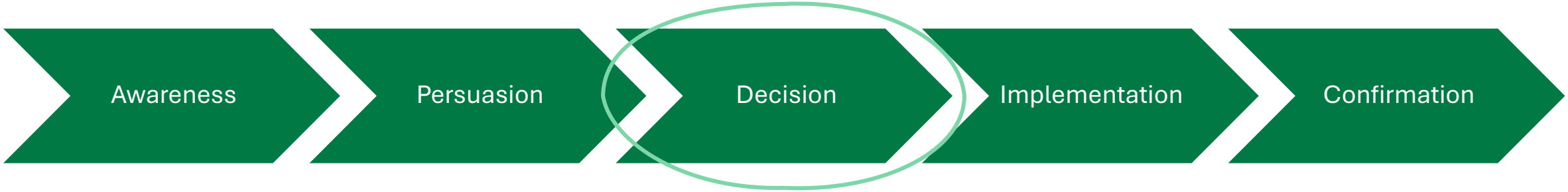
Evaluation of participant confidence post-workshop

Assessed the confidence of workshop participants pre and post workshop across the key GRDC Data Management tasks:

1. FAIR Principles: *To what extent do you feel capable to apply the FAIR principles to a dataset derived from a GRDC Investment?*
2. Create metadata
3. Use and upload data to a GRDC approved repository
4. Complete a GRDC Data Management Plan
5. Register metadata to the GRDC Data Catalogue



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Ongoing and Confident FAIR Implementation with a Dedicated Support

DataHarvest Support Services Centre

Support Services Centre Aim:

- Translate early confidence into long term adoption
- Ensure participants can access support when they need it

Data Management Officer

DataHarvest Resources

DataHarvest supports FAIR adoption in the Grains Industry

1. Teaching FAIR in the Australian Grains industry required a targeted, context-specific approach
2. The Diffusion of Innovation theory has been used to design the DataHarvest workshop
3. The DataHarvest workshop builds a knowledge base of the FAIR principles and supports participants to evaluate its usefulness for their organisation.
4. Post workshop support ensures participants are supported throughout the RDM journey

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Acknowledgements

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THANK YOU

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