



## Intersect Advanced Analytics and AI Platform: Empowering researchers with sustainable and adaptive access to artificial intelligence and data science expertise

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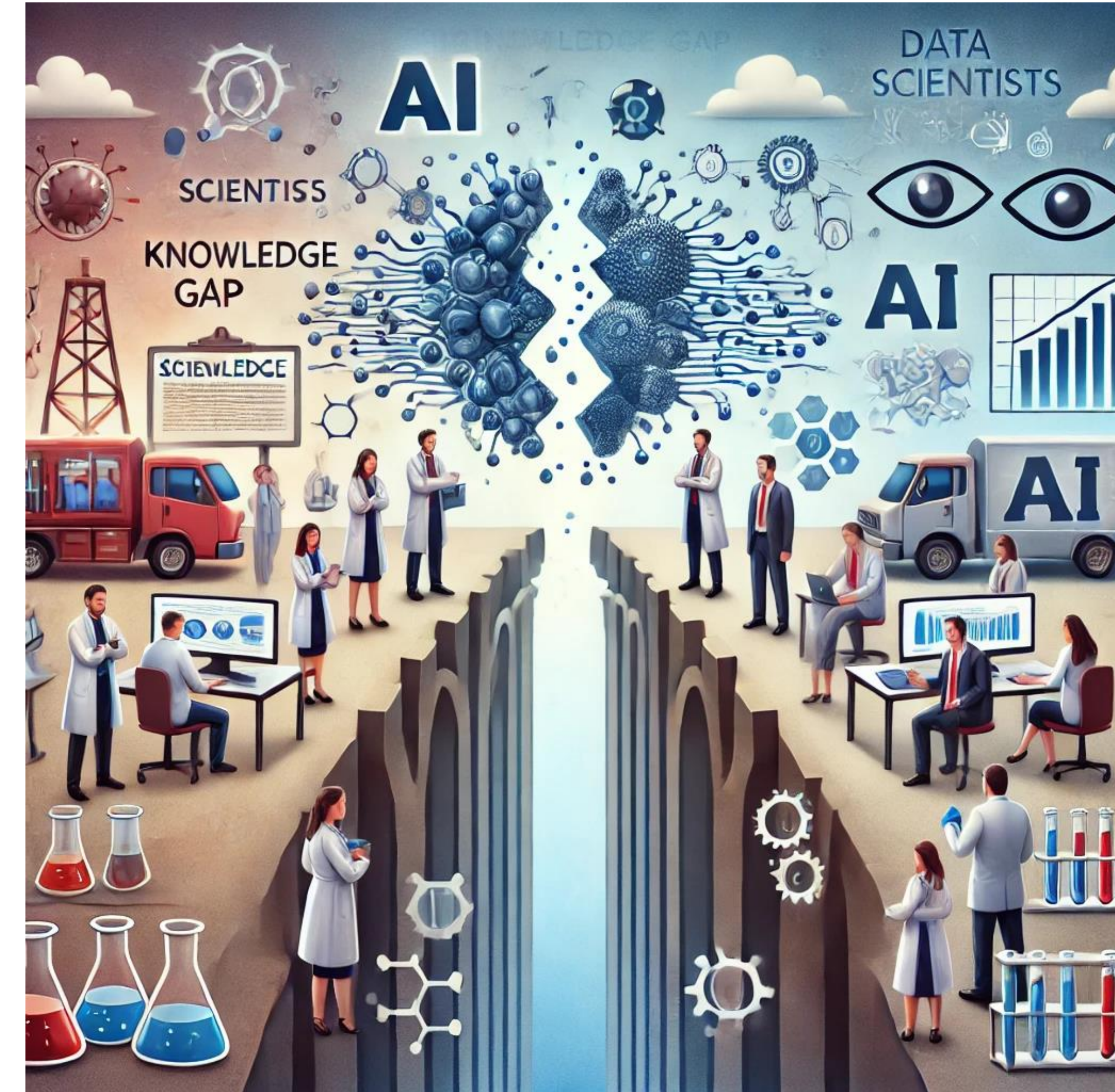
In collaboration with:



Department of Primary Industries  
and Regional Development

## Introduction

- The need advanced analytics and artificial intelligence is increasing.
- Research groups often have the need for data science expertise on a project or part-time basis.
- Access to skilled data scientists with an understanding of the research landscape can be challenging.
- The development and sustainability of maintaining a multidisciplinary team (e.g. domain expert and technical expertise) can be difficult.



Created with assistance from DALL-E and OpenAI's ChatGPT

## What is 3AI?

**1.**

### **Hands-on Support**

AI & Data Science  
as a Service (AIDaaS)

**2.**

### **Knowledge Transfer**

AI Training  
Bootcamps

## What is 3AI?



3AI is a team of research-oriented data scientists and AI experts from diverse research backgrounds.



We aim to advance research by leveraging data science and AI methods combined with digital tools, technologies, and infrastructure.



We provide full end-to-end hands-on support for data-intensive research.

## What is 3AI?

### Dedicated Resource(s)

Engage a dedicated Data Science and AI resource tailored to the specific needs of your organisation or research group.

#### Expert Hours

- 0.2-0.8 FTE resource for 6 months or more
- Dedicated to your organisation

### Project-centric Excellence

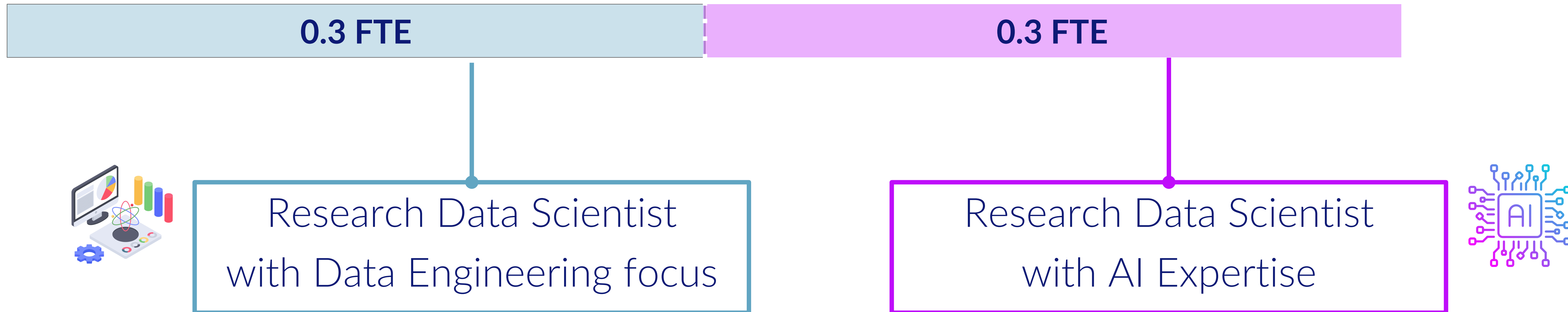
Appoint Data Science and AI resources aligning expertise with the project requirements

#### Projects

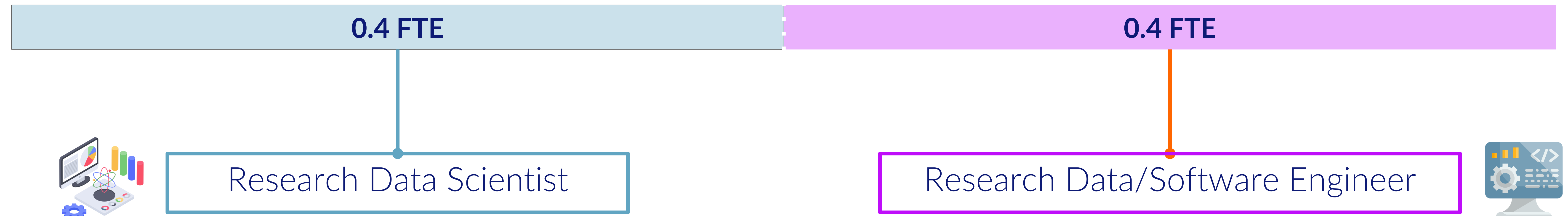
- Allocation of resource for the duration of the project
- Minimum engagement of 10 days

# What is 3AI?

A Dedicated Resource [0.6 FTE]



A Dedicated Resource [0.8 FTE]



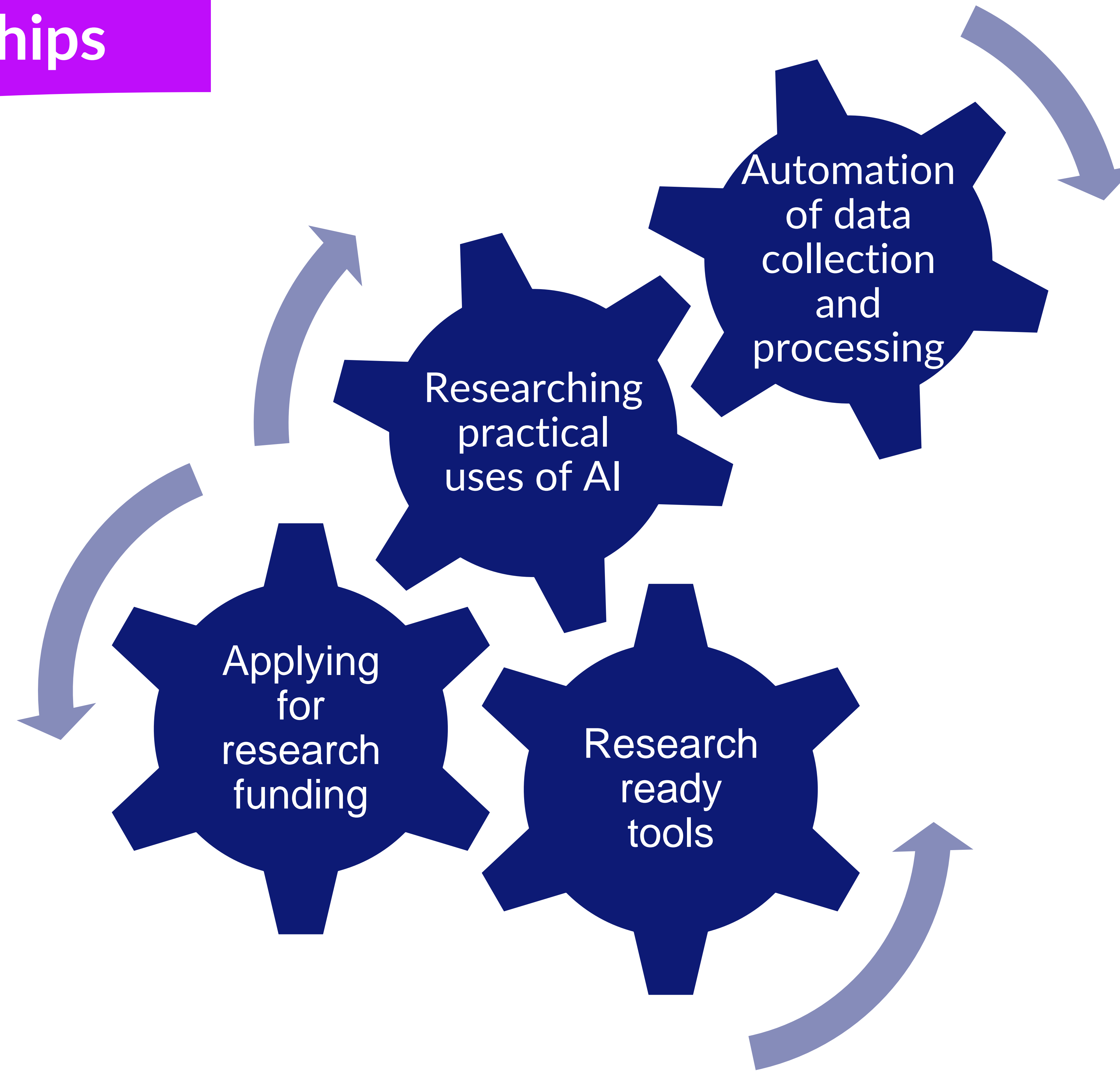
## Collaborative Partnerships

### Practical Ecology, Science and Technology (PEST)

- **Collaboration:** an umbrella to bring a multidisciplinary team together.
- **Research Focus:** an emphasis on real-world ecological challenges, especially in environmental management and pest species control.
- **Technological Innovation:** leveraging cutting-edge technologies to enhance research capabilities and address ecological issues effectively.



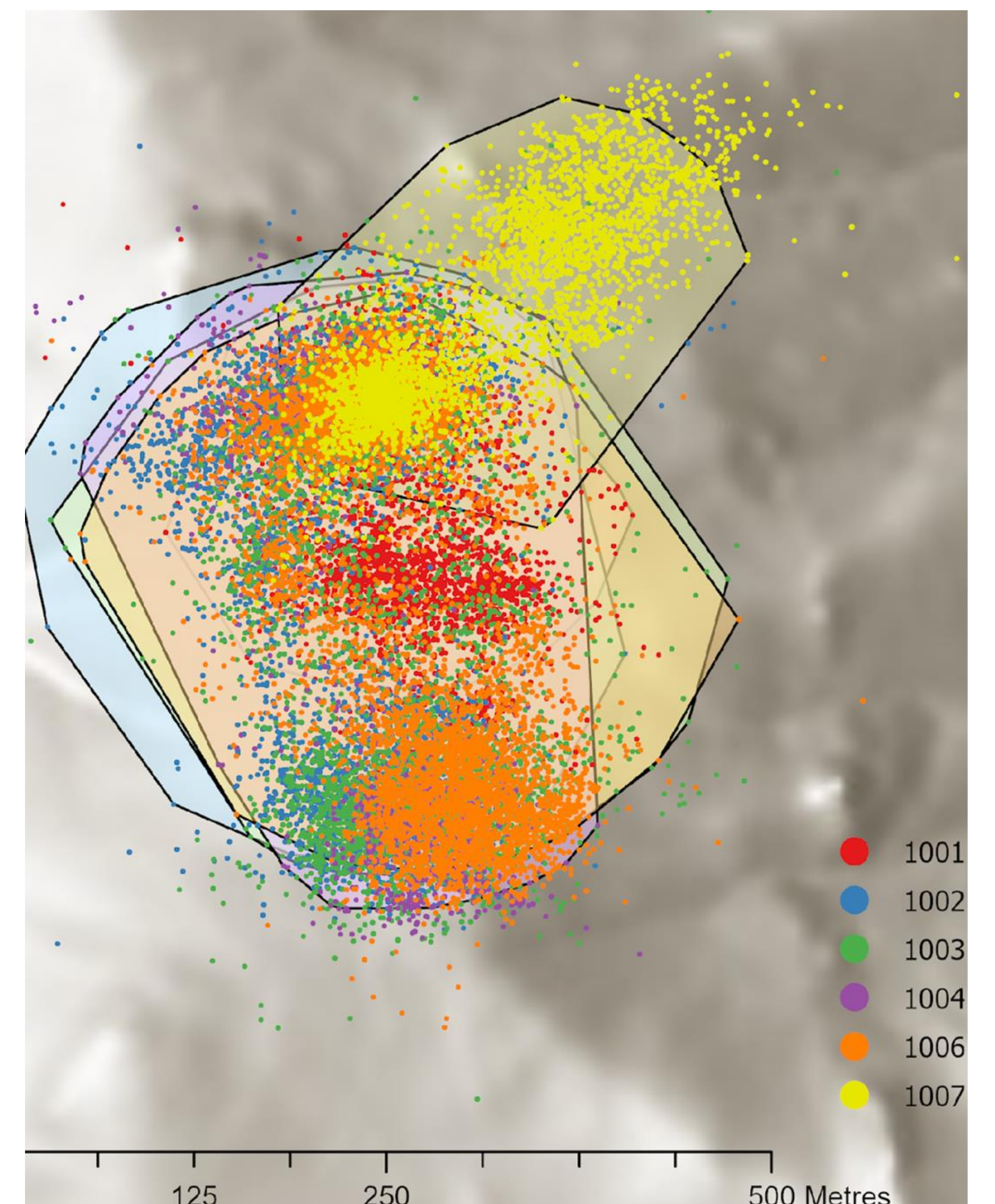
## Collaborative Partnerships



## Research Ready Tools

### On Animal Tracking System (OATS)

- GPS and accelerometer sensors designed specifically for research.
- Able to track animal location and behaviour.
- Real-time raw data available via cloud dashboard.
- Conducted proof-of-concept field trials.
- Publishing results and the open-source system (in review).



## Practical uses of AI

### Sentinel Bait Station (SBS)

- An automated bait station.
- A smart camera for inference on the edge.
- Wireless communication with bait station.
- Conducted proof-of-concept field trials
- Published design and results.

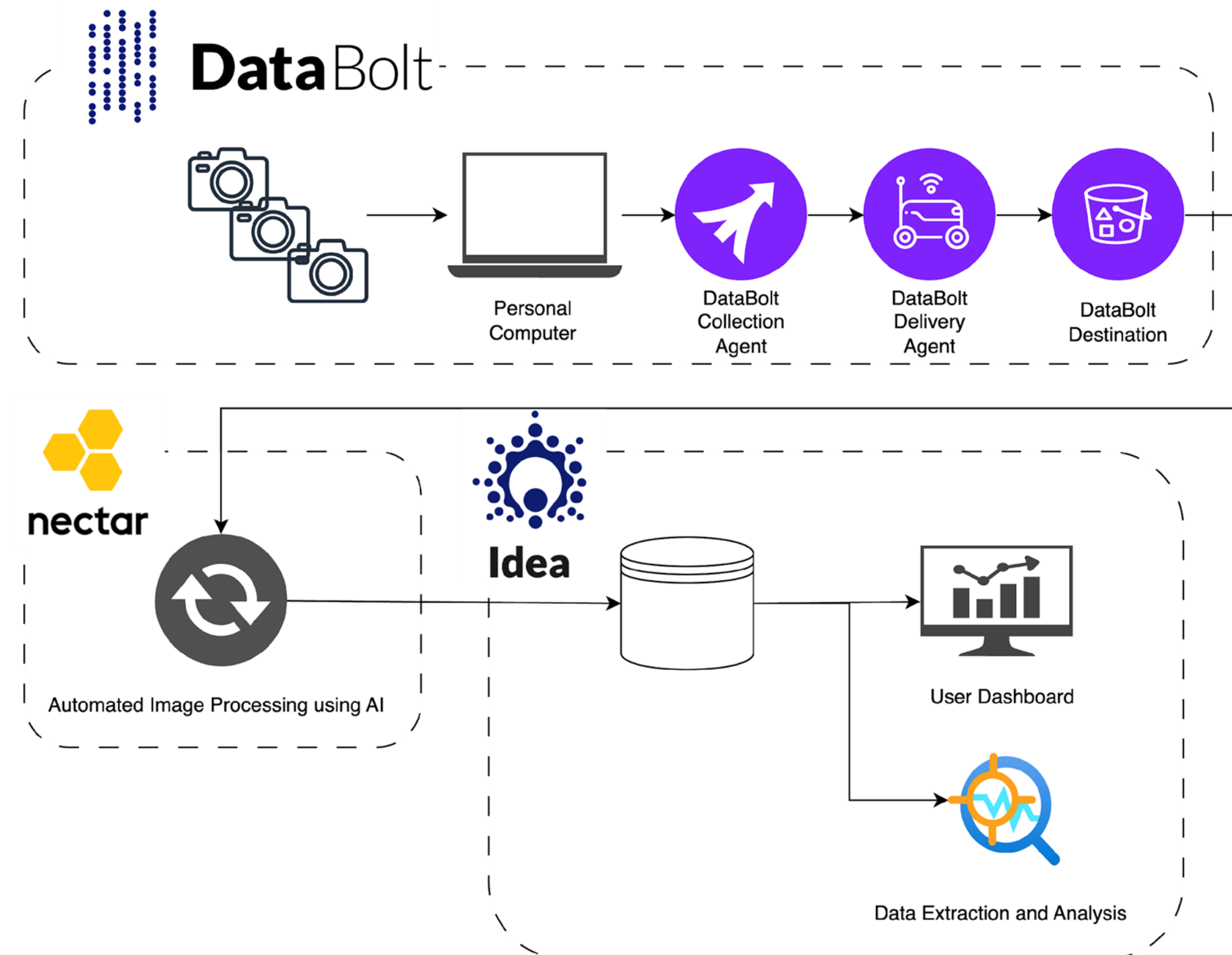


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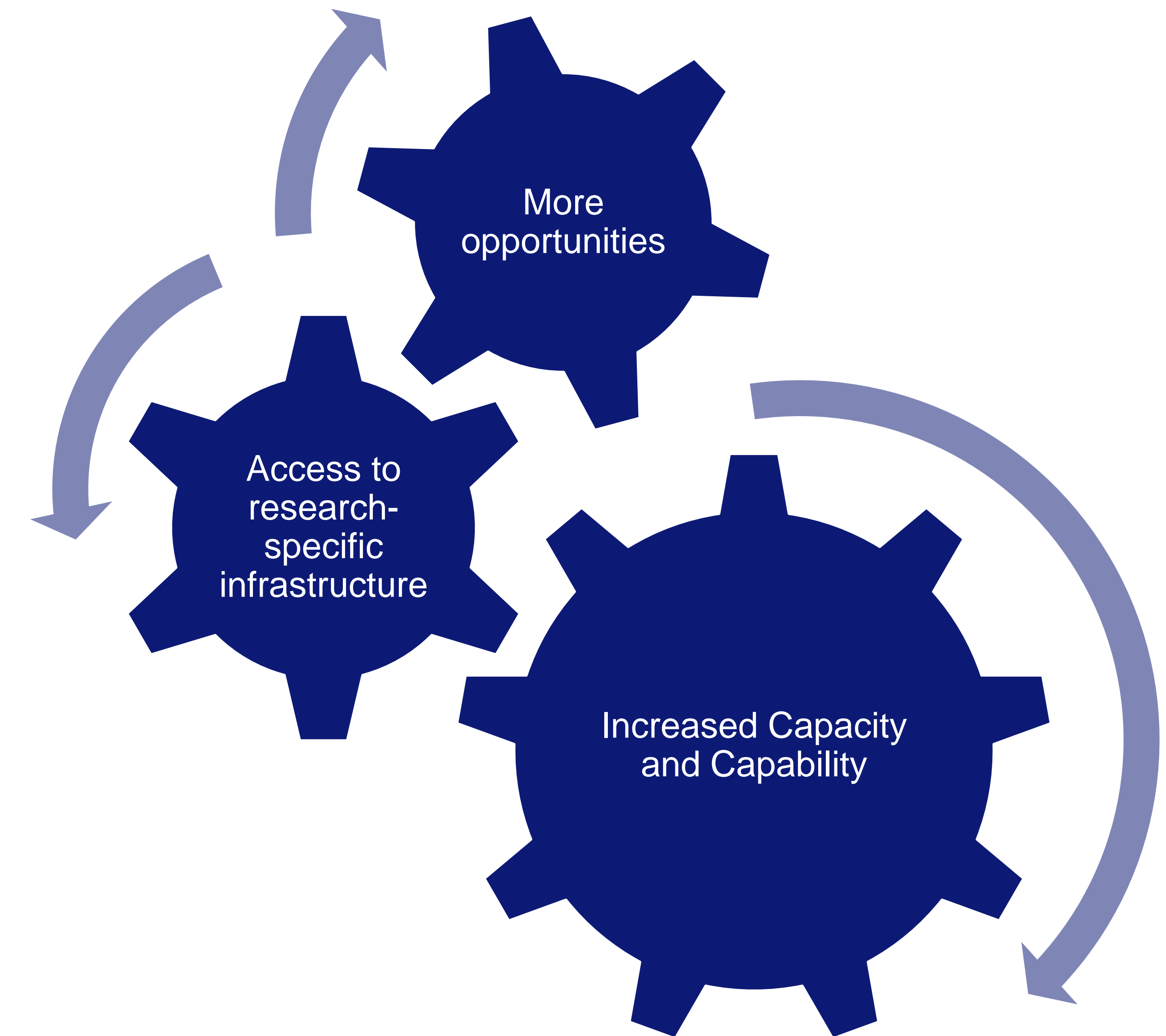
## Automating the collection and processing of data

- Automatic Data Collection
- GPU powered AI infrastructure to train and implement data processing pipelines.
- Local cloud compute and storage.
- Manage research data and metadata.



## Applying for Research Funding

- Building capacity and capability of the research team through the multidisciplinary team that the partnership creates.
- More funding opportunities available for the different organisations (e.g. University, Government, Company, Not-For-Profit).
- Access to various research-specific tools and infrastructure across the institutions to allow for novel and innovative research.



## Collaborative Partnerships

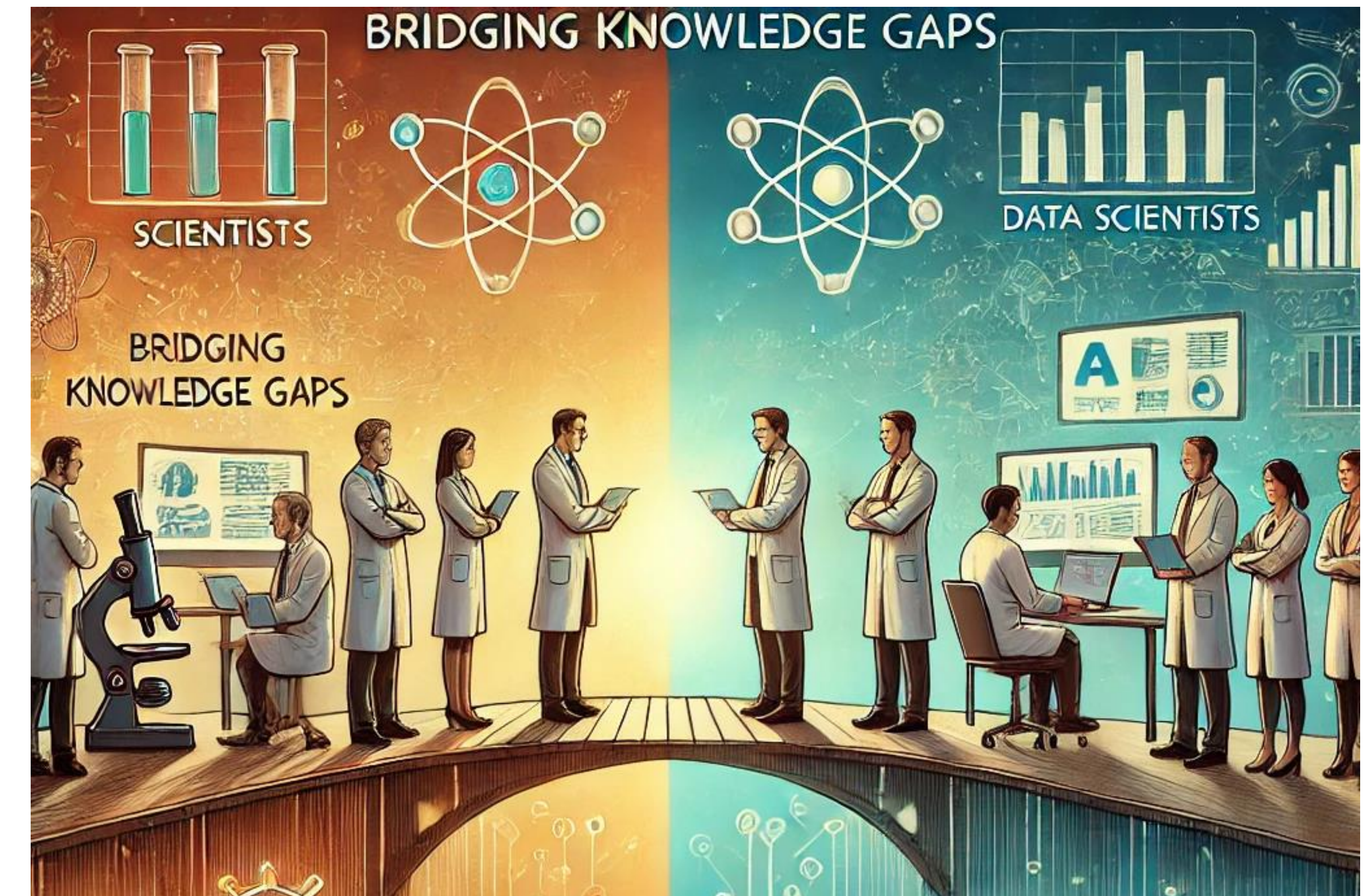
### Why has this this worked:

- **Collaboration:** Working together as peers towards a common goal has allowed for novel and practical research with new technologies.
- **Stable workforce:** 3AI has enabled PEST and the sub-organisations to have stable access to skillsets for sustainable research.



## Conclusion

**Intersect's 3AI Platform bridges the knowledge gap between domain experts with data science and AI, enabling sustainable and impactful research across various disciplines.**



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Find out more:



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