





Australian AgriFood Data Exchange

# AGENDA

Introductions Background and journey to date Prioritised use cases Confirmed interest and participation Financial investment status Project timeline and next steps



# THE JOURNEY SO FAR

## We identified and validated the need...

Although the use of data and analytics is becoming more widespread across agricultural industries and institutions, the sector is held back by the lack of a consolidated approach to data enabling efficiencies and new business models by combining multiple data sets from multiple data sources in real time. Other technology and data challenges compromising the strength of the Australian agriculture industry include:



Businesses often need to **access multiple data systems/datasets** which are stored across various platforms and functions and are **not well integrated**. Aggregating and reconciling these datasets require manual intervention, is rife with errors/duplication and require significant effort to ensure uptake across the business in order to lead to tangible

analytics outcomes. This **interoperability challenge** is commonplace across the industry today.

((((°



Finding and preparing data for decision-making purposes **consumes a significant amount of management capacity.** Producers and researchers spend time manually reconciling data and hand coding integrations and transformations. Knowledge of existing data sets and tools is limited, making it challenging to generate meaningful insights.



Data is not shared between the various stakeholders within the industry at times leading to analysis been taken place with incomplete datasets and other times for duplication of efforts with varying results. **Data sharing/collaborating culture** which would be backed by an **established data governance framework** including protocols/policies for data

access, privacy, definition and standards, would uplift the industry analytical capabilities.



Challenges in understanding **where to prioritise efforts to best support the industry.** With significant opportunities for data-driven use cases across the value chain, defining the prioritisation of funding and efforts to build capabilities is a critical challenge for industry bodies and governments . The OzAg DX could enable consolidated, integrated and standardised data, to help reduce the labour intensive effort of collecting and analysing data to make better informed prioritisation decisions on deployment of limited support resources and capabilities.

#### A slow take up of digital technologies

is slowing agricultural productivity growth. As Australia looks to achieve the target of \$100 billion farm gate output by 2030, digital agriculture is expected to contribute up to an additional \$20 billion annually to the gross value of agricultural production.

# We developed a collaborative vision for the future...

Mechanisms for Australian AgriFood Data Exchange designed, owned and governed by the Agrifood industry enabling the safe exchange of data and the generation of valuable insights increasing the industry's ability to compete in the global market.



# We worked with you to design four priority use cases...

#### **Centralised Data for Compliance and Certification**

#### **Description of Use Case**

The ability through the data exchange to have centralised compliance data that allows rapid response to evolving compliance requirements and get/give access to relevant compliance artefacts to any parties along the supply chain (i.e. certifications, customs requirements).

#### **Benefits**

- Efficiently and easily share my data with relevant parties in a single place
- Inclusive of organic status, biosecurity, NVDs, animal health certificates, weighbridge data, trucking times/routes, through trade NTMs. animal welfare attributes
- Have a central source of truth for compliance and certification data
- Accessible data at any time for consumers to report on compliance with minimal manual interventions
- Standardised data for reporting which minimise any regulation implications from discrepant data

#### Challenges and risks

- Availability of stakeholders to validate requirements and business rules
- Supporting architecture and tooling for central data
- Data being ingested isn't at acceptable quality threshold

#### Voluntary benchmarking for comparisons and decisions

#### **Description of Use Case**

The ability to share benchmarking data with any required parties quickly and easily, whilst ensuring data remains confidential, consistent and validated.

#### Benefits

- Data comparison against industry average to determine market
- Generation of industry wide KPI's which enables standardisation and consistency
- Production system improvement
- Ability to make decisions using the market as a guideline and have objective comparison points
- Fluid sharing of data with required parties i.e. sharing of data with Banks when applying for loan
- Minimisation of manual analysis to compile external data

#### Challenges and risks

- Availability of stakeholders to validate requirements and business rules
- Supporting architecture and tooling to aggregate data
- Data being used currently isn't at acceptable quality threshold to provide accurate benchmarking

#### **Biosecurity and contamination information**

#### **Description of Use Case**

The ability to have a single view of disparate data sources to identify any contamination source or presence of pests (i.e. trucking day/load, field/block/paddock stock/harvest came from, fertiliser and agrichem in that paddock, hormone or animal health treatments, any biosecurity issues on farm in recent years, identify and link existing surveillance database and systems).

#### **Benefits**

- Quickly and easily identify any contamination source or pest
- Provide a consistently safe product to consumers
- Proactively predict biosecurity risks before they become issues
- Trust in the product which can alleviate any concerns around purchasing and procurement
- Generate greater financial returns industry wide due to integrity and standard of product

### Supply and origin traceability

#### Description of Use Case

The ability to build the full story about produce on its journey through to the consumer, with details from each aspect of the supply chain (i.e. property, quality, weight, journey, certifications, origin, welfare, exposure to fertiliser/chemicals etc.) and be able to receive feedback from others in the supply chain.

#### Benefits

- End to end visibility of products movement across the supply chain
- Higher level of confidence in the product supply due to understanding full lifecycle
- Equitable return for product and reputational brand enhancement
- Early indication of "where" to optimise value of product due to relevant implicating data points

#### Challenges and risks

- Being able to identify key sources which are able to provide accurate and reliable traceability data
- Ability to tie up key traceability data assets across other system within the supply chain

#### Challenges and risks

- Different levels of data quality to be able to able to identify biosecurity
- Data sensitivity and sharing across key factors in relation to biosecurity





## And validated the need and vision through extensive consultation...

Department of Agriculture Water and Grains RDC the Environment Agriculture Victoria WA Department of Primary Industries & Regional Australian Wool Innovation Development **NSW Department of Primary Industries** QLD Department of Agriculture & Fisheries Primary Industries & Regions SA Regional Development Australia (NW QLD) ABARES National Farmers Federation Australian Farm Institute **Griffith University** Council of RDCs Australian Bureau of Statistics (ABS) Hort Innovation Wine Australia Fisheries RDC WA Grower Group Alliance Integrity Systems Company Meat and Livestock Australia KPMG

Cotton RDC Australian Pork Plant Health Australia Red Meat Advisory Council **Cooperative Bulk Handlers** DataGene Platfarm SA Elders Food Agility CRC **CSIRO** Birchip Cropping Group John Deere Goanna Ag AgReFED and partners Paraway Pastoral Co Group of Eight DVCRs Olam

Plus many others...

A collaborative approach and *common platforms force multiply* outcomes from across industry, research and government





# Current funding status

## Current project support



# Funding next steps for for Phases 2 & 3

### **Funding tiers**

Three levels of co-investment funding classes have been established, with differing influence and participation rights based matched to the level of investment contributed towards the Phase 2 and 3 project budget of \$3.98m ex GST:



Tier 1 - investment at or above \$600,000 (SteerCo seat)

Tier 2 - investment from \$300,000 (Advisory Committee)



**Tier 3 -** investment from \$150,000 (Working group participation)

Supporter - cash and in-kind support of data sets, resources etc.

### Timeframe for confirming participation

- Funding confirmation for Phase 2&3 of work required by the end of December 2020
- Funding drawdowns will be across three equal instalments.

	FY21	FY22	Total for Phase 2/3
Tier 1	\$100k	\$500k	\$600k
Tier 2	\$50k	\$250k	\$300k
Tier 3	\$50k	\$100k	\$150k

***	1
<u> </u>	
=	

Ti€

### Participation benefits

-	
er	<ul> <li>Steer Co position enabling greatest design influence over the project, governance, operating model, business case and success criteria</li> <li>Recognition as founding stakeholder in this transformative whole of industry data enablement project</li> <li>Opportunity to influence the use case requirements, priority datasets and experiments to be tailored to your industry requirements</li> <li>Access to the project learnings and key outputs</li> <li>Opportunity to influence Phase 3 of the OzAg DX project</li> <li>Recognition as a key investor in all work package outcomes media releases and promotional activities</li> <li>Prioritised industry focus in project communications where appropriate</li> <li>Participate in and engage your industry stakeholders through project events and seminars</li> </ul>
er	<ul> <li>Position on Senior Stakeholder Advisory Council to the Steer Co</li> <li>Provides council to the Steer Co on the shaping of the use case requirements, operating model, experiments and customer experience</li> <li>Provide guidance to the Project Workstream teams</li> <li>Access to the project learnings and project outputs</li> <li>Early review and feedback of the Phase 2 work package deliverables</li> <li>Listed as a Tier 2 investor in all appropriate work package outcomer</li> </ul>
er	<ul> <li>Participation in the Workstream teams</li> <li>Review of the work package outputs</li> <li>Access to the project learnings</li> <li>Listed as a Tier 3 investor in all appropriate work package outcomes</li> </ul>
op er	<ul> <li>Limited capacity, lighter draw on snr leadership.</li> <li>Access to the project learnings</li> </ul>



Sup ort

# Scaling the project based on available funding

#### **Centralised Data for Compliance and Certification**

#### **Description of Use Case**

The ability through the data exchange to have centralised compliance data that allows rapid response to evolving compliance requirements and get/give access to relevant compliance artefacts to any parties along the supply chain (i.e. certifications, customs requirements).

#### **Benefits**

- Efficiently and easily share my data with relevant parties in a single place
- Inclusive of organic status, biosecurity, NVDs, animal health certificates, weighbridge data, trucking times/routes, through trade NTMs. animal welfare attributes
- Have a central source of truth for compliance and certification data
- Accessible data at any time for consumers to report on compliance with minimal manual interventions
- Standardised data for reporting which minimise any regulation implications from discrepant data

#### Challenges and risks

- Availability of stakeholders to validate requirements and business rules
- Supporting architecture and tooling for central data
- Data being ingested isn't at acceptable quality threshold

### **Biosecurity and contamination information**

#### Description of Use Case

The ability to have a single view of dispara presence of pests (i.e. trucking day/loa agrichem in that paddock, hormone, recent years, identify and link exist

#### Supply and origin traceability

#### Description of Use Case

The ability to build the full story about pro each aspect of the supply chain (i.e. pro exposure to fertiliser/chemicals etc.

dentify any contamination source or ck/harvest came from, fertiliser and ny biosecurity issues on farm in

- Different levels of data



#### ough to the consumer, with details from ey, certifications, origin, welfare, rom others in the supply chain.

- Ability to tie up key

### **Description of Use Case**

Voluntary benchmarking for comparisons and decisions

The ability to share benchmarking data with any required parties quickly and easily, whilst ensuring data remains confidential, consistent and validated.

#### Benefits

- Data comparison against industry average to determine market
- Generation of industry wide KPI's which enables standardisation and consistency
- Production system improvement
- Ability to make decisions using the market as a guideline and have objective comparison points
- Fluid sharing of data with required parties i.e. sharing of data with Banks when applying for loan
- Minimisation of manual analysis to compile external data

#### Challenges and risks

- Availability of stakeholders to validate requirements and business rules
- Supporting architecture and tooling to aggregate data
- Data being used currently isn't at acceptable quality threshold to provide accurate benchmarking

Note: The steering group will work with financial stakeholders to determine the use cases to be taken forward

# PROJECT TIMELINE AND NEXT STEPS

# Project timeline



# Recap of Phases 2 and 3

#### Phase 2

Phase 2 will incorporate four key work packages with the following activity breakdowns:

- 1. Functional requirements
- Draft complete functional requirements for four use cases
- Draft high level technical requirements (source system, privacy, security requirements)
- 2. Market scan and expression of interest (EOI) audience identification
- Scan of potential vendors to perform for EOI
- Sourcing Strategy
- 3. Experiment EOI
- Draft EOI documentation

• Develop the success criteria

\$2.07

million

- Manage the EOI process
- Evaluate EOI response
- Finalise commercials
- 4. Experiments
  - Manage engagement
  - with delivery partners
  - Develop success criteria for experiments
- Evaluate experiment build

Key output: Detailed understanding of the use case requirements and the delivery of 4 POC's through experiments.

Phase 3

Phase 3 will incorporate five key work packages with the following activity breakdowns:

- 1. Request for Proposal (RFP) process
- Draft the RFP documents for MVP into Phase 4
- Manage the RFP process
- Develop selection criteria
- Evaluate responses
- Finalise implementation partner
- Finalise commercial agreement
- 2. Development of detailed use cases
- Draft additional technical detailed requirements

- Validate and send documents for review
- Update and finalise technical requirements
- 3. Business case development
  - Development of financial business case (FBC) Inc. cost/benefit analysis for future phase funding
- 4. Datagovernance
  - Document roles and responsibilities. standards. naming conventions and processes

- 5. Operating model refined for implementation
- Draft type of operating model for implementation \$1.91 (centralised, decentralised, million federated)
- 6. Project Reporting, Management and Oversight.

Key output: Fully costed business case (P90)

Based on our consultations to date we are confident that this activity of co-development of requirements for the 4 use cases and the design of the project governance will significantly accelerate existing project activities across commodities and reduce the complexity of research access to data.

- requirements for selected

# Recap project roles and governance

#### Project governance

Designed with the learnings from leading project management and transformation experiences of delivering complex multi stakeholder technology programs in mind, there will be two phases of governance for this project :

#### 1. The initial phases of work (Phase 2 and 3)

Take the project through experimentation to finalisation of the business case. This will require a working group and governance along more traditional frameworks.

#### 2. For Phases 4 and beyond

An independent vehicle, such as a Not For Profit company, would be established requiring its own governance and shareholding structures, including Farmer & Data Advisory Committees.



### Project roles and governance – Phase 2 & 3

#### **Project Steering Committee**

• The Steering Committee would be tasked with establishing the service proposition and operating model and associated high-level requirements for the data exchange.

#### Stakeholders

• A representative from each agricultural industry group to be connected directly with the project and their industry. These representatives will be 'champions' for their industry and will assume relevant responsibly for that industry's ability to connect to and to facilitate data sharing.

#### Independent Chair

• The project will require an independent chair in addition to the eight or ten person Steering Committee members, with the Chair having a casting vote in situations of a hung decision.

#### **Project Management Office**

- The Project Director would manage the overall program reporting to, and be accountable to, the Steering Committee directly. The Project Director would report project progress to the Steering Committee (and the Board) and be responsible for creation and maintenance of project documentation and best practice, as well as track metrics across the project.
- Establishment of a PMO would help define clarity in the project through a practical and pragmatic approach, designed to be scalable and flexible to create a sustainable PMO. The fundamental purpose of the PMO is to support the Steering Committee (and the Board) to plan for and deliver the OzAg DX capability through successful stakeholder engagement.

#### Committees/Workstream Groups

• Establishment of committees/working groups would be in line with each of the different tranches of work. These can vary in size and at times can be a designated individual representing a scrum or delivery line. Representation from industry / technology implementation partners.

#### Industry Review

• The Industry Review function would provide guidance and support to the Project Director and be staffed by industry representatives. The function will have the requisite industry skills, experience and knowledge to support the Project Director in delivery of the project's outcomes and to provide guidance in relation to urgent matters.

Representation from industry / technology implementation partners

# Immediate next steps



Thank you