

Agricultural Research Federation (AgReFed) Steering Policies, Roles and Responsibilities

Version 1.1. Endorsed by the AgReFed Federation Council on
15 June 2021.



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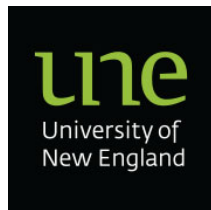


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Document purpose

This document is a product of the *Enactment of the Agricultural Research Data Federation (AgReFed) Data Stewardship and Governance Framework and the Formation of AgReFed* project. It is the output of the enactment of *The Guidelines for the Development of a Data Stewardship and Governance Framework for the Agricultural Research Federation* (“The Guidelines” <https://doi.org/10.25919/5cf179ba35db9>) which enabled the movement from the project phase to a sustained federated community (AgReFed) with the shared goal of improving the sharing and reuse of agricultural data including datasets, metadata and data related products. These Guidelines identified a set of *Steering*¹ and *Rowing*² policies which need to be developed for the enactment of AgReFed (“The Guidelines” <https://doi.org/10.25919/5cf179ba35db9>).

Contained herein are the documents for AgReFed *Steering*¹, developed by the authors through consultation with AgReFed founding members and published as endorsed by the AgReFed Federation Council on 15 June 2021. Outlined are the roles performed by community members to govern and contribute to AgReFed efforts including authority structures, decision rights and substantive role descriptions, as well as the policies to guide participation and sustained operation. It is anticipated that these documents will evolve to enable the collective vision for AgReFed with future versions of this document or parts thereof reviewed, authored and released through the AgReFed governance structure.

¹Steering means establishing, maintaining (and terminating) AgReFed and encompasses governance, coordination, management and funding of AgReFed to enable it to achieve its objectives (see [Guidelines](#) p. 16)

²Rowing means achieving the community objectives – includes making operational the policies, roles, responsibilities and processes to ensure AgReFed enables FAIR agricultural data to be discovered, accessed and used (see [Guidelines](#) p. 16)

Version Control

Version	Date	Action
1.0	19.09.2019	Circulated to Council for consideration
1.0	09.12.2019	Council endorsed: Terms of Reference – AgReFed Federation Council. Terms of Reference – AgReFed Technical Committee. AgReFed Membership Policy. AgReFed Role Description – Data Provider Collection Custodian. AgReFed Role Description – Federation Data Steward.
1.0	28.02.2020	Council endorsed: AgReFed Strategic and Business Policy. AgReFed Funding and Finance Policy.
1.1	15.06.2021	Circulated to Council for consideration
1.1	15.06.2021	Council endorsed: Terms of Reference – AgReFed Federation Council. Terms of Reference – AgReFed Technical Committee. AgReFed Membership Policy. AgReFed Strategic and Business Policy. AgReFed Funding and Finance Policy.

Contents

Terms of Reference – AgReFed Federation Council.	1
1. Purpose	1
2. Aims	1
3. Scope	1
4. Authority	1
5. Outputs.....	3
6. Membership	3
7. Operating Procedures	3
8. Review	5
Terms of Reference – AgReFed Technical Committee.....	6
1. Purpose	6
2. Aims	6
3. Scope	6
4. Authority	6
5. Outputs.....	7
6. Membership	7
7. Operating Procedures	8
8. Review	9
AgReFed Membership Policy.	10
1. Introduction.....	10
2. Membership Guiding Principles	10
3. Criteria for Membership.....	10
4. Terms of Membership.....	11
5. Joining AgReFed	12
6. Terminating AgReFed Community Membership.....	12
7. Dispute Resolution	12
8. Disbanding AgReFed.....	12
9. Review	13
AgReFed Strategic and Business Policy.....	14
1. Purpose	14
2. Development of the Strategic Plan	14
3. Strategic Considerations and High-Level Business Decisions.....	14
4. Communication of the Strategic Plan.....	16

5. Review of the Strategic Plan.....	16
6. Review of this Policy.....	16
AgReFed Funding and Finance Policy.	17
1. Purpose	17
2. Authority for Financial Actions and Decisions.....	17
3. Conflicts of Interest	17
4. Responsibility to Prepare Expenditure Budgets and Secure Funding	17
5. Expenditure Approvals and Authority to Spend Funds	17
6. Management and Distribution of Funds	18
7. Assignment of Authority to Enter into Contracts.....	18
8. Responsibility for Maintaining Accurate Financial Records and Reporting of AgReFed Financial Position	18
9. Assets	18
10. Review of this Policy.....	19
AgReFed Role Description – Data Provider Collection Custodian.....	20
1. Purpose	20
2. Role Filling	20
3. Scope	20
4. Outputs.....	20
5. Review	21
AgReFed Role Description – Federation Data Steward.	22
1. Purpose	22
2. Scope	22
3. Outputs.....	22
4. Role filling.....	22
5. Review	23
Appendix 1. Possible Data Provider Community roles	24
Appendix 2: Proposed approach to AgReFed Strategic Planning	25
Appendix 3: Example AgReFed value propositions.....	30

Terms of Reference – AgReFed Federation Council.

1. Purpose

The Federation Council of AgReFed is a “steering” body responsible for the overall strategic direction, governance, management, and business operations (including funding) of AgReFed.

2. Aims

The AgReFed Vision is “Enabling FAIR agricultural data to accelerate innovation and increase profitability and sustainability of Australian agriculture”. To achieve this Vision the Federation Council aims to support member organisations in making their agricultural data FAIR by:

- Establishing and implementing a socio-technical framework for AgReFed, and
- Providing appropriate strategic leadership and governance to the members of AgReFed.

3. Scope

The Federation Council is the primary “steering” body for AgReFed, and makes decisions on the overall direction and operation of AgReFed. Specific functions include:

- Setting the strategic direction for AgReFed, including alignment of the strategic goals of members
- Organisational decisions, including the establishment (or closure) of specific structures within AgReFed, such as other committees or AgReFed itself. This will include:
 - Establishing and providing oversight of the Technical Committee
 - Providing guidance and direction on the establishment of key substantive roles including Federation Data Steward and Federation Standards Steward
- Providing guidance and direction to AgReFed Affiliated projects and exercising decision rights for projects endorsed as AgReFed Projects
- Oversight of the functions of AgReFed, including those under the authority of the Technical Committee and any advisory structures
- Representing AgReFed externally to stakeholders, and engaging with authorised external domain authorities.

The Federation Council has oversight of the Technical Committee and may delegate decision rights on technical matters (i.e. common technology choices, data standards, etc) and policies (FAIR data and Trusted Repository) to the Technical Committee. The Technical Committee provides recommendations and policies which are sent to the Federation Council for endorsement or noting, as appropriate.

AgReFed Provider Communities are independent, autonomous entities who retain control over their own data, data services, repositories and operations. The Federation Council determines AgReFed strategy and policy for the alignment of these Provider Communities through AgReFed to achieve the collective AgReFed vision.

4. Authority

The AgReFed Council has the authority to make decisions as stated in its ToR.

The Federation Council decides over agreements, projects and policies inside the following decision domains¹

¹ see the Enterprise Viewpoint of the [RM-OMP](#)

1. Sets the purpose and objectives of AgReFed
2. Sets the strategic direction, business operation, and financial expenditure and decision making processes of AgReFed
3. Establish, oversee, and maintain the AgReFed socio-technical framework, including:
 - a. Deployment and maintenance of policy and government apparatuses
 - b. Endorse technical decisions made by the Technical Committee
 - c. The authority to set and act on policy, incorporating roles and procedures for membership of AgReFed for AgReFed Provider Communities. This is inclusive of procedures for exiting, termination, disbandment and dispute resolution

As the primary steering body of AgReFed, the Federation Council has authority over the following policy decisions (that reflect the above decision domains):

AgReFed Establishment Policy (Decision Domain 3)

- Define the organisational form for AgReFed and policies for its creation and disbandment
- Co-develop a mission statement and strategic plan for the AgReFed, with AgReFed inaugural members to guide next steps

Membership Policy (Decision Domain 3)

- Define the eligibility criteria for AgReFed membership
- Define and formalise the responsibility of Provider Communities in AgReFed
- Define and endorse the protocols for joining and exiting AgReFed

Strategic and Business Policies (Decision Domain 1,2,3)

- High level business decisions such as areas of focus, strategy and engagement that guide future direction of AgReFed as appropriate.

Funding and Finance Policies (Decision Domain 2)

- Establish policies for how financial matters are dealt with, such as who makes financial decisions (i.e Federation Council and/or Lead Agent), and securing and distributing funding.

Role Assignment Policies (Decision Domain 3)

- Refine, develop Terms of Reference (ToR) for and formalise (through the Federation Council) the initial recommended roles that have been defined in this document.
- Define and formalise a process by which roles can be established, and responsibilities or accountabilities may be changed (and by whom) over time.

For AgReFed Projects and AgReFed Affiliated projects, Council has authority within their decision domains guided by AgReFed Policy including Membership, Funding and Finance, and Strategic and Business Policies

1. AgReFed Affiliated projects are projects that enhance impact of and or broader participation in AgReFed and or share a common vision with AgReFed. The lead host institute may or may not be an AgReFed member.
2. For AgReFed Projects, Council can play a Steering role to:
 - a. Endorse or otherwise proposed AgReFed projects
 - b. Review objectives, outcomes, activities, and deliverables and endorse or otherwise changes to these
 - c. Ensure adequacy of issue or risk mitigation and progress
 - d. Elevate risks deemed unacceptable to funder
3. For AgReFed Affiliated Projects Council:

- a. Endorse association with AgReFed affiliated projects
- b. Rebuke association where association was not sought and endorsed
- c. Terminate affiliation with projects that are deemed an unacceptable risk or misappropriation

5. Outputs

The Federation Council will make decisions under its authority and endorse or note recommendations from the Technical Committee, any advisory structures or other sub-committees. These may be in the form of the following outputs:

- Policy documents
- Recommendations to AgReFed Data Provider Communities
- Strategy or other steering material
- Financial reports
- Project reports
- Endorsements of material produced by other structures that it oversees (such as the Technical Committee).

The Federation Council has the responsibility to abide by all relevant regulations and laws, compliance with is to be noted at the end of each financial year.

6. Membership

Members of the Federation Council are drawn from Provider Communities that contribute resources towards the collective vision of AgReFed. Resources may include data and digital objects such as tooling, services, derived products and models; financial resources and funding; intellectual and advocacy contributions. All communities must nominate one voting member as their representative in the Federation Council. Additional non voting members, including observers, can be nominated through agreement of the Council.

Council members may also occupy other roles, including sitting on the Technical Committee, or acting as a Federation Data Steward, or Standards Steward.

Members of the Federation Council are required to:

- Represent the interest of their Provider Community to the Federation Council
- Contribute to, understand and support the strategic objectives of AgReFed
- Participate in decision making in areas of Federation Council authority.

Positions are to be re-nominated every 12 months by each Provider Community.

Rotating representation is encouraged but not mandated through these Terms of Reference.

7. Operating Procedures

The Federation Council is a standing entity.

Meetings

Frequency: The Council should meet quarterly (with a minimum of four meetings per year), either in person, via teleconference or videoconference, at times and places determined by the Council.

Quorum: A simple majority of committee members will be required to be in attendance to constitute a quorum. In their absence, a Council member may delegate a proxy from their Provider Community in writing to the Chair. The Chairperson or Deputy Chairperson must be present; if they are unable to be present, they must delegate their authority in writing to another committee member. All committee members are expected to attend no less than 75% of the meetings.

Time Commitment: A time commitment of approximately two hours per month, post establishment phase, is expected of Council members.

Pre-Meeting Requirements

Members unable to attend Council meetings should provide an apology to the Chair or their delegate as soon as possible, and the apology minuted. In their absence, a Council member may delegate a proxy from their Provider Community in writing to the Chair. Members who are unable to attend more than three meetings in a row should notify the Council in writing, taking a formal leave of absence.

Meeting Operations

Agendas will be developed through the Chairperson. Agendas and accompanying meeting papers will be distributed at least five (5) working days prior to meetings; members wanting to put items on the agenda should do so through the Chairperson. Council members are expected to familiarise themselves with all papers prior to the meetings. Draft minutes will be circulated to members at most fourteen (14) working days following the meeting. In addition to recording member attendance, minutes will record Council decisions and delegated actions.

Decision making

Each Provider Community has one member voting towards Council decisions.

Decisions within the Council will be made using a consensus based decision making process that aims, through discussions and negotiation to achieve an acceptable solution. The consensus threshold (i.e. the level of agreement that constitutes consensus) is 75%.

In the event that any vote is at the threshold of consensus (ie 75%), or inclusion of the chair's vote would result in a change of the vote meeting or not meeting consensus, the chair has the casting vote.

If matters are deemed significantly important that they cannot be deferred to the next meeting for a full Council decision the Chair will circulate a briefing paper to all members for urgent decision by email.

Chairperson

The position and the role of Chairperson is elected by consensus of the Council.

The role of the Chairperson is to:

- Establish the Council agenda with the support of the Secretariat
- Preside over Council meetings and direct Council discussion and enable decision making, including keeping meetings to time
- Work closely with the Technical Committee and other sub-committees to ensure the Council has the necessary information to undertake effective decision making and actions
- Guide the Council in its ongoing development

The role of the Deputy Chairperson is to take up responsibilities of the Chairperson in their absence.

Where decisions need to be made outside of, or between meetings these will be made by the Chairperson through circular resolution where by at least 75% of members agree to the position through written correspondence, including email. Where no response to a circular resolution is received this will be assumed to be non-support of the position. All circular resolutions are to be presented to the Council at the next meeting for noting.

Chairs are to be reappointed on an annual basis with no more than two consecutive terms.

The Chairperson may be removed from the Chair and the position declared vacant through a consensus decision of the Council. The need to consider this item must be raised prior to a normal meeting and a decision on this item resolved before any other matters are considered.

Reporting

The Council will receive reports from the Technical Committee, AgReFed Projects and other relevant sub-committees. The scope and depth of reporting will be reviewed annually by the Council.

The Chairperson will support the Council to produce an annual report complying with any future statutory, legal and financial reporting procedures.

Declaration of Confidentiality

In the event of commercially or otherwise sensitive data being made available through AgReFed, Council members are expected to keep all matters regarding the sensitive data confidential.

Subcommittees

The Council is able to establish subcommittees as it deems necessary from time to time. This may include on-going committees and time limited working groups.

Conflict of Interest

The Council members have a responsibility to disclose any personal or financial conflict of interest in any matter to be discussed or voted on. Council members will be required to note any Conflict of Interests in the meeting minutes.

8. Review

These Terms of Reference are to be reviewed on an annual basis and may be reviewed, updated or adapted by consensus at any time.

Terms of Reference – AgReFed Technical Committee.

1. Purpose

The Technical Committee of AgReFed is responsible for providing technical direction and recommendations to the Federation Council. It is a “rowing” body, a community-driven part of AgReFed’s governance structure that allows the members of the Data Provider Communities to actively contribute to the operation of AgReFed, through the lens of technical direction and recommendations to the Federation Council. The Federation Council may delegate decision rights as appropriate to the Technical Committee.

2. Aims

The goals of the Technical Committee are to:

- Lead and coordinate the technical efforts and advice provided to the Federation Council
- Provide recommendations on technical policies, roles, responsibilities, and processes to support FAIR and Trusted AgReFed data, services and other digital assets (Section 2.1 Membership Policy)
- Facilitate the involvement of the Provider Communities in the operation of AgReFed, ensuring meaningful community participation in its operation

3. Scope

The Technical Committee is a “rowing” body for AgReFed, designed to actively bring members of the Provider Communities into the operation and technical decision-making of AgReFed. The Technical Committee is limited to providing technical direction and recommendations, the scope of which covers:

- Providing recommendations and advice to the Federation Council on technical domains including technology choices, data policy and standards. This includes the AgReFed Trusted Repository Policy and AgReFed FAIR Data Policy and the initial qualifying thresholds therein, and
- Providing recommendations and advice to the Federation Council on roles, responsibilities, and processes associated with the technical domains of AgReFed

The Technical Committee does not oversee, manage or govern the Provider Communities. Provider Communities that are members of AgReFed are independent, autonomous entities who retain control over their own digital assets and operations. The Federation Council determines AgReFed strategy and policy for the alignment of these Provider Communities through AgReFed to achieve the collective AgReFed vision. The Technical Committee provides recommendations and policies which are sent to the Federation Council for endorsement or noting, as appropriate.

Technical Committee members are not expected to put effort towards actual development or operation of AgReFed infrastructure as part of their role on the Committee.

4. Authority

The Technical Committee is accountable for providing recommendations and advice to the Federation Council covering the technical domains of AgReFed operation.

The technical domains include the Information, Computational, and Engineering Viewpoints, as defined by the RM-OMP² framework that structures AgReFed. The specific areas for providing recommendations and advice of the Technical Committee are to be determined and endorsed by the Federation Council, but will broadly concern the Information Viewpoint, and identifying Computational Viewpoint issues.

² see the Enterprise Viewpoint of the [RM-OMP](#)

Additional areas for providing recommendations and advice may be determined by the Federation Council.

Authority for the Technical Committee and its decision rights may be delegated from the Federation Council as appropriate, and may include:

Information Viewpoint

1. Advise on what constitutes acceptable digital assets for sharing through AgReFed
2. Advise on the publication of digital assets through AgReFed as administered by the Federation Data Steward
3. Advise on acceptable levels of FAIRness for the publication of digital assets through AgReFed
4. Advise on acceptable levels of AgReFed Trusted Repository requirements for the publication of digital assets through AgReFed
5. Advise on common information models (data structures) that will be supported by the communities
6. Advise on semantics, including vocabularies and ontologies that will be supported by the communities
7. Advise on formation of, and delegation of decisions to, advisory or decision making technical advisory structures, sub-committees, or roles (AgReFed or external)

Computational Viewpoint:

8. Advise on the deployment and maintenance of common tooling or infrastructure elements (such as research discovery mechanisms and portals)
9. Advise on the computational systems used by provider communities to interface with AgReFed
10. Advise on supported end-user experience (portal)

Engineering and Technology Viewpoints:

11. Advise on the components (services) to be deployed using what technology and
12. Advise on major technical investment decisions concerning all above technology viewpoints.

5. Outputs

The Technical Committee will provide outputs as determined and directed by the Federation Council and may include:

- Recommendations to AgReFed Provider Communities
- Technical advice, policies and technical documentation for endorsement or noting by the Federation Council and use by the Provider Communities
- Advice on formation of, and delegation of decisions to, advisory or decision making technical advisory structures, sub-committees, or roles (AgReFed or external) for endorsement or noting by the Federation Council
- Technical policies concerning the “rowing” aspects of AgReFed such as AgReFed FAIR data policy and AgReFed Trusted data policy

6. Membership

Members of the Technical Committee are drawn from the Provider Communities. All communities can nominate one member as their representative on the Technical Committee. Additional members, including observers, can be nominated through agreement of the Federation Council.

Technical Committee members may also occupy other roles, including acting as a Federation Data Steward, or Federation Standards Steward.

Observers may be included that pertain to the capability data of services and technologies being used (for example, vendors or technology providers).

Members of the Technical Committee are required to:

- Represent the interests of their Provider Community to the Federation Council
- Be in a position to offer guidance/action/feedback on AgReFed technical domains (such as AgReFed FAIR and Trust policies and processes) to the Provider Communities they represent including their data collection custodians
- Understand the vision, mission and strategic objectives of AgReFed
- Possess relevant technical knowledge or background experience so that they can reasonably contribute to the Technical Committee

7. Operating Procedures

The Technical Committee is a standing committee operating under the Federation Council.

Meetings

Frequency: The Committee should meet monthly

All committee members are expected to attend no less than 80% of the meetings either in person or via online link.

Quorum: The meetings will be held at times and places decided on a schedule determined by the Technical Committee. A simple majority of committee members will be required to be in attendance, either in person or via teleconference or videoconference, to constitute a quorum. In their absence, a committee member may delegate a proxy from their Provider Community in writing to the Chair. The Chair or Deputy Chair must be present. If neither are able to be present, they must delegate their authority in writing to another committee member.

Time Commitment: A time commitment of approximately two hours per month, post establishment phase, is expected of Committee members

Pre-Meeting Requirements

Members unable to attend Committee meetings should provide an apology to the Chair or their delegate as soon as possible, and the apology minuted. A committee member may delegate a proxy from their Provider Community in writing to the Chair. Members who are unable to attend more than three meetings in a row should notify the Council in writing, taking a formal leave of absence.

Meeting Operations

Agendas will be developed through the Chairperson. Agendas and accompanying meeting papers will be distributed at least five (5) working days prior to meetings; members wanting to put items on the agenda should do so through the Chairperson. Committee members are expected to familiarise themselves with all papers prior to the meetings. Draft minutes will be circulated to members at most fourteen (14) working days following the meeting. In addition to recording member attendance, minutes will record Committee decisions and delegated actions.

Decision making

Authority for the Technical Committee and its decision rights may be delegated from the Federation Council as appropriate.

Chairperson

The position and the role of Chairperson is elected by consensus of the Committee.

The role of the Chairperson is to:

- Establish the committee agenda with the support of the Secretariat
- Preside over Technical Committee meetings and direct committee discussion and decision making
- Act as the initial point of communication to the Federation Council. The Technical Committee Chair, Deputy Chair or delegate can participate in AgReFed Council as non-voting member with consensus of Council
- Work closely with the technical team to ensure the Federation Council has the necessary information to undertake effective decision making and actions
- Facilitate Technical Committee decision making between Council meetings, acting as the initial point of reference for decision making
- Guide the Technical Committee in its ongoing development
- Support the Federation Council and provide strategic advice concerning the AgReFed technical domains
- Act in line with the Federation Council's delegation policies

The role of the Deputy Chair is to take up responsibilities of the Chairperson in their absence.

Chairs are to be reappointed on an annual basis with no more than two consecutive terms.

The Chairperson may be removed from the Chair and the position declared vacant through a consensus decision of the Technical Committee. The need to consider this item must be raised prior to a normal meeting and a decision on this item resolved before any other matters are considered.

Reporting

The Chairperson will support the Committee to produce any reporting as requested by the Federation Council to comply with any future statutory, legal and financial reporting procedures.

Declaration of Confidentiality

In the event of commercially or otherwise sensitive data being made available through AgReFed, Committee members are expected to keep all matters regarding the sensitive data confidential.

Subcommittees

The Technical Committee can advise the Federation Council on the formation of advisory or decision making technical advisory structures, sub-committees, or roles for endorsement or noting by the Federation Council, and advise on the decision making delegation of these roles or structures as appropriate. This may include on-going committees and time limited working groups.

Conflict of Interest

The Committee members have a responsibility to disclose any personal or financial conflict of interest in any matter to be discussed or voted on. Committee members will be required to note any Conflict of Interests in the meeting minutes.

8. Review

These Terms of Reference are to be reviewed on an annual basis and may be reviewed, updated or adapted for ratification by the Federation Council.

AgReFed Membership Policy.

1. Introduction

AgReFed’s vision is to “enable FAIR agricultural data to accelerate innovation and increase profitability and sustainability of Australian agriculture” through the creation of a unifying federation for the sharing of agriculture data amongst like-minded data provider communities. This document describes the rules and procedures of membership of AgReFed.

2. Membership Guiding Principles

Membership of AgReFed is loosely based on Cooperative principles³.

2.1. Membership is voluntary and open to all agricultural provider communities⁴ – AgReFed welcomes any agricultural community that is willing to contribute resources towards the collective vision of AgReFed and accept the responsibilities of membership. Resource contributions can include digital assets (datasets, metadata, data collections, derived data products; models and algorithms, data services, tooling and infrastructure). Contributions can also be in the form of financial resources, funding, intellectual and advocacy contributions.

2.2. AgReFed is a democratic organisation – the direction and decisions of AgReFed are controlled by members of the Federation Council who “steer” AgReFed’s strategic direction. All provider community members have equal voting rights to the decisions of AgReFed. Each provider community equals one member, and has one vote on Federation Council.

2.3. Members are encouraged to be active participants to AgReFed and contribute to “rowing” at the community level that support AgReFed. That is, through contributing to the Technical Council that advises on technical decisions and ongoing efforts to improve data holdings.

2.4. AgReFed recognises the independence of its members, and supports their right to autonomy over their organisation and operation, and only has purview over the alignment of resources shared by provider communities.

2.5. AgReFed is inspired by Cooperative principles of public good, and a concern for the community. It is expected that members will share the desire to further these public good outcomes.

2.6. The AgReFed Community expect research to be conducted responsibly, ethically and with integrity as outlined in *The Australian Code for the Responsible Conduct of Research (the Code)*⁵. The code articulates the broad principles that characterise an honest, ethical and conscientious research culture.

3. Criteria for Membership

3.1. Members must have relevant resources to share that align with AgReFed Technical, Funding and Financial and Strategic Policy

³ <https://www.ica.coop/en/cooperatives/cooperative-identity>

⁴ Each AgReFed data provider is represented as its own community. This community comprises the actors engaged in operating the repository, establishing services and curation, management and provisioning of data (including metadata). Each community is **autonomous** and makes its own decisions about how it organises itself. A Provider Community could be scoped to:

- A single data set or collection
- An organisation with multiple collections
- Multiple collections from multiple organisations e.g. a data cooperative
- Providers of common infrastructure and services as part of the AgReFed

⁵ <https://www.nhmrc.gov.au/about-us/publications/australian-code-responsible-conduct-research-2018>

3.2. Members must have the authority to act on behalf of the provider community they purport to represent

3.3. Members are committed to AgReFed's vision and AgReFed Membership Guiding Principles

4. Terms of Membership

4.1. All provider community members actively participate in AgReFed through role filling. This includes actively:

- participating in decision making
- progressing the AgReFed agenda
- maintaining the FAIRness of data and trust of repositories for agricultural research data
- growing collective AgReFed data and resources

4.1.1. All provider community members are required to delegate at least one person to represent their provider community (their organisation or information community) to fill the following roles:

- Member of the Federation Council (voting member, see 4.1.4) – for strategic decisions (mandatory)
- Member of the Technical Council – for technical decisions (optional)
- Provider Collection Custodian – to represent the interests of providers' pertaining to their digital assets (Section 2.1) in AgReFed (mandatory)

4.1.2. Provider community members may also (optionally) nominate to fill other roles (for example Federation Data Steward), in addition to these core responsibilities

4.1.3. Roles can be filled by the same person or assigned to different people

4.1.4. As AgReFed grows, it may be necessary to change how data provider communities are represented to ensure they can directly contribute to the Council. These different involvements are to be determined by Council through consultation with the provider community members, once AgReFed has reached fifteen Council Members.

4.1.5. Digital assets contributed by members to AgReFed must be aligned and maintained in accordance with AgReFed FAIR and Trusted Policy settings, and other data policies as advised by the Technical Council and endorsed through Council

4.1.6. Members must abide by the Membership Policy of AgReFed and Terms of Reference.

4.1.7. Members must strive to achieve AgReFed's vision in line with AgReFed Membership Guiding Principles. It is expected that all members will conduct themselves in a lawful, ethical, and responsible way, and act in good faith in their interactions as outlined in AgReFed Membership Guiding Principles. Legal and ethical violations are potential grounds for dismissal from AgReFed

4.1.8. At the Federation Council's determination, and in line with the terms of reference, non-voting observer members may be allowed to participate in AgReFed. These members may be expert advisors and technology providers and may contribute their perspective to discussions, such as through non-voting participation in a subcommittee. The specific nature of these roles will be determined by the Council, in line with Council terms of reference, and may include working groups or other bodies reporting back to the Federation Council.

4.1.9. The Federation Council will be vigilant against any conflict of interest between these members. Conflicts of interest include, but are not limited to, instances of undue influence or power by members over specific interests, prior conduct of members (individual or communities) that conflicts with operations, or prior/existing relationships of members (individual or communities) that conflicts with

operations. The Council will use the Terms of Reference, and principles of AgReFed to respond to these issues, in a way that maintains the underlying public good and cooperative motivations of AgReFed.

5. Joining AgReFed

5.1. To join AgReFed, potential provider community members must apply to the Federation Council in writing. This application will demonstrate that they meet the [Criteria for Membership](#). Council will then vote on the proposed new provider community members. If accepted, the prospective provider community understands the risks and benefits of participation, should nominate appointees to the [required roles of AgReFed](#).

5.2. If provider contributions are digital assets then providers should have the dataset, data collection, data service or relevant digital asset available to begin the alignment process. The alignment process is to be determined by Council incorporating the FAIR, Trusted and other data policies on recommendation of the Technical Committee and endorsed by Council. Once required roles are fulfilled, submitted digital asset is available, expectations for publication are met, then membership is confirmed.

5.3. Tooling, infrastructure and other resources (Section 2.1) will be assessed as aligning with and supporting AgReFed policies, on advice of the AgReFed Technical Committee as required, and endorsed by Council. Once required roles are fulfilled, then membership is confirmed.

5.4. In addition, there is an ongoing expectation that members will continue to make published digital assets discoverable and appropriately accessible through AgReFed as outlined in AgReFed Data Policy and to contribute to the shared vision of AgReFed, as outlined through role description and membership expectations.

6. Terminating AgReFed Community Membership

6.1. If a provider community member wishes to leave AgReFed notice to the Council is to be provided no less than (6 weeks) before they wish to leave.

6.2. Digital assets published through AgReFed is assumed to remain published but the formal commitment to AgReFed community to maintain the level of FAIRness and Trust ends. However, it is assumed that because the digital asset is FAIR and available via Trusted Core Repositories, it will still be available. However, members are entitled should they so wish, to terminate provision arrangements.

6.3. Council can also choose to terminate a provider community or provider community member filling a role, in line with Council Terms of Reference, in the event of failure to abide by AgReFed Membership Guiding Principles, Criteria for Membership and Terms of Membership. On exit, the provider community will resign from any positions held within the governance structure of AgReFed.

7. Dispute Resolution

Disputes between members should be elevated to the Federation Council for discussion and resolution in line with Council Terms of Reference. AgReFed Membership Guiding Principles, Criteria for Membership and Terms of Membership, and the associated AgReFed Policy, Terms of Reference and role descriptions, will serve as foundational documents for structuring any dispute resolution. The Council will either act as, or find, an impartial third party to assist where disputes cannot be resolved through AgReFed members. The Federation Council, however, has ultimate say over the operation and direction of AgReFed.

8. Disbanding AgReFed

AgReFed is a distributed technical architecture. AgReFed does not hold provider communities data (datasets, collections, metadata, data derived products, models or algorithms). Thus, the disbandment of AgReFed will not impact the holdings of the individual provider communities. It will, however, mean that digital assets previously aligned to AgReFed standards will no longer be linked and shareable through

AgReFed. The closing down or otherwise of the technical architecture of AgReFed upon disbandment will be decided by Council in line with Council Terms of Reference on advice of the AgReFed Technical Committee as appropriate.

9. Review

This Membership Policy is to be reviewed on biannually and may be reviewed, updated or adapted by consensus at any time.

AgReFed Strategic and Business Policy.

1. Purpose

The purpose of this policy is to describe and document guidelines for the AgReFed Council to develop the Strategic Plan for AgReFed to make high-level business decisions that affect the future direction of AgReFed.

This policy includes:

1. Development of the Strategic Plan
2. Strategic considerations and high-level business decisions
3. Communication of the Strategic Plan
4. Review of the Strategic Plan
5. Review of this policy

[Appendix 2](#): Proposed approach to AgReFed Strategic Plan

[Appendix 3](#): Example AgReFed Value Propositions

2. Development of the Strategic Plan

The strategic direction of AgReFed is to be developed and documented by the Federation Council via a rolling three-to-five-year Strategic Plan.

It is recommended that the AgReFed Strategic Plan includes the following elements (additional detail is included in [Appendix 2](#)):

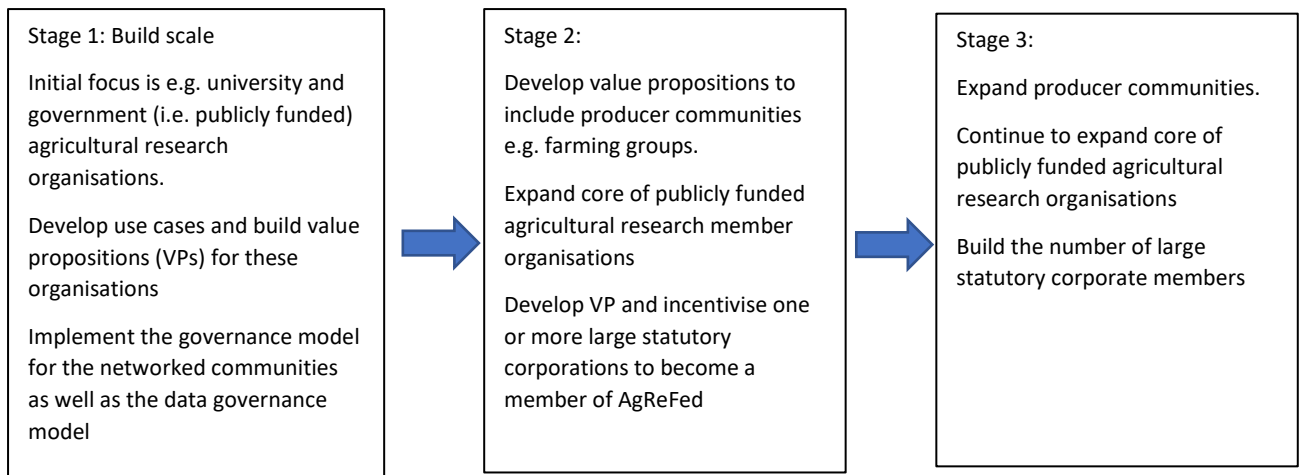
- Background
- Vision and Mission
- Strategic considerations
- Objectives e.g. for the next 3-5 years
- Value propositions chosen
- Detailed activities required to deliver (i.e. provide and communicate) the chosen value propositions
- Resources and capabilities required, plans to close any capability gaps
- Technology roadmap
- Implementation plan
- Risk management plan
- Financials (revenue, costs and cash flow, including sources of external funding required)

3. Strategic Considerations and High-Level Business Decisions

It is expected that one of the considerations of the AgReFed Council would be how to build a critical mass of agricultural research data and digital assets. There are some strategic choices to be made by the AgReFed Council to achieve this e.g.:

- Focus on selected communities of agricultural research Data Providers e.g. universities, government and other publicly funded agricultural research organisations; or
- Focus on Providers of selected types of agricultural research data e.g. crop variety trials

The following schematic outlines one high-level proposed strategy for AgReFed - as a staged development - for consideration and discussion by the AgReFed Council.



Another strategic consideration is the set of value propositions that AgReFed chooses to deliver to selected communities.

Deciding what value propositions to deliver is of central importance in the Strategic Plan. The value propositions describe the resulting experiences (benefits and trade-offs) that AgReFed chooses / seeks to deliver to selected communities, within the financial and other resources potentially available to AgReFed.

AgReFed activities are then focused around delivering (i.e. providing and communicating) these value propositions to the selected communities. These activities may include developing the AgReFed infrastructure and technologies required, implementing the socio-technical framework proposed for AgReFed, forming partnerships and alliances to build required capabilities where there are capability gaps identified and developing approaches to communicate the value propositions to the selected communities.

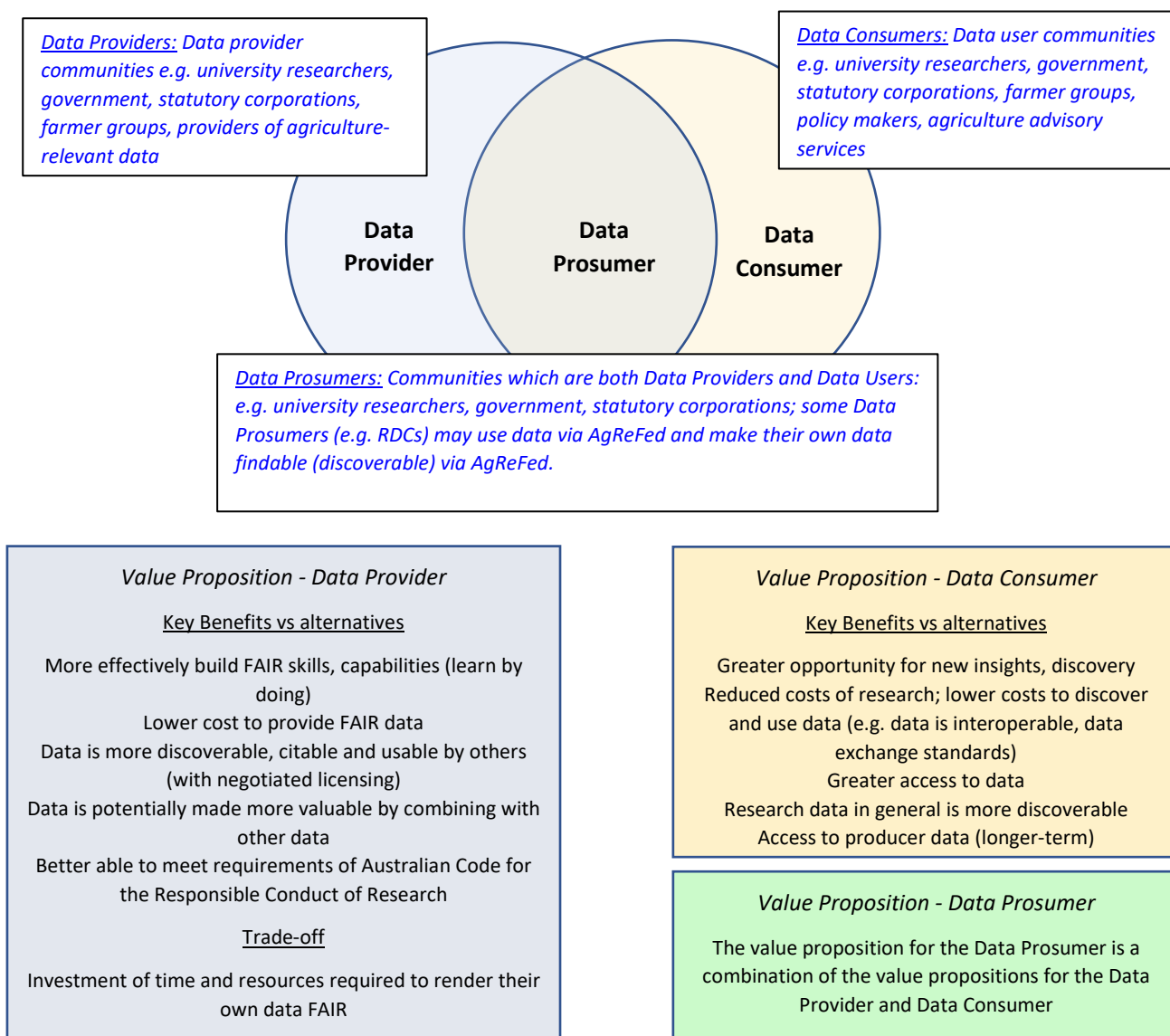
Proposed key elements of the value propositions for Data Provider, Data Consumer and Data Prosumer participants in the AgReFed community are outlined in the schematic below.

Example value propositions for Data Providers and Data Consumers are described in more detail in [Appendix 3](#).

It is noted that Stage 1 in the schematic above is focused on the Data Providers and Data Prosumers. Prosumers are an important stakeholder as they are data providers who wish to use AgReFed to service their own user needs.

Schematic of example value propositions to prospective AgReFed communities:

("Data" means FAIR agricultural research data and FAIR agriculture-relevant data)



4. Communication of the Strategic Plan

It is recommended that the Strategic Plan be reported on AgReFed members on an annual basis or when significant updates / changes occur.

5. Review of the Strategic Plan

It is recommended that the Strategic Plan be reviewed by the AgReFed Council every six months and updated annually to maintain a rolling three-to-five-year Strategic Plan.

6. Review of this Policy

Once adopted by the AgReFed Council, it is recommended that the Strategic and Business Policy be reviewed every twelve months.

AgReFed Funding and Finance Policy.

1. Purpose

The purpose of this policy is to describe and document how the Federation Council wants funding and financial management activities to be carried out.

2. Authority for Financial Actions and Decisions

2.1. The Federation Council, comprising of representative delegates from the Provider communities (Members), is responsible for the financial actions and decisions of AgReFed.

2.2. Financial decisions which are not part of a delegated authority are to be agreed by a simple majority at a Council meeting, or by circulation if such decision is required before the next Council meeting and ratified at the next Council meeting.

2.3. The Council may, subject to approval at a Council meeting, decide to delegate authority to a Member organisation for approval of expenditure up to agreed limits as circumstances warrant. All such delegations (authority and limits) are to be documented as part of Council meeting Minutes and are deemed to be a financial decision of Council.

3. Conflicts of Interest

Preamble: As AgReFed is a collective, financial decisions are expected to be made which will benefit the Members of the collective i.e. collectives are designed for the alignment of interest. Participation of a Member in a financial decision that results in that Member receiving a benefit may not necessarily represent a conflict of interest, particularly if the decision assists AgReFed in being able to achieve its objectives and in so doing, other Members receive benefit as well.

3.1. With the above preamble as background, a Member of the Federation Council is required to declare any conflict of interest in a matter subject to a financial decision to be taken by the Council. Council is to discuss whether the declared conflict of interest would require the Member to abstain from participating in financial decisions made by Council in relation to that conflict of interest.

4. Responsibility to Prepare Expenditure Budgets and Secure Funding

4.1. It is the responsibility of the Federation Council to decide on proposed expenditure budgets for AgReFed for an appropriate period of time and / or for a specific set of purposes, and to identify funding sources and secure funding for the proposed expenditure.

4.2. Funding is deemed to be secured when a written contract for the funds has been signed and executed by all the relevant parties (see that section of this Policy which relates to entering into contracts).

5. Expenditure Approvals and Authority to Spend Funds

5.1 The Federation Council may not approve any expenditure (including expenditure as part of a delegation of authority) for which there is no funding secured.

5.2. Once funding is secured, the Council has authority to approve expenditure against an approved budget or delegate such authority to a member organisation.

5.3. A variance to an approved expenditure budget may be submitted for consideration by the Council.

6. Management and Distribution of Funds

6.1. For funding secured on behalf of AgReFed by the lead agency, the lead agency will hold the funds paid under funding contracts and distribute them in accordance with approved expenditure upon receipt of invoices approved by Council. Where Council has delegated expenditure authority to another Member organisation, the lead agency is to transfer the amount of approved expenditure to that organisation when associated milestones in the head agreement have been met by the Member organisation, and once the funds from the relevant funding contract have been received; the lead agency has no obligation to transfer amounts greater than the funds received as part of a relevant funding contract.

6.2. Funds held by the lead agency on behalf of AgReFed are to be managed according to the contracts entered into by, and the financial policies of, the parent / host organisation of the lead agency.

6.3. When AgReFed funding is secured by a Member other than the lead agency, those funds would normally be managed in accordance with the contracts entered into by, and the financial policies of, the parent / host organisation of the Member. If deemed necessary for the purposes of maintaining accurate financial records and reporting for AgReFed (see Item 7. below), the funds secured by the Member for AgReFed purposes are to be noted at the next Council meeting.

6.4. Where excess funds exist from funding secured on behalf of AgReFed after expenditure payments have been finalised, the Council has authority to decide how to invest these funds according to the best interests of the AgReFed members (e.g. investment in building AgReFed capacity and / or capability).

7. Assignment of Authority to Enter into Contracts

7.1. For funding contracts which are principally to provide funding for AgReFed, the Federation Council is to approve contracts for funding; these funding contracts are to be signed and executed by the parent / host organisation of the Member leading the application for funding on behalf of the Council.

7.2. The Council is to approve all contracts for expenditure of AgReFed funds unless expenditure authority has been delegated to a Member organisation.

7.3. Expenditure contracts entered into once funding is secured but before the relevant funding is received are to be subject to the relevant funding being received.

8. Responsibility for Maintaining Accurate Financial Records and Reporting of AgReFed Financial Position

8.1. The Federation Council is responsible for reporting AgReFed's financial position.

8.2. The Council is to review AgReFed's financial position at each Council Meeting.

8.3. The Council is responsible for producing a set of accounts, which accurately reflect AgReFed's financial position, on at least an annual basis and communicating these to its Members.

8.4. The lead agency is responsible for maintaining accurate records of funding received and expenditure on behalf of AgReFed; where expenditure authority has been delegated to a Member organisation, that organisation is responsible for maintaining accurate records of funds received and expenditure on behalf of AgReFed.

8.5. The Council may co-opt additional operational support for financial accounting and reporting from the AgReFed membership.

9. Assets

9.1. Data made discoverable via AgReFed remain the property of the Data Provider.

9.2. Physical assets which are purchased with funds provided by AgReFed may be placed with a Member organisation. It is the responsibility of that Member organisation to ensure that those assets are maintained in good working order and are available to be used by AgReFed and its members for the purpose intended.

9.3. The lead agency is responsible for maintaining the register of AgReFed assets and their depreciated values.

9.4. If AgReFed ceases to exist, it is the responsibility of the AgReFed Council to decide on the disposition of any remaining AgReFed assets.

9.5. Where funds provided to a Member organisation by AgReFed result in the creation of Intellectual Property, the ownership of that Intellectual Property is to conform to the policies of that Member organisation; AgReFed and its member organisations are granted irrevocable, non-exclusive use of that Intellectual Property by Creative Commons Attribution licence (CC-BY).

10. Review of this Policy

10.1. Once adopted by the AgReFed Council, the Funding and Finance Policy is to be reviewed every twelve months.

AgReFed Role Description – Data Provider Collection Custodian.

1. Purpose

The Data Provider Collection Custodian (the ‘Custodian’) represents the interest of a Data Provider Community and their data collection(s) or asset(s) through AgReFed, and is the primary point of contact for the collection(s) or asset(s).

The purpose of the Custodian is to ensure that data from the Data Provider Community is available and persistently FAIR and Trusted through AgReFed in line AgReFed Trusted Repository Policy and AgReFed FAIR Data Policy requirements.

2. Role Filling

The Custodian must come from the same Data Provider Community as the asset(s)/collection(s) it is representing. The Custodian must have the authority within that Community to be responsible for contributing the asset(s)/collection(s) through AgReFed.

The Data Provider Collection Custodian may fill one or more roles within the Data Provider Community they are representing. Suggested role/s are found in [Appendix 1](#). These are roles that contribute to the collection, provision of, access to and management of collection(s) or assets.

3. Scope

A Custodian is responsible for at least one collection, and may have responsibility for multiple collections. All collections require at least one Custodian. The Custodian is determined by the provider community.

Specific accountabilities include:

1. Ensuring that the AgReFed ‘Contract’ is honoured. That is, that AgReFed Membership Responsibilities are upheld, as defined in AgReFed Membership Policy and AgReFed FAIR and Trusted Data Policies. This encompasses:
 - a. The creation and maintenance of accurate collection metadata
 - b. Ensuring that the metadata record is harvestable by Research Data Australia (RDA)
 - c. Collection vocabulary publication
 - d. Liaising with the Provider Community roles (see [Appendix 1](#)) to ensure data collections’ updates are consistent with Federation policies (e.g. around metadata quality)
 - e. Liaising with the Provider Collection Manager/Custodian (see [Appendix 1](#)) to ensure sustained access

The Custodian liaises closely with the Federation Data Steward to review and validate FAIRness and repository Trust, and where appropriate fulfils any requirements to ensure minimum standards are maintained in the collection(s) that they oversee. The Custodian may also liaise with the Federation Technical Committee on matters within the technical domain.

4. Outputs

The Provider Collection Custodian output(s) are those data asset(s)/collection(s) that they represent being contributed through AgReFed through alignment with AgReFed FAIR, Trusted and Membership Policy.

The Federation Council may also endorse other outputs required through policy, for example AgReFed FAIR and Trusted assessments completed with the Data Steward.

5. Review

This Position Description will be reviewed on an annual basis and may be reviewed, updated or adapted at any time by the AgReFed Council, or on the advice of the by the Technical Committee for ratification by the Council.

AgReFed Role Description – Federation Data Steward.

1. Purpose

The Federation Data Steward oversees the collective data assets made available through AgReFed. The purpose of the Federation Data Steward is to ensure that the AgReFed data policies and standards are applied, ensuring that all data are aligned with the technical requirements of AgReFed (as described by the AgReFed FAIR Data Policy and AgReFed Trusted Repository Policy). The Federation Data Steward may also act as a point of contact for external stakeholders wishing to engage with the collective assets of the Federation.

2. Scope

The Federation Data Steward is responsible for the alignment of the collective data assets of AgReFed, i.e. those made available through AgReFed by the Data Provider Communities.

The Federation Data Steward reports to the Technical Committee.

Specific responsibilities include:

1. Assess and validate data assets' FAIR and TrustCoreSeal compliance (as described by the AgReFed FAIR Data Policy and AgReFed Trusted Repository Policy.)
2. Supporting Provider Communities to fulfil and maintain their AgReFed membership requirements (as outlined in Membership Policy) by providing advice, guidance and technical support, including:
 - a. Advising on collection metadata
 - b. Assistance with AgReFed FAIR Data assessments
 - c. Assistance with AgReFed Trusted Repository assessments
3. Liaising and collaborating with the Technical Committee (or other technical sub-committees, or roles) around technical matters within the Committee's domain including recommendations of acceptable levels of FAIRness and Trusted Repository Requirements through Membership, AgReFed FAIR Data and Trusted Repository Policies, and promulgation of these through AgReFed processes.
4. Provide outputs as determined and directed by the Federation Council.

3. Outputs

The Federation Data Steward will provide outputs as determined and directed by the Federation Council and may include:

- A record of data assets that are approved for inclusion in AgReFed.
- Tracking and reporting on progress, success and learnings through a quarterly report. This could include:
 - Recording AgReFed FAIR and Trusted assessments and learnings from these assessments, such as the risks, challenges and barriers to participation, suggestions and opportunities.

4. Role filling

The Federation Data Steward may be a member of a Provider Community, or belong to a third party tasked with the role. They may also fulfil other role(s) within AgReFed.

The Federation Council is to stipulate whether this role is a paid formal employment or in-kind role.

If an in-kind role, the Federation Council will need to formalise the role description and include, for example, number of hours required, length of term, and processes such for leave of absence and dispute resolution. The role will be filled by consensus of the Federation Council. Expressions of interest may be called for. The appointee will need to be supported through the terms of employment and processes of their employer.

If the role is a formal funded position through a legal entity, recruitment and employment processes will follow the statutory and legal guidelines of the employer.

5. Review

This Role Description will be reviewed on an annual basis and may be reviewed, updated or adapted at any time by the Federation Council, or on the advice of the Technical Committee for ratification by the Federation Council.

Appendix 1. Possible Data Provider Community roles

The following is an excerpt of the AgReFed ⁶*Guidelines*, page 19. A Data Provider's nominated Data Provider Collection Custodian may fill one or more roles within the provider community to ensure the provision of and access to the collection(s) or assets.

A number of Provider Community roles necessary for the provision of FAIR data are *suggested*, and are mapped to Collection-Party relations from the [RIF-CS](#) schema (as used by Research Data Australia), to assist the representation of these roles in collection metadata records.

Provider Community roles	Collection-Party relation (RIF-CS)	Description
Provider Collection Creator	hasCollector	has been collected, generated, created or aggregated by the related party
Provider Collection Manager/Custodian	isManagedBy	is maintained and made accessible by the related party (includes custodian role)
Provider Collection Owner	isOwnedBy	legally belongs to the related party
Provider Collection Enhancer	isEnrichedBy	additional value provided to a collection by a party (i.e. formatting or describing to enable sharing and reuse) who is not already represented by another role, e.g. manager
Provider Service Provider	isManagedBy	provider of vocab service, data service, repository as a service

⁶ Box, Paul; Levett, Kerry; Simons, Bruce; Wong, Megan. Guidelines for the development of a Data Stewardship and Governance Framework for the Agricultural Research Federation (AgReFed). Sydney: CSIRO; 2019. <https://doi.org/10.25919/5cf179ba35db9>

Appendix 2: Proposed approach to AgReFed Strategic Planning

Executive Summary

Background

Current state of agricultural research data including key players

What is sub-optimal today?

Description of what AgReFed is

Description of how AgReFed seeks to improve what is sub-optimal

Proposed Vision

For discussion:

Enabling FAIR agricultural data to accelerate innovation and increase the profitability and sustainability of Australian agriculture.

Proposed Mission

For discussion:

Enactment phase: Establish AgReFed and grow the collection of agricultural data from the agricultural research community.

Longer term: To unlock the potential of agricultural data from research organisations, government, producers and other agricultural industry players.

AgReFed provides a platform for sharing FAIR agricultural and complementary data and where researchers and other agricultural data consumers access / co-create shared tools, workbenches, data pipelines and analysis tools to enable investigative research and analysis which will be of direct benefit to Australian agriculture.

AgReFed will pursue this mission by:

- a. Bringing together and aligning independent organisations to make strategic and technical decisions about data sharing;
- b. Providing a governance and data stewardship framework for collective decision making;
- c. Providing the infrastructure, tools and resources for research organisations to develop the capacity to make their Agricultural research data FAIR;
- d. Enabling increasingly FAIR data from individual research organisations available for use by the broader agricultural research community;
- e. Incorporating and enabling access to complementary data important to agricultural research; and
- f. Bringing together the platform capabilities to enable leading-edge investigative agricultural research and analysis.

i.e. In the longer term, it is proposed that AgReFed transition from a research data cloud to a platform, where agricultural data users access / co-create shared tools, workbenches, data pipelines and analysis tools.

Strategic considerations

e.g.:

- Focus on selected communities and / or data types
- Choice of value propositions
- Staged development of AgReFed

Objectives

Objectives for the next three-to-five years.

What does AgReFed want to have achieved in three-to-five years' time?

Value Proposition(s)

(there may be more than one)

The methodology.⁷ to assist with the development of the AgReFed value propositions is outlined below. Example value propositions are given in [Appendix 3](#).

- Identify the agricultural research communities that AgReFed selects to focus upon – Data Providers, Data Consumers, other entities – who are they and what are they seeking to do, how are they currently being frustrated, falling short in ways that AgReFed can impact? (*Engagement with representatives from the selected communities is recommended to gain insight to be able to answer these questions; opinion is seldom sufficient. What happens today, with scenes describing frustrations, short-falls, opportunities missed may be thought of as Video 1 – see below*)

Each of the selected communities may require a separate value proposition.

- The essence of each value proposition is the set of resulting experiences that AgReFed chooses / seeks to deliver to each of these selected communities (i.e. what happens when the members of the selected community participate in AgReFed, with what consequences, how are these consequences valued by the selected community?).

(These questions may be answered by constructing Use Cases, not just to determine technical specifications, but to describe what happens when the scenes in Video 1 above are replayed with the selected communities now having the (future) resulting experiences to be delivered by AgReFed)

- Identify the beneficial resulting experiences.
- What, if at all, will each of the selected communities have to trade-off to participate in AgReFed? (These trade-offs are also resulting experiences – part of the AgReFed value proposition).
- What competing alternatives exist (including the status quo, other agricultural data platforms and service providers)?
- Taking into account both benefits and trade-offs, why will the proposed AgReFed resulting experiences be better (overall) than the competing alternatives?
- Putting these elements together, articulate the value proposition that AgReFed chooses to deliver to each selected community?

Please note:

Capability and resource constraints may impact the choice of value propositions which can be delivered at a particular time. The preferred value propositions may require capabilities to be acquired / developed; interim value propositions may then be chosen until the necessary capabilities are available e.g. the

⁷ This methodology is attributed to Michael Lanning who proposed the value proposition concept in 1988 with Edward Michaels at McKinsey and Company. The use of value propositions and the value delivery methodology in strategic planning is developed in *Delivering Profitable Value* (Basic Books, publisher) and in the work of [the DPV Group](#), based in Atlanta USA.

(future) resulting experiences which could be delivered with an AgReFed platform would be expected to be superior to those (present) resulting experiences which could be delivered with capabilities limited to an AgReFed data cloud.

Providing the Value Propositions

List the activities required to be undertaken in order to make the resulting experiences actually happen for each of the value propositions for the selected communities.

For each of the activities, include details of who (or which organisation) will undertake the work and include a brief description of the capabilities that are required.

Activities to provide the value propositions may include e.g.:

- Implementing the socio-technical framework proposed for AgReFed

- Developing and implementing training, tools and support services to enable the communities to make their data FAIR

- Developing the technologies required

- Developing the services required

- Providing access – front-end / back-end

- Developing the infrastructure required

Communicating the Value Propositions

Development of the plan to communicate to the selected communities that the resulting experiences will be received, including evidence to give credibility that the resulting experiences will actually happen (i.e. give reasons to believe).

Communication may be via e.g.:

- AgReFed website

- Word of mouth

- Development and dissemination of case studies

- Workshops

- Roadshows

- Professional media / social media

- Newsletters

Capability Gaps and Resources Required

Identify gaps in capabilities and plans to close those gaps, including the formation of partnerships and alliances

Identify other resources required and how these will be addressed

Technology Roadmap

A technology roadmap may then be constructed based on the technologies required to provide the value propositions.

Implementation Plan

An implementation plan (what work has to be completed - who will do what, by when) may then be developed. It may be useful to include a summary of work that has already been completed.

Risk Management Plan

Consequences →	Insignificant	Minor	Moderate	Major	Catastrophic
Likelihood ↑	1	2	3	4	5
Almost Certain	M	H	H	E	E
Likely	M	M	H	H	E
Possible	L	M	M	H	E
Unlikely	L	M	M	H	H
Rare	L	L	M	M	H

L = Low M = Medium H = High E = Extreme

Risk	Likelihood	Consequences	Management Steps

Business Case / Financials

Develop three-to-five financial projections.

Develop business case demonstrating AgReFed expects to be sustainable financially after N years of investment by X, Y, Z and contributions by partner organisations.

Establishment Revenue

e.g.:

ARDC funding

Other funding from NCRIS or other organisations / grants

Partner commitments

Other

Establishment Costs

Broken down in as much detail as is practicable to do, e.g.:

Community building

Communication to raise awareness of AgReFed

Education and support services

Software development

Development of data exchange standards

Equipment purchases

Software purchases

On-going Revenue – operational phase

Dependent on business model – how income is generated

Operational Costs

e.g.:

Ongoing software development

Training / support services

Maintenance

Software licences

Communication costs

Expected cash flow for each year of the Business Case

Appendix 3: Example AgReFed value propositions

This methodology is attributed to Michael Lanning⁸

The following may be useful as examples of AgReFed's value propositions for the period immediately after enactment (i.e. value proposition appropriate for the initial timeframe of 1-2 years).

Example AgReFed value proposition for Data Providers

Selected community: Data Providers

Representatives from universities, government and other publicly funded research institutions, whose researchers want to make their agriculture research data FAIR and provide access to, and usage of, these data to others; the institution's Library and Information Technology Services currently assist to provide these data to others

Timeframe:

Within the first 1-2 years following enactment

What we want the selected community to do:

Agree to their institution becoming a member of AgReFed and make a commitment on behalf of their organisation to the socio-technical governance structures as well as the contribution to providing the resources and data services required, including the resources required to render their research data FAIR

Alternatives available:

- a. The institution develops its own infrastructure for making FAIR data available; or
- b. Continue as today, providing data which is FAIR perhaps to a limited extent, if at all

Resulting experiences AgReFed will deliver to Data Providers (if they do as we propose):

An institution participating as a Data Provider to AgReFed, will receive the following benefits, compared with the alternatives:

- *More effectively build FAIR skills for agricultural research data*

Researchers (and Library and Information Technology Services, others) acquire the skills and capabilities and have access to the tools and training required to assist make their research data FAIR (in particular, interoperable).

Through a project-based approach (i.e. as part of the researchers' own projects) the researchers will "learn by doing" and have a better understanding of what is required and the skills, tools and capabilities required to actually make their data FAIR than if they had attended, for example, only a workshop on making data FAIR.

- *Lower cost to provide FAIR data*

The institution will be able to make use of AgReFed data infrastructure for making their agricultural research data discoverable and access resources and tools to make data FAIR.

⁸ This methodology is attributed to Michael Lanning who proposed the value proposition concept in 1988 with Edward Michaels at McKinsey and Company. The use of value propositions and the value delivery methodology in strategic planning is developed in *Delivering Profitable Value* (Basic Books, publisher) and in the work of [the DPV Group](#), based in Atlanta USA.

- *The institution's agricultural research data is more discoverable, citable, usable by others*

Researchers form part of a research community transitioning to Open Science. There is a push toward open datasets when publishing in high quality journals. AgReFed provides greater opportunity to publish datasets in high quality journal including journals for data and reproducibility testing, promote their research data, and for their research data to be more discoverable and accessible, with greater potential for utilisation and citation, and greater potential for collaboration with other AgReFed members, than if their research data remained siloed.

Researchers participating in AgReFed will retain control over who can access their data and with whom their data can be shared

- *The institution's agricultural research data is potentially made more valuable by being able to be combined with other FAIR agriculture research and / or agricultural-relevant data*

Other FAIR agriculture research and / or agricultural-relevant data may include research data from another institution in a related research area or agricultural-relevant data e.g. soils, weather, all of which is discoverable via AgReFed

- *Better able to meet the requirements of the Australian Code for the Responsible Conduct of Research*

The Management of Data and Information in Research: A guide supporting the Australian Code for the Responsible Conduct of Research calls for research data to be FAIR; AgReFed will assist organisations undertaking agricultural research to meet these requirements

An institution participating as a provider member of AgReFed will have to make the following trade-offs:

- *Investment of time and resources to render their agricultural research data FAIR*

The institution will be required to acquire the skills and capabilities and invest the time and resources to make their agricultural research data FAIR to be able to be discoverable in AgReFed

ARDC has outlined the following benefits of making data FAIR which are reproduced below:

- Gaining maximum potential from data assets
- Increasing the visibility and citations of research
- Improving the reproducibility and reliability of research
- Staying aligned with international standards and approaches
- Attracting new partnerships with researchers, business, policy and broader communities
- Enabling new research questions to be answered
- Using new innovative research approaches and tools
- Achieving maximum impact from research.

Example AgReFed value proposition for Data Consumers

Selected community: Data Consumers

Representatives from universities, government, other publicly funded research institutions and statutory corporations (e.g. CSIRO, GRDC, other RDCs), whose researchers (including HDR students) want to make use of agricultural research data provided by others. For some of these institutions, Library and Information Technology Services staff currently provide assistance so that researchers are able to make use of these data.

Timeframe:

Within the first 1-2 years following enactment

What we want the selected community to do:

Participate as an AgReFed Data Consumer

Alternatives available:

- a. Continue as today; representatives often are required to spend considerable time, effort and resources to find the data, harmonise the data, before the data are able to be used

Resulting experiences AgReFed will deliver to Data Consumers (if they do as we propose):

An institution participating as an AgReFed Data Consumer will receive the following benefits, compared with the alternatives:

- *Greater opportunity for new insights and discovery, contributing to innovation and improvements for Australian agriculture*

Researchers and other data consumers are more readily able to identify the existence of data, access these data, undertake investigative research and analysis of these data in order to obtain new insights, contribute new knowledge towards innovation and improvements for Australian agriculture

- *Reduced costs of research, lower costs to use FAIR agricultural research data*

Importantly, these research data are made interoperable and are therefore able to be accessed and used at a lower cost than the investment previously required to access data from multiple research institutions in usable form.

- *Greater access to FAIR agricultural research data and agriculture-relevant data*

Researchers will have greater access to FAIR agricultural research data from AgReFed Data Providers. Importantly, researchers will be able to access agriculture-relevant data made discoverable via AgReFed e.g. soil data, weather information

- *FAIR agricultural research data, and agriculture-related data are more discoverable*

Through AgReFed, agricultural research data and agriculture-related data are more readily able to be identified and utilised.