RURAL SAFETY & HEALTH ALLIANCE

Ag Safety Data Net

Concept background for developers, January 2024

This document provides an overview of information gathered during development of the Ag Safety Data Net concept and preliminary thinking about its the processes and desired outcomes. It is intended as background to help fast-track the development of this new capacity.

The document was written by the Harris Park Group (Pauline Brightling and Anne Hope) as an initiative of the Rural Safety & Health Alliance (AgriFutures Australia PRO-016773).

Rural Safety Health & Health Alliance, Ag Safety Data Net concept background for developers, January 2024.

Please note that some figures and text in this document is hyperlinked tor more information.

Contents

Glossary

ASDN Ag Safety Data Net

ABARES Australian Bureau of Agricultural and Resource Economics and Sciences (DAFF)

ABS Australian Bureau of Statistics
- Labour Force Survey
- Population and Housing Census
- Work-Related Injury Survey

AgHealth AgHealth Australia (University of Sydney)

AIHW Australian Institute of Health and Welfare

DAFF Department of Agriculture, Fisheries and Forestry

IRG Industry Reference Group (ASDN)

NCFH National Centre for Farmer Health

NCIS National Coronial Information System

NFF National Farmers' Federation

NFSEF National Farm Safety Education Fund (DAFF)

VISU Queensland Injury Surveillance Unit (Metro North Hospital)

RDCs Rural Research and Development Corporations (*15)

RSHA Rural Safety & Health Alliance

RWS Regional Wellbeing Survey (University of Canberra, Health Research Institute)

SMEs Subject Matter Experts

SWA Safe Work Australia

VISU Victorian Injury Surveillance Unit (Monash University)

WADLS WA Data Linkage Services (Western Australian Department of Health)

WHS Work Health and Safety

1: About the concept

Agriculture is one of the six priority industries identified by Safe Work Australia as having high rates of fatality and serious injury in its 2023-2033 strategy [255]. Currently 40-60 people die on farms each year. Australian agriculture has a goal of zero fatalities on farm.

The Rural Safety and Health Alliance (RSHA) is a formal collaboration of eight Research & Development Corporations that aims to improve health and safety on Australian farms. Its Members regard the current ways of measuring safety as a major obstacle to improving safety on farm as these do not deliver the detailed, accurate information needed to understand the issues and inform programs and planning.

The RSHA has been exploring how rectify this through a series of commissioned studies [9] [10] and internal workshops. The Ag Safety Data Net concept was developed by the RSHA and refined in consultation with 18 stakeholders between December 2022 and April 2023 (Figure 1).

Joint commitment to its funding from rural Research and Development Corporations (RDCs) was secured in the latter half of 2023.

The new system will build expertise, data structures and partnerships required to become a sustainable capacity delivering fit-for-purpose safety data to stakeholders.

The vision is that the Ag Safety Data Net becomes the trusted source of farm safety metrics for the agricultural industries.

It will take five years to fully establish at a cost of at least $300,000 per annum.

This document describes the core functions and expected outcomes of the Ag Safety Data Net as a guide for the governance and operations group during the system's development and first phase of operational implementation.

Part 2 is an overview of how farm safety is currently measured and reported in Australia. It is essentially the starting point for the capacity-build. **Part 3** describes the concept, including who has 'skin in the game', so development can be cognisant of the longer-term outcomes. **Part 4** details the anticipated functionality in the first five years as the system and networks are established.

Figure 1 Stakeholders consulted in concept development

- AgHealth Australia
- Agriculture Victoria
- Australian Institute of Health and Welfare
- Dairy Industry Sustainability Group
- Department Agriculture, Fisheries and Forestry (National Farm Safety Education Fund, Workforce)
- Farmsafe Australia
- Fisheries Research and Development Corporation
- Flinders University (Public Health)
- Horticulture Innovation Australia
- James Cook University (Public Health)
- National Centre for Farmer Health
- National Farmers' Federation
- Safe Work Australia
- Victorian Injury Surveillance Unit (Monash University)
- WorkSafe Victoria
- University of Sydney (Public Health)

2: The current situation for ag safety data

Farm safety indicators

Work Health and Safety can be assessed through many rubrics, including the use of lead indicators (protective factors) and lag indicators (harms) [49]. RSHA has used this framing to describe the range of indicators that could be used in agriculture, although only a few have been repeatedly measured for farm (bolded in red, Figure 2).

The most commonly reported metrics in agriculture are lag indicators - fatalities on farms and serious injuries. The sector wants to expand its metrics to include lead indicators to underpin preventative mindsets and practices.

Data sources and reports

Data on health, wellbeing, injury and fatality resides in various data collections (Figure 3).

Much of the injury and fatality data is collected by state and territory governments in the first instance and compiled in well-established, central systems managed by organisations such as the Australian Bureau of Statistics, the National Coroners' Information System, and the Australian Institute of Health and Welfare.

AgHealth supplements coronial information to generate more detailed reports of farm fatalities [258].

Figure 2 RSHA framing of farm safety indicators
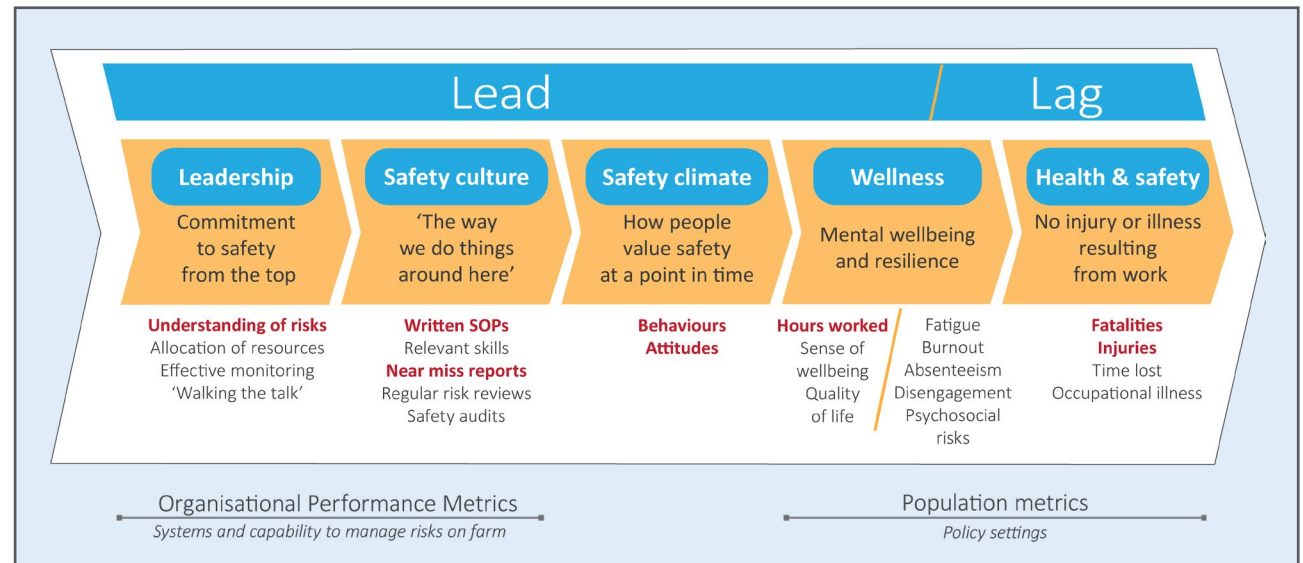
All data collections are intrinsically limited in their representation of safety in agriculture. For example:

- Workers' compensation data only has about 45-60% of injuries on farm [249].
- Hospital admissions are only about 25-30% of hospital presentations [AIHW].
- 'Farm' is not always logged as the place of occurence for on-farm incidents.
- Records often lack the detail to be able to determine the agricultural industry in which they occured (eg broadacre, horticulture).
- Emergency Department data does not collect data about external causes [259].

Safe Work Australia and Ag Health regularly publish separate reports on fatalites and serious injuries. This can lead to conflicting narratives due to differences in how the data is selected and augmented.

As well as drawing from the systematized data collections, agricultural stakeholders sometimes commission targeted data collection and reports. Examples of this are surveys by RDCs that include safety questions, periodic analyses of Emergency Department data by the jurisdictions, and industry or topic specific safety analyses and research.

Figure 3 Preliminary map of existing WHS data sources for agriculture

Sources of farm safety data

Systematised data collection

Australian Bureau of Statistics

ANZIC, ANZSCO

Monthly population survey (MPS)

Labour force survey (LFS)

Multi-purpose household survey (MPHS)

Work-related injury survey (WRIS)

+ TOOCS [249]

Cause of death database

+ ICD-10 AM

Each jurisdiction

Workplace incident investigations
± police reports, blood alcohol tests etc

ANZIC, ANZSCO, TOOCS

Notifiable Fatalities Collection

Register births, deaths, marriages

Coroners' investigations

serious injury

Denominators

Safe Work Australia

National Dataset for Compensation-based statistics (NDS) [218,239,240]

Traumatic Injuries Fatalities database (TIF) [241]

Work-related, closed cases

Paid & unpaid workers

ICD-10, TOOCS if work-related

National Coronial Information System (NCIS) [242]

AgHealth Australia

Farm Injury Optimal Dataset guide [237]

National Farm Injury Data Collection [238]

Specific search terms

Media monitors

Commercial providers

Targeted data collection

Admitted Patient data collection

[219]

Compile eg VISU, QISU

Emergency Department data collection

Ambulance data collection

Australian Institute Health & Welfare

National Mortality Database

National Hospitals Data Collection

Australian Government Department of Health

Notifiable Disease Surveillance System

University collections

Regional Wellbeing Survey (Canberra)

National Centre for Farmer Health (Deakin)

R&D Corporations

Producer surveys

Classification systems

ANZSIC Standard Industrial Classification

ANZSCO Standard Classification of Occupations

ICD-10 AM International Classification of Diseases, Australian Modification

TOOCS Type of Occurrence Classification System

Reports

Examples

Safe Work Australia

Australian workers' compensation statistics [43, 99]

Work-related traumatic injury fatalities

SWA interactive data: agriculture

serious claims

AgriFutures Australia

Non-intentional farm-related incidents [129]

Farmsafe Australia

Safer Farms Trend Report

Reports by state, industry or topic

- trends, evaluation, sustainability frameworks

[10, 38, 54, 182, 217, 244, 260]

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3: Ag Safety Data Net

Vision

The vision for the Ag Safety Data Net is to be the trusted source of farm safety metrics for the agricultural industries.

Scope of activities

- Safety metrics to support agricultural industry programs and sustainability reports.
- Cross-sector R&D to improve measurement and reporting of safety on farm.
- The capacity to track change in farm safety over time.

Benefits for stakeholders

- **Confidence.** Industry-agreed metrics enables clear, consistent safety messaging for everyone on farm and provides a trusted evidence-base for industry sustainability frameworks.

- **Customisation.** Stakeholders will be able to access safety information for their state, industry or research topic.

- **Continuity.** A sustainable data capacity enables the sector to track and better understand changes in safety performance over time.

- **Harmonisation.** Over time, improved aggregatability of independently-collected data will result in a broader, more detailed evidence-base.

Ag Safety Data Net principles

- Is used by stakeholders as the 'single source of truth' for farm safety metrics.
- Focuses on the interests of agricultural rural Research and Development Corporations (RDCs).
- Has robust data provenance and governance controls.
- Uses metrics that meet stakeholder needs and are fit-for-purpose.
- Describes safety for all people on farm.
- Equally values building the structural capacity of the system and developing expertise with agricultural safety data.
- Supports harmonisation of key data.
- Supports continuous improvement in the use of safety data across the agricultural sector, industries and farm businesses.

Governance and operations

The collaboratively-funded project will be administered by AgriFutures Australia on behalf of RSHA.

AgriFutures will convene an ASDN Advisory Committee (representing the funding organisations) which will be involved in approval of milestone payments.

RSHA will convene an Industry Reference Group (IRG) to provide support and strategic guidance during the system's development and ensure it fits the needs of the agricultural sector. Industry input and leadership is essential for success; helping identify diverse needs, create a shared vision and build relationships and alignment. Its core responsibilities are shown in Figure 4.

Figure 4 Industry Reference Group core responsibilities

- Lead and champion the system with agricultural and WHS stakeholders.
- Help build a clear, shared vision.
- Ensure appropriate data security arrangements are enacted.
- Ensure the system evolves to meet industry needs.
- Seek opportunities to advance safety metrics.

Approach to capacity-building

Four components are needed for systemic capacity: Governance, systems and roles; People and infrastructure; Skills; and Tools [137] (Figure 5).

The Ag Safety Data Net needs to develop each tier to a sufficient standard to function effectively and sustainably.

Stages of development

The initial funding horizon of five years allows time for the new system to start to manifest benefits from data harmonisation, become the 'go to' place for interactions around farm safety data opportunities, and to progress some complex issues (such as use of lead indicators, and assessment of tools used by other sectors for agriculture).

The approach is to 'start small', forming and norming new processes with partners using fatalities and serious injuries as the focus and priority (Figure 6).

It is anticipated the system will take three years to establish, at which point stakeholder satisfaction with the quality and utility of the outputs will be reviewed, ie 'proof of concept'.

Figure 5 What is needed for systemic capacity

Figure 6 Development stages
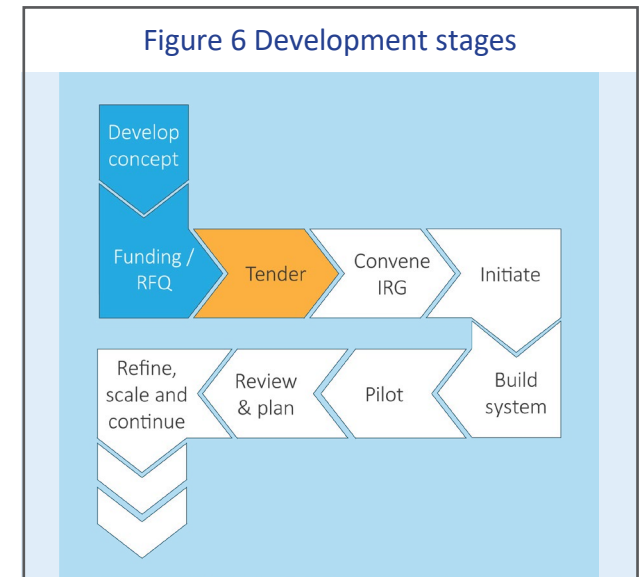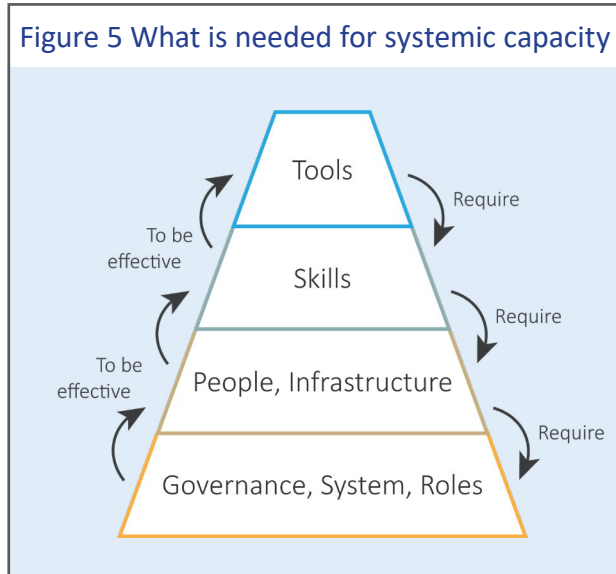
IRG oversight during the establishment phase will be a significant responsibility. Guidance will be needed to ensure appropriate levels of data governance are in place and the necessary internal data capabilities are developed.

Consulting with RDCs during the development is essential to ensure data capacity is able to support agricultural WHS initiatives.

Stakeholders and the Ag Safety Data Net

Only a few people in Australia have experience in analysing safety data for farm but many organisations are actively involved in managing risks through policies, programs services and advocacy.

Figure 7 is a subjective mapping of the interest and influence of the stakeholders in agricultural safety data. All will need to engage with Ag Safety Data Net in some way and the mapping helps determine the likely nature of this engagement. Stakeholders with a lot of interest and influence in agricultural safety data in particular have much to gain from 'coming together to work more collaboratively' (the upper right quadrant).

How each stakeholder group might interact with, and benefit from, the Ag Safety Data Net is described on the next page (Figure 8).

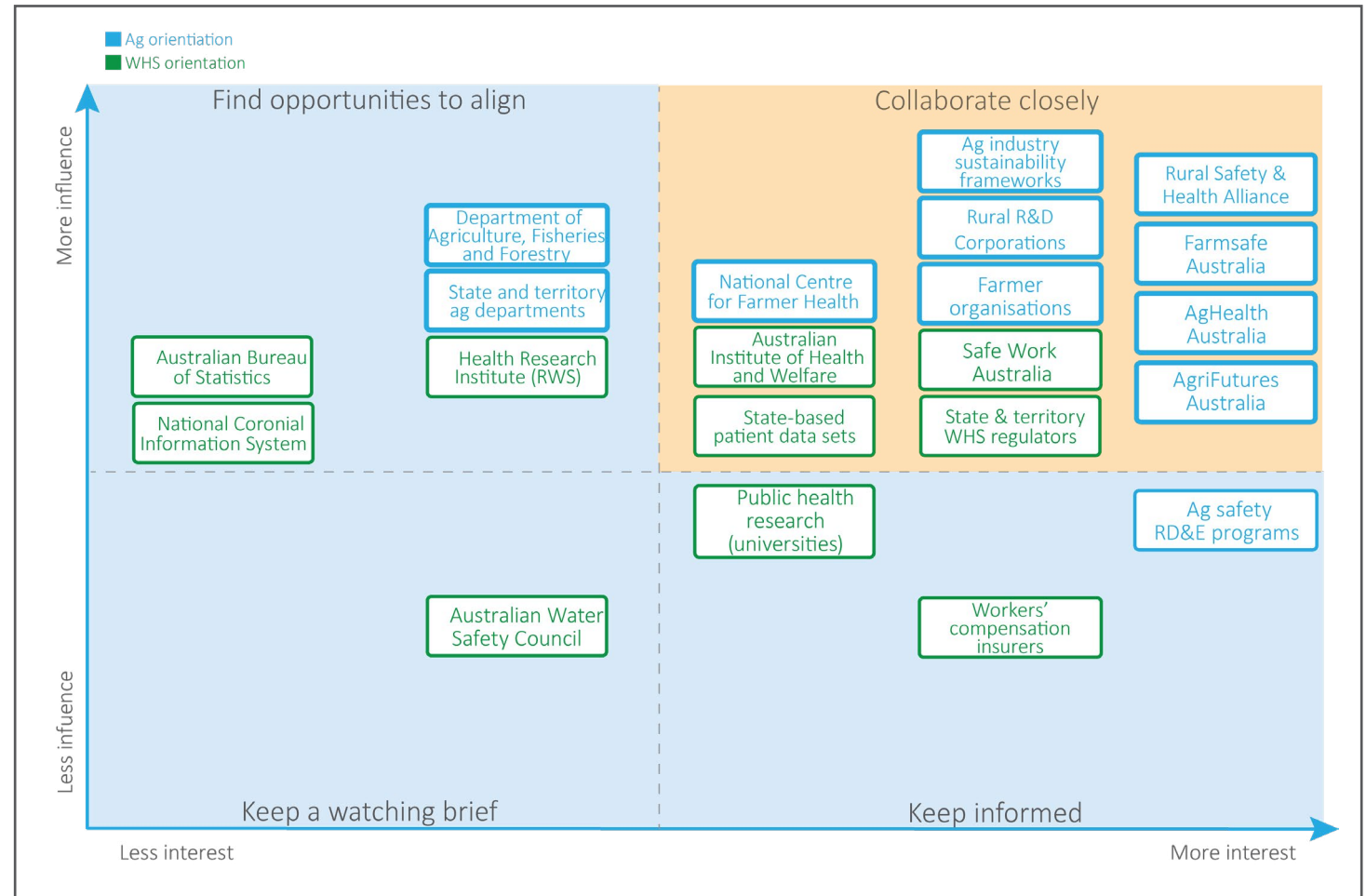Figure 7 Stakeholders in agricultural safety data in Australia

Figure 8 Potential stakeholder interactions and benefit

AgHealth Australia (Sydney Uni)

Interaction: Supply information (incident reports etc). Get reports (eg longitudinal, topic-specific).

Benefits: Richer data set for more granular analyses. Increased industry alignment around farm safety. Better farm safety evidence base for investment.

AgriFutures Australia

Interaction: Oversee contractual arrangements and deliverables for the Ag Safety Data Net.

Benefits: Progress issue of cross-sectoral significance.

Ag industry sustainability frameworks

Interaction: Get advice on metrics for use in sustainability frameworks.

Benefits: Source fit-for-purpose metrics.

Ag safety RD&E programs

Interaction: Get richer, more detailed topic-specific metrics.

Benefits: Identify gaps and priorities in farm safety. Use in campaigns and program evaluation.

Australian Bureau of Statistics

Interaction: Provide population-level data.

Australian Institute of Health and Welfare

Interaction: Source of health and safety data. Provide expert advice on system design.

Australian Water Safety Council

Interaction: Know and align with farm safety metrics.

Dept Agriculture, Fisheries and Forestry (ABARES, Agricultural Workforce)

Interaction: Access longitudinal and topic-specific farm safety reports. May be a future data source (eg survey).

Benefits: Have evidence-based information on workforce safety to inform policy and investment.

Farmsafe Australia

Interaction: Receive regular farm safety reports.

Source specific data to underpin campaigns.

Benefits: Access reliable data for messaging to farmers and advocacy to government. Confidence in using industry-agreed, fit-for-purpose metrics.

Farmer organisations (eg NFF, VFF, TFGA)

Interaction: Get state-specific and industry-specific farm safety metrics. Have a 'go to' place for enquires about farm safety data.

Benefits: Have an evidence-base for advocacy and funding applications. Have access to thought leadership around farm safety metrics.

Health Research Institute (Canberra Uni)

Interaction: Provide SME to system on wellbeing measures. Provide key data streams to system. Get customised reports to support research projects.

Benefits: Better harmonised farm safety metrics. Access to a wider bank of industry-agreed data for R&D.

National Centre for Farmer Health (Deakin Uni)

Interaction: Get customised reports to support research.

Benefits: Access a wider bank of industry-agreed data for RD&E programs.

National Coronial Information System

Interaction: Root source of most non-intentional fatality data.

Public health research - universities (eg Flinders, JCU, UQR!sk)

Interaction: Source of health and safety data. Provide expert advice on system design.

Rural R&D Corporations

Interaction: Get industry-specific farm safety information that aligns with whole of ag. Harmonisation of farm safety data collection (surveys etc).

Benefits: Robust evidence-base for RD&E investment. Increased granularity of safety data. Better understanding of safety on farm (plus trends over time) and stronger messaging. Shift to lead indicators for farm safety.

Rural Safety and Health Alliance

Interaction: Input to the IRG. Champion the use of agreed metrics across ag. Identify gaps in farm safety data capacity.

Benefits: Develop and maintain a sustainable data system (for farm safety planning, action and reporting). Evidence-base for collaborative RD&E investments for safety.

Safe Work Australia

Interaction: Provide key data streams (eg NDS and TIF workers' compensation). Provide safety data SME advice. Access information that is industry-specific within the ag sector and covers all farm workers.

Benefits: Be more connected to ag industries. Prioritise SWA research to help support improvement in farm safety. Have an understanding of injury levels across all farm workers and industries.

State and territory agriculture departments

Interaction: Access up-to-date, reliable statistics on farm safety. Help build ag data capacity by sponsoring skill development (eg post-graduate research).

Benefits: Have evidence-based information on workforce safety. Access to thought leadership around farm safety metrics. Have a 'go to' place for enquires about farm safety data.

State-based patient datasets (eg VISU, QISU, WADLS)

Interaction: Source of health and safety data. Provide expert advice on system design.

State and territory WHS regulators

Interaction: Supply information (incident reports etc). Get reports (eg longitudinal, topic-specific).

Benefits: Richer data set for more granular analyses. Increased industry alignment around farm safety. Better farm safety evidence base for investment.

Workers' compensation insurers

Interaction: A potential source of data.

4: Requirements in the first 5 years

Five-year objective

The objective of the Ag Safety Data Net in its first five years is to establish a sustainable data system that provides meaningful metrics for farm safety planning, action and reporting in the Australian agricultural sector.

The capacity of the system relies as much on the people part of the system (leadership, collaboration and relationships with others and project management) as it does on the quality of the development of the data structures.

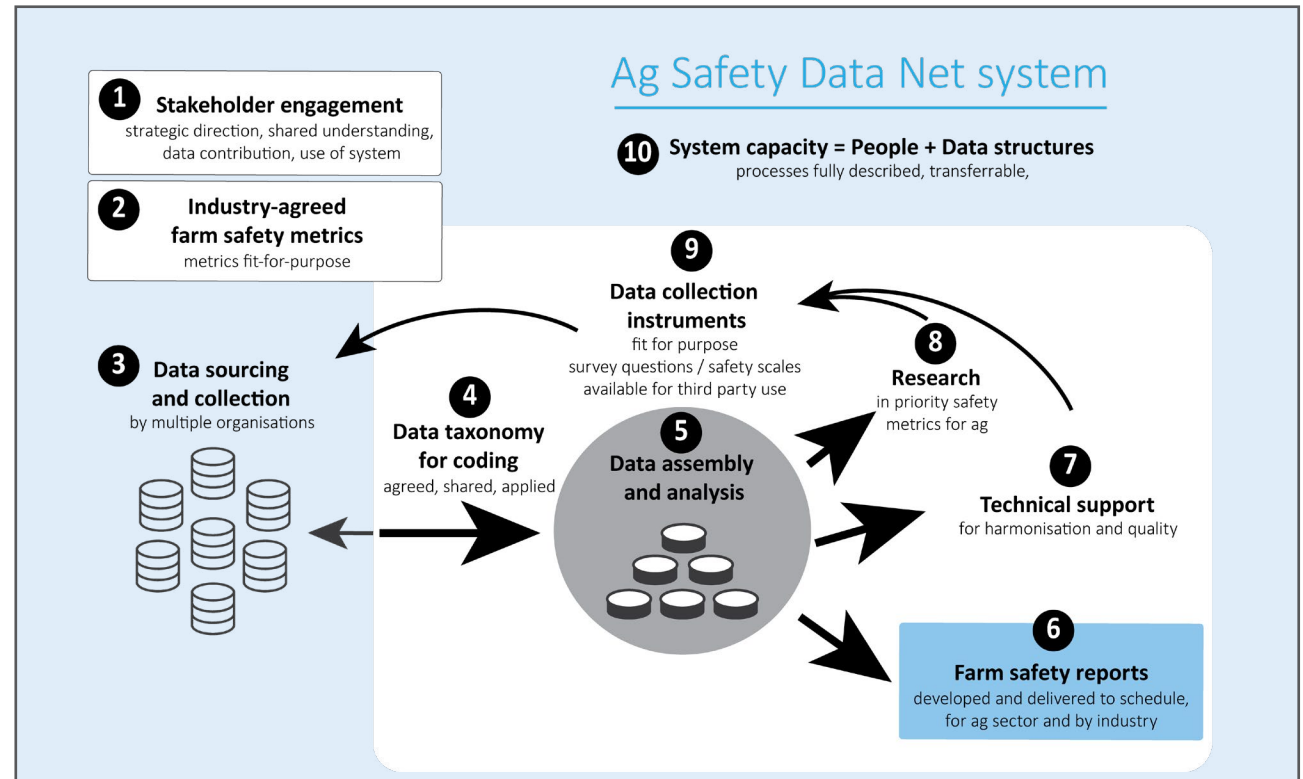Fatality and injury metrics are the priority in the first two years.

Five-year functionality

The Ag Safety Data Net has a 'defensive' data strategy orientation, which places emphasis on data quality, standardisation and compliance with security and privacy.

Figure 9 gives an overview of the core functions to be developed by the successful tenderer.

A more detailed description of the outputs for each component is specified in pages 13-15. Attributes that are believed to be embody success are noted under 'qualities for success'.

Figure 9 Core Ag Safety Data Net functions

Ag Safety Data Net system

1. **Stakeholder engagement** strategic direction, shared understanding, data contribution, use of system
2. **Industry-agreed farm safety metrics** metrics fit-for-purpose
3. **Data sourcing and collection** by multiple organisations
4. **Data taxonomy for coding** agreed, shared, applied
5. **Data assembly and analysis**
6. **Farm safety reports** developed and delivered to schedule, for ag sector and by industry
7. **Technical support** for harmonisation and quality
8. **Research** in priority safety metrics for ag
9. **Data collection instruments** fit for purpose survey questions / safety scales available for third party use
10. **System capacity = People + Data structures** processes fully described, transferrable,

The way the components come together to produce the desired outcomes is shown on page 15 (Figure 10). This system logic gives a sense of the order of activities, their dependencies and inter-connectedness.

It also reinforces that people (green shading) are as important as the structures and processes to the system's ultimate success (blue shading): from the leadership by the IRG, to input of harmonised data from third parties, to research into fit-for-purpose safety metrics.

Specification of system components

❶ Stakeholder engagement

Outcomes:
- Stakeholders collaborate in the Ag Safety Data Net's development and ongoing scope of delivery.
- Stakeholders have confidence in the system's outputs and utility.

Outputs:
- Stakeholder engagement strategy developed and implemented (eg to cater for different interests as per stakeholder map).
- Relevant information shared in good time.

Qualities for success:
- The Ag Safety Data Net becomes the 'go to' place to interact with around farm safety data issues, enquiries and opportunities.
- Stakeholders have positive interactions with the system.

❷ Industry-agreed farm safety metrics

Outcomes:
- Agricultural industries align on farm safety metrics.
- Metrics describe safety for all people on farm.
- Lead indicators are available for use by agricutlural industries.

Outputs:
- IRG brokerage of industry agreement for farm safety metrics is supported as requested.
  - Initial focus is metrics for fatalities and serious injuries.
  - Next priority (post 'proof of concept') is one or more lead indicators suitable for use by multiple ag industries. (Likely to require validation for agriculture.)
- Advice on the goodness of fit of metrics sought from Subject Matter Experts (indication, data sources, calculation, interpretation) .
- Indication, calculation and interpretation of industry-agreed metrics described (eg [245, 246]).
- Fact sheets or short videos describing the (indication, calculation, interpretation) for each metric are available.

Qualities for success:
- Farm safety metrics fit the needs of the Australian agricultural sector (ie for use in sustainability frameworks, as RDC benchmarks, assess trends, identify priorities etc).
- Key farm safety indicators are used by multiple stakeholders.
- Use and interpretation of fatality and injury metrics are understood by ag safety stakeholders.

❸ Data sourcing and collection

Outcomes:
- Obtain regular access to key data.
- Harmonisation of data collected for farm safety.

Outputs:
- Sources of key data for farm safety identified (may extend beyond events, eg workcover premiums).
- Shared understanding of the current data situation:
  - Agreement on data availability and gaps.
  - Strengths, limitations, reference population (for farm) for each dataset.
- Arrangements made with data custodians to obtain data (may be complex for data that is not publicly-available but there are examples of workable arrangements, eg AIHW and VISU.)
- Data sharing arrangements and processes documented.
- Procedures for exchanging data with third parties are described.
- Data governance controls implemented (eg [138]).
- Resourcing and schedule for data input arranged.
- Provenance metadata kept for all data sources.

Qualities for success:
- Fatality and serious injury data streams secured.
- Best practice privacy and security procedures in place, eg [136].
- Data governance is practical, maintainable and proportional.
- Any data linkages comply with relevant legislation and information privacy principles (eg Victoria's Information Privacy Principles, Health Privacy Principles).

❹ Data taxonomy for coding

Outcomes:
- Consistent data taxonomy and coding used for farm safety.
- Data independently collected by multiple agricultural industries and organisations can be aggregated.
- Harmonisation of data collected for farm safety.

Outputs:
- National Farm Injury Data Collection coding is reviewed and updated.
- Coding includes parameters used in reports (eg state, agricultural industry, farm worker, paid employee, workplace event etc).
- Agreed definitions for all parameters used in data sets (eg 'ag industry', 'hobby farm', workplace event on farm etc).

- Agreed, mutually-exclusive industry categories cater for mixed farming enterprises in the agricultural sector.

Qualities for success:
- Coding aligns with appropriate data dictionaries (eg AIHW's METeOR).
- Parameters being coded enable analysis and reporting at jurisdictional and industry level.

❺ Data assembly and analysis

Outcomes:
- Farm safety information is reliable and up-to-date.
- The agricultural sector tracks trends in farm safety.

Outputs:
- Data is prepared for analysis (including extraction, cleaning, coding, augmentation, validation).
- Raw and transformed data is stored appropriately.
- Data analysis of safety metrics and demographics follows agreed calculations and stratifications (state, industry, topic etc).
- Outputs include an assessment of accuracy (eg confidence limits).
- Data processes for each intake (source * type) are documented.

Qualities for success:
- Internal processes for data storage and access are being followed.
- Stakeholders are confident in the validity of the farm safety metrics.
- Data management complies with the system's data privacy and security procedures.

❻ Farm safety reports

Outcomes:
- Agricultural sector can access bespoke farm safety reports.
- There is an evidence-base to support farm safety policy, RD&E programs and industry sustainability frameworks.
- Farm safety issues are better understood.

Outputs:
- Farm safety reports (or dashboards or data outputs) designed for:
  – Australian agricultural sector (eg [129], [219]).
  – Specific industries: initially RSHA Members (eg [10]).
  – Use by states and territories.
- Procedure for preparing each report-type documented.
- Reports produced on schedule/ as directed.
- Reports catalogued and kept on file.

Qualities for success:
- Meaningful reports are created from a mosaic of data.
- Reporting capacity is developed to the satisfaction of the IRG.
- Stakeholders use the reports as the 'single source of truth' for agriculture.

❼ **Technical support**

Outcome:
- Harmonisation of data collected for farm safety.

Outputs:
- Technical support improves quality and consistency of farm safety data collected, analysed and reported for the agricultural sector.
- There is a 'go to' place for enquiries about farm safety data.
- Ag Safety Data Net provides useful responses to stakeholder enquiries.

Qualities for success:
- External organisations align with Ag Safety Data Net standards when collecting and coding data on farm safety.

❽ **Research (data-related)**

Outcomes:
- Better metrics for multiple aspects of farm safety.
- New knowledge and insight into farm safety.

Outputs:
- The Ag Safety Data Net provides support for research activities that develop skills, knowledge and interest in farm safety metrics.
- Ethics approval obtained and maintained for research projects where appropriate.

Qualities for success:
- Research projects and post-graduate studies are associated with the Ag Safety Data Net.

❾ **Data collection instruments**

Outcomes:
- RDCs collect data that are aggregatable.
- Harmonisation of data collected for farm safety.

Outputs:
- Data collection tools (eg survey questions, attitudinal scales etc) available to RDCs for used in farmer surveys (demographic, fatality and injury initially).

- New instruments for data collection, such as survey questions and psychometric scales (eg safety culture and climate, wellbeing), validated as a safety indicator for agriculture where appropriate.

Qualities for success:
- Instruments for farm safety data collection have good utility (for use by people on farm) and are used by RDCs.

❿ **System processes**

Outcome:
- System processes are fully described and transferrable.

Outputs:
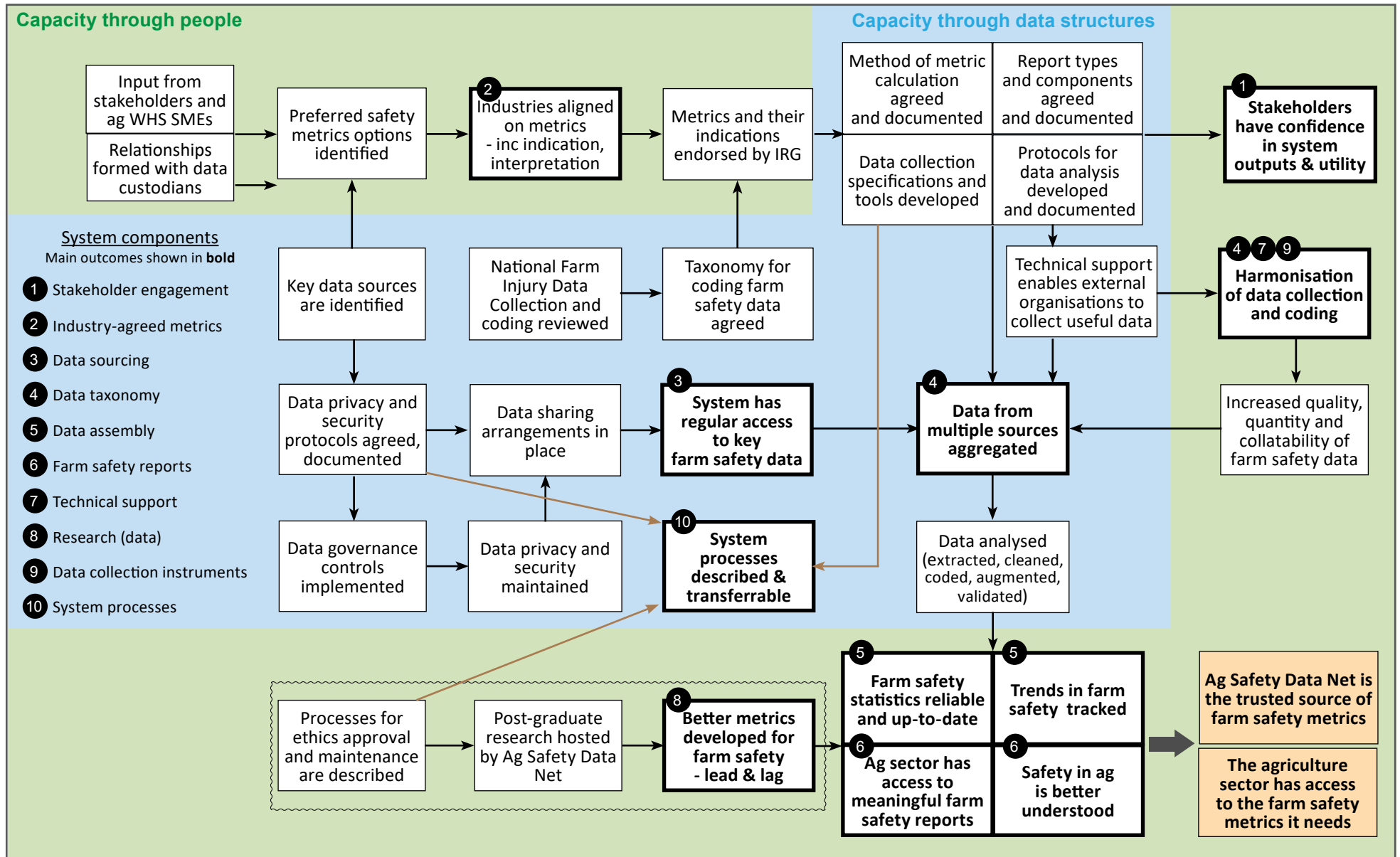- Describe processes and have Standard Operating Procedures relating to fatalities and serious injuries for whole system.

Qualities for success:
- Core capacity is developed to the satisfaction of the IRG.
- A sustainable capacity is achieved through full development of system at all levels – governance, people, skills and tools [137].
- The system can cope with changes in collaborative partners and key people.

Figure 10 System logic: how components combine to deliver outcomes

Capacity through people

Capacity through data structures

Input from stakeholders and ag WHS SMEs

Relationships formed with data custodians

Preferred safety metrics options identified

2 Industries aligned on metrics - inc indication, interpretation

Metrics and their indications endorsed by IRG

Method of metric calculation agreed and documented

Report types and components agreed and documented

1 Stakeholders have confidence in system outputs & utility

Data collection specifications and tools developed

Protocols for data analysis developed and documented

System components
Main outcomes shown in **bold**

1 Stakeholder engagement
2 Industry-agreed metrics
3 Data sourcing
4 Data taxonomy
5 Data assembly
6 Farm safety reports
7 Technical support
8 Research (data)
9 Data collection instruments
10 System processes

Key data sources are identified

National Farm Injury Data Collection and coding reviewed

Taxonomy for coding farm safety data agreed

Technical support enables external organisations to collect useful data

4 7 9 **Harmonisation of data collection and coding**

Data privacy and security protocols agreed, documented

Data sharing arrangements in place

3 **System has regular access to key farm safety data**

4 **Data from multiple sources aggregated**

Increased quality, quantity and collatability of farm safety data

Data governance controls implemented

Data privacy and security maintained

10 **System processes described & transferrable**

Data analysed (extracted, cleaned, coded, augmented, validated)

Processes for ethics approval and maintenance are described

Post-graduate research hosted by Ag Safety Data Net

8 **Better metrics developed for farm safety - lead & lag**

5 **Farm safety statistics reliable and up-to-date**

5 **Trends in farm safety tracked**

6 **Ag sector has access to meaningful farm safety reports**

6 **Safety in ag is better understood**

Ag Safety Data Net is the trusted source of farm safety metrics

The agriculture sector has access to the farm safety metrics it needs

5. References

Please note the numbering is not sequential as references come from a larger RSHA library.

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