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AGRIFUTURES AUSTRALIA'S RESPONSE: ON FARM CONNECTIVITY PROGRAM DISCUSSION PAPER

To Whom It May Concern

On behalf of AgriFutures Australia, I welcome the opportunity to provide a response to the On Farm Connectivity Program discussion paper. Please find following AgriFutures' comments on questions raised in the discussion paper.

AgriFutures is one of 15 Rural Research and Development Corporations (RDCs) and has a unique legislated mandate to respond to cross-sectoral research and development challenges and opportunities for the agriculture, fisheries and forestry sectors. We represent the research needs of 13 thriving rural industries, and drive the growth and development of emerging, high-potential agricultural rural industries, who do not have a dedicated RDC.

This remit includes on-farm connectivity. To date, our engagement in on-farm connectivity issues has predominately been through the following channels:

- Cross-RDC Connectivity Group – an informal group comprising representatives of the RDCs who meet semi-regularly to discuss common connectivity (internet and voice) research needs.
- [Producer Technology Uptake Program](#) – supports producer groups and secondary schools to increase adoption of technology solutions on-farm.
- Funding partner and steering group member of the Accelerating Precision to Decision Agriculture project – a review of on-farm telecommunications challenges and opportunities in supporting a digital agriculture future for Australia.
- AgriFutures on-farm connectivity research project (National Rural Issues Program) understanding the short and medium term on-farm technology opportunities and the connectivity required to drive adoption.
- AgriFutures [evokeAG](#) – connects the agrifood innovation community. Through AgriFutures evokeAG, AgriFutures works closely with startups, including those in the connectivity space.
- AgriFutures [growAG](#) – connects Australian inventors, world leading research, unique technologies, commercialisation opportunities and collaborators to the world.
- Food Agility CRC (partner) – AgriFutures invests in rural supply chain solutions through digital connectivity and technology solutions.

In the following response, I have included practical considerations we believe could help inform the design of the On Farm Connectivity Program.

Yours sincerely



Michael Beer
General Manager, Rural Futures

INVESTIGATION

As digitisation of agricultural, forestry and fisheries industries continue to advance, connectivity adoption often remains the critical limiting factor for many production systems. This is despite a plethora of innovative connectivity solutions available to producers, whether that is at the point of farm infrastructure (house, sheds, yards) or building connectivity systems across entire farm properties. Through our experience with the AgriFutures Producer Technology Uptake Program, we see that for the most part technologies exist, for a cost, to achieve on-farm connectivity.

Therefore, AgriFutures is supportive of any initiative that strengthens the adoption of on-farm connectivity. However, we do see gaps in producer, government and industry understanding of what agricultural technology offerings are in-market, over the short to medium term, and therefore what connectivity solutions exist, or are required, to connect them. Reliable internet and voice connectivity is an enabler of wider agricultural technology adoption, the possibilities are only starting to be realised at the farm-gate.

To help further this understanding, AgriFutures Australia is currently commissioning work, with the support of the other RDCs, to consider:

- The types of connectivity required in-paddock, on-farm and on-boat and how these align with what currently exists?
- The current use cases for technology-led connectivity and what is solvable? For example, if a producer requires cellular connectivity to ensure the safety of workers over geographically dispersed properties, how can this be achieved when there is no coverage.
- The opportunities that exist for on-farm technology over the next 2-5 years and what connectivity solutions are needed to support this. Will available connection speeds, reliability and bandwidth suffice? Is internet connectivity required across all areas of the farm?
- What are the barriers to adoption based on existing connectivity solutions?
- Do connectivity solutions exist now to address the identified barriers and do producers have capacity to solve the challenges themselves?

This research is currently at project scoping stage and is due to be delivered until July 2023.

RESPONSE TO QUESTIONS IN THE DISCUSSION PAPER

WHO IS IN SCOPE?

Primary producers

AgriFutures Australia manages the research and development for 13 levied industries and a range of Australia's small and emerging industries. Research & development investment in these emerging industries is essential to help transform them into high-potential industries.

Technology adoption and access to reliable internet and voice connectivity is equally important for these small, emerging industries as it is for established industries. Early in the start-up phase, individual businesses may not reach the \$40,000 EVAO threshold. Therefore, we believe that future EVAO potential should be considered when defining primary producers, or alternatively option two (geographic region)

should be considered. It is prudent under option 2 that the criteria use the location of the primary production business, not the physical (home) location of the applicant.

Equipment service providers

AgriFutures Australia supports the proposed supply, install and training components of the program. It is important for the whole process to be covered to avoid situations where adoption is hampered by low connectivity literacy regarding installation and initial use, which is common for complex connectivity solutions.

Installation is often challenging. For instance, it is highly recommended that cel-fi systems in vehicles are installed by trained professionals as incorrectly installed units often lead to poor connectivity outcomes. The program should also take into consideration that the supplier of the technology, for instance in this case the cel-fi distributor, is unlikely to be the installer. This is often undertaken by a local auto-electrician.

While telecommunications services and internet service providers are not currently within the scope of the proposed program design, there are currently only two cel-fi importers in Australia, Telstra and Powertec. A large proportion of people in rural, regional and remote Australia are Telstra customers and need connectivity solutions that are interoperable with their existing network, meaning there may be similar use cases that exist for large telcos to supply equipment under the program.

WHAT PRODUCTS ARE IN SCOPE?

AgriFutures does not have specific comments on the types of technology that should be included under the program, except to note that the agtech and connectivity technology space is moving quickly. The list of approved products should therefore be reviewed regularly to ensure that new technologies are added to the list as they become available.

DIGITAL LITERACY IS NOT IN SCOPE FOR THE PROGRAM

Digital and connectivity literacy are key to ensuring that adoption of connectivity solutions is fit for purpose and aligns with the connectivity needs and plans of the farm. Through our Producer Technology Uptake Program, we generally see very low levels of both digital and connectivity literacy and consider it to be a major barrier to agtech adoption.

Further, on-farm connectivity and digital agricultural solutions are continually evolving. As new technology solutions are offered, the digital needs of the business change. Farmers need trusted technology advisors to provide unbiased recommendations and insights into the variety of agtech and connectivity solutions. While AgriFutures does not have strong views on whether funding digital literacy activities should be included under the program, the need for technology support is intrinsic to the success of on-farm agtech and connectivity adoption.

PROPOSED FUNDING PROCESS

Minimum rebate amount: \$1000

AgriFutures believes that the minimum rebate amount should be lowered to \$500. There are many connectivity solutions that can be instrumental in a business that cost below the \$1000 threshold.

Rebate payment arrangement

The process whereby a producer applies for the rebate and then the eligible equipment service provider

claims the rebate through the funding body requires two separate processes for the one purchase. It may be simpler for either the service provider to complete the application process, or the producer to complete the whole process. Having both involved may potentially overcomplicate the application and rebate process.

In some cases, reliable on-farm connectivity requires more than one connectivity option or solution to be adopted. Use cases include:-

- producers with multiple properties, sheds or infrastructure requiring a connection.
- multiple technology platforms or machinery.
- reliability issues requiring backup systems.

As a consequence, the program should not restrict the criteria to only one benefit but rely on the maximum funding cap. The criteria could restrict eligibility to one application per producer. In this instance, if the application process is completed by the producer, then it is possible for more than one technology, up to the maximum cap, to be adopted. This would undoubtedly result in a better on-farm connectivity option for the producer.