

He kai kei aku ringa

**User research
findings and
insights**

for

**New Zealand
Agricultural
Greenhouse Gas
Research Centre
(NZAGRC)**

20 March 2024



Contents

He kai kei aku ringa.....	3
Ngā mihi.....	3
Executive summary.....	4
About the project.....	6
About this document.....	6
Research activities and phases.....	6
User research overview.....	7
What is user research.....	7
Our approach to user research.....	7
User research – Phase 1.....	8
Research overview.....	8
Findings and insights.....	9
User research – Phase 2.....	13
Research overview.....	13
Findings and insights.....	15
User goals.....	21
Appendix 1 – Detailed Phase 1 findings and insights.....	22
Appendix 2 – Research participant profiles.....	30
Appendix 3 – Stakeholder engagement.....	32

He kai kei aku ringa

He kai kei aku ringa is a well-known whakatauki that signifies resilience, empowerment, and hope. It refers to our ability to use our skills and resources to create successful and sustainable outcomes for the future.

We know and trust that Māori hold a piece of the puzzle for creating innovative solutions to reduce agricultural greenhouse gas emissions. We have a responsibility to our tamariki, our mokopuna, and generations to come to continue to seek solutions that contribute to managing and mitigating the impacts of climate change. We also know that for these solutions to be enduring we need to embark on a journey of developing our understanding with whānau Māori.

There is a lot of research about how to reduce agricultural greenhouse gas emissions from animals and our whenua, but this project is about people. Specifically, it is for people who make and influence decisions about whenua Māori (or will in the future): land owners, trustees, farmers, and whānau.

Ngā mihi

We would like to recognise and sincerely thank everyone who participated in this research. It was a privilege to spend time with you and hear your perspectives and you have helped us to navigate some complex and challenging spaces. Your energy and passion and your willingness to share your rich knowledge, experience, and insights have helped to directly shape the direction of our digital tool.

He mihi maioha ki a koutou mo ōu tautoko me nga māramatanga hoki. Tēnā rawe atu koutou!

Executive summary

About the project - He kai kei aku ringa

In August 2023, the New Zealand Agricultural Greenhouse Gas Research Centre (NZAGRC) engaged VHC to develop a digital tool that could help to educate, engage, and activate Māori land owners, Māori farmers, and their whānau to empower them to make decisions toward reducing agricultural greenhouse gas emissions. VHC is working in partnership with Toihau, the Māori Advisory Board to NZAGRC.

He kai kei aku ringa is a well-known whakatauki that signifies resilience, empowerment, and hope. It refers to our ability to use our skills and resources to create successful and sustainable outcomes for the future.

User research overview

VHC carried out user research in late 2023 and early 2024 to understand Māori land owners' beliefs, drivers, aspirations, and challenges, and to validate, challenge, and refine the problem statement and scope set out above.

Activities / phases	Dates	Description
User research – Phase 1	Sep 2023 – Dec 2023	Broad focus interviews, workshops, and consultations with Māori land owners, farmers, interested parties, and key stakeholders to understand beliefs, drivers, aspirations, and challenges relating to agricultural greenhouse gas emissions and whenua.
User research – Phase 2	Jan 2024 – Feb 2024	Narrow focus interviews, workshops, consultations, and feedback sessions with Māori land owners, farmers, interested parties, and key stakeholders to explore more targeted questions relating to agricultural greenhouse gas emissions and whenua.

The research was carried out in line with our research ethics guidelines. We would like to recognise and sincerely thank everyone who participated in this research. Their willingness to share their rich knowledge, experience, and insights have helped to directly shape the direction of our digital tool.

This document describes the research, summarises our key findings and insights, and identifies our target and primary audiences and their user goals.

Summary of insights

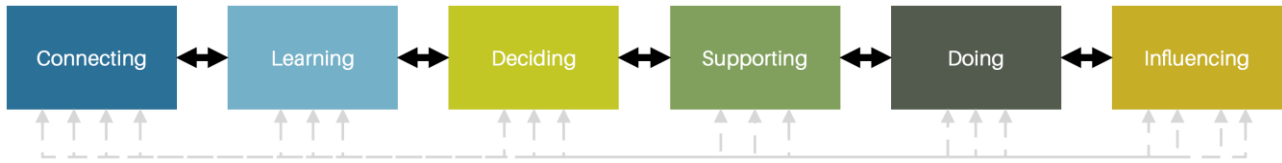
We identified the following high-level insights:

- Connection and caring – the central driver of caring about and acting to reduce agricultural greenhouse gas emissions is connection to whānau, hapū, whenua, and te taiao
- Systemic challenges – participants described the complexity and overwhelming nature of existing Western systems to navigate decision-making about whenua, farming, and GHG emissions
- Autonomy in decision-making – a recurring theme is the desire for autonomy in decision-making – Māori want to make informed decisions in their own time and way, accountable to their whānau, and not driven toward a particular Crown-determined outcome
- Data and information misalignment – a critical insight was the misalignment between formal data and information sources, how Māori interpret and understand these sources, and what Māori want and need from them
- Decisions should prioritise whānau – there was a strong feeling that core values and principles used in decision-making for whenua should prioritise whānau by enabling and protecting connection to the whenua and maintaining and respect the physical land.

These summaries do not do justice to the rich findings and insights captured in more detail in the document.

Common user journey identified

Although our research participants came from a wide range of contexts and profiles, their journey, actions, and goals were remarkably similar in structure. We have identified the core set of actions that people take at various points in their journey:



User goals identified

We identified five main user goals that a digital solution will need to meet to be successful and sustainable:

1. Overcoming barriers to connect with their whenua and whānau.
2. Deepening their connection to the land and community.
3. Exploring and implementing strategies to reduce emissions from their land.
4. Planning and taking action towards emission reduction.
5. Understanding the broader impacts of their decisions on the environment and future generations.

How we will use these findings and insights

We will use the insights and user goals identified from this research to develop a website strategy including user personas, user needs, and an information architecture.

About the project

He kai kei aku ringa addresses the urgent need for Aotearoa to adopt sustainable agricultural practices in the face of the increased impact of climate change.

Approximately 5% of Aotearoa is Māori freehold land under collective Māori ownership. Māori land owners face a unique set of structural challenges that make it more difficult to access and use agricultural greenhouse gas emissions information and to make decisions about whenua that could reduce emissions.

In August 2023, the New Zealand Agricultural Greenhouse Gas Research Centre (NZAGRC) engaged VHC to develop a digital tool that could help to educate, engage, and activate Māori land owners, Māori farmers, and their whānau to empower them to make decisions toward reducing agricultural greenhouse gas emissions. VHC is working in partnership with Toihau, the Māori Advisory Board to NZAGRC.

About this document

VHC carried out extensive user research in late 2023 and early 2024 to understand Māori land owners' beliefs, drivers, aspirations, and challenges, and to validate, challenge, and refine the problem statement and scope set out above. This document describes the research, summarises our key findings and insights, and identifies our target and primary audiences and their user goals.

Research activities and phases

We carried out the following research activities as part of this project:

Activities / phases	Dates	Description
Data and information research	Sep 2023 – Feb 2024	Desktop research to identify, catalogue, and analyse data and information sources that might be relevant or useful for Māori land owners seeking to understand agricultural greenhouse gas emissions from whenua. Note: Findings from this work will be provided in a separate report.
User research – Phase 1	Sep 2023 – Dec 2023	Broad focus interviews, workshops, and consultations with Māori land owners, farmers, interested parties, and key stakeholders to understand beliefs, drivers, aspirations, and challenges relating to agricultural greenhouse gas emissions and whenua.
User research – Phase 2	Jan 2024 – Feb 2024	Narrow focus interviews, workshops, consultations, and feedback sessions with Māori land owners, farmers, interested parties, and key stakeholders to explore more targeted questions relating to agricultural greenhouse gas emissions and whenua.

User research overview






What is user research

User research is a methodology that focuses on collecting rich in-depth information and data from the people who will use your solution. Its purpose is to help the design team learn, understand, and document the drivers, challenges, and needs of the people they are designing for. It ensures that designers can ensure their solution is addressing the underlying problems and opportunities, and it helps them to identify where and how to make the most impact for users.

In a typical user research process researchers and designers will use observation, interviews, workshops, and various forms of analysis to develop insights that validate or challenge their assumptions and open up new possibilities. The findings and insights from user research will also inform the strategy, user needs, and technical requirements for the digital solution.

Our approach to user research

VHC prioritises and practices ethical research. We care about the work that we do and the people that we work for and with. Part of this care is making sure that when we are engaging with people, we do so in a way that is ethical, safe and responsible and protects people's rights and welfare in line with our ethical research principles:

Respect and Independence				
<p>Staying independent and honestly and respectfully representing the people that we talk to is crucial. We make sure that we are:</p> <ul style="list-style-type: none">Balanced in our approach, managing the expectations of our clients and prioritizing the safety and welfare of our participants.Impartial in presenting the results of our research, reflecting honest, integrity and kindness.Acknowledging and recognise any bias and managing this throughout any research to preserve the independence and validity.				
Voluntary participation	Informed consent	Anonymity, confidentiality & privacy	Avoiding harm	Open communication
 <p>Being involved in research is a choice. We make sure that people we are working with can:</p> <ul style="list-style-type: none">choose whether to participate or notwithdraw without prejudice at any time.	 <p>People need to know what they are agreeing to. We make sure that people we are working with know:</p> <ul style="list-style-type: none">any information that supports the researchtheir role in the researchany risks or benefits to participatingwhat researchers and participants are responsible and accountable for.	 <p>Personal information is important and needs to be treated so. We make sure that:</p> <ul style="list-style-type: none">any personal or personally identifying information we collect is safe and securethe research does not identify any individual who has participated.	 <p>Harm can come in many different forms and causing harm isn't always intentional. We make sure we:</p> <ul style="list-style-type: none">we work to prevent, avoid, harm to our participants and their communitiesminimize any impacts of harm that can't be avoided or is unintentionally created	 <p>Knowing what's happening and why reduces so many challenges. We make sure that:</p> <ul style="list-style-type: none">We keep people updated and informedcommunicate our analysis and research with integrity, credibility and transparency.

User research - Phase 1

Research overview

Objectives

The purpose of our user research was to understand:

- The significance of whenua Māori to different people
- The attitudes and beliefs different people hold about greenhouse gas emission reduction
- How different people engage with information about greenhouse gases, what drives them, and barriers to engaging (for example, access to tools and data, complex scientific language, etc.)
- The similarities and differences between the journeys of Māori in their roles as land owners and Māori in their roles as farmers
- The different groups and relationships that exist in the whenua Māori, agriculture, and greenhouse gas emissions reduction space
- The drivers and barriers for Māori land owner decision-makers
- How our solution can best achieve the right balance between holistic ao Māori approaches to land use and Western approaches.

We also sought to test the hypothesis that if we make data and information accessible and understandable, then people will be more likely to care about the issue and therefore more likely to act to reduce their agricultural greenhouse gas emissions.

Participation

We conducted interviews, group workshops, and consultations in Wellington, Hauraki, Maniapoto, Tairāwhiti, Whanganui, and online.

Method of research	Sessions	Participants
1:1 interviews	9	8
Group workshops / consultations	14	48

Our research targeted the following users and audiences:

Category	Description	Audiences
Target audience	The target audience is the prioritised segment of the primary audience. Our research goal is to ensure that their needs are prioritised by the design.	Māori land owners, Whānau or uri of Māori land owners, Tangata whenua, Mana whenua
Primary audience	The primary audience is the broader group of people who will use the solution. Our research goal is to ensure that their needs are met by the design.	Decision-makers related to whenua Māori, Māori farmers, Kaitiaki of whenua Māori and/or climate change advocates, Organisations that actively influence decision-makers

Many of these participants also belonged to our secondary audiences of Crown or influencing agencies, specialists and consultants, and members of the general public who have an interest in climate change issues or the agricultural sector. These profiles are described in more detail in **Appendix 1**.

Findings and insights

This section summarises our key findings and insights from Phase 1.

What are findings and insights?

In user research, **findings** are the basic data and observations that are collected during the research process. These can include user aspirations, preferences, behaviours, and pain points. They tell us what users are doing, but they don't tell us why.

Findings are different from **insights**, which are the result of analysis and interpretation of the findings to reveal hidden patterns, motivations, and underlying reasons for behaviour. Insights can help us better understand our users and ensure that the solution we design meets their needs.

For detailed findings and insights see **Appendix 2**.

Key findings

We identified the following key **findings** from the first phase of our user research:

Finding	Discussion
People don't really care about agricultural greenhouse gas emissions	People are disconnected from the effects of agricultural greenhouse gas emissions. They find it hard to see a connection to the things they do care about, like their whānau, their awa, their whenua, and their taiao.
Even if people cared they would find it hard to act because it is complex and overwhelming	The systems that people need to navigate to understand agricultural greenhouse gas emissions are confusing, complicated, unresponsive, and Western. It is hard to access information and navigate the systems, let alone take action to reduce emissions.
People have different ideas about what data and information is – for many people the whenua itself is data	There is a misalignment between how people think about data and information and how data providers like the Crown, scientists, and consultancies think about it. People interpret the whenua and what's happening on it (like the eel running) through a lens of their own mātauranga and that tells them what they need to know to make decisions.
Access to the right data and information is often based on relationships	People who already have established relationships with Crown agencies and partners are more able to access the right scientific and economic data and information to navigate Western investment systems.
The people who already do care about agricultural greenhouse gas emissions have a deep connection to the whenua	People describe their contribution to the whenua as a kaitiaki in many different ways. People who already care about this issue have a deep connection and relationship with their whenua, the taiao, their whānau and hapū. They have undertaken a unique journey of connecting to their whenua and whakapapa and they have identified this issue as important to their whenua and in their context.

Key insights

We have grouped our key insights into three areas: **taiao**, **hōnonga**, and **mātauranga**:

Taiao | Ko au ko te taiao, ko te taiao ko au

Insight	Discussion	Quotes from participants
Whānau needs are the immediate focus	<p>People have immediate issues that they are grappling with daily and don't have bandwidth to address other issues. There is blame, shame, and guilt associated with this, but also a disconnect between what is pressing and what they are told to care about.</p> <p>There is a disconnect between what is actually a pressing issue for people and what they are told to care about.</p>	<p><i>"They are talking about a 'new' and an invisible problem."</i></p> <p><i>"We don't care about greenhouse gas emissions! We care about our whenua, our awa, our moana, our whānau, therefore we care about greenhouse gas emissions."</i></p> <p><i>"People are surviving at the moment."</i></p> <p><i>"People feel they already have enough on their plates, with feeding a family or paying bills."</i></p>
Land use change choice – change without choice is a demand	<p>People want choice. This might include change or might not. They want to make their own decisions (even mistakes) in their own and time and in their own way, accountable to themselves and their whānau.</p> <p>They need the options without the threat, because prescribing a solution without understanding people's context is disrespecting the mana they hold with their connection to their whenua and uri. People are so used to this happening, through various agencies or organisations, that they expect it.</p>	<p><i>"People are sick and tired of being told to care about issues, you are not listening to what matters to us."</i></p> <p><i>"People are hōhā with regulations and Crown's carrot and stick approach to change, particularly around whenua use."</i></p> <p><i>"There are so many different opinions, advice, and information, who can we trust? It hasn't been the Crown previously."</i></p>

Hōnonga | E huri tō aroaro ki te rā, tukuna tō ataarangi ki muri I a koe

Insight	Discussion	Quotes from participants
MY journey of hōnonga is linked to OUR journey to oranga	<p>People see their journey of connection to whenua as an individual journey because the reconnection to whenua and whānau is an individual and personal process. There is no one way this can be done. People have trauma to deal with, barriers to overcome and priorities to shift that are interconnected to their disconnection away from whenua and hapū.</p> <p>There is a disconnect within systems and procedures and the recognition and importance of the connection of the individual and their hapū. Nāku te rourou, nāu te rourou, ka ora ai te iwi.</p>	<p><i>"People are used to playing the long game. We've been doing it for hundreds of years..."</i></p> <p><i>"People [decision makers and Crown] need to recognise the other contributing factors leading to connection and disconnection between whenua."</i></p> <p><i>"There are elements of connection that is an individual journey, but there are opportunities to guide and support."</i></p>

<p>People can't act without removing the shackles of the many whenua systems and rules</p>	<p>Navigating legislation and regulation and norms constrains Māori action at every part of the process. Accessing data, making decisions, reporting, even simply connecting to your own whenua is held back by systems and rules.</p> <p>There is a perceived lack of acknowledgement by Crown on how their actions impacts whenua Māori and whānau because they continue to happen; and it is anticipated that they will continue to happen. This is confirmed through examples of Māori having to fix problems that were imposed on them by the Crown.</p>	<p><i>"People want 'Pakihiwi ki te pakihiwi."</i></p> <p><i>"People don't need any more regulations or 'paperwork' or costs. They hinder our advancement of whānau."</i></p> <p><i>"People have solutions that work for everyone, but the approach or output may be different to what you [Crown] are used to."</i></p> <p><i>"There are system shifts that need to happen."</i></p> <p><i>"Navigating the systems relies on having the right information at the right time or asking the right questions. Is it realistic to expect the system to change?"</i></p>
--	---	---

Mātauranga | Tūngia te ururoa, kia tupu whakaritorito te tupu o te harakeke

Insight	Discussion	Quotes from participants
<p>Access to information doesn't make an issue matter</p>	<p>People need to care about something before they can turn information into action. They also need to deeply care about something before they will deviate from their familiar or normal way of living or working.</p> <p>People are overwhelmed by daily tasks and have limited bandwidth to engage with new issues. Providing access to information doesn't guarantee engagement or action. People need to care about the topic first before taking action.</p>	<p><i>"People don't know about anything that they don't care about."</i></p> <p><i>"People have a ton of things they need to know about."</i></p> <p><i>"People engage deeply with things that they care about, or they feel that matters."</i></p> <p><i>"People want access to information, at the right time and for the right purpose."</i></p> <p><i>"Trust and respect helps people to access information, they need to care about the information to engage with it."</i></p>
<p>Māori do not have power and control over their whenua or their farms</p>	<p>People feel so far from having power and control over their whenua or their farms. They are price takers, they are left out of Crown-led processes, they are forced to meet or operate in certain ways by legislation, or their trusts have different aspirations.</p> <p>People feel this way in many other systems that they encounter in their daily life. They want autonomy over themselves and their hapū, and support to self-determine where they are going and how they will get there.</p>	<p><i>"People want to control the trajectory of their future, whether that be in their home life or their work life."</i></p> <p><i>"The various levers of regulations and legislation are viewed as 'sticks' that central and local governments use."</i></p> <p><i>"Past and present trauma in navigating systems is a barrier."</i></p> <p><i>"Trust in relationships and consideration of people's context are drivers."</i></p>



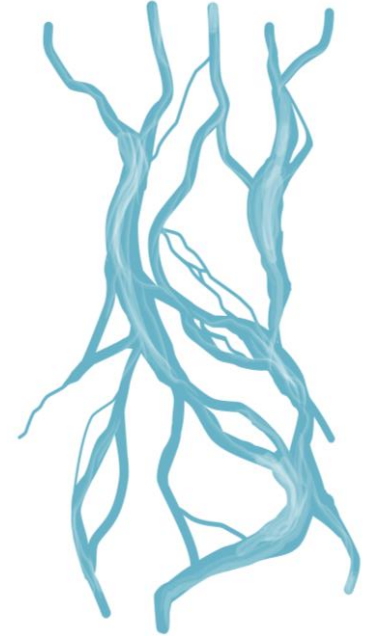
Discussion

For this phase we wanted to understand Māori land owners' context, aspirations, drivers, experiences, and challenges when engaging with information about agricultural greenhouse gas emissions and reduction. We also set out to test the hypothesis that if we make data and information accessible and understandable then people will be more likely to care about the issue and therefore more likely to act to reduce their agricultural greenhouse gas emissions.

We found that **access to understandable information and data is not sufficient on its own** to make people care and act to reduce their agricultural greenhouse gas emissions. What matters more is that people feel connected to their whānau, hapū, whenua, and taiao, and that they feel connected and able to navigate the systems required to take action.

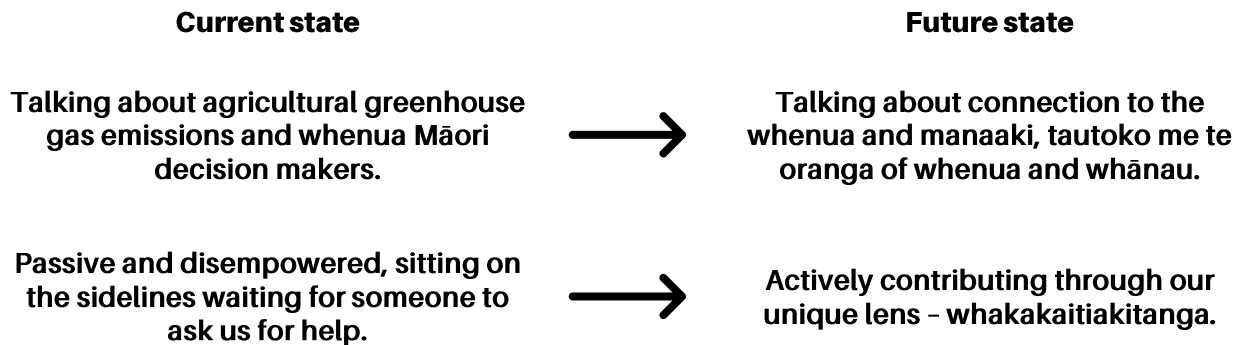
We learned that the people who care most about agricultural greenhouse gas emissions are people who have already undertaken a journey of connecting to their whenua and whakapapa and have a deep connection to and relationship with their whānau, hapū, whenua, and taiao. The people who are less connected tend to care less.

We also heard that the **journey of connection is unique to each person**, and that it isn't always continuous or linear. While everyone wants to be connected as an ultimate goal, they drop in and out of the journey at different times of their lives for different reasons. Like the braided Waitaki awa, there is a network of channels weaving to and from the main channel but ultimately flowing to the same destination.



Phase 2 research pathway

To address these findings, we proposed to shift our user research focus away from data and information to **reframing and rebalancing** the confusing, disengaging, and disempowering narratives surrounding agricultural greenhouse gas emissions, farming, and whenua Māori. Among other things, our new research focus would involve testing the viability of this shift:



The primary audience for this research pathway would be Māori land owners, whānau and uri, tangata whenua, and kaitiaki or climate change advocates.

User research - Phase 2

Research overview

Context

Our research in Phase 1 was relatively broad. The findings and insights we derived from Phase 1 led us to narrow our focus to reframing and rebalancing the confusing, disengaging, and disempowering narratives associated with agricultural greenhouse gas emissions, farming, and whenua Māori. The narrower focus enabled us to explore our users' drivers, experiences, barriers, and needs in much more detail, and also enabled us to focus on specific questions and opportunities:

Challenge

Māori have been low agricultural greenhouse gas contributors to the global climate change crisis but will be disproportionately affected by the impacts.

Phase one research outcome

For the benefit of Māori, how can **data, information and technology** be used to **minimise the impacts and reimagine the trajectory** of agricultural greenhouse gas emissions?

Whānau
Māori

Whenua
Māori

Phase two research direction

Reframe and rebalance the narrative
Shifting away from the confusing, disengaging, and disempowering narratives associated with agricultural greenhouse gas emissions, farming, and whenua Māori.

Opportunity

How can we create **pathways that bridge and connect** people back to their whenua, whānau, and te taiao?

How can we **define, recognise, and elevate** the attributes and skills to realise kaitiakitanga within people

Objectives

The purpose of our user research was to understand:

- How our audiences are activated and participating in this space (from passive to active), including:
 - What the passive and active states look like
 - The opportunities available for our audience to recognise and/or realise their kaitiakitanga
 - The motivators and enablers, along with the barriers and disablers of passive and active audiences
 - What data and information has (or doesn't have) in support movement from passive to active states – what it looks like, how it's accessed, and how it's used
- The harmonies and tensions our audiences experience with digital resources and organisations that provide information and data, including:
 - Testing our assumptions about data and digital information and how it can help people to understand and make decisions about reducing agricultural greenhouse gas emissions
 - How the information is accessed, what language it uses, and how it is presented
 - Whether information and data is being pushed onto people, or whether people are able to consume it on their own terms, and
 - Whether or not they can see themselves in the data
- The forms that kaitiakitanga takes within our audiences
 - How these forms are recognised internally and externally
 - What people's perspectives are about kaitiakitanga.

Participation

We conducted interviews, group workshops, and consultations in Wellington and online. Our narrower focus meant our research in Phase 2 had less reach, but because we had the Phase 1 findings and insights as a foundation, we were able to have more targeted and focused discussions:

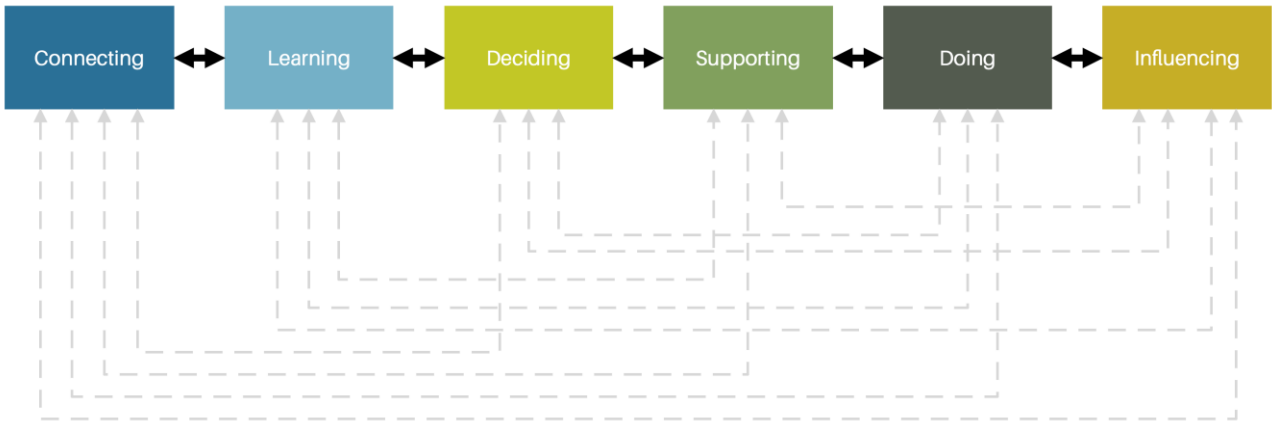
Method of research	Sessions	Participants
1:1 interviews	4	4
Group workshops / consultations	5	11

We also reconnected with participants and stakeholders from Phase 1 to share our findings and capture any feedback.

Findings and insights

Key finding: There is a common user journey across many different profiles

Although our research participants came from a wide range of contexts and profiles, their journey, actions, and goals were remarkably similar in structure. We have identified the core set of actions that people take at various points in their journey:



It is important to note that while these are set out as linear and equal, in reality the emphasis is different for different people at different times in their lives, and there are any number of paths between the actions. Despite this, we believe these core actions could be a useful way to understand and target different parts of people's journeys.

We have described these in more detail below:

Actions	Description
Connecting	Connecting involves a deep sense of community, shared identity, and respect. It's about connecting to the land and ancestors and celebrates the importance of relationships, both among people and between people and the natural world. Connecting looks different for every person and can often be a but rewarding journey as people address a range of barriers along the way.
Learning	Learning is a process that involves acquiring new knowledge, skills. this can happen through various experiences, interactions, and resources. Learning is a continuous and evolving process that involves active engagement, reflection, practice, and openness to new experiences and perspectives. It is about expanding understanding, deepening knowledge, and embracing the desire to discover and growth.
Deciding	Deciding involves the process of making a choice or reaching a conclusion after considering various options, factors, and outcomes. This can happen in a micro way every day or a macro way. It balances both rational thought processes and emotional considerations, often involving weighing pros and cons, assessing risks over both the long and short term and balancing the known with the unknown. The process of deciding is significantly impacted by the context in which the decision is being made for.
Supporting	Supporting can come in many different forms, depending on the needs of the person or situation. Supporting someone often means recognising what they need most at any given time, e.g. when someone is deciding or influencing, the type of support looks different. Whether it's a listening ear, practical help, or just their presence, there are various ways that people who are supporting make a difference.

Doing	Doing involves taking action, moving from planning or intending to do something to actually executing it. It doesn't always have to be a big or ground breaking action, doing can also involve many different small steps. Either way it's about following through with actions that lead to a change or delivery. Doing can look different, depending on the context, objectives and the different roles that people have.
Influencing	Influencing involves the ability to affect the thoughts, behaviours, and decisions of others through various means, such as persuasion, communication, leadership, and relationship-building. It is about inspiring change, shaping opinions, and gaining buy-in from individuals or groups towards a desired outcome. Influencing involves building trust, inspiring action, and fostering collaboration towards shared goals. Effective influencers are able to adapt their approaches to different situations and audiences, using their influence for positive impact and meaningful change.



Key insights

Insight	Discussion	Quotes from participants
<p>We need to recognise the importance of the journey, not the destination</p>	<p>We heard a sense of humility from our participants when talking about themselves feeling, being, or becoming kaitiaki. They were able to describe what being a kaitiaki looked like, and how they see/would see it within other people, but there was hesitancy to recognise being one themselves. Participants could appreciate and describe their kaitiakitanga journey and where they were in it, but there was element of never ultimately being able to achieve that ‘status’. Those who had more confidence to do so preferred to keep that recognition to themselves, to respect those who had higher expectations of what it means to be kaitiaki.</p> <p>Māori need to feel empowered to feel that any sense of being kaitiaki that they recognise within themselves, is worthy and of value to their whenua. Definitions and examples of kaitiakitanga vary and often emphasis can be put on celebrating those making big decisions and contributions to their whenua. This results in a certain status being required to ‘become’ kaitiaki, instead of recognising all the small pieces of the puzzle.</p>	<p><i>“[To whanau] I probably wouldn’t say ‘hey I’m kaitiaki’. I would say I’m here now, I’m on one knee, I’m on my journey to become kaitiaki.”</i></p> <p><i>“It’s not a finite verb, there’s always learning and development to be done, you’ll never be a perfect kaitiaki because there’s always more to learn.”</i></p> <p><i>“I don’t call myself a kaitiaki. I don’t want to be taking too much glory or honour from those who I see as kaitiaki.”</i></p> <p><i>“I don’t know what your definition of a kaitiaki is compared to mine.”</i></p>
<p>Digital can never replace physical experiences that nurture connection</p>	<p>Kaitiakitanga is a philosophy and, while each person described demonstrating it in a variety of different ways, all the examples given were mutually inclusive of deepening their connection to the whenua, from mowing the lawns and cleaning the urupā, to connecting with your whānau and sharing knowledge. Some examples described digital tools as an aid in enabling further connection, such as using Zoom for board meetings.</p> <p>The complexities behind everyone’s personal journey toward kaitiakitanga and connection are unique and go beyond what the digital space can offer. Whānau Māori have always connected to their whenua in a physical and spiritual sense, and digital solutions cannot replicate or act as a replacement in strengthening connections or helping someone recognise themselves as kaitiaki. It can, however, enhance those physical and spiritual connections by acting as a bridge, for example sharing contact details, online meetings, and access to information for whānau to then decide how they use it.</p>	<p><i>“Recognising kaitiaki, for myself and my role in my whanau, I feel like I am kaitiaki for connecting with my whanau, for connecting with them and my whenua and whakapapa.”</i></p>



<p>Dictating a 'focus' limits possibilities and stifles uniqueness</p>	<p>Whānau use various values and principles when making decisions about the whenua. The weight placed on these values and principles will vary depending on their context and the priorities they have for their whenua and their whānau. Typically, profitability or economic success held a lower weighting unless it helped strengthen or elevate a core value, for example, making money to give rangatahi financial assistance at university. When whānau are not being confined to prioritise profitability, growth, or other western expectations, we saw them gain confidence and freedom, and used their creativity to grow and enhance the activities on their whenua.</p> <p>Māori have been caring and nurturing their whenua for centuries, and that rich knowledge has been passed through generations allowing them to have a deep understanding of the land. To suggest a 'focus or priorities or parameters' outside of their own unique context reduces the importance they have placed on those values. Through suggestions or guidance without listening first is a form of direction. And dictating a focus or priority limits Māori and their opportunities and stifles the uniqueness of their relationship with their whenua and te taiao.</p> <p>Our digital tool needs to recognise and respect all the values and principles that Māori consider when making decisions about their whenua to empower the autonomy. It must first listen, then respond.</p>	<p><i>"We don't always have money to give, we give whānau the opportunity to come and engage with the whenua, to touch the land, stay on the campground."</i></p> <p><i>"We don't over farm the land. Our land is under the carrying quantity, and we keep it how it's been. If we had more grass than a year before, well, then we have extra that year. We don't then aim to have that same amount the next year or to beat it."</i></p> <p><i>"We had some land come back to us recently, we couldn't afford it but we decided to sell all of our carbon credits so we could. We have a higher policy for the whenua that means if the land is available to come back to us, we do our best to get it back."</i></p> <p><i>"I've witnessed expert consultants come to us with expert knowledge and facts but if it doesn't align with our values it's scraped to the side."</i></p>
<p>The colonised system alienates Māori from their whenua</p>	<p>There are roles (and perceived capabilities attached to these roles) that carry a weighting and value acknowledged by systems and processes that whānau need to interact with - for example, responsible trustees or chairperson and a land owner today or in the future. Those systems have been adopted through force and bled across our culture and our whenua, and fails to recognise everyone's value or contribution. That lack of recognition leads to disconnection and alienation.</p> <p>The system implies there's only one pathway to be taken, and when you're on this pathway you do certain things as you move along the pathway. However, there are multiple pathways into connecting and participating with your whenua. The value is not as simple as 'being on a trust' or 'being a landowner'. Connection and participation has various forms and is not measured in a certain way.</p> <p>Celebrating all forms of value and contribution that whānau bring and create for their whenua needs to be a priority. Nurturing all forms of connection already established is important in strengthening the whenua and fostering deeper and stronger connections. We need to stop isolating those whose connection or value is deemed as not strong enough by our systems and awhi them to a space of mana.</p>	<p><i>"There are challenges imposed by the Crown to even just live on the land - supposedly I need to have for a 'functioning' trust - so many barriers."</i></p> <p><i>"I've always been vocal on the trusts, but some trusts only let owners speak so my mum gave me 0.25 of a share so I had speaking rights."</i></p> <p><i>"If you're Māori, you come from somewhere. It doesn't matter how weak or strong the connection is. You don't even have to know about the whenua to be connected, it's in your blood. One day you then might know about it and your connection will be strengthened."</i></p> <p><i>"When making decisions about the whenua, there's an aspect of morality, and then engaging with your family and owners and what their morality is saying."</i></p>

Māori believe they don't inherit the earth from their ancestors, but borrow it from their mokopuna, and this speaks to the weight that today's decisions carry. There is an element of blame culture in the current narratives associated with whenua/enterprise and fundamentally climate change impacts. There is also a lack of acknowledgement of the tools and resources available to our land owners and decision makers or the context they sat in while making decisions years ago. We know more today than we did yesterday, last year, last decade and we have different priorities and focus' than we did 10 - 100 years ago.

Mātauranga Māori is shared through knowledge being passed down through generations, and reframing the narrative to observe empathy rather than blame helps to strengthen intergenerational relationships and preserve the knowledge that's important in caring for the whenua.

"I'm not in it for the money [being on boards], I'm in it for the future generations."

"I think a lot of my decision making will benefit those when I'm no longer here."

"There's a lot of guesswork that has to be done on the land because of data that's available."

"A decision can be a correct decision even if it doesn't pan out well, if it was made with the right intentions".

"What I've learnt and has been my best tool for learning in the last decade has been korero through my mentoring work with the younger generation."



Discussion

Our research has given us some insights into how Western colonial systems have impacted the way Māori describe kaitiakitanga and altered the way they measure the value of what they bring to their whenua.

We heard from Māori land owners and Māori farmers that Western systems tend to prefer to measure value in terms of monetary benefits, productivity, and effort. In particular, these systems value “efficiency” over other measures. This places emphasis on big decisions and contributions that can be easily measured rather than recognising all forms of value. This lack of recognition of other types of contribution or value leads to feelings of disconnection and alienation.

Strong themes from the research included:

- The importance of inter-generational involvement in decision-making
- A concern that the data and information sources available to Māori land owners relating to agricultural greenhouse gas emissions tend to blame previous generations for their decision-making, and this “blame culture” is not aligned with how real Māori perceive these decisions
- A desire from participants to see different types of contributions recognised and celebrated, for example, taking Nan to a hui, and
- A strong reiteration that the core values and principles used in decision-making for whenua should prioritise whānau by enabling and protecting connection to the whenua, maintaining and respect the physical land, and leaving the land in a better state for the future generations.

Throughout the research, we heard and saw how Western systems have constrained and de-emphasised and ignored mātauranga Māori, and imposed alien measurement frameworks that have compromised Māori decision-making. We have also identified that the data and information sources available to Māori land owners relating to agricultural greenhouse gas emissions tend to dictate measures, pathways, and decisions. This undermines the creativity of Māori land owners and farmers and the autonomy to decide their own solutions.

We believe that there is an opportunity to reframe and refocus information and data sources about whenua, farming, and agricultural greenhouse gas emissions to engage and leverage the deep history of knowledge held by whānau Māori.



User goals

This section describes the user goals we identified from our user research.

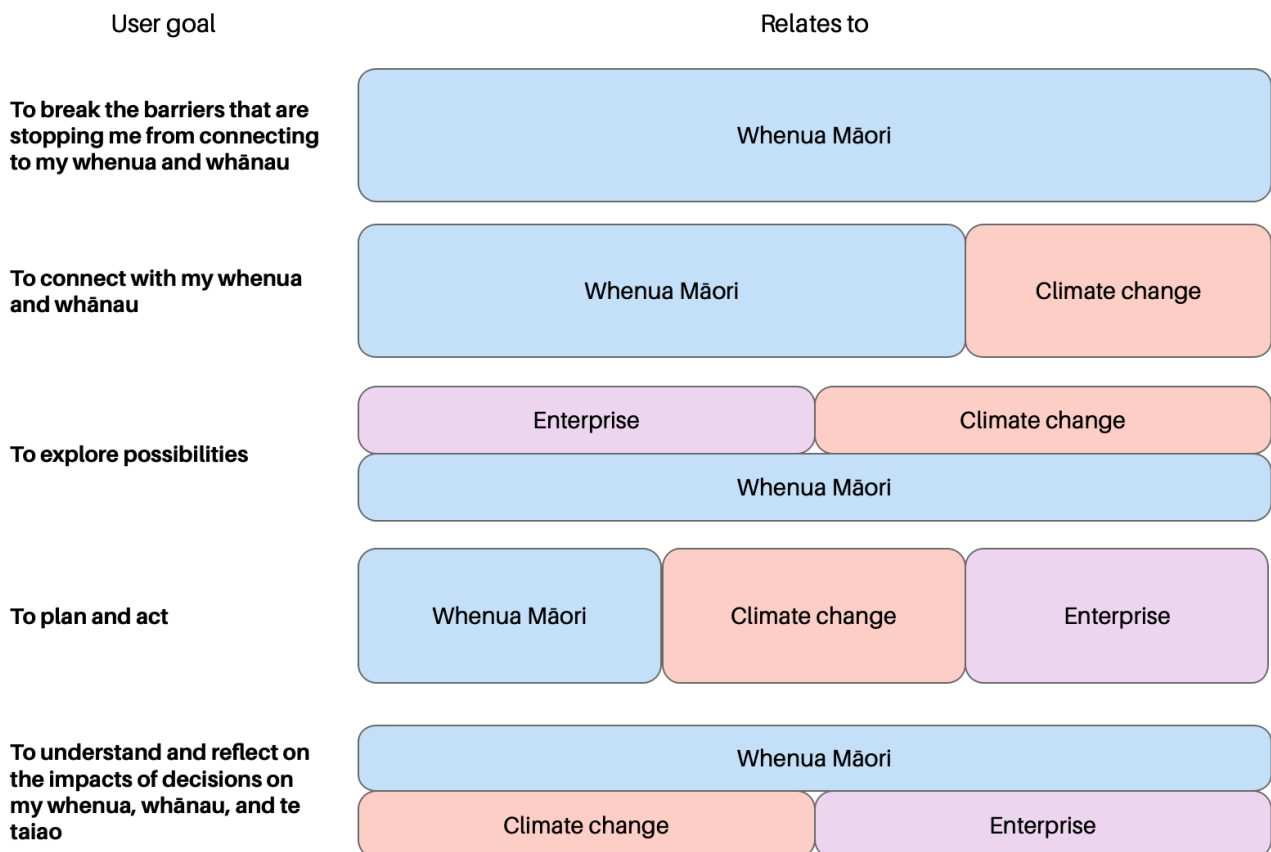
What are user goals?

In user research and digital design, **user goals** are the final state or outcome the user wants to achieve by using the solution. User goals are different from user needs, which are the things that a user needs in order to achieve the user goal.

We have identified 5 main user goals. We heard these goals expressed in various ways throughout our research, and it was clear from the rich discussions we had that they are shared across multiple user profiles. The user goals are:

1. To break the barriers that are stopping me from connecting to my whenua and whānau
2. To connect with my whenua and whānau
3. To explore possibilities for reducing agricultural greenhouse gas emissions from my whenua
4. To plan and act to reduce agricultural greenhouse gas emissions from my whenua
5. To understand and reflect on the impacts of decisions on my whenua, whānau and te taiao

It also became clear that some of the user goals did not relate directly to agricultural greenhouse gas emissions or climate change. To understand these relationships, we have mapped and emphasised the user goals we identified to the three key areas that we expect a digital solution would need to address to be successful:



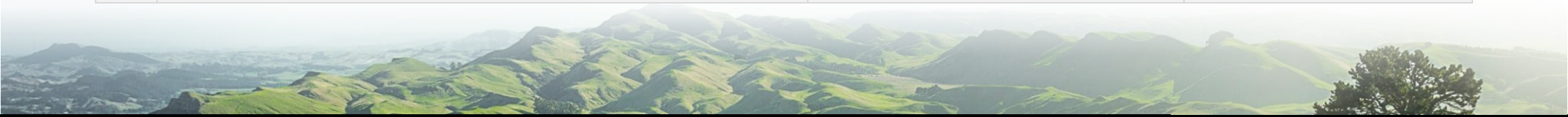
This will be explored in more depth in the He kai kei aku ringa website strategy.



Appendix 1 - Detailed Phase 1 findings and insights

O1	Understand the significance of whenua Māori to different people		
	What we heard	What does this mean	Tensions and complexities
Target Audience	<ul style="list-style-type: none"> – “When I haven’t stepped on the whenua itself, it’s all about whakapapa” – “For iwi Māori, most of us we live urban these days. Disconnected from mātauranga – disconnects us from traditional ways of connection to whenua” – “Being back with whanau, aunts, parent’s uncles, and cousins’ Communal area, everyone is around in it together. Just the essence of whanau.” – “Reconnecting and going back – we haven’t been there in a long time. Reconnection is the most important mahi to do. A lot of māmae, we want this but not everyone is there to build that utopia for whanau, a lot of our whanau left with the assumption that would never come back. That’s where the anger comes from. But people left for opportunity” – “If you haven’t been raised Māori, it’s scary” connecting with Whenua. – “through my eyes, whenua Māori is for everybody.” – “We are making those connects ourselves to our whenua for our kids. Breaking that cycle, getting in touch with our identity.” – “A place ultimately where you can go back to indefinitely. It’s a dream, not reality at the moment.” – “...income is not our priority. Neither here nor there. If you can call your whenua your own.” 	<p>There are some more holistic views on Whenua, including that about it being all of Aotearoa (beyond the legal definition of Māori freehold land) and the whenua being pristine and untouched. Many people also see it the through the western lens of ownership alongside the generational Māori view.</p> <p>Where the difference comes for individual is around where people are on their journey around land ownership and connectedness to it. These two things that may seem similar on the surface can be significantly different journeys for people and have significant impact on their relationship with the land and there for the role that they see themselves play in regard to it.</p>	<ul style="list-style-type: none"> – Is connectedness a privilege? Connectedness can be strengthened or severed. – Talking about whenua is hard, there is level respect and taonga-ness that they want to apply but they very easily revert back to western descriptives e.g. \$ or value - which makes the kōrero awkward and physically in tension for how they feel. <ul style="list-style-type: none"> o Why do we need to describe it in a way for others to understand? o Why do we care if people understand us? o Why do others need to understand us? o Is sometimes system driven e.g. MLC o Acceptance and convincing people of the importance – Why?
Primary audience	<ul style="list-style-type: none"> – “it’s part of inherited responsibilities” – “[the] land was here before me and will be here longer than me and to be the kaitiaki for.” – “Younger people wanna be there, but life situation means it unpractical” – “It’s part of our inherited responsibilities” – “Land was here before me and will be here longer than me and to be the kaitiaki for.” – “See it as an ability to provide benefits.” – “Creating opportunities and doorways for people to come in and, you know, think that they’re helping to grow kai or weed or whatever, but what they’re really doing is experiencing connection, or learning Karakia or learning kupu and understanding what the tools were, feeling part of something” – “I don’t want to be told what to do with my whenua, I want to make those decisions with my whānau” 	<p>Being an owner does not create connectedness, and you can be connected without owning the whenua or being legally recorded against the whenua register.</p> <p>Ultimately connection and disconnection are at the heart of how people describe whenua Māori, for example:</p> <ul style="list-style-type: none"> – Connection to the past – Connection to today – it matters to me now – Disconnection through systems – form of alienation the MLC processes – Connection and disconnection through ‘life’ – Ongoing cycle of connection and reconnection of whānau – Disconnection through past trauma, leading to connecting through trauma. 	<ul style="list-style-type: none"> – Push and pull tension – towards and away from whenua and whānau. Connection to whenua is... <ul style="list-style-type: none"> o Important as a guide into the future? o Economically driven because that what we are taught but I feel more than that... o Something we are born into; it is not earned /awarded and/or told about by others o Varied and not a one size fill scenario.
Secondary	<ul style="list-style-type: none"> – “Passed down from our tupuna to us.” – “...the system still built to alienate.” – “Our land was taken, and we can’t live on the land as Māori” – people have become disconnected they are disconnected because they were missed out because the law allowed them to be missed out. 	<p>Whenua is seen as a positive symbol of connection and disconnection, while also a catalyst of for reconnection for whānau.</p>	

O2	Understand the attitudes and beliefs different people hold about greenhouse gas emissions and reductions		
	What we heard	What does this mean	Tensions and complexities
Target Audience	<ul style="list-style-type: none"> – “We should all be kaitiaki of land...” – “Our land changed, the fishing changed, the seasons changed when we could fish – especially for whitebait...” – “For something that is so important why don’t we know more about it...” – “Māori do humanity and environment really well and we don’t compromise either or for the sake of gain.” – “Money makes the world go around” – “Climate change and greenhouse emissions is a very privileged conversation that most of our whanau don’t ever come into contact with.” – “looking towards most indigenous peoples. They look to us acting like we have the answers. And it’s true we do. Even in science looking to indigenous looking for the answers – we do have the answers.” – “massive farming company, biotech agriculture development – taking advantage of the land.” – “First and foremost, is reconnecting to the land.” – “It’s about roof over our head, not tomorrow or next week it’s about what’s happening right now. This is kind of down there on priority’s” 	<p>When it comes to people’s attitudes, beliefs, and values around GHG people first need to understand what you’re talking about. There is a disconnect between GHG and climate change or pollution. People do not see how they are interlinked</p>	<ul style="list-style-type: none"> – Do people actually care about GHG emissions? They care about local impacts of climate change. – Decision makers can be sometimes removed from this... – There appears to be tension about responsibility – farmers vs Māori land owners – When you can’t see or touch the impacts, how do make them real for people? – Blame game – assigning fault? – Why do people keep telling me that GHG matter? They’ve heard the message, but what do you want me to do differently?
Primary audience	<ul style="list-style-type: none"> – “I don’t feel guilty or responsible [in relation to GHG]” – “If you half the emissions – there is then you don’t need half the people here. Tangata whenua don’t want to go back to grass skirts.” – “I think it might be a thing or is it just a bit of a phase [climate change]” – “We’re [NZ] doing better than others” – “Climate change is a normal part of earth, but we’re demonstrably speeding it up.” – [do people care about emissions] “Environment yes, but don’t know about GHG emissions.” – “To be honest, not sure , not a scientist. Doesn’t scare me” – “If you don’t know how [about GHG] can you care about something that you don’t know?” – [Whanau care about GHG?] “I don’t think so, trying to buy food is on their list.” – “If you said no more potatoes from Pukekohe that’s when they would be interested.” 	<p>With so many conflicting priorities, topical matters of the day about what’s most important decision makers often find themselves focusing on much more tangible and ‘relevant right now’ issues.</p> <p>Others were able to re frame GHG into more relatable and tangible impacts to them. Whether this the enabler requires further research</p>	
Secondary audience	<ul style="list-style-type: none"> – “Not important right now, it’s about succession and education” – “I think it’s more around lowering emissions and pollution, I think it’s more around pollution, you know, polluted air, polluted water, polluted whenua.” – “We don’t call it climate change. What did the whenua look like when you were younger. Most of our people understand the effect on the whenua and the taonga...” 		



	What we heard	What does this mean	Tensions and complexities
<p>Target Audience</p>	<ul style="list-style-type: none"> - "I would wish for a clean awa. When I look at the awa that I swam in, you could swim in it easy, now you have to look up if there are any algae..." - "It's a privilege to maintain knowledge. For me you have to be annoying and ask - I love hanging out with the Matua's" - "We are still expected to also be reconnected and know everything. We can't be expected to do that... We are, but we have also been disconnected" - "Some people won't care about this Kaupapa because they're good at other stuff. We just need to come together" - "Cousin right up her alley, loves the whenua 'Tree hugger.' We've left the whenua environment to her." - "If you learn about the environment from western space - we know things but don't know how we know which is pakeha" - Government agencies, enemy in most cases, collectives focused on Māori, mātauranga Māori, we need that one stop shop, someone at that interface who can interpret." - "Hui in Māori space a big thing, listening sitting and learning." - "It's not here in front of our nose - not going to chase it." - "it's not the same barrier that it is for her dad." "It's not about me, it's about them and how they absorb info Takes us 5 mins takes them a day Brings back all historical stuff for them. It's so much deeper for Māori." 	<p>People are allocating out this mahi to people with specific skills or attributes. This can range from those who:</p> <ul style="list-style-type: none"> - Are close to whenua (or whānau) and deeply understand the needs of the whenua or enterprise - Have time and headspace to navigate the various complicated systems - Are able to translate complex information into something accessible and usable - Have stable and established relationships within systems (e.g. Crown or the science community) are able to leverage off these - Are working in related industries and understand how to navigate systems - Can walk on both sides. For example, speaks Government and relates to whānau - Can influence partners and Māori, shaping offering or approach or outcomes to the needs or whānau or the Trust. 	<ul style="list-style-type: none"> - Can you tie data and information to outcome -measurement - KPIs? - Why would you want to measure outcomes from Māori through a western lens? - How will measures effect progress towards outcomes? - What are the enablers that drives good outcomes? - Different generations have different ways of engaging and varying comfort levels, <ul style="list-style-type: none"> o how can you encompass all these generations? o Should we? o Is there a prioritisation of profiles?
<p>Primary audience</p>	<ul style="list-style-type: none"> - "Struggle with getting my head around it [GHG]" - "[GHG] knew it was there 2-3 years thinking what we have to do to meet the compliance. It's both health of whenua and compliance." - "It's who you know, over the past 20 years has built up relationships that have helped them" - "everyone is talking about it, young warriors - it is now a subject that all of us talk about it. Resonate with younger Māori because of our values and attachment to our whenua." - [understand legislation?] "Na but people like Charles do, who works in it." 	<p>People are keen to care and make positive outcomes for their taiao, but do not relate reducing GHG emissions as a contributing factor. This speaks to the invisible problem and the disconnect between the impacts of GHG and desire to be a good kaitiaki ("or a good mokopuna").</p> <p>People want people in 'power/control' to listen and understand the context. Understanding where people are starting from and their why and in partnership look for new</p>	<ul style="list-style-type: none"> - This area of research is linked to the 2 previous research objectives. Are the influencing each other or working in tension of each other - push and pull. - Relationships with the Crown appears to be an enabler, why?



Secondary audience	<ul style="list-style-type: none"> – “The next two or three generations later, their mokopuna’s mokopuna, highly educated think the past didn’t care but they did. They just didn’t know how to navigate that trauma.” – “Rejuvenating the river is the data that helps us see change. – On the ground we can only lift up insights the data to take it above. Data is the korero with our people, what do they know about the barriers and what they look like. Data is what they are telling me. – We are mokopuna we are the trust, how to we make that space and build that relationships over time to get the respect over time to get those 1:1 conversations. – The generation who created pollution aren’t tech savvy and don’t have the knowledge of the world that we do today that’s helping - no access to info that we have. They can’t access, and don’t even know it’s there. 	ways to deliver messages and initiatives. The <i>telling people what to do and how to do it</i> is counterproductive to the direction whānau are heading and the direction of all Aotearoa. People want to be a part of the solution not a hinderance.	
--------------------	---	--	--

O4 Understand the similarities and differences between the journeys of Māori in their roles as land owners and Māori in their role as farmers.

	What we heard	What does this mean	Tensions and complexities
Target	<ul style="list-style-type: none"> – “Capabilities are there - you can go to the hui, but you’re not the one making decisions” 	<p>There is limited visibility of each other’s journey, either as a land owner or trustee and our farmers; along with limited acknowledgement of each other’s hardships or difficulties. Those that do have understanding of both journeys are those that have been farmers for a long time and have then inherited whenua from a parent. What was interesting was that those that have navigated both journeys felt more comfortable talking about farming as opposed to whenua Māori.</p> <p>Physical connection to the whenua is important as well for Māori land owners. They need to see and touch before they can care. Whereas farmers already have that innate connection to whenua and the desire to continue to look after it.</p>	<ul style="list-style-type: none"> – How connected to the whenua are decision makers? – Do they need to be? If not, why not? – Physical connection to the whenua is important, is that the area we need to exploit? – Can the journeys of farmers and Māori land owners be connected? Do we want to do that? –
Primary audience	<ul style="list-style-type: none"> – “Trustee responsibility actually scares people off.” – [get sick of it?] “no not the farming side of things. The cultural side and dealing with trustees, dealing with views I hate.” – “Problem with data as identification and qualitative. We don’t know fully which farms are run by Māori. What is the Māori farmer impact. Who knows. There is no data” – “They have, yeah, they may not be creaming it anymore. But that’s their fault. Yeah. Nothing to do with us. It’s their poor practices. Those are the people who have a whenua. And they’re the ones who have been reaping the rewards of that for generations and generations, who all nice houses and nice cars and tractors worth more than my house. That industry gets a bad rep from our people.” 		

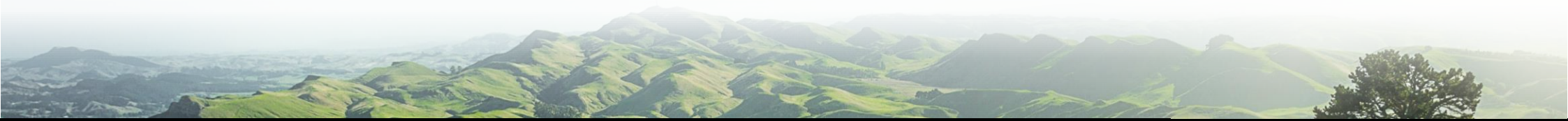


O5 Understand the different groups and relationships that exist in the whenua Māori, agriculture, and greenhouse gas emissions reduction space

	What we heard	What does this mean	Tensions and complexities
Target Audience	<ul style="list-style-type: none"> – “...Capability definitely, but investment for R&D to come in and solve and mitigate GHG risk – that needs to evolve as well. How can farmers access technology if little money is being spent?” – “Connect on Facebook to the iwi page - see what's going on.” – “It's all about the source, and how much mana does that source have.” – “It's about the brand. Have to trust the org, if it's from a reliable source, where is that coming from Depends what they are talking about.” 	<p>We know there are various groups and organisations that are working and supporting whenua, the agriculture sector and GHG emissions. People recognise a few organisations nationally but more organisations from a localised lens. People currently default to government agencies (for example TPK and MFE) and sometimes science institutes at a national level.</p> <p>A lot of recognised organisations are based on existing relationships. These relationships are usually built outside working roles and extend beyond a superficial level.</p> <p>There is a level of discomfort with needing to use their relationship to advance whenua or enterprise. There is also a level of discomfort of the perceived bias based on who you know and not the mahi or outcome people are trying to drive.</p> <p>It is important to note that no one identified or named an organisation that is directly driving mahi in the GHG emissions reduction.</p>	<ul style="list-style-type: none"> – Localised relationships with systems and services appear to have more success than centralised structures, can we divulge all centralised systems and service to localised structure? – Relationship based access creates a perceived bias, how do we avoid this? Do we want to? – How might we exploit those people who are seasoned system navigators? – How might we reframe and elevate the agencies that are working on the reduction of GHG emissions? Should we? – How might we make it clearer who people need to talk to about support for GHG? – With relationships being highly focussed on an individual level, is there a place for the digital space to connect people to advocacy and support agencies related to GHG?
Primary audience	<ul style="list-style-type: none"> – “Data is vital knowing where its coming from is empirical.” – “Donna goes out and gets funding and gets things going. She gets paid to go and do that, I don't have time to do that” – “XXX knows the ministers and gets funding straight away – it's the best way but not the fair way. Kinda sucks actually.” – [dealing with Crown] “Have to know a senior to be able to get anything done. If you have existing past relationships, that's good” 		
Secondary	<ul style="list-style-type: none"> – Who's responsible for understanding the system. TPK goes out there to upskill them. – The system's going to break us down and it's a long process. – They want to talk to someone that isn't available. So that's kind of a barrier. 		



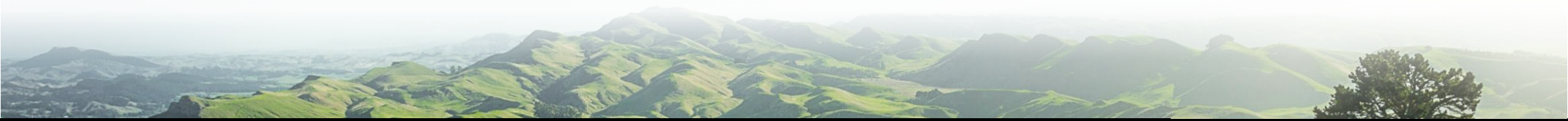
O6	Understand the drivers and barriers of Māori land owner decision makers.		
	What we heard	What does this mean	Tensions and complexities
Target Audience	<ul style="list-style-type: none"> – “We were raised to be blindly subscribed and to not trust younger who are the leaders for tomorrow. Younger minds and views” – “Difference between lead and support. An inherent power balance Power and authority - transplanted paradigm in Māori. We did operate on consensus, everyone's role on the marae, everyone is just as important - everything functions together.” – “Daughter has Ngai Tahu, advantages on when she was born. – “Wealth of our land is extremely important - our people again are just trying to survive, reconnecting” – “Finding a balance - we won't sacrifice life for commercial gain ” – “I would like to explore opportunities but not at expense of the whenua - Balancing potential and whenua.” – “It's time for us to set up so that our babies coming through can lead.” – “Now it's an asset because its shareholders there is a disconnect in terms of 90% of Ngāti Porou who live in cities 10% know what's actually happening on the whenua” 	<p>Decision makers have a hard job. There are so many different elements that impact their ability to feel empowered to choose a (right) way forward.</p> <ul style="list-style-type: none"> – Knowledge / experience - it's not achievable to think that everyone needs to know everything so we often give permission for particular information to come from a selected few, but it can be challenging to understand and trust. – Crown rules/structures - the structure makes it easy for Māori land owners to be disconnected. When they are disconnected from whenua people often become connected (and at times discouraged) from participating in decision making. 	<ul style="list-style-type: none"> – How do we know who to trust and who not to? – What role does the next generation have in influencing? – How can we learn from people who are able to be strategic? – How might we help people think about financial sustainability and how to care for the whenua in a connected way? – How might we support people that want to influence or share knowledge?
Primary audience	<ul style="list-style-type: none"> – “My mokopuna have no say over anything- I am their voice” – “It isn't easy, there isn't a lot of owners interested to of 700. 20-30 of them show up, locals and a few that travel.” – “We are living in the now, not thinking too much of the future. If we were it would be on the list.[GHG]” – “Those bigger entities - have better governance. Not experts on that stuff. Aunty just can't keep up - we rely on info from trusted people.” – “With massive capacity and capability issues. On average, we can't keep up. Bloody pākeha keep on changing the goal post. Element of learning and evolution” – “If we can make some money cool. It's not the money that drives us it's the values.” (4E's) – “We should all be kaitiaki of land.” – “I think you've got to have multiple different conversations that are developing concurrently. e.g. some about putting food on the table now and some more strategic.” – “Not against individuals, but the growth for growth's sake, the economic model that is just really ugly. It's obscene. For individual farmers we have aroha for them - but for the system, no.” – “So, what do you think, you know if we try something new? They want us to try something new, but they want the new to give them a dividend. ” 	<ul style="list-style-type: none"> – Financial sustainability - many trusts/people feel like this needs to happen first. It was interesting and that conversations about money were often separated from the conversations and thinking about being a good Kaitiaki – Thinking about now and the future - this can be hard to operate in a strategic manner when you are stuck in surviving, thinking about care of the whenua is easier when you are being strategic. – Responsibility - the very real responsibility that you are making decisions on behalf of many and the impact can ripple far. <p>From the people that we talked to you can see that different trusts (and people) have different opinions on what is more or less important for their whenua and Whānau. For many it seems that the values that decision makers use to make decision by are much more intuitive than principled. However, those that have put more thought into what their</p>	



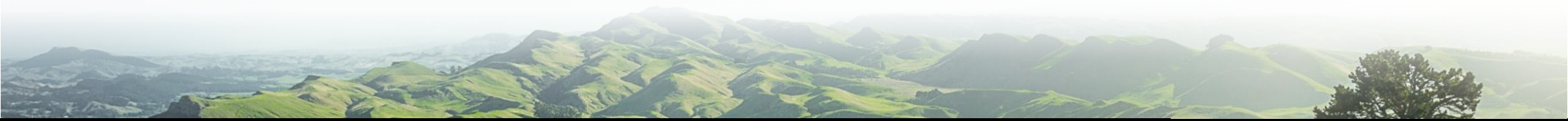
Secondary audience	<ul style="list-style-type: none"> – “I don't give a shit that I work for the Crown...I will make decisions at my desk that are going to be beneficial to myself and to my whanau and my hapū. I don't differentiate that I've left jobs because they wanted me to be different when I was at my desk and when I was at home.” – “would like to revert back to cows to eat ourselves not to gain a financial profit. How we treat the taonga and how the taonga treats us.” – “Some land owners don't even care they just want some grants.” – “We need to do some work but not sure what.” 	principles or strategic vision is much clearer at being able to talk about how the Whenua and Whānau is being cared for.	
--------------------	---	--	--

O7 How our solution can best achieve the right balance between holistic ao Māori approaches to land use and western approaches

	What we heard	What does this mean	Tensions and complexities
Target Audience	<ul style="list-style-type: none"> – “Data is everything, data is tanga, data is mātauranga everything that makes us up as beings through wairua, whakapapa, whanau our contacts end to end. Very powerful” – “Taking a lot of great technology, a lot of mātauranga in that space and weaving them together.” – “It's the technology - Talking about your tools to read the land that can directly tell us water is rising that kind of stuff. That is useful and beneficial But how do we capture, store, and use that data?” – “How do we action that data? Could be used to weave and combine together” – “Māori love to talk It's the action for me ITS TIME dad has all the time, just doesn't know where to start.” – “Ahi Ka – keep fires burning means you have to keep up and do the mahi Not just donations Biggest feedback from ahi ka is when we ONLY go back when someone dies, but they want us to come back and help I'm 41 and never been there, mum 61 never been there.” 	<p>Through talking to people, it's clear that time and time again western approaches have provided shackles for Māori. Data and information are no different, the way that it's presented, what it communicates and how directive it is, cannot just impact whether or not it is understood but if it continues to perpetuate trauma. This is particularly true for older generations. Our younger generations seem to be more comfortable navigating between western and te ao Māori concepts while understanding and using technology.</p> <p>Although we have heard statements about "taking a lot of great technology and mātauranga and weaving them together", there is also a strong desire to use the knowledge and wisdom that Māori have in this space to be leaders, to put this knowledge first.</p>	<ul style="list-style-type: none"> – How might we use western technologies to support Māori concepts? – How might we understand people and their motivations first before providing data/information that works for them. – Feel like there are some clear design principles coming up, how would we describe them? – Don't tell people what to do, how do we think more about frameworks? – Listen to where people are at, we continue to talk at people and not with people. Why do we do this? How do we stop this? – Understand what relevant to 'my' whenua, do we care about regional and localised nuances?
Primary audience	<ul style="list-style-type: none"> – “Induce behaviour change, can't do it without the data but take them along the way for them to trust the data. But it has to make sense” – “With Māori you have to bring them along from the start.” – “We are at the burgeoning point of knowledge and info” – “We can't have different approaches” – “we can't afford to have two thoughts. We don't have the resources to think two things” 	<p>We think about data and information, much of the kōrero is not just about what is being communicated, but how is it</p>	



<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Secondary audience</p>	<ul style="list-style-type: none"> - "I have talks to scientists all the time, you might have some of the knowledge about the whenua, but you do not know it like I do" - "They are tech smart at the moment: take your phone and measure data, they will do it." - "Once this is done: Will I get my number? Is it a calculator? Like beef and lamb?" - "80% of Māori landowners don't even know what their land even is." - "The challenge for us when you think about creating and standing up new ways of doing things is you do need metrics to show - local project around smaller footprint" 	<p>created and who has authored it. People want to be able to trust and want to feel listened to.</p>	
---	--	---	--



Appendix 2 - Research participant profiles

Target audience

Definition	Description
The target audience is the prioritised segment of the population who need or will use our product. We want to make sure that we understand through research, their needs and design to ensure inclusion and for equity purposes.	Māori land owners who are: <ul style="list-style-type: none"> – Actively involved with their whenua e.g. attending hui or working the whenua. – Currently noted on a register or representing another Māori landowner. – Lives on or near their whenua or travels regularly back to their whenua.
	Whānau or uri of Māori landowners who are: <ul style="list-style-type: none"> – Not noted on Māori land registers – Actively involved in some facet of whenua Māori – Participating in hui or wānanga to do with – Has a relationship with whenua Māori through whakapapa and culture.
	Tangata whenua and Mana whenua: <ul style="list-style-type: none"> – All Māori who are connected or reconnecting to their whenua or their culture. – Not noted on Māori land registers. – Supporting and advocating the wider kōrero about the hauora o ngā uri me te whenua Māori. – Have involvement with PSGEs or other iwi/hapū organisations.

Primary audience

Definition	Description
The primary audience are identified are those who will be the key consumers or users of the digital solution. We will research with this audience, and ensure that any digital solution meets their needs, addresses any barriers and that they have a positive experience.	Decision makers related to whenua Māori, including active: <ul style="list-style-type: none"> – Trustees – Governors – Managers and – Agri-business owners.
	Māori agricultural farmers who are: <ul style="list-style-type: none"> – Actively farming on whenua Māori or general title whenua. – Connected through whakapapa Māori – May be an individual or a collective organisation.
	Kaitiaki of whenua Māori and/or advocates for climate change. This audience will be or have: <ul style="list-style-type: none"> – Deep understanding of te taiao and whenua – Driven by people and their needs today and for the future – Actively advocating to central and local government on topical climate change issues – Contributing to driving to system changes supporting te taiao – Influencing the future direction of decision makers.
	Organisations that actively influence or are considered by decision makers, including: <ul style="list-style-type: none"> – Local and regional councils – Industry bodies like Dairy NZ and Beef & Lamb

Secondary audience

Definition	Description
<p>The secondary audience have an interest in the content or information. The digital solution will be able to be consumed by this audience but will not be designed for their needs.</p>	<p>Government/Crown and their agencies, producing policy and legislation related to or influencing the agriculture sector, in particular:</p> <ul style="list-style-type: none"> – Ministry for Primary Industries – Ministry for the Environment – Te Puni Kōkiri – Ministry of Business, Innovation and Employment
	<p>Specialists, including:</p> <ul style="list-style-type: none"> – Agriculture consultants – Greenhouse gas scientists – Agri-tech innovators – Renewable energy providers – Marketing and commodity experts
	<p>General public with an interest in the agriculture sector and/or:</p> <ul style="list-style-type: none"> – Whenua and whānau Māori – Climate change – Greenhouse gas emissions – Are engaged in farming or responsible for significant greenhouse gas emissions within large-scale farming operations.



Appendix 3 - Stakeholder engagement

As part of our user research we consulted with a range of Crown agencies and industry bodies. These consultations were tailored to each stakeholder

Name	Engagement	Summary	Future Participation
Ministry for Primary Industries (MPI)	Online presentation, Workshop	<ul style="list-style-type: none"> Through our connection already working with the MPI CERF team – connected us with participants for user research. Keen to stay in touch for future co-design, and potentially use alongside MPI's CERF programme. 	Yes
Te Puni Kōkiri (TPK)	Online presentation, Workshop	<ul style="list-style-type: none"> Participation and input around the questions asked was one of interest and value. Keen to stay in touch, wanting to be included in future co-design. 	Yes
Ministry for the Environment (MfE)	Online presentation	<ul style="list-style-type: none"> Project is of interest and are keen to be included in updates and co-design stage. Willing to connect us with teams inside MfE for data and information e.g. Climate Emissions Team, Farm team. Currently going through restructure, they mentioned they will be of more use when things settle down with new government. 	Yes
Te Tumu Paeroa	Online presentation	<ul style="list-style-type: none"> Interested in our project and thanks us for involving them Declined having a workshop as they are very busy – but are wanting to be involved for updates and future Kaupapa. 	Unsure
AgResearch	Online presentation, Introduction to wider team.	<ul style="list-style-type: none"> Keen to stay in contact. Wanting to build a relationship of sharing our Māori led research approach and methods between both parties. Learning from one another. Keen to be included in a workshop specifically with Māori farmers and owners 	Yes
Scion	Online presentation	<ul style="list-style-type: none"> Presented our project which was met with scientific disapproval. Potential duplication of projects was the main focus from Scion. Wanted more information from us, and to be kept up to date with our progress. 	Unsure
Beef + Lamb New Zealand	Online presentation	<ul style="list-style-type: none"> Interested in the project and keen to link us in with more suitable connections within Beef & Lamb Very high interest in when our project is being delivered in scope with NZ's emissions targets by 2025 Keen to be updated and included in future workshops. 	Yes
Deer Industry NZ (DINZ)	Online presentation	<ul style="list-style-type: none"> Linked in through another project we are working on with them High interest of the project as Deer are "lightly environmentally footed" when it comes to land use change for more sustainable farming. Keen to be updated and willing to participate in co-design. 	Yes
Dairy NZ	Online meeting; 1:1 Interview	<ul style="list-style-type: none"> Very engaging and gave great perspective with the many pōtae he wears. Gave great insight into the dairy industry and how they navigate emissions targets and how that corresponds with Māori agribusiness and whenua Māori. Keen to be updated and to participate in co-design. 	Yes
PGG Wrightson	Online presentation, 1:1 Interview	<ul style="list-style-type: none"> Very high interest in our project, as they are iwi relationship managers who connect whanau to more sustainable farming practices. Keen to participate in co-design and to be kept updated on our progress Keen to have us up in Northland in February for a presentation of our project to whanau who have an interest in land use/change and sustainable farming practices relating to climate change. 	Yes
Lincoln Agritech	Online presentation	<ul style="list-style-type: none"> Interested in the project and what the priorities and role of kaitiaki are Mentioned there's a lot of work where we can cooperate and collaborate on, identified an upcoming opportunity to explore getting feedback from Māori stakeholders They shared experiences working with hapū and iwi, and offered to contribute on mātauranga They presented on devices being used to capture methane and convert it into something sellable Keen to keep connected. We will touch base next year about co-design. 	Yes
Wakatū	Online presentation	<ul style="list-style-type: none"> Very high interest in our project as they are doing similar mahi with their whenua. Strong focus on indigenous kai and species and different ways of farming for whanau, but looking at how to make that a profitable system Keen to stay in touch and work together for co-design Aligned with our user research led approach to understand a potential scientific solution. 	Yes
AgriZero	Online presentation, online catch-up	<ul style="list-style-type: none"> Very high interest in the project and keen to be involved in co-design Acknowledged that Māori user engagement was a gap in their end user engagement work and that understanding Māori attitudes to Agritech is critical to ensure equitable access and adoption 	Yes

VHC - Your discovery, design, and delivery partner

Level 1, 3 Swan Lane, Te Aro, Wellington 6011

info@vhc.nz

