

# He aha te mea nui? Māku e kii atu, he tāngata, he tāngata, he tāngata!\*

*\*What is the most important thing in the world? Well, let me tell you, it is people, it is people, it is people!  
Maori proverb*

SUMMARY RESEARCH IR. A.J.C.M. BEKS, FARMER AT OUR LANDSCAPE,  
2023 NUFFIELD SCHOLAR:

## Whats is the potential of learning networks for future proof agriculture?



Farmer at 'Our Landscape'



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## Introduction Research questions

*Welcome to Nuffield!*

Nuffield NL is an organization that provides progressive farmers the opportunity to develop through a scholarship. For this purpose, farmers are sought who possess vision, ambition, research questions, and clear objectives for their business. As part of the scholarship, the nominee participates in a two year program in which they conduct a study into an exciting challenge that captures the hands and hearts of progressive farmers, build a national and international network, and acquire knowledge for themselves and their business.

Roughly five years ago, my wife and I had decided to give the farm of my inlaws a future. What had initially driven me to Nuffield and the opportunity the scholarship offered was our desire to form a vision on how this could and would look like if we were to bring together our assets and individual capacities. The vision? We wanted to keep the farm's legacy as a place of dairy and cows, but diversify its operations to also create space for bird and nature conversation and for leveraging our otherwise thriving professional roles and work. Me driving a.o. I4NATURE Cooperative, a nature-based consultancy, and my wife in her role as the Director Milk Supply at Vreugdenhil. My consulting work has led me to learn from many actors in the field and supported an increased interest in the role of learning networks in navigating intensifying and intertwining issues in both nature and agriculture. We both saw potential in creating more value out of our farm together with people around our area and other parts of the world.

In light of our shared experiences and background, including the many days we had spent envisioning how our farm could best be positioned in the region, and observing the general transition of agriculture and food in The Netherlands and the world, I came to the following research questions:

**Main question: What is the potential of learning networks for future proof agriculture?**

Sub-questions:

- What constitutes future-proof agriculture and what is the role of regenerative agriculture in future-proofing agriculture?
- How does the dairy sector facilitate learning and how can they improve?

Of course the last question would be answering how this fits into our plans for 'Our Landscape', this is the name of our farm me and my wife are taking forward.

### **Travel strategy**

I participated in the Pre-CSC (UK) and CSC\* (Canada) and choose to take part in the 2023 Nuffield Triennial Conference\*\* in New Zealand straight after this.

Reason for my choice was that there was room for serendipity to be suprised during the CSC and Triennial Theme because I could meet scholars who were working on topics that resonated strongly with my questions and had communicated initiatives that sparked my interest. I opted for this particular travel strategy, because it allowed me to chart my own individual journeys instead of committing to a Global Focus Program which insufficiently resonated with my needs and interests at the time.

\*Once per year, Nuffield International hosts an annual Contemporary Scholars Conference (CSC), a week-long program for newly selected scholars, held in member countries and rotated between the Northern and Southern Hemispheres.

\*\*Every three years, it hosts a Triennial Conference which is also rotated between member countries in the same way as the annual conference.

Based on the first travels I decided to look through three lenses with more attention to explore these research questions:

1. Leadership
2. Source of knowledge
3. Formal governance around knowledge institutes

## **Analysis**

I have endeavored to answer my main question through use of the respective literature of the three lenses and observations and reflections I had (noted down) during my three travels, and other materials such as blogs and podcasts (e.g., [Food 2 Lead The Future](#)) helped me to further pry into my sub-questions.

What follows is a brief summary of what I have found based on the research questions listed above.

### **Question 1.**

What constitutes future-proof agriculture and what is the role of regenerative agriculture in future-proofing agriculture?

Basically, there are a lot of definitions of regenerative agriculture along with their sources coming from different scientific contexts. You can find the whole list in the attachment. However, the most relevant I found is the following one provided by Loekie Schreefel of Wageningen University & Research (WUR):

*“Based on an extensive international literature review, Schreefel describes regenerative agriculture as a form of farming where soil protection is the foundational principle. In addition to soil protection, regenerative agriculture contributes to various environmental and socio-economic aspects of sustainable food production.*

*The doctoral research indicates that the perception of this definition is not the same for every farmer. For instance, a dairy farmer on peat soil faces very different challenges compared to an arable farmer on clay soil. As a result, it is often unclear which practices are associated with regenerative agriculture and how we can best monitor and financially reward these practices.” (2023, Regenerative agriculture, soil is the base)*

Why I found this definition to be the most relevant - in comparison to those offered by, for instance, Rodale Institute (2014) or Graham Hart (2019) – is that Schreefel (2023) paid particular attention to farming in the context of a food systems and the diversity - element for every farmer, which is important because in the end application and impact should be adapted to the individual setting of the farmer to gain success.

Within conversations the definition of regenerative agriculture was mainly debated immediately because of the lack of definition in clear KPIs in comparison to methods like organic which are in Europe defined by SKAL, for example, in KPIs. This, however, detracts from what regenerative agriculture could offer to progressive farmers interested in exploring how regenerative agriculture could help their farms become more future-proof beyond compliance to awkward and quickly outdated numbers. Next to that a large group of people responded rather cynically during my visits and encounters with other actors in the field. As in, they said that regenerative agriculture and its definition was being used by big corporates and retail to greenwash a lot of products and current operations.

*Based on my conversations in the first months in The Netherlands and during (pre-)CSC I generally noticed a lot of cynicism around the term regenerative agriculture, in part because of the way this term is used by big retail brands as a proclaimed trend. This gave, of course, interesting discussions, but distracted me from the reason I had wanted to do this research. That's why I had decided to refine my initial research question, because I was looking for learning networks that could enable a more comprehensive and well-intentioned exploration of the potential of regenerative agriculture as one potential future development (of potentially many others) beyond groups and actors that are automatically distrustful and skeptical of any such development. This was also important, because we were interested in exploring regenerative agriculture for our own farm and would like to spar more with other actors, beyond just if it was a trend or not.*

Along this journey, I had decided to broaden my horizon to not only focus on regenerative agriculture, but future-proof developments overall, that could be discussed in learning networks: 'Future-proof' agriculture. This one of the United Nations comes closer for me to what is center to any kind of agriculture that can feed the world in a world that is constantly changing, and thus needs to incorporate notions of adaptation and innovation:

*"Future-proof agriculture is characterized by the ability to adapt and innovate in response to environmental changes and socio-economic pressures, ensuring food security for future generations." (FAO, 2018)*

From the responses on the definitions and discussions of future-proof agriculture, I began to receive more confident responses from farmers and other stakeholders that this was a definition they could rely on and work with. In the definitions I see a lot of similarity, but in the responses of people I felt more confident to use future-proof agriculture to initiate more fruitful discussions and learning opportunities. Altogether, my main argument to work with the term "future-proof agriculture" is that offers more breeding ground to work with from a value chain approach, whereas regenerative agriculture seems to suggest a break between primary sector and the rest of the value chain. This not only complicates discussion, but also halts discussion about more comprehensive and inclusive approaches.

## **Question 2.**

How does the dairy sector facilitate learning and how can they improve?

The Alblasserwaard region's signature is that of a region where dairy farmers are concentrated because of the 'practical use' of peatland or clay-on-peat land that fits 'only' for growing grassland. This immediately brings the challenges of CO<sub>2</sub> mission coming from the peat to light. The region is also known for her contribution to landscape conservation and nature and bird conservation. Moreover, the Alblasserwaard region in the Netherlands has been increasingly embracing regenerative agricultural practices as part of a broader effort to enhance sustainability, soil health, and biodiversity in its farming systems. However, challenges remain. While there is enthusiasm for regenerative practices, farmers in the Alblasserwaard also face challenges such as initial investment costs, market demand for sustainably produced products, and the need for ongoing education and support.

## **Conclusion: The region of Alblasserwaard is not a future-proof region yet and there's room for improvement.**

This is because, on the one hand, current challenges are not all actionable yet for farmers, and also supporting policy frameworks are still missing. On the other hand, a proper knowledge ecosystem is not yet in place. Whatever entities that are there are mainly not working together or missing relevant practical knowledge, beyond academic knowledge for formulating and implementing solutions. The main focus remains on traditional agricultural solutions and not on leveraging the human capital and practical knowledge involved.

To understand the current state of how learning is facilitated in agriculture, and more specifically within the dairy sector, we can take stock based on the observations of our colleagues across the Atlantic:

*“The dairy sector's engagement with future proof agriculture reflects a growing commitment to sustainability and environmental stewardship. While challenges remain, particularly concerning economic viability and knowledge transfer, the ongoing efforts within the sector highlight a significant movement toward adopting practices that benefit both farmers and the environment. The integration of regenerative principles is seen as a step toward ensuring the long-term future of dairy farming in an increasingly aware and environmentally-conscious market.” (Dairy Farmers of Canada, 2019)*

In other words, learning and knowledge transfer is key, yet could benefit from a boost. Several key dairy international networks and organizations focus on promoting future-proof agriculture practices within the dairy sector. These networks aim to enhance sustainability, improve productivity, and support farmers in adopting innovative practices.

## **Discussion**

When examining the recent development of the agrifood sector in the Netherlands, it is clear that its success has been largely driven by the Dutch Diamond approach, which is rooted in the principles of the Golden Triangle or Triple Helix model.

The Triple helix stands for three helixes working together: Academia, businesses and the government. The Dutch Diamond Approach, also known as the "Diamond Model" or "Dutch Diamond," is a strategic framework used primarily in the Netherlands to facilitate collaboration among various stakeholders in complex, multi-actor contexts, particularly in areas such as agriculture, sustainability, and innovation. The model emphasizes the interconnectedness of different elements required to achieve successful partnerships and sustainable solutions. In contrast to the promotion of the Dutch Diamond or Golden Triangle model in previous decades as a guiding framework for knowledge gathering and education in the agricultural sector, there are relatively few examples of forward-thinking and pioneering practices within the industry nowadays. In fact, many collaborations that involve actors from the triple helix actively protect their gains and, generally, appear unwilling or unable to commit to pioneering and learning practices. During my Nuffield travels, I have experience several forms of learning showcased in events and learning concepts which adapted their forms to the learner and not just replicate “succesfull” programs from the past. I learnt that these were designed from the perspective of the learner and the current or future context. This was the main goal were the succes was judged by, and not, as you see often, the fact there was a full room or a lot of outreach on its own.

***This is where I think the design principles for learning coming from Dutch Diamond Approach should be underlined, but we need to adapt them permanently in the context of today and tomorrow, and feed into the perspective of the learner (the 'customer') whilst doing that.***

### **Key Lessons**

Looking at learning I therefore see three key lessons in this evolution where (dairy) farmers are staying behind:

#### *1. Individual learning:*

The formal education system training farmers are lagging behind and thus fail to keep up with the pace and needs of today's challenging agricultural sector. Such systems should seek to adapt to the fast changing world and facilitate future-proof agriculture to be part of their curriculum, not only in theoretical readings, but in engaged practices.

#### *2. Playing field of learning:*

The focus of the topics are not coming from the perspective of the person who needs to learn and how this person learns best. It is still based on the past and seems to be based on a past generation and how they learned – one that is still in the driver's seat of leadership positions now - which is mainly old fashioned and not fitting current learning needs in times of transition.

#### *3. Context/landscape of learning:*

Learning takes place everywhere and not just only in the 'formal ways' of educational institutes and knowledge institutes. Academics and businesses alike could go outside of their comfort zone, away from their usual workshops, conferences, and seminars, and into the field where they become active participants (rather than passive recipients of some eloquent professor) to provoke their thinking around what we can do and how they can contribute to make agriculture more future-proof.

### **Conclusions**

Based on the journey I made, the experiences from the stakeholders I met, and the observations I made, I see a gap for 'Our Landscape' to tap into the potential of learning networks for future proof agriculture based on two key features:

- Current system failure

Next to a lot of effort to bridge society and farming and food production on awareness I see a gap in our knowledge sharing between farmers and farmers landscape. Farmers can play a bigger role for change in a positive way with other players in the value chain, than 'isolated' with civilians alone.

Because we are in a period of time where systemic changes are needed, the demand for new knowledge on food production is so high because of:

(1) societal and political pressure, partially caused by research and practice globally on the decreased state of nature, the threat of losing availability of primary resources feeding current food systems, and man-made climate change, (2) a movement of the substream of current farmers, willing to move to a different production method in line with personal motivations and professional opportunities, and (3) the economic viability of the agrifood sector is under pressure, next to huge challenges making future economic opportunities in terms of going about it "business-as-usual" simply unpredictable and therefore undesirable.

- Cross-sectoral pollination feeding the human capital of agriculture of tomorrow. There is a lot of potential to learn from other sectors to find knowledge and instruments to strengthen the agricultural sector of tomorrow. How to get to this knowledge, networks, and examples requires an open mind. Cross-sectoral networks require a language that others can resonate with and digest and increasingly demands bridge builders and common spaces that can help connect other fields of expertise. Altogether, this could contribute to the sector's ability to adapt and transform and help accelerate the transformational change that the food system desperately needs. Bringing it down to, or starting this from the farm landscape oneself, will also strengthen this position and continue to demonstrate the value of new and important value chain partners that are being connected through learning networks.

To help the people who practically need to facilitate this and do this, a big investment in human capital is needed. This can be done through several ways. First, showcasing and rewarding more the talent and skills that are already there, in opposition to other 'highly' valued expertise and human capital that farmers are perceived for now. Currently, farmers are insufficiently seen as highly valuable and highly graded professions by the public opinion and relevant stakeholders.

Second, we need to aggregate our knowledge and develop learning networks. In general the skills to be developed and the knowledge that is needed is not gathered or developed, but can be found if you look carefully. Building learning networks would directly improve the agricultural sector to take steps tomorrow with food system partners to explore changes together, adding value financially, socially, ecologically, and inspirationally.

My conclusion at this part is also a shout-out: That a culture needs to be created in the agricultural sector that values soft skills just as much as hard skills.

So for example leadership-, learning- and social skills need to be re-valued, focussed and invested as an enabler to create a future for the sector. Such skills are desperately needed to help investigate and implement changes for our sector. We see a role for Our Landscape in contribute to this with other organisations:

1. Shaping our farm business and landscape to facilitate activities that contribute to this practically and strategically will contribute to these challenges.
2. Because of the people and networks active on Our Landscape, the region will be affected and a community will arise, pushed forward by events strategically aligned with regional and (inter)national key stakeholders.
3. Our Landscape is able to attract and connect the coalition of the willing making way for these new activities and bringing these other sectors into it with their own diverse networks and knowledge bases.
4. As farmer, Nuffield Scholar, and other roles, my wife and I are able to bring this to the table, we are able to be adaptable and vulnerable while organising these activities, and we can showcase activities of our journey within the transition to future proof agriculture. As such, we aim to take people along this journey. Connecting to other value chain partners, connecting and exchanging theoretical and practical knowledge.
5. Important element is that we see potential to create value and business from this, because we have the food production and nature conservation activities on our farm. From this, we will expand to knowledge, leadership and health related activities.

## **What this means in practice for me and ‘Our Landscape’?**

Learning from my travels I see potential in a festival-based structure where ingredients from positivity (celebrate the future), connecting with good examples, and mainly creating a demand-based ecosystem to get learning demands to the table and match them with current tools and offers and, if needed, develop them with the festival community.

1. This is where I founded the Day of Agriculture - which is also not being celebrated in The Netherlands. I realised the first prototype on the 13<sup>th</sup> of september on our farm. This can be executed from other farms connected in an ecosystem, and make farms a knowledge hub from practical knowledge, like they were in the past, but transformed to our current era. Our farm and others could be knowledge hubs that are also valuable for different levels of government (e.g., policy, execution, strategy) and other value chain partners (e.g. Dairy processing companies, Retail stores, Feed companies).

2. From this temporary structure with a festival, which is a base for a learning community, our landscape literally can grow as a hub with our learning landscape and add value to the formal learning system.

In this light we are developing our farm as part of a Agrifood campus, as a satellite facilitating a learning landscape for both the community and formal education. We are part of this concept development with formal partner Yuverta-Ottoland, the Province of Zuid-Holland, and the local council of Molenlanden and other companies. To be adaptive to developments in the sector and the outside world (outside formal educational systems), including other parts of the world than the Netherlands, an outside-in and inside-out educational program should be constructed and, as a permanent beta, be developed. A great example I found in the UK is the School of Sustainable Food and Farming where this dynamic was founded and they are looking for international connections.

3. That's why our farm will be carrying this initiative in the Netherlands and add value to the regional campus, trying to connect to international knowledge and programs. For the long term future we are developing facilities and widening our framework of food production from dairy to food production that is more a mixed farm, to help facilitate a learning landscape for several captains of industry (including farmers) to connect with all future proof elements present in the landscape on a farm focussing on the transitional challenges. This also includes trainings and workshops on the soft skills needed for that (like leadership).

4. With our farm we intend to be an international hub that takes the lead in weaving current institutes and key players on our farm, breathing new life in a guiding country as The Netherlands. We are taking specific steps with this with Climate Smart Agriculktural Youth Network (CSAYN), forming a EU-hub with our farm and their network.



### **Call-to-action for farmers, companies, and governments involved in agriculture.**

Based on my experience and conclusions, I would like to challenge all farmers and key players in the Agrifood value chains to take a role in taking the leap forward and help us build a learning community that takes on the challenge to make agriculture future proof:

- Everyone: Invest in learning! Relatively seen there is very few money allocated for this, and investment has great potential for impact (value for money) seen on long term.
- Farmers and companies: Find out how you or your organisation learns best, and what drives you to contribute to future proof agriculture.
- Farmers: Dare to take a lead in putting your learning questions out there within the broader stakeholder field.
- Farmers, companies and governments: Visit and celebrate or organise a regional Day of Agriculture to find answers, leadership, and positive energy for taking steps in the future of agriculture! The road is long and tough. You may go faster alone, but you go further together. *Value your farm landscape as a learning landscape that creates value to you, value chain partners, or the broader public in your region and internationally.*

In conclusion, the journey I embarked on through the Nuffield Scholarship and our farm's transformation has illuminated the critical role of learning networks in advancing future-proof agriculture. The challenges faced by the agricultural sector—ranging from systemic knowledge gaps to the need for cross-sectoral collaboration—underscore the urgency of rethinking how we learn and innovate together. Leadership bringing this further in how food system needs new learning but also learning as a topic in learning is essential and underestimated.

Through initiatives such as the "Day of Agriculture" and the development of an agrifood campus, we are creating platforms that celebrate agricultural heritage while fostering learning, leadership, and innovation. These efforts aim to transform farms into knowledge hubs, bridging practical insights with academic and global perspectives. By valuing both soft and hard skills, we can empower farmers and stakeholders to navigate the complexities of modern agriculture effectively. To achieve this vision, I call upon farmers, companies, and governments to join us in building dynamic learning communities. Together, we can celebrate successes, share knowledge, and co-create solutions that ensure the resilience and sustainability of agriculture. The future of our food systems depends not only on our individual efforts but on our collective capacity to learn, adapt, and lead the way forward.