

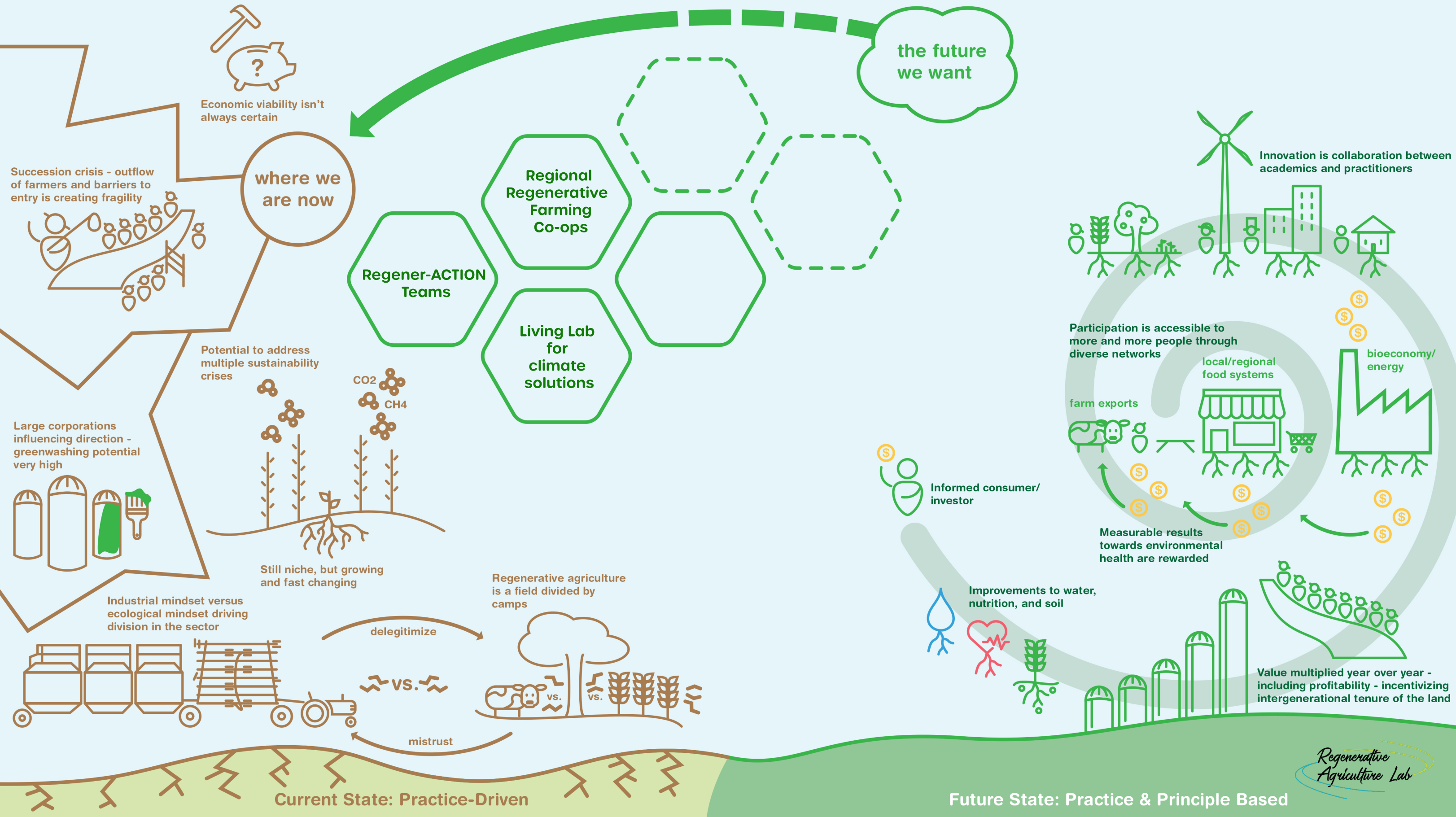
Regenerative Agriculture

Challenge:

How might we accelerate widespread adoption of regenerative agriculture in Alberta to create profitability, sustainability, and long-term resilience for Alberta farmers and communities?

Core Question:

Regenerative agriculture is an evolving system on the cusp of taking off. How do we ensure growing adoption doesn't jeopardize its integrity or dilute its potential?



Regenerative Agriculture Lab: A Springboard for Transformation

The Regenerative Agriculture Lab is an ambitious initiative to establish a forum for innovation and collaboration among those in the field in Alberta. Phase One launched in March 2021 and brought together a small set of producers to identify practical and feasible efforts needed to achieve a desired, transformational future for the sector. The following visual was collectively developed by participants to illustrate the system of regenerative agriculture as it looks today — from impactful trends, to structural realities, to underpinning mindsets — and a future system where the province is maximizing the full potential of growing the field. Consider 'Current' and 'Future' views as bookends of a potential roadmap of initiatives that could address barriers to innovation and adoption and create bridges towards desirable outcomes. The purpose of this tool is not to be 100% accurate, rather to serve as a springboard to spark discussion and to engage others in exploring what is truly possible and where we need to work together to drive systems change.

Current State: “Where we are now”

An Underdog Story

In the current state, regenerative agriculture is primarily considered as a collection of farming practices and technologies that promotes healthier ecosystems by rebuilding soil organic matter through holistic farming and grazing techniques. The field has faced challenges gaining a foothold in a sector dominated by conventional farming approaches that have tended to be: "capital intensive, large-scale, highly mechanized agriculture with monoculture of crops and extensive use of artificial fertilizers, herbicides, and pesticides with intensive animal husbandry" (Knorr and Watkins, 1984).

The transition to regenerative practices faces many obstacles. This includes overcoming the perceived financial risks (Ex. lack of attractive markets, upfront capital investments) which keep many established producers from adopting new practices and which reinforce the barriers newcomers experience to becoming farmers (Ex. high cost of land). The succession crisis also poses challenges to the future of regenerative agriculture as younger generations leave farming in pursuit of other livelihoods.

Fortunately, the business case for regenerative agriculture is gaining clarity. With many now seeing the potential in regenerative practices to address several sustainability crises - such as climate change, water shortages, and declining biodiversity - the field is on the cusp of taking off. At the same time, concerns have been raised about the best ways to replicate and scale regenerative agriculture while preserving the integrity and positive impacts of these practices within each unique context. As food giants reinvent how they grow and market food in a bid to capture eco-conscious consumers and get ahead of broader environmental liabilities, there is critical work to be done to ensure that regenerative agriculture doesn't just become the latest buzzword.

While collaboration between large-scale food companies and regenerative producers creates significant opportunities, questions remain around the definitions of “good” and “value” (relationships, partnerships, and results). Underpinning these tensions are distinct and potentially opposing mindsets with mainstream operators deeply embedded in a paradigm of industrial efficiency and mass production while regenerative producers seek to work with and trust ecological processes and constraints.

Further complicating the situation is a field awash with definitions but lacking agreement about what is and what is not regenerative. This has led to a focus on practices at the expense of developing a set of unifying principles. Yet with so many economic and environmental benefits at stake, this is the right place and right time to forge a collective path forward.

Desired Future State: “Where we want to be”

Learn with Us, Grow with Us

Growing regenerative agriculture with integrity is no longer a technical question of feasibility - the benefits of regenerative agriculture are multiple and increasingly acknowledged. However, several social obstacles must be overcome to realize a future agriculture system that integrates the strengths of regenerative producers and where the field is unified not just through distinct practices but through shared principles that allow producers to deploy approaches specific to their operations that are still recognized as contributing to regenerative agriculture.

On the other side of this journey is a desired future where the field has successfully bypassed the pitfall of market ploys and greenwashing through real action on the ground. Foundational to this is the growing body of knowledge and science around regenerative agriculture that is unleashing the power of informed producers, consumers, and investors.

In this future, new tools and collaborations between producers, researchers, and educators are putting numbers (metrics) to what were once abstract concepts of “good” and “value” by showing year over year improvements to water, soil nutrition, biodiversity, and community health. Furthermore, the ability of regenerative agriculture to produce higher profit margin crops while reducing costly inputs means other sectors are increasingly looking to access the benefits of regenerative agriculture to enhance carbon sequestration, local food systems and market exports. In short, regenerative agriculture promises to produce environmental, social, and economic returns.

With proven value comes new action from government and corporate enterprises — big and small — to incentivize further adoption and attract newcomers to the field. A new enabling environment of policies, support programs, funding, and networks creates a surge of activity in the field, leading to further innovation, research, and expansion of regenerative agriculture.

No longer the underdog, the practice is flourishing at a variety of food-growing scales from backyards, green roofs, and community gardens to small, medium, and large-scale farms, permitting almost universal access to food and land.