re:food

The Re:food Agrifood Investment Framework

Specialized Conviction Capital
for a Thriving Antropocene

Contents

Specialized Conviction Capital

Our global agrifood system is at the center of our climate, our health, and our economy.

Today, it is straining resources, breaking planetary boundaries, and damaging ecosystems. However, this same system also holds the keys to preserving and restoring them, and the companies leading that transformation already exist.

These companies are developing protein without animals, farming practices that regenerate soils, circular supply chains that turn waste into value, and nutritious foods that prevent disease rather than causing it.

We founded Re:food, a transatlantic, specialized agrifood investment firm, to help scale these businesses. Our approach is different: We think in systems, make fewer bets with higher conviction, and engage with the ecosystem to accelerate both financial returns and system-wide impact.

Our model delivers results, as demonstrated by the substantial progress of the companies we partner with. In Q2 2025, we marked our portfolio's 21st consecutive quarter of growth, with revenues increasing more than fivefold while gross margins improved to just under 50%, proving that agrifood is investable.

We aim to inspire more investors to think in systems and join us in unlocking a regenerative era through strategic investments in the agrifood system. This is our framework for identifying and partnering with category-changing companies, creating outsized financial returns and transformative impact.

We call this approach Specialized Conviction Capital. If you find it useful, please reach out to explore potential partnerships. Collaboration is in our DNA.

Stockholm, September 2025
The Re:food Team

Re:food in Numbers

- **5,2x portfolio revenue growth**
- **>1600 bps gross-margin expansion**
- **21 consecutive quarters** of value-creating growth.
- **7 of 8** EAT-lancet food-system shifts accelerated across the portfolio.
- **10M** hectares with improved soil health trough portfolio products.
- **€10-50M** specialized conviction capital investments.
- **100%** agrifood specialists

Agrifood in the Anthropocene

The global food system is both a driver and a victim of Anthropocene pressure

Over the past century, the human population has quadrupled, adding six billion people.

During that period, industrial agriculture and the rapid expansion of livestock have profoundly reshaped land, water, and ecosystems. Vast areas of forests and grasslands have been cleared for grazing and feed production, freshwater resources are increasingly strained, and soils are depleted or polluted by intensive farming practices. These changes have been accompanied by soaring greenhouse gas emissions from fossil fuels and farming, with deforestation and methane from livestock accelerating climate change.

At the same time, biodiversity has been pushed into crisis. Extinction rates are 100 to 1,000 times higher than natural background levels, mainly due to habitat loss, overexploitation, and pollution (Pimm, et al, 2014.).

Chemical and material byproducts of human activity are embedded in soils, sediments, and oceans (Prajapati, Dehal & Kumar, 2024; Peña, Rodríguez-Liébana & Delgado-Moreno, 2023).

These long-lived impacts signal how deeply human activity has altered Earth's natural systems, leaving an unmistakable geological and ecological signature so big that scientists propose that we have left the Holocene and entered the Anthropocene, the Era of Man, a geological epoch in which human activity is the most dominant driver of planetary change.

The food system is central to the Anthropocene. It uses nearly half of Earth's habitable land and 70% of freshwater, drives 26% of greenhouse gas emissions, and is the most significant cause of deforestation and biodiversity loss (Our World in Data, 2022, 2024; UNEP, 2021).

In addition, it is a major driver of premature death and chronic disease, leaving hundreds of millions undernourished while billions more struggle with obesity, diabetes, cardiovascular disease, and other diet-related conditions (WHO, 2024).

The Good Anthropocene

It doesn't have to be this way. Human activity could also shape positive futures by using innovation, sustainable practices, and cultural shifts to restore ecosystems and operate within planetary limits.

Becoming stewards of the planet is not only possible but essential; otherwise we undermine the very foundations of human civilization. The agrifood system, because of its scale and deep interconnections with the rest of the biosphere, is the key to unlocking a regenerative global economy. Scientific assessments suggest that regenerative farming and forestry practices such as soil carbon sequestration, cover cropping, agroforestry, and reforestation, could capture 4–6 gigatons of CO_2 per year (Boston Consulting Group, 2024).

At the same time, redesigned food production systems can help reverse biodiversity loss by restoring degraded land, diversifying crops, and reducing pressure from deforestation and overfishing, thereby turning food production from a driver of ecological decline into a source of renewal.

The economic potential is equally significant. The Food System Economics Commission estimates that transforming agrifood could generate at least 5 trillion USD in annual economic benefits by 2030, driven by carbon sequestration, restored ecosystems, and reduced health costs (Ruggeri Laderchi, et. al., 2024).

In this light, investing in regenerative food and land systems is an ecological imperative and one of the century's most compelling financial opportunities.

Agrifood investments punch significantly below the sector's weight

By redirecting private and public capital to transform the food system from one of the most significant drivers of planetary harm into one of the most potent forces for regeneration and resilience, we can unlock the Good Anthropocene and build category-changing companies in one of the world's largest industries.

Despite its potential to deliver strong financial returns and transformative impact, the sector remains dramatically underinvested. Food and agriculture account for roughly 12% of global GDP and 26% of global greenhouse gas emissions, yet receive only about 2% of private equity capital and only 1.3% of climate capital, a striking mismatch between scale and investment (Strauss, 2022; Marston, 2024; Our World In Data, 2022; Ruggeri Laderchi, et. al., 2024).

The Food System Economic Commission sizes the funding required (public and private) at 200-500 billion USD per year (Ruggeri Laderchi, et. al., 2024), a marked increase from today's 43 billion USD in private capital invested in food systems, but a fraction of the trillions in potential value created.

The State of food system investments

Since we founded Re:food in 2020, the progress has been uneven. While the urgency of food system reform has only grown clearer, capital flows, regulation, and technological development have advanced in fits and starts.

At the time of the publication of our Food is Solvable report in 2021, venture capital surged into food tech, particularly into alternative proteins, vertical farming, and food waste innovations. Valuations peaked in early 2022, fueled by abundant liquidity and investor appetite for ESG themes.

Since then, however, capital has retreated. By 2023, global agrifood tech investment had declined by roughly 50% compared to 2021, with shrinking valuations and fewer mega-rounds (AgFunder, 2024). This cooling has been painful for some early entrants but has created more realistic valuations and attractive entry points for long-term investors. Significantly, it has separated hype from durable innovation, leaving a clearer set of commercially viable models.

Since 2021, regulatory frameworks have begun to catch up with the urgency of food system reform. The European Green Deal and its Farm to Fork strategy have established ambitious targets to reduce pesticides by 50%, fertilizers by 20%, and restore degraded ecosystems by 2050 (European Commission, 2025). Similar but uneven efforts are underway in the United States, China, and Japan.

At the same time, governments are recognizing the distortion of existing subsidies: roughly 670 billion USD per year in agricultural and fisheries subsidies still flow primarily into practices that harm ecosystems and public health (World Bank, 2023). Redirecting this support could be the fastest lever for transformation.

All is not good. The Trump presidency has set back the transition to a sustainable food system by rolling back environmental protections, weakening climate policy, and undermining scientific capacity.

Trade policies, including steep tariffs, have profoundly disrupted agricultural markets. Tariffs have also inadvertently encouraged environmental harm; for example, Brazilian soybeans filled the gap as U.S. exports to China fell, increasing Amazon deforestation.

Despite headwinds, the four paradigm shifts identified in Food is Solvable are advancing.

- **Sustainable proteins and fats** continue to gain market share, with plant-based and fermentation-derived products expanding globally. Although the U.S. plant-based retail market saw sales decline in 2023 and 2024, influenced by increased inflation and tight consumer budgets, it is growing again. Products like plant-based milk and creamers have become growth drivers within their categories.
- **Healthy soils** have moved from fringe to mainstream discussion, with regenerative agriculture, soil carbon markets, agroforestry, and cover cropping attracting corporate and policy support. Circular supply chains are scaling through upcycling platforms, smart labeling, and biodegradable packaging.
- **Sustainable - and reliable - supply chains** have become a central priority, highlighted by the COVID-19 pandemic, the Russian invasion of Ukraine, and extreme weather caused by climate change. These crises exposed the fragility of global food, input, and energy flows, driving price volatility and threatening food security. Building resilient, sustainable supply chains is now essential for investors, companies, and policymakers alike.
- **Healthy diets** are increasingly framed as a public health necessity. For example, despite controversy over its scientific grounding and broader policy consistency, Make America Healthy Again (MAHA) is a reform agenda that underscores the interplay among public health, regulation, and food system transformation.

All in all, the investment opportunity in driving a green food system transformation remains highly compelling, but it requires discernment and specialist expertise to identify the companies and strategies best positioned to deliver both meaningful impact and strong financial returns.

Food is Solvable *and* Investable

At Re:food, we dedicate ourselves to understanding where to invest for maximum positive impact and maximum financial value. This work derives from two key assertions:

(i) the food system is broken but solvable, and (ii) transforming the system holds the potential for attractive financial return. Here we dig deeper into the frameworks that underpin our work as agrifood investors.

The Re:food circle

To design our investment framework for the food system transformation, we applied the backcasting method described by the Framework for Strategic Sustainable Development (FSSD), starting with the definition of our goal.

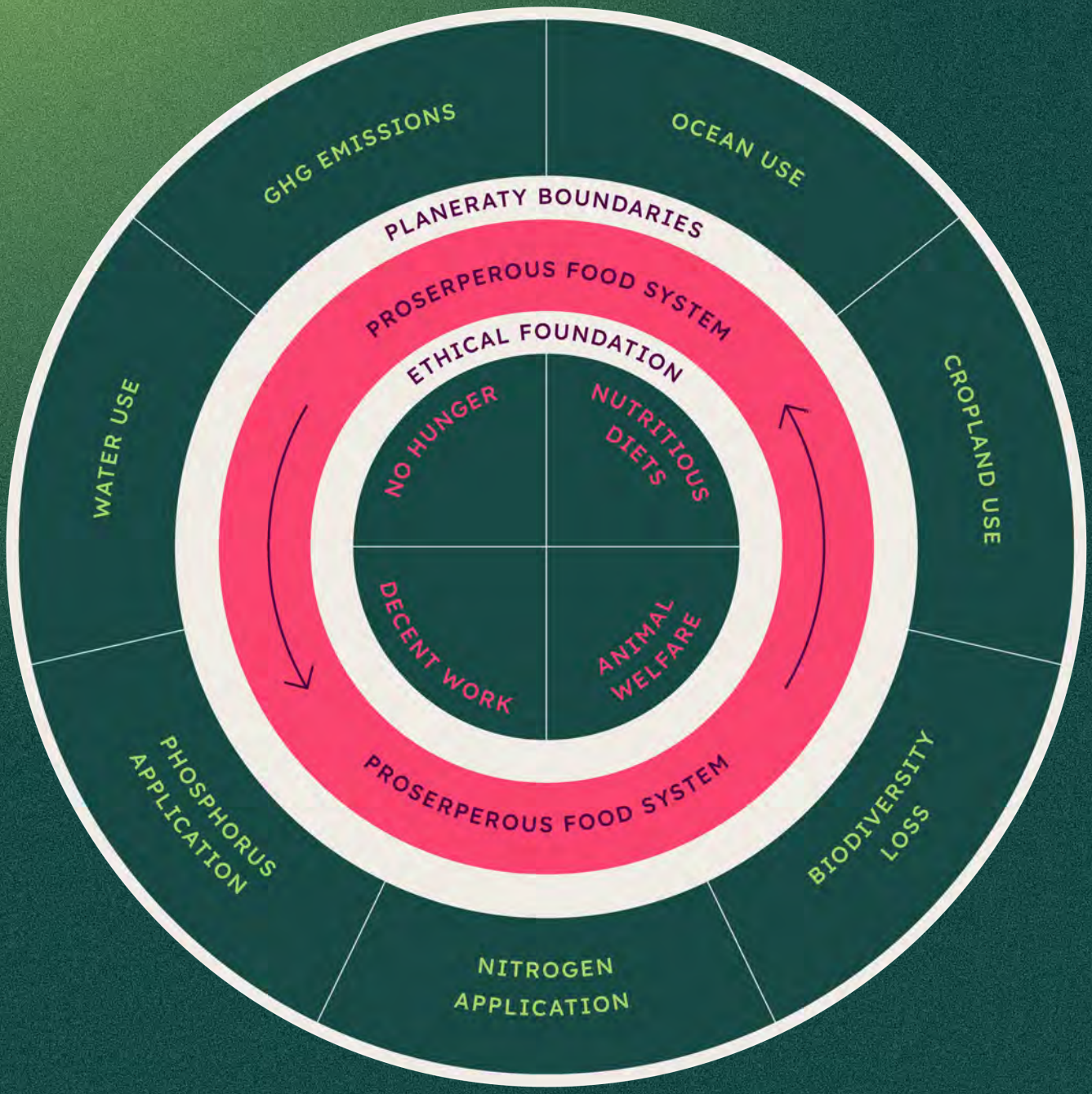
Food and agriculture affect numerous planetary systems, so we drew on the Planetary Boundaries research by Johan Rockström and the Stockholm Resilience Center (Rockström et al. 2009). This work identified the natural systems that regulate our planet and enable life. It calculated the limits for each system within which humanity must operate to avoid potentially irreversible environmental change.

The 2019 EAT Lancet Commission adapted this framework to the food system, highlighting six directly relevant boundaries.

Re:food added one additional system, Ocean Use, to the EAT-Lancet six, to arrive at a set of seven planetary boundaries which define the environmental objective of a sustainable food system: Greenhouse Gas Emissions, Biodiversity Loss, Land Use, Nitrogen Use, Phosphorus Use, Freshwater Use, and Ocean Use.

Since the food system also touches every person on the planet, we added a social foundation to the model by including three UN Sustainable Development Goals: No Hunger, Nutritious Diets, Equity For All, and, as the final piece of the puzzle, Animal Welfare, recognizing the rights of the billions of animals in the food system. [1]

1 On October 3, 2025, after the publication of this report, EAT and The Lancet will launch the 2025 EAT-Lancet Commission, a major scientific update to the 2019 EAT-Lancet Report. It might induce some adjustments to our framework.



The result became the Re:food Circle, a shape inspired by Doughnut Economics, which shows the safe operating space bounded by the seven natural systems and supported by the four social elements.

We define a sustainable and resilient food system as one that meets the needs of all people while operating within the boundaries of our planet, even in the face of stress from external factors such as extreme weather, war, financial crisis or pandemics.

By the Numbers: Adverse Effects of the Food System

The current state is not looking good. Today, the actions of our society (including our food system) have crossed six out of the nine original planetary boundaries, increasing the risk of abrupt, large-scale, and potentially irreversible environmental changes.

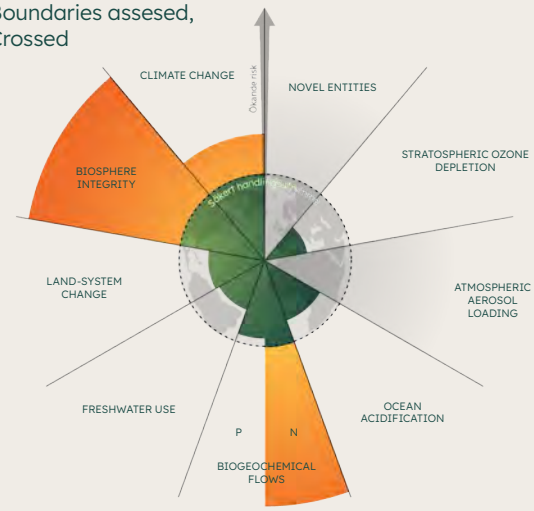
The food system is uniquely positioned to help reverse this trend through natural carbon drawdown and storage, changes that rebalance nutrient flows, and changes in land and ocean use. But this will only occur if we as a society shift our food production, processing, transportation, and consumption habits.

To do this, we need to rapidly scale new technologies and business models that will enable the sustainable transformation.

We have entered the "defining decade," meaning that actions taken in the next few years to implement these shifts are critical to reducing planetary pressures by 2050. In other words, we must act now.

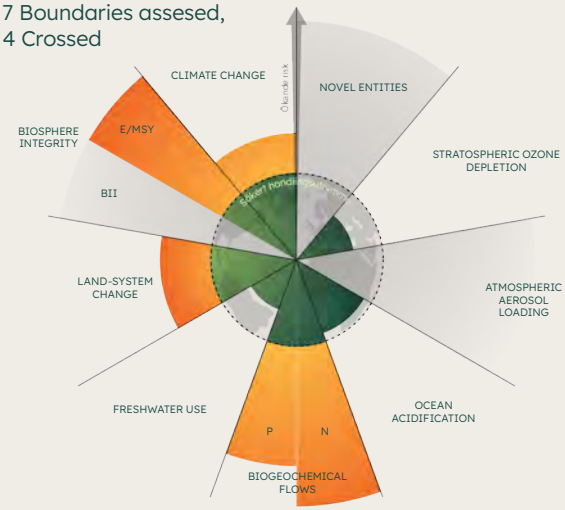
2009

7 Boundaries assesed, 3 Crossed



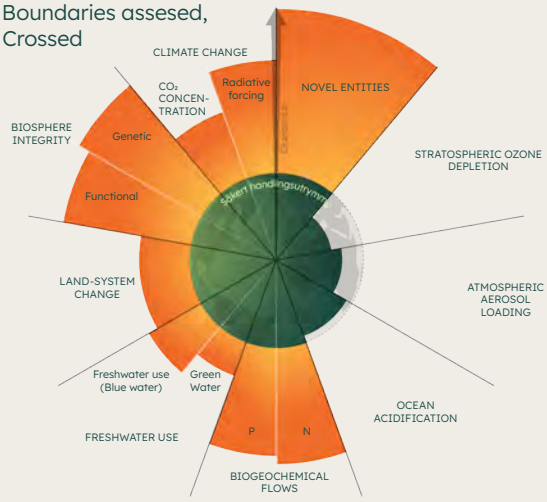
2015

7 Boundaries assesed, 4 Crossed



2023

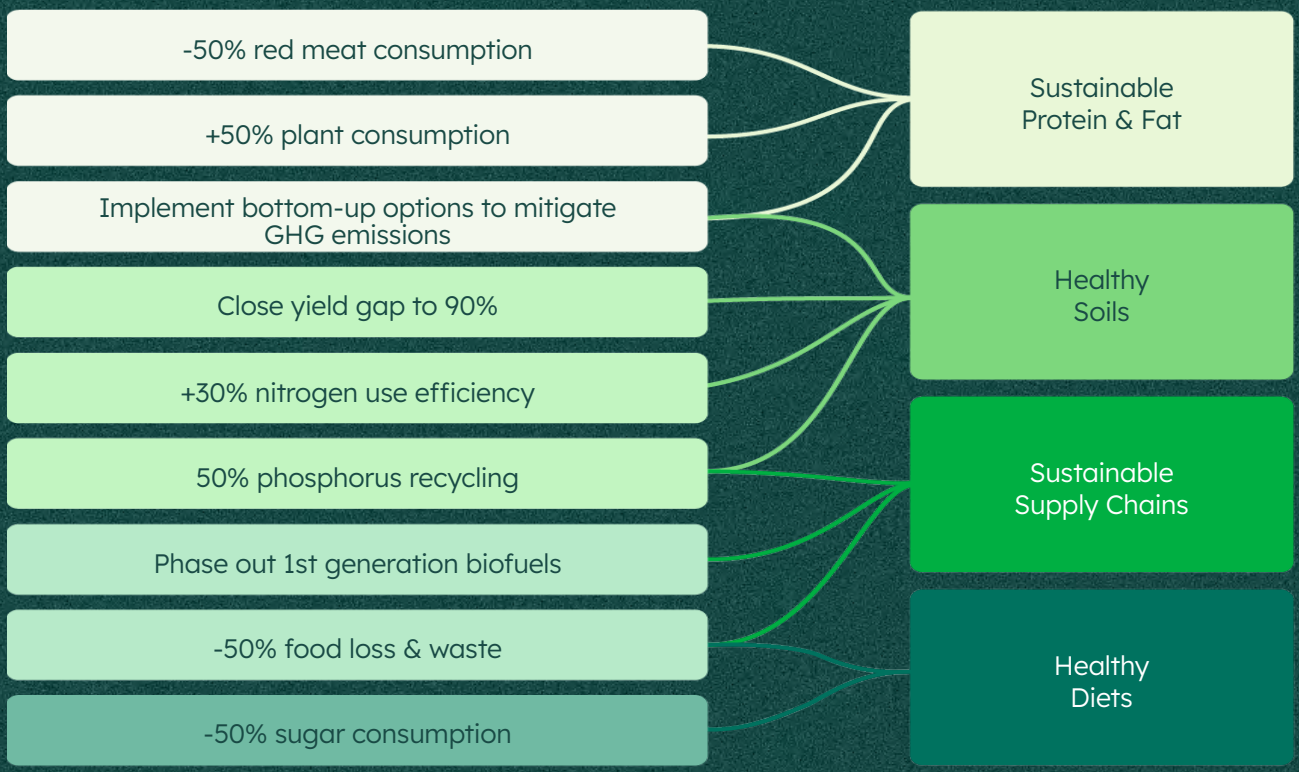
9 Boundaries assesed, 6 Crossed



Investment themes

The 2019 EAT-Lancet Report identified science-backed shifts that can restore balance to these boundaries.

The 2019 EAT-Lancet Report identified science-backed shifts that can restore balance to these boundaries. We mapped these shifts to four investment themes, which guide our work as growth equity investors for the future of food:



Sustainable Proteins & Fats

Animal-based protein consumption has risen drastically in the modern era, driven and enabled by industrialized farming practices.

These practices have more than tripled meat production in the past 50 years; today more than 100 billion animals are killed for meat and other products each year (Our World in Data, 2024).

As meat and dairy production have expanded, they have brought with them a host of systemic challenges, including rising antibiotic resistance, accelerating deforestation, and escalating greenhouse gas emissions from animal agriculture. Beyond these urgent environmental and public health issues lies another inescapable reality: the inherent inefficiency of turning crops and wild catch (corn, soy, grains, fishmeal, etc.) into animal products.

The majority of calories are lost through metabolism, movement, body heat, and waste, with only a small fraction returning to humans as edible meat, milk, or eggs.

Alongside this massive loss of resources comes massive animal suffering, as billions of sentient individuals endure the intensive confinement and harsh conditions of factory farming systems.

However, there is a world in which we could meet everyone's dietary needs while respecting animal welfare and preserving natural resources. This vision is neither distant nor abstract, nor does it require compromise on taste, texture, or cost. Thanks to advancements in precision biology and metabolic engineering, we now have the tools for the most significant transformation in animal-based food production since the shift from hunting to livestock domestication.

Animals can remain part of the food system, providing valuable ecosystem services, without being treated as machines or commodities.

Healthy Soils

Healthy soils – specifically, healthy topsoils high in organic matter with a thriving soil microbiome – are an essential cornerstone of the food system.

In fact, the FAO estimates that 95% of the food we eat is directly or indirectly dependent on soil (FAO, 2022). However, instead of preserving the soil food web, many modern agricultural practices disrupt its delicate symbiotic relationships. This disruption is an unintended consequence of previous innovations that contributed to the Green Revolution.

Instead of continuing this status quo, we can use technology to manage a system that works with nature instead of against it.

Microbes and biologicals can provide nutrition and protection to our crops, replacing synthetic inputs. Seeds can be engineered to be resilient to the changing climate. Farmers can access deep, timely information about their farms at a microscopic level to proactively address issues with targeted applications of nutrients, crop protection, or water.

Robotics can supplement human labor on farms, improving job quality and safety. The result will be healthier soils and more nutrient-dense crops.

Sustainable Supply Chains

Modern food supply chains are long, linear, vulnerable, and wasteful

They depend on numerous stakeholders and middlemen, with little transparency or ability to track the system's flow of goods, emissions, and financial returns.

These supply chains have enabled urbanization and introduced new foods and flavors to our palates. But they have also decreased visibility into where our food comes from, increased waste of food, nutrients, and plastic, are vulnerable to geopolitical events and pandemics, and still fail to provide nutritious foods to everyone worldwide.

We embrace a global food system based on free trade, but we reject the assumption that supply chains must be linear and wasteful. A cleaner, more circular global food supply chain is possible, one that distributes food equitably while reducing waste and emissions, and that reflects true environmental and social impacts into the cost of transport.

To build this supply chain, we must scale up food waste reduction platforms and technologies, sustainable packaging alternatives, and novel methods of producing foods to build resilience into the system. These technologies are already in development and in some cases commercial. Along the way, we can build a more transparent and robust supply chain, reducing labor violations and improving food safety.

Healthy Diets

Malnutrition is a global paradox:

there's more than enough food to feed everyone on this planet, yet hundreds of millions of people are starving, while billions are overweight or obese. Members of both groups are micronutrient deficient, and all forms of malnutrition: obesity, hunger, and micronutrient deficiency, are rising (WHO, 2024).

On the flip side, a healthy diet transformation could prevent one in five deaths and is the strongest lever to improve both human and planetary health (Afshin, Ashkan et al.).

Rather than being a driver of chronic diseases, the food system could be the key to global health. Today, innovators are developing a deeper scientific understanding of nutrition to tailor recommendations based on the unique metabolic profile of each individual.

But even lower-tech solutions that improve access to healthy foods, whether in urban food deserts or developing countries, can have a positive impact, as can ensuring that better-for-you alternatives to fast foods and snacks are available with comparable taste and cost. And healthcare incentives are increasingly aligning with the reality that food is medicine. The benefits of this shift for human health and well-being are enormous.

Solvability

Categories and segments

Themes are useful to define our investable universe, but are too broad to be actionable in our day to day work. To enable our investment work, we applied the principles of systems thinking to identify barriers that prevent the necessary shifts within each theme from occurring, and leverage points that could break down these barriers and accelerate the shifts (Meadows, 2008).

We divided each theme into innovation categories: groups of innovations that address a similar barrier. These categories are further broken down into segments, consisting of companies developing similar innovations with similar products, technologies, or business models.

New innovations emerge often, so segments may shift, but innovation categories are more static, and themes are fixed.

Example of a Theme > Innovation Category > Segments

Theme	Healthy Soils
Innovation Category	Sustainable Ag Inputs: Redefining what we put in or on the soil to maximize planetary and human health outcomes while preserving or increasing yields.
Segment 	Biological Fertilizers & Pesticides: Bio-based products that add to or enhance the soil microbiome for environmental and health outcomes and to replace or augment synthetic fertilizer and crop protection use. Other segments in this category include: • Seeds of the future • Rycycled Nutrients • Green Ammonia • Biochar & Soil Enhancers

We assess each segment for its Solvable Potential

The extent to which it will contribute to the EAT-Lancet shifts and accelerate the food system transformation.

Segments have high Solvability when they can profoundly improve one or more areas of the Re:food circle, with low risk of adverse impacts as the technology scales. As an Article 9 Fund under the Sustainable Finance Disclosure Regulation (SFDR), Re:food only considers segments with high potential to benefit people and planet, without causing significant harm to any environmental or social objectives.

Investability

To make our investment approach actionable, we target investable segments and sub-segments within each theme.

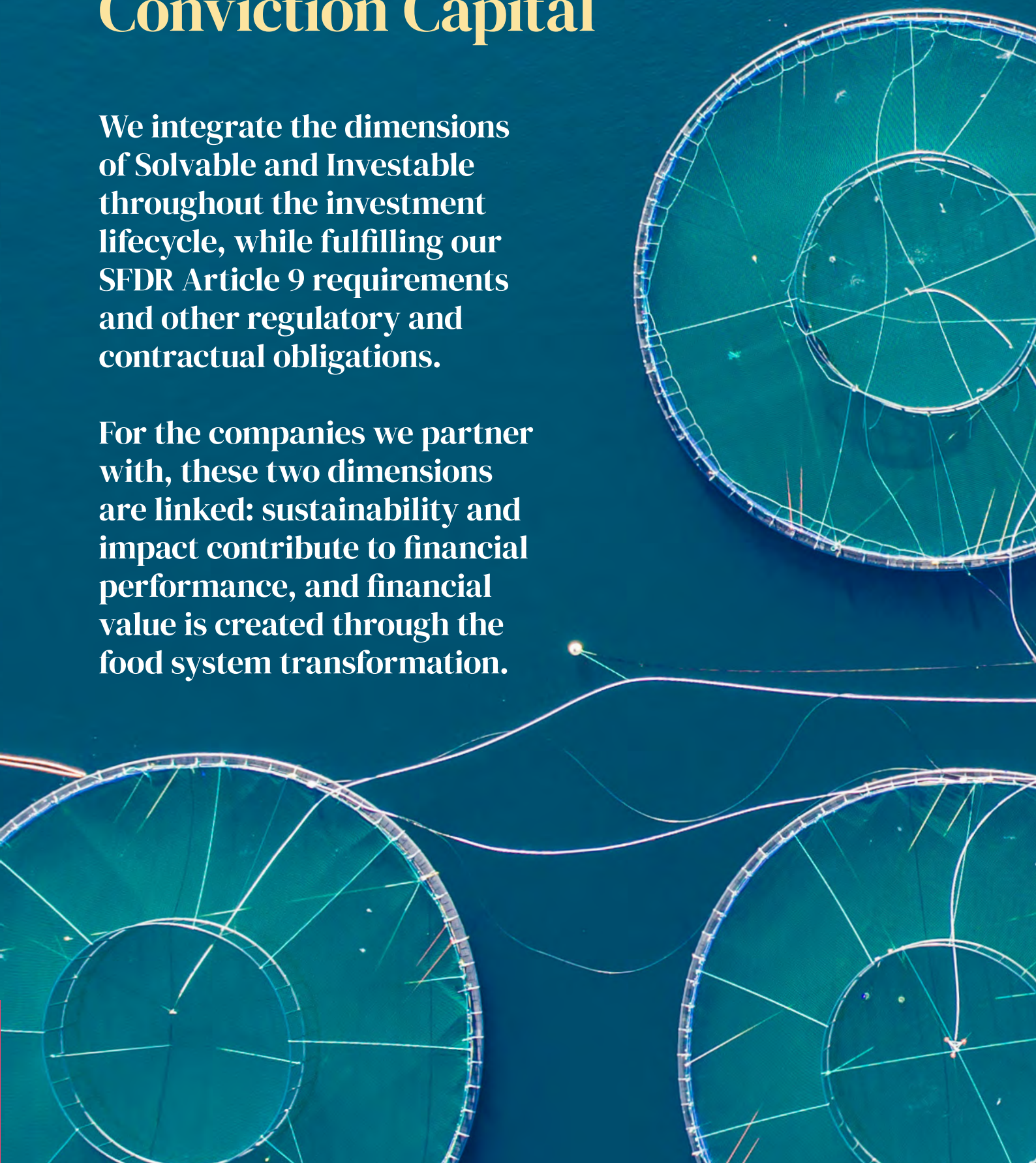
An investable segment has (i) depth and momentum: enough high-quality companies, clear demand growth, and supportive policy; (ii) an execution ecosystem: operators with commercial traction, credible partners, robust supply chains, and technology that is ready to scale, with visible exit paths to strategics or infrastructure owners; (iii) capital fit: segments that align with our ticket size, strengths and holding period, where we benefit from a longer time horizon than most of our peers.

For a more thorough understanding of how we think about investability in the agrifood system, for venture funds, private equity, and infrastructure funds, see our 2024 report Food is Investable. It includes a Treasure Map giving an overview of the investability of 27 segments in the agrifood space.

Specialized Conviction Capital

We integrate the dimensions of Solvable and Investable throughout the investment lifecycle, while fulfilling our SFDR Article 9 requirements and other regulatory and contractual obligations.

For the companies we partner with, these two dimensions are linked: sustainability and impact contribute to financial performance, and financial value is created through the food system transformation.



Research and Sourcing

Our process begins with research to identify segments that can meaningfully contribute to a major food system shift while generating value for investors.

Using the team's experience and external expertise, we develop segment theses. Once we understand a segment's prioritization and fit for Re:food, we seek out companies in that space.

We qualitatively assess each company's potential to create a transformative or significant impact, and its alignment with our financial investment criteria.

We look for companies with strong management, a clear strategy and a structural competitive advantage, consistently counter-positioned to incumbents, and anchored either in differentiated technology or a distinctive way of working that delivers obvious customer benefits.

Brand strength is a key part of the winning formula, not only for consumer businesses but increasingly also in B2B.

For Re:food to engage with and invest in a growth-stage company, there must be clear potential for sustained outsized growth over multiple years, attractive unit economics with competitive margins, and sensible CAPEX requirements to enable significant further scale-up.

Engaging

During due diligence we build conviction in the company's role in the food system transformation and its capacity to create long-term enterprise value.

As a responsible investor, we not only consider the potential for positive impact, but also assess material ESG factors and potential adverse impacts. We also dig into the potential for the company to reach category-changing status, based on our assessment of the market, team, operations, strategy, and structural competitive advantage.

We utilize in-house and external expertise on all topics while laying the groundwork for a value-adding partnership post-investment.

At investment, Re:food's sustainability requirements are codified in the investment documents, including agreed-upon impact KPIs, Principal Adverse Impact (PAI) indicators, and protective rights should the company deviate from its sustainable investment status.

We align with management on a value creation plan based on the risks and opportunities identified during our diligence.

Value Creation

Post-investment, we support management in building category-defining companies.

This work varies from company to company, ranging from strategy to governance to commercial execution and beyond. We monitor progress on financial and impact KPIs and milestones, in addition to collecting Principle Adverse Impact data to meet our regulatory obligations.

We build long-term trust-based partnerships and take board seats where possible, which enables us to be active owners and support the management in its business building.

Partnerships and the Re:food eco-system

At Re:food, we believe in the power of collaboration with trusted partners.

Over the years, we have built strong relationships with our Limited Partners, co-investors, corporates, researchers, industry veterans, and other thought leaders to sharpen our investment capabilities and better support our portfolio companies. In our research and due diligence processes, we regularly engage with the Stockholm Resilience Center (SRC) and other leading universities to stay aligned with the latest science and insights, and we are co-financing a professorship at the SRC. While the Re:food platform is designed to be stage-agnostic, our current focus is growth equity.

To ensure that we also have exposure to innovation at earlier stages, we serve as a Limited Partner in a select group of early-stage funds in Europe and the US. This allows us to maintain visibility across the full investment pipeline, from early breakthroughs to scaling businesses. We also draw on a strong network of industry experts to access deep operational knowledge across the food system.

Since 2021, we have organized the annual Re:food Solvable Summit, convening thought leaders from academia, the investment community, policy, and practice, including chefs, farmers, and executives from food companies, to exchange perspectives and accelerate the green transformation of the global food system. In 2025, we co-hosted this event with our friends at the EAT Foundation.

The Re:food Portfolio across Four Themes

Sustainable Protein and Fats. The problem with intensive animal factory farming. Animals are no longer raised on farms; they are produced in factories.

Over the last three decades, intensive animal production has become the dominant method for meat, dairy, and egg production, fueled by population growth, rising incomes, and rapid urbanization in developing regions, all of which drive higher per-capita consumption. Economies of scale, most pronounced in pigs and poultry, further incentivize intensification.

Animal welfare issues are inherent to this production system, but beyond this, cheap meat and dairy have steep prices in the form of greenhouse gas emissions, freshwater use, and land use, and contributions to biodiversity loss and antimicrobial resistance.

Animal agriculture is responsible for 14-18% of global greenhouse gas emissions, 77% of agricultural land use, and one-third of freshwater flows (Xu, et al., 2021; Our World In Data, 2022, 2024).

Intense animal factory farming can become incrementally more efficient, but not without increasing suffering, and it can never escape the conversion loss from animal feed to nutrients for human consumption.

Roughly 33% of global cropland is used to grow feed crops (FAO, n.d), and at least 10% of the world's total marine catch are fed to animals (FAO). The feed would serve us better as human food or as thriving ecosystems in the oceans. Our food is eating our food.

Further expanding this intensive animal agriculture system will continue to push on our planetary boundaries while increasing the risk for zoonotic diseases, antibiotic resistance, and food safety issues. Sustainable alternatives are already feasible and hold tremendous promise.

Contributions to the food system transformation

Shifting our protein production away from animals towards alternatives holds huge potential to address these harms. According to Project Drawdown, Plant-Rich Diets are either the second or third most impactful solution to address greenhouse gas emissions (Project Drawdown).

Transitioning to sustainable alternatives can satisfy our growing demand for protein while ensuring we continue to operate within our planetary boundaries.

Along with the reduction in environmental pressure, this shift will also drastically improve animal welfare while reducing negative downstream impacts like biodiversity loss from land use change and effluent and antibiotic-rich runoff, and health risks from antibiotic resistance and zoonotic disease.

Finally, this shift will improve Animal Welfare, reducing the number of animals living raised in inhumane conditions.

Direct Major Impacts on Re:food Circle	**KPIs**
Greenhouse Gas Emissions	• Net GhG Emissions Reduced, Avoided, or Sequestered • Ghg intensity per kcal protein
Cropland Use	• Land Use Change Avoided
Freshwater Use	• Liters Water Saved
Animal Welfare	• Animals Saved • Animals raised in Five Freedomsaligned conditions

The commercial potential for sustainable proteins and fats

The global meat industry, valued at over one trillion USD, represents one of the largest markets ripe for disruption.

Even a modest 10% market share captured by alternative proteins would unlock a revenue pool of roughly 100 billion USD, illustrating the sheer scale of the opportunity. Growth trajectories already demonstrate this potential.

In 2024, the alternative protein market was estimated at 15.7 billion USD with a CAGR of 9.9% to reach 25.2 billion USD by 2029, (Markets and Markets, 2024).

Meanwhile, plant-based milk has secured approximately 15% of the market in the US and Europe, with Asia-Pacific showing the fastest unit-volume growth (Market Growth Reports, 2025), proving that consumers are ready to switch at scale when products achieve parity in taste and affordability.

These trends highlight a willingness to embrace new categories once performance barriers are lowered.

Sustainable protein & fat alternatives

Technologies for sustainable protein and fat production can be broadly grouped into two categories, each encompassing numerous technologies and segments:

- **Production Technologies:**
  Novel methods for producing proteins and fats eliminate the need for animals while delivering products that match or improve the taste, texture, and performance of animal products. Functionally identical ingredients are achievable via precision fermentation, plant molecular farming, and animal cell cultivation, while biomass fermentation and plant-based technologies can produce delicious and satisfying animal-free proteins.
- **Enabling Technologies:**
  To break down the infrastructure barrier preventing the scaling up of alternatives to animal meat, we need to develop and invest in purpose-built infrastructure, bioreactors, software, and specialized service providers. This will significantly improve production efficiencies while reducing CAPEX, scale-up risk, and speed to market for companies, ultimately breaking down the price-parity barrier.

Re:food Partnerships

- **Mission Barns** cultivates pork fat in bioreactors, not pigs. When blended with plant proteins, this fat delivers rich, savory products such as bacon, meatballs, and sausages with the taste and texture consumers expect but without the environmental impact. Mission Barns has created a more scalable and cost-efficient path to cultivated meat by focusing on fat rather than muscle tissue. Fat cells grow faster and more affordably, and only a small percentage is needed in final products to deliver the benefits, slashing production costs while unlocking superior flavor and sustainability.

  In March 2025, Mission Barns became the first and only company in the world to secure FDA clearance for cultivated pork fat, a breakthrough that paves the way for retail and restaurant launches.

  Category: Production Technologies
  Segment: Animal-Cell Cultivation

- **Planted** combines proprietary structuring and fermentation technologies to craft meat directly from plant proteins, delivering delicious taste, juicy texture, and clean-label ingredients. Its platform allows for limitless size, shape, and fibrous texture design to deliver plant-based meat that outperforms animal meat in taste, sustainability, nutrition, efficiency, and price parity. By committing to only clean ingredients and zero additives, Planted sets a new benchmark for the category.

  Category: Production Technologies
  Segment: Plant-Based Protein

- **Pow.Bio** is revolutionizing biomanufacturing through AI-driven continuous fermentation. The company's dual-chamber system separates microbial growth from production, enhancing efficiency and reducing contamination risks, while its software solutions enable faster process development and self-driving fermentation. Compared to traditional methods, this approach can boost productivity 2x–5x and cut costs by up to 70%.

  Category: Enabling Technologies
  Segment: Bioprocessing Capacity

- **The Mediterranean Food Lab** is a food-tech company transforming plant-based ingredients into rich, savory flavors using solid-state fermentation. Founded by chefs, MFL was born from the desire to replicate the depth of meat-based dishes without using any animal products. The company's proprietary fermentation process converts grains, legumes, and upcycled food waste into complex flavor compounds like peptides, amino acids, and fatty acids. This method enables MFL to create clean-label, additive-free ingredients that deliver umami and depth traditionally associated with meat.

  Category: Production technologies
  Segment: Animal-Cell Cultivation

Healthy Soils

The problem with extractive agriculture

At the root of the food system is soil health, but modern agricultural practices disrupt the soil food web and destroy valuable topsoil. Degraded soil threatens agricultural productivity, so we've become reliant on engineered seeds from a shrinking number of staple crops that are fed and protected with chemicals to maintain yields.

But these chemical inputs further degrade the health of the soil microbiome and the quality of the soil.

Degraded soil erodes easily, washing inputs into our waterways and oceans to cause eutrophication and toxic dead zones, releasing stored carbon into our atmosphere, and reducing the soil's capacity to hold water.

These inputs, along with the ever expanding land dedicated to agriculture, destroy natural ecosystems and contribute to biodiversity loss. And all of this is resulting in a widening yield gap and less nutrient dense food. We can't design food out of the system because we all depend on it to survive. Instead, we need to redesign the agricultural system and return to using agricultural practices that regenerate soil health instead of destroying it. This movement is already in the making.

Contributions to the food system transformation

Sustainable agriculture holds the promise to not only reduce the negative impacts of extractive agriculture, but even reverse them. By changing our practices we can use our soils as a net carbon sink that sequesters greenhouse gases emitted from other industries to help fight climate change. By sustainably intensifying and diversifying agriculture we can produce more and better food on less land, reducing agriculture's impact on biodiversity loss while producing more nutrient dense foods and closing the yield gap.

And by rebalancing input flows to reduce dependence on synthetic and mined fertilizers and pesticides, and increase the dependability of nature's own pathways, we can positively impact ecosystems close to the farm and far downstream in our oceans.

All of this also creates benefits for stakeholders in the form of better working conditions, better food, and a narrowing yield gap, increasing the resilience of our agriculture system to meet the needs of future generations.

Direct Major Impacts on Re:food Circle	KPIs
Greenhouse Gas Emissions	• Net GhG Emissions Reduced, Avoided or Sequestered
Biodiversity	• Biodiversity Loss Avoided
Cropland Use	• Hectares of Land Impacted by Sustainable Practices • Land Use Change Avoided
Freshwater Use	• Liters Water Saved
Nitrogen Use	• Synthetic Nitrogen Use Avoided
Phosphorus Use	• Phosphorus Use Avoided • Phosphorus Recycled
Nutritious Diets	• Nutrient Density Increased
No Hunger	• Yield Increased
Equity For All	• Grower Economic Uplift

Commercial potential

The sustainable agriculture market today is estimated at 15-24 billion USD, a fraction of the trillion dollar global agriculture industry

but growing rapidly at a compound annual growth rate in the high single digits to low double digits (Prophecy Market Insights, 2025; Research and Markets, 2025). Climate adaptation, food security concerns, and consumer demand for sustainable and nutritious food are all driving this growth.

Sustainable practices can reduce long-term operating costs for growers, a priority in today's challenging macroeconomic environment.

Yet despite the economic potential of sustainable agriculture, a recent report by the Climate Policy Initiative found that while global financial flows to the agrifood system reached 95 billion USD in 2021-22, this was only 7% of climate finance and woefully short of the 1.1 trillion USD needed annually to align the food system with climate goals (CLIC, 2025).

Crop and Livestock systems accounted for over one-third of this investment, but agriculture-specific mitigation funding actually declined, with minimal support for on-farm solutions. Meanwhile, a 2024 McKinsey survey found that 90% of farmers were aware of sustainable farming practices, but adoption remains low because of barriers to changing inputs, equipment, and practices (McKinsey, 2024). We invest in innovations that can break down those barriers.

Sustainable and regenerative alternatives

We see opportunities to invest in sustainable agriculture in four key categories:

- **Sustainable Agriculture Inputs:** The current agricultural paradigm arose because of innovations in seeds, fertilizers and other inputs. To move into a new, regenerative paradigm we need to rethink these inputs to include greater integration of biological systems, more precision, and better mitigation of harmful downstream impacts.

- **Information & Decision Making:** It's difficult to manage what you can't measure and we are still in the early days of building our understanding of soil biology and how to manage a more complex sustainable agricultural system. New innovations are emerging that can measure what can't be seen, sift through huge amounts of data, and support growers in making informed decisions to maintain and improve yields while minimizing negative impacts and creating co-benefits.

- **Market-based Incentives:** There are numerous incentives that keep the current paradigm in place, including our current market system which places a myopic focus on growers maintaining and increasing yields, at the expense of the environment, health of the soil, and the quality of the food. We're interested in finding market-based opportunities to change this incentive structure, to give growers a compelling reason to make the transition to sustainable practices.

- **Precision Agriculture Tools:** The grower of the future will need to manage a more complex but highly productive system with fewer synthetic inputs and less human labor, and will require new tools and equipment to do so. Precision in all things means less input used and less negative downstream impacts, whether we're talking about water, inputs, harvesting or even pollination.

Re:food partnerships

- **Agreena** is Europe's largest soil carbon program, financing the regenerative agriculture transition by supporting thousands of farmers across millions of hectares and in the process reducing and sequestering over 2 million tonnes of CO2e. The company's flagship initiative, AgreenCarbon, allows farmers to benefit from adopting sustainable practices by generating and selling carbon credits to companies to offset and inset their hard to abate emissions.

  Agreena uses AI and satellite data to monitor and verify carbon sequestration in soil, and issues credits under the world's most stringent Verra Verified Carbon Standard methodology for Improved Agricultural Land Management.

  Category: Market-based Incentives
  Segment: Ecosystem Services Credits

- **NewLeaf Symbiotics** develops science-led technologies to help farmers around the world feed a growing population sustainably. As Champions of Pink Performance, NewLeaf has spent over a decade researching and developing agricultural biological products derived from pink-pigmented facultative methylotrophs (PPFMs), a family of microbes that work symbiotically with every plant on the planet to deliver benefits from increased vigor to better protection against pests to enhanced nutrient use efficiency.

  These products are applied to millions of acres annually, increasing yields without increased inputs, driving down the emissions per bushel and contributing to an agricultural system that benefits growers, meets people's needs, and reduces planetary boundary pressure.

  Category: Sustainable Ag Inputs
  Segment: Biological Fertilizers & Pesticides

Sustainable Supply Chains

The global food supply chain moves a massive amount of ingredients and goods around the world through a complex network of producers, processors, distributors, and retailers.

Yet it is also characterized by an incredible amount of waste: food waste, nutrient waste, and plastic waste. This waste represents the loss of valuable resources and impacts ecosystems via greenhouse gas emissions, microplastics, and eutrophication.

The supply chain is also home to rampant labor abuses and unsafe practices potentially affecting food safety (Moody's, 2024).

At the same time, our warming climate is threatening the production of both staples and luxury goods around the world, requiring us to look for alternative growing practices and production methods. Geopolitical instability and the threat of future pandemics underscore the vulnerability of the global food supply chain.

If we continue to let this linear, wasteful supply chain grow it will eventually degrade our natural systems. Instead, we need to build a new, circular supply chain that reduces waste and greenhouse gas emissions while improving access to nutrient-dense foods for all people.

Contributions to the food system transformation

Addressing waste in the food supply chain would have numerous benefits. Today, an estimated one-third of food is lost or wasted along the supply chain, representing 24% of the world's calorie supply and producing 8-10% of global greenhouse gas emissions (WRI, 2023; UNEP, 2024). This food waste also represents a massive store of phosphorus, a finite mined resource essential for food production, up to three-quarters of which is currently being wasted (UNEP, 2024).

Addressing food supply chain greenhouse gas emissions requires looking beyond food waste to also understand and address the emissions from production, processing, and transportation – a difficult task given the decentralized nature of the food system. Greater transparency would help, and could also benefit labor in the supply chain as well as the quality and safety of the food that makes it onto our plates.

Finally, alternatives to fossil fuel-based plastics have upstream benefits in the form of lower greenhouse gas emissions, and downstream benefits from fewer microplastics entering our soils and oceans.

Direct Major Impacts on Re:food Circle	**KPIs**
Greenhouse Gas Emissions	• Net GhG Emissions Reduced or Avoided
Phosphorus Use	• Phosohorus Recycled
No Hunger	• Volume of Food Redirected from Landfill
Equity For All	• Supply Chain Labor Violations Reduced or Eliminated

Commercial Potential

The economic impact of food waste and loss is estimated at one trillion USD per year (UNEP, 2024)

Reducing this will create real economic benefits in the form of cost savings and new revenue streams from previously wasted products, representing an estimated 155-405 billion USD economic opportunity by 2030 (US EPA, n.d.).

Sustainable packaging solutions also represent a large and growing opportunity, with varying projections putting the market size between 50-100 billion USD by 2030, driven by consumer demand, regulations affecting single-use plastics, and technological development of sustainable alternatives.

Environmental regulations are also impacting supply chain emissions, while the cost to abate half of global food system emissions may be less than 2% of food sector revenues (Food and Land Use Coalition, 2024). Scaling up these solutions requires technology development and adoption, creating opportunities for investors to participate in this value capture.

Circular and sustainable alternatives

Supply chains are complex, and it's challenging and maybe even impossible to find an innovation category that addresses all of the problems at once.

We focus on three major issues and have identified six key innovation categories:

1. **Supply Chain Resilience:**
   To build a future-proofed food supply chain we need to shift production of highly extractive and/or highly vulnerable fruits and vegetables to novel production methods that reduce environmental and social impact and improve supply chain resilience in the face of macro shocks such as geopolitics and extreme weather. This includes established but evolving practices like indoor agriculture, novel technologies like upcycled ingredient platforms, and futuristic innovations like biomanufactured coffee and chocolate alternatives.

2. **Supply Chain Transparency:**
   Using technology to bring transparency to the complex supply chain to give stakeholders visibility into areas of high risk, high cost, and high adverse impact. Visibility is the first step to addressing and mitigating these negatives, and we're also interested in the tools and technologies that can enable food system participants to reduce their supply chain greenhouse gas emissions, maintain safe working conditions, and ensure food safety.

3. **Supply Chain Food Loss:**
   Food loss (human-edible commodities that exit the supply chain before reaching retail) begins on the farm during production, harvesting, and initial processing, and continues through storage, manufacturing, and transportation. Innovations like harvesting and packaging technologies, cold chain infrastructure, inventory management, and even upcycling and composting programs can reduce this food loss, which accounted for 41.6% of surplus food in the US in 2023 (ReFed, 2023).

4. **Retail Food Waste:**
   Retail and foodservice accounted for 23.2% of surplus food in the US in 2023, due to the complexities of inventory management, insufficient packaging, and poor demand forecasting (ReFed, 2023). The logistics of donating surplus food before it spoils also creates a barrier. We look for companies developing tools and technologies to address these gaps, including waste tracking, demand optimization software, dynamic pricing platforms, food redistribution platforms, and shelf-life extension technologies.

5. **Consumer Food Waste:**
   Over one-third of surplus food in the US in 2023 came from consumers, making this a key area of focus (ReFed, 2023). Innovations in this category include those that reduce over-purchasing and ensure that purchased food is well preserved in home kitchens, used fully, or disposed of in a way that diverts it from landfills.

6. **Sustainable Packaging:**
   alternatives to single-use plastics could take many forms, including novel, biodegradable materials produced through microbial technologies or naturally occurring substances like seaweed, and edible coatings that eliminate the need for plastic while still keeping foods fresh. Other approaches are reusable consumer-facing packaging and digital tools to solve the logistical challenges of integrating this into existing systems.

Re:food partnerships

- **Matsmart / Motatos** is Europe's leading online discount food store, redirecting food destined for the landfill back to consumers. Motatos combats supply chain inefficiencies that drive food waste via partnerships with major retailers, automatic warehouse solutions, and dedication to delivering great deals to consumers. The company saves products from food producers and wholesalers that would otherwise be thrown away due to overproduction, faulty packaging, seasonal trends, or approaching best-before dates. These efforts are delivering real climate impact in the form of more than 20,000 metric tons of CO2e saved each year.

  Category: Retail Food Waste
  Segment: Food Redistribution Platform

- **Wayout** offers water-as-a-service at the point of consumption, eliminating the need for plastic bottles and global transport. With industry-leading filtration technology, Wayout's patented system can produce safe drinking water from any source, providing healthy water to thousands of people without creating waste. This innovation has the potential to deliver real benefit to the nearly four billion people worldwide who currently lack access to safe drinking water, while eliminating millions of plastic bottles from the food system.

  Category: Sustainable Packaging
  Segment: Circular Packaging Platforms

Healthy Diets

The true price of junk food

The food system currently produces enough for everyone to consume more than enough daily calories, yet one in three people lack regular access to adequate food (FAO, IFAD, UNICEF, WFP, WHO, 2024).

High-income countries face diets high in ultra-processed, nutrient-poor foods, while low- and middle-income countries still struggle with undernutrition and micronutrient gaps. Our brains are tuned to prefer salty, sugary, and fatty foods; in a modern Western food environment this drives overconsumption, while the health consequences arrive with long delays.

That lag of years or decades between daily choices and disease obscures causality for individuals and policymakers. The result is a rising burden of noncommunicable diseases (NCDs) in which unhealthy diets are now among the top global risk factors (WHO, 2024). The economic stakes are enormous and rising. On current trends, the global economic impact of overweight and obesity alone is projected to reach 4.32 trillion USD per year by 2035, approximately 3% of global GDP (World Obesity Federation, 2023).

Addressing rising malnutrition is both an ethical imperative and a tool to address the negative environmental impacts of our food system by encouraging the Planetary Health Diet described by the 2019 EAT-Lancet report: more plants, less animal protein and less sugar.

Contributions to the food system transformation

Shifting our diets away from highly processed foods and added sugars and toward nutrient dense

Plant-forward options will protect against diet-related disease.Healthy dietary patterns can reduce the risk of developing cardiovascular disease, diabetes, and cancer by 20-42% depending on the diet (Shang, X., Liu, J., Zhu, Z. et al., 2023).

Definitions of healthy diet vary, but most evidence-based dietary modifications include eating more fruits, vegetables, whole grains, and healthy fats while reducing processed foods, sugar, and saturated fats – recommendations in line with the Planetary Health Diet that will also benefit our environment.

Driving this transition will also have the opportunity to improve equity within the system, since nutrition disparities often align with socioeconomic disparities.

Direct Major Impacts on Re:food Circle	**KPIs**
Nutritious Diets	• Customer reached • Portfolio healthiness and nutrient uplift
Equity For All	• Healthy product affordability • Consumer adoption rates, especially in low income areas

Commercial Potential

The healthy food market is already massive, estimated at close to one trillion USD today and expected to double over the next ten years (Data Bridge, 2025)

Driving this trend is consumer demand; as McKinsey highlighted in its 2022 Consumer Survey, 70% of respondents wished to be healthier and 50% prioritizing healthy eating (McKinsey, 2022).

Policy incentives and health insurers also see the value of this trend and are providing incentives to accelerate its growth. In the US and other high-income countries, healthy diets can reduce diet-related healthcare expenses by 10-30% by preventing chronic diseases while also delivering environmental benefits (Springmann, Marco et al., 2021).

But the adoption of a healthy, planet-friendly diet is not as simple as it sounds, meaning there is an opportunity to invest in tools and technologies that can support consumers in shifting their consumption habits.

Nutritious and satisfying alternatives

Nutrition is complex, and the path to better diets runs through food-science innovation

Better-for-you product portfolios, and support services that remove friction and lock in behavior change. We group these innovations into four categories:

- **Food Science:** Given how difficult it is to resist temptation, we should be using food science to improve the nutritional value of foods while keeping or enhancing the same sweet, salty, and rich taste profiles that we crave. Food science can also be leveraged to help our bodies better metabolize and react to nutrients, for example through supplements that help unlock hard-to-digest protein, functional nutrients, and solutions tailored to specific health conditions or individual needs.

- **Better-for-You Food & Beverage (BFY F&B):** Food and beverage companies can increase the accessibility and affordability of healthier alternatives through restaurants or retail. This includes naturally better-for-you products that can impact our gut microbiome, prepared better-for-you products designed to make healthy consumption easier, and better-for-you restaurants, seeking to upend the dominance of fast food chains.

- **Healthy Diet Services:** In a world in which unhealthy food is so easily accessible and nutritional information is not, consumers deserve to be supported in eating healthier through tailored nutrition and logistical support. This includes tools and services that can offer enhanced information for better food choices, as well as grocery and delivery platforms that can reduce the friction to adopting healthier choices.

- **Healthy Diet Enablement:** We also see opportunities for companies to provide services to healthy food and supplement producers, increasing their likelihood of successfully scaling a product to reach customers. This includes support systems for producing more nutritious food options via faster, AI-driven R&D, improved food processing infrastructure, as well as go-to-market support for healthy food companies.

Re:food Partnerships

- **Everytable** is a mission-driven social enterprise based in Los Angeles that provides nutritious, scratch-cooked, community-inspired meals that are accessible and affordable to everyone. Meals are made fresh daily using whole foods ingredients and priced according to the neighborhood served. In addition to its 38 locations in California for in-person or online ordering, Everytable is a major meal provider for programs that serve seniors, students, and people experiencing homelessness.

  Since 2020 it has served over 10 million meals to people at risk of hunger. In 2021 Everytable launched a trailblazing Social Equity Franchise program that sets social entrepreneurs from marginalized communities on a pathway to owning multiple Everytable locations.

  Category: BFY F&B
  Segment: BFY Restaurants

- **Nicks** is bridging the gap between nutritious and craveable. By cutting sugar and empty calories, the brand makes healthier choices effortless, without compromising on taste. Its low-sugar, low-calorie ice creams, bars, and confectionery compete successfully head-to-head with the world's biggest indulgence brands, earning a loyal following across Europe and the US.

  Category: BFY F&B
  Segment: Prepared F&B

Appendix

Acknowledgements

This framework builds on Re:food's earlier publications Food is Solvable (2021) and Food is Investable (2024), and was compiled by Lena Horvath McAtee and Gustaf Brandberg, with fact-checking by Isabella Fantini.

It would not have been possible without all the contributors to the two previous reports.

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Björn Heinz (Yara Growth Ventures),
Bodil Sidén (Kost Capital),
Carl Folke (Stockholm Resilience Centre),
Christoph Jenny (Planted),
Erik Brandberg (Gullspång Invest),
Fanny Näslund (PolarVentures),
Felix Leonhardt (Oyster Bay),
François Poulain (Planted),
Jörgen Bergqvist (Ocean Collective),
Lars Dithmer (Alfa Laval),
Lauri Reuter (Nordic FoodTech VC),
Magnus Brandberg (Gullspång Invest),
Malin Carlström (Climentum Capital),
Marika King (PINC),
Matilda Ho (Bits x Bites),
Peter Aschmoneit (Planted),
Philip Nobel (Stardust Foods),
Snir Aharon (Mediterranean Food Lab),
Sofia Lindelöw (Norrsken Foundation)
Willem Huidekoper (IMAS Foundation),
Yair Yosefi (The Mediterranean Food Lab)

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