



Food is Solvable

Executive
Summary

re∞food



Re:food's Theory of Transformation



Re:food's purpose extends beyond generating robust financial returns. We also aim to play a role in steering the global economy towards sustainability. Our research has led us to a strong belief that the food system transformation is the key to unlocking the good Anthropocene. At the same time, we see repairing the food system for the benefit of future generations as the most compelling, albeit underinvested, business opportunity of our time. Re:food has developed an investment approach that builds upon research and scientific frameworks to invest in innovations working at leverage points that target the most critical, science-backed food system shifts. We believe this approach will contribute to a food system transformation that will not only reverse planetary boundary pressure but actually enable the food system to be net positive for the planet while providing a social foundation for everyone on Earth. What you are about to read summarizes the key tenets and outcomes of this approach, which we call our Theory of Transformation.

The Research Lab

Transforming the food system, the largest and most complex human-created system, is not an easy task. To succeed, we need aligned interventions from farmers, policymakers, consumers, entrepreneurs, and investors. That's why science-based strategies are needed to determine when the timing is right for investments that can make significant changes at the systems level.

Re:food's theory of transformation rests on five conceptual research-backed building blocks:

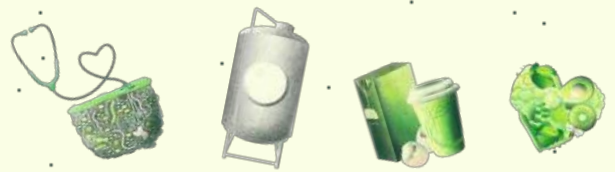
1 Planetary Boundaries: Developed by Johan Rockström and a team of scientists at the Stockholm Resilience Center, the planetary boundaries are the natural systems that regulate our planet and create the conditions that sustain life. We use a modified version of the boundaries identified by the EAT-Lancet Commission as directly relating to the food system.

2 Social Foundation: A truly sustainable food system does not just operate within the planetary boundaries. It also provides equal access to food, job opportunities, and innovation while ensuring that farm animals, at a minimum, live free of pain and fear. The social foundation draws inspiration from Kate Raworth's "Doughnut Economics" and the UN's Sustainable Development Goals.



The Re:food Circle: Our definition of a sustainable and resilient food system is one that meets the needs of all people while operating within the means of our planet.

3 Food in the Anthropocene: The EAT-Lancet Commission's report, "Food in the Anthropocene", concluded that while the food system is the largest contributor to added planetary pressure, it also presents the largest opportunity to bring us back into a safe operating space. The report identified powerful shifts to reduce and reverse food system planetary boundary pressures by 2050.



Re:food Investment Themes: Given the urgency and transformational potential of the EAT-Lancet shifts, we believe we must dedicate our full attention to investing in leverage points to propel them forward. Inspired by these shifts, we've defined four investment themes: Healthy Soils, Sustainable Proteins & Fats, Healthy Diets, and Sustainable Supply Chains.

4 Systems Thinking: The food system does not exist in isolation, but interacts with complex economic, political, ecological, infrastructural, health, and biological systems. We used the tools of systems thinking to understand the interactions of different parts of these systems, and how a change in one could impact the planetary and social systems as a whole.

5 Three Horizons: Reforming a major system requires mapping out short, medium, and long-term waves of change and understanding how these interact. We use a modified version of McKinsey's Three Horizons framework to assess the impact of different innovations, which we classify as incremental, significant, or transformative.

Our Investment Approach

The food system is complex, with many problems to address. It can be hard to know where to start looking for solutions. Rather than blindly investing in innovations that sound like they might work, our approach is to break down each of the four themes into segments, or areas of innovation. We regularly review these segments to add, condense, remove, or reprioritize based on market trends, innovation breakthroughs, regulatory headwinds or tailwinds, and a host of other factors.

The foundation for this approach is the ABCD Method, an iterative 4-step process created as part of the Framework for Strategic & Sustainable Development (FSSD).

Awareness & Defining Success

We defined success as a food system that meets the needs of all people while operating within the means of our planet – as described by the Re:Food Circle.

Creative Solutions

We looked for innovations with the potential to break down barriers, within our four themes, and used the Three Horizons framework to identify those most likely to create transformative shifts.

This approach enables us to source, diligence, and invest in promising Food and AgTech startups. Post-investment, we are an active partner to the management in our portfolio, helping them mainly with financing, governance, operational high-stakes decisions, and impact and sustainability initiatives.

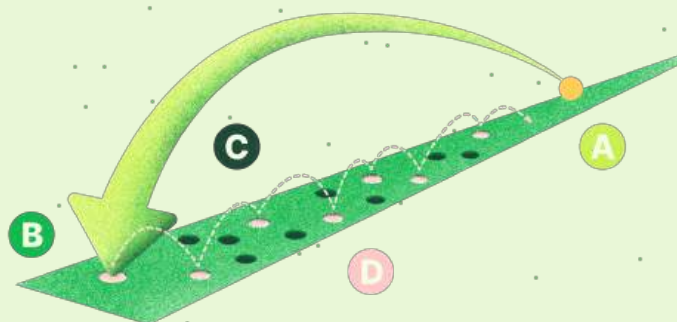
Applying the ABCD framework to our four investment themes deepens our understanding of the root cause problems and helps us identify potential investment opportunities to accelerate transformative shifts in the food system. The following page summarizes the latest outcome of this work for each theme.

Baseline

We used systems thinking tools to identify the current food system's most pressing root cause problems that violate the basic sustainability principles.

Decide on Priorities

We applied a segment assessment methodology to identify the segments and innovations that present the most compelling investment opportunities for Re:food.





Healthy Soils

In the farm of the future, the grower acts as a steward of soil health. Soils sequester carbon, biodiversity improves, and food is more nutrient-dense.

- Complexity
- Knowledge
- Economic
- Tools & inputs
- Regulatory/Policy



Sustainable Proteins & Fat

Meat and dairy production in the future does not harm animals or deplete natural resources, but instead efficiently produces protein and fat via novel bioprocesses and aquatic or terrestrial plants.

- Tools & technology
- Infrastructure
- Regulatory/Policy
- Parity
- Consumer acceptance



Healthy Diets

In a healthy future, every human has access to affordable, nutrient-dense foods that promote optimal health while protecting against malnutrition and diet-related diseases.

- Information
- Incentives
- Access
- Temptation



Sustainable Supply Chains

The sustainable supply chain of the future distributes food equitably, minimizes pollution, and minimizes waste by recycling valuable resources.

- Behavioral
- Technological
- Infrastructure
- Logistical
- Transparency

Awareness & Defining Success

Baseline

Barriers to achieving the sustainable future

Creative Solutions

Innovations with the potential to break down barriers

- Tools & technologies
- Measurement and monitoring for decision making
- Market-based incentives

- Cellular agriculture to replace animal factory farming
- Novel plant-based food categories
- Sustainable protein & fat production scale-up technologies

- Upstream technology
- Information and access
- Food science
- Personalized nutrition
- Institutional spending
- Food redistribution

- Food rescue
- Nutrient recovery
- Plastic alternatives
- Data transparency
- Vertical farming

Decide on Priorities

We focus on companies leveraging biology to develop new tools & technologies, information systems that can break down the knowledge barrier, and downstream signals that can provide the right incentives to growers.

Re:food's prioritized investment areas include cellular agriculture, functional ingredients and products produced via precision or solid-state fermentation, and enabling technologies and infrastructure.

We look for solutions that involve changing how food is processed and purchased, and giving consumers better tools and products to make good decisions about nutrition.

We prioritize solutions addressing household and retail food waste, novel biomaterials to reduce plastic usage, phosphorus and nutrient recycling systems, supply chain visualization technology, and vertical farming technologies with differentiated value.

Case Study

We invested in **Agreena**, the European leader in soil carbon credits, which is breaking down the economic barrier to the sustainable agricultural transition through innovative financial solutions for farmers.

We invested in **Pow.bio**, the leader in continuous fermentation for novel foods and ingredients, which is reducing costs, speeding up process optimization, and creating a more sustainable SynBio future.

We invested in **Everytable**, the LA-based company building a scalable business that will transform the food system to make fresh, nutritious food accessible to everyone, everywhere.

We invested in **Matsmart/Motatos**, the leading European discount food store, because surplus inventory may be inevitable but food waste doesn't have to be.

From Theory to Application: The Re:food Portfolio

Over the past nine years, we've honed our investment approach and our segment theses and have partnered with sixteen companies that are directly and indirectly supporting five out of six required shifts identified in Food in the Anthropocene. We believe these companies have very high potential to drive significant or transformative change and become leaders within their categories, thereby creating positive impact and financial value. There are many ways to evaluate this portfolio, but a few things jump out to us when we look at it as a whole:

1 Our portfolio covers the food value chain from upstream financial services for growers, through packaging and processing infrastructure and novel food and ingredient manufacturing, to consumer-facing platforms that improve access and information and reduce waste.

2 Our portfolio is global, just like the food system. So far we've backed companies headquartered across Israel, Europe, and North America. Their reach expands beyond that through international teams, commercial partnerships, and global distribution networks.

3 Our portfolio is having an impact. Since we invested, these companies have achieved commercial milestones, reached new customers, improved their products and technologies to be more impactful and sustainable, and drafted new policies and procedures to continue to reduce harm and benefit stakeholders.

Re:food will continue to invest in and support entrepreneurs building category-defining companies at key leverage points in the food system. It's what gets us out of bed in the morning and gives us hope for a better future for us and for generations to come.

If you've reached this point and have a question, comments, relevant pitch, idea for collaboration, or anything else to share, you can reach us at solvable@refood.vc. We look forward to starting a dialogue with you.

Reach out →