

Changemaking

Financing systems
change, transitions and
transformations

Introduction

Changing our economic systems is both necessary and inescapable. Our planet and societies face interconnected challenges like climate change¹, the ongoing loss of biodiversity², and the rise in inequality worldwide³. The great pressures on our planetary boundaries and social foundations stem from an economic system directed at maximising short-term financial profit⁴. We must strive for a society that respects ecological balance and works for the benefit of all⁵.

In order to face these challenges, we need to better understand how structural changes occur and how they can be guided in the right direction. Of course, changes come in many shapes and forms: transitions, transformations, optimisations, big changes, small changes. Comprehending what drives these different types of changes will help us to effectively promote the right changes in society.

We see the need to better understand and leverage change increasingly reflected by the scientific community⁶, governments, civil society⁷ and businesses⁸. For example, a report of the Lancet Planetary Health Commission has called for four critical transformations to keep the earth liveable: reducing and reallocating consumption, changing

our economic systems, leveraging technological change and transforming earth-system governance⁹. Across these critical transformations, we think that the financial sector must play a larger and a more purposeful role in using money to drive the urgent changes our societies need. Therefore, Triodos Bank's mission is making money work for positive change in society. To do so, we want to finance change and change finance¹⁰.

This white paper describes how a financial institution can become a more effective changemaker, by exploring how to evaluate the transformative potential of companies. By integrating insights from transitions theory and focusing on both the scale and depth of systems change, we equip financial institutions with a framework to become more proficient in not only adapting to change, but actively shaping the future.

Now, more than ever, financial institutions should take the responsibility to steer on positive impact that accelerates sustainability transitions. Impact in the present is no longer enough: financing impact that improves our future is an obligation.

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1. Systems and systems change

To understand how change happens in society, it is essential to gain a basic ability to think in systems¹¹. Systems are a series of interconnected parts that work together in a network, operating according to a set of rules that collectively generate outcomes and impacts. The parts of the system do not just individually respond to an event, but instead systems react as a whole. Systems are made of three ingredients: parts, interconnections and a collective function¹².

Donella Meadows, environmental scientist and renowned proponent of systems thinking, tells us: “Is there anything that is not a system? Yes—a collection without any interconnections or function. Sand scattered on a road by happenstance is not, itself, a system. (...) Some people say that an old city neighbourhood where people know each other and communicate regularly is a social system, and that a new apartment block full of strangers is not— not until new relationships arise and a system forms”. Systems are thus defined by mutual and interdependent relations between their parts.

Systems can be any size, from a petri dish to the whole universe. However, our goal is to spark societal-level positive changes (sustainability transitions), so we need to consider systems on a societal level. Societal systems are made up of cultures, institutions and practices that arise from the interactions between individuals, society, technology and ecology¹³. Different actors take part in societal systems, such as companies, governments, universities, and households, while intangible factors like laws, values, habits and norms also play a role in systems.

A systems thinking approach allows us to see beyond individual components and understand the broader patterns and dynamics that drive change. Systems thinking provides a powerful framework for understanding and addressing interconnected factors. Instead of only addressing the immediate issue, you take into account how all the parts fit

together to form the whole. Moreover, the whole, the system level behaves in different ways than the individual parts. For example, tipping points – sudden, difficult to predict, nonlinear and irreversible changes of the state of a system only occurs at a system level and cannot be traced back to an individual actor. These emergent properties of a system should be understood to change such systems. Understanding these complex interrelations helps to anticipate the consequences of actions, identify leverage points for intervention, and design more effective and sustainable solutions for positive societal change.

Depth of systems change

Systems change can happen naturally but can also be steered purposefully by ‘intervening in a system’. Intervening for systems change is about changing relations, structures, culture or practices in a system so that there are different outcomes and impacts. Societal-level systems change towards an identified objective can also be called a societal transition. There are levels to systems change; systems change can be deep or shallow.

To gain a better understanding of how intervening in systems works, it is helpful to examine the concepts developed by Donella Meadows, particularly her idea of ‘leverage points’ in systems. Leverage points are places to intervene in a system. Meadows proposed a ranking system for leverage points on different levels, from shallow to deep. She referenced 12 different levels of systems change leverage points¹⁴, but other authors have more recently summarised these into four levels, ranked below from shallow (parameters) to deep (intent) leverage points for systems change^{15, 16}. Changing only **parameters** and **processes** can be characterised as surface-level systems change. Deeper systems change is achieved by changing the **design** or **mindsets** in a system (deep systems change). These levels can be visualised in an iceberg model¹⁷:

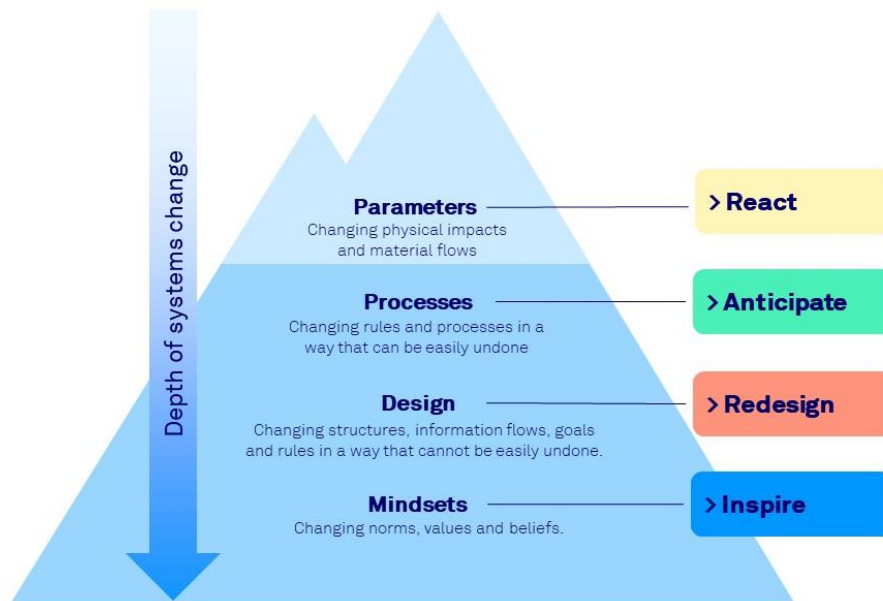


Figure 1 - Depths of systems change on an iceberg model

1. Parameters

Parameter changes are shallow changes that incrementally and more directly alter the physical impacts and material flows within a system. Tackling the parameters in a system can be called **'reacting'**. In the iceberg model, these are also the most visible changes (above the water level). Changes often manifest themselves in parameters.

Examples: Increasing the energy efficiency of a steel smelter, changing the feed given to cows, insulating a building, raising the height of a dyke, sourcing a small percentage of organic ingredients, offering a vegetarian alternative on the menu, increasing the number of viewers of a movie, giving a bonus at the end of the year.

2. Processes

This relates to adjusting specific, narrow processes or changing the way in which a couple of different parts of the system interact with each other in short and simple feedback loops. This does not tackle the parameters directly, but rather addresses rules, relationships or processes. However, these are also changes that can be relatively easily undone or reversed. Tackling the processes in a system can be called **'anticipating'**.

Examples: Increasing existing carbon prices, changes to subsidies to sustainable farmers, release of new software for tracking working hours

in a company, executive remuneration tied to sustainability goals, making a bathroom gender neutral.

3. Design

Changing the way different parts of the system interact with each other structurally involves changing information flows, changing more structural or fundamental rules and legislation, changing business models, and comprehensively changing the goals of the system in a way that cannot be easily undone or reversed. Tackling the design in a system can be called **'redesigning'**.

Examples: Laying new rail tracks, access-to-energy initiatives, educating girls in the Global South, financial inclusion, natural flood management systems, building recycling plants, decreasing the number of seasons in the fashion industry, closing coal-fired power plants, moving to a product-as-a-service business model.

4. Mindsets

This involves changing the values, norms, intent, goals, beliefs, and paradigms in which the system operates. Tackling mindsets in a system can be called **'inspiring'**.

Examples: Considering humans and nature as one, moving to a post-growth paradigm, normalising non-violent, disruptive activism, shifting norms on

eating red meat, considering housing a human right, acknowledging indigenous peoples as wardens of nature.

For any problem, it can be a good exercise to come up with potential solutions and categorise them according to the four levels of change to understand their relative systemic depth.

Deeper changes are more long-lasting and often more comprehensive in tackling multiple parameters at once. However, they are also far

more difficult to realise. Moreover, the four levels of depth interact. Each deeper level directly influences all shallower levels, and sometimes the other way around. For instance, the 1.5-metre society (a parameter-related change) still influences the way in which humans interact socially (a mindset-related change) and is manifested in more remote work (a more design-related change). In figure 2 we share an example of each of the four levels applied to the transition of reducing GHG emissions in cattle farming.

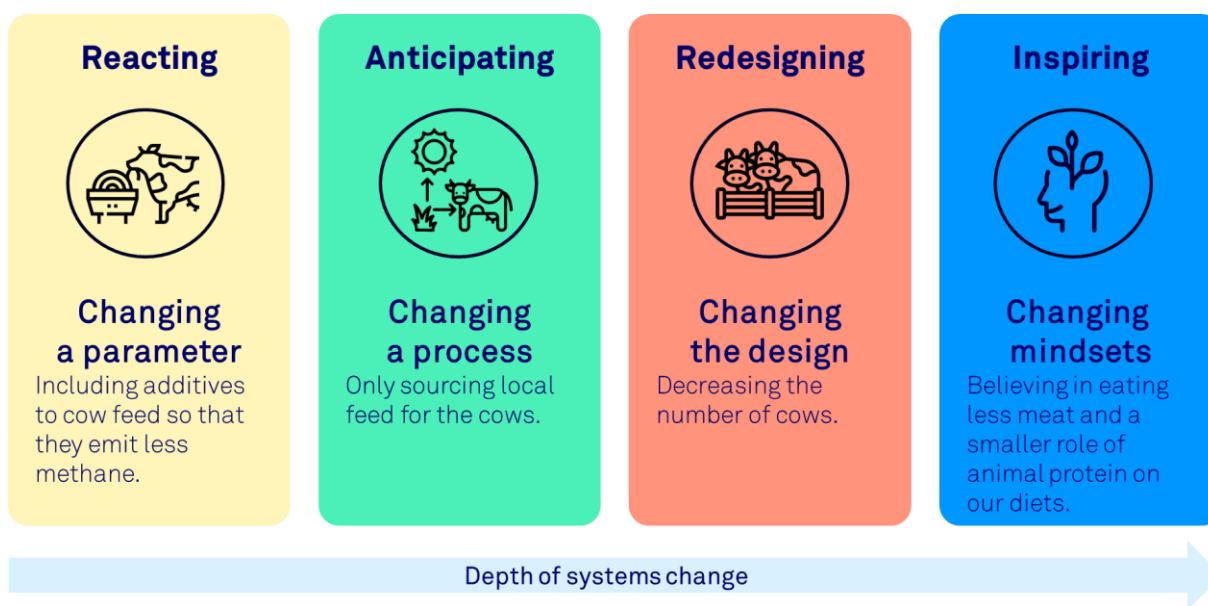


Figure 2 – Example of depth of systems change applied to the transition of reducing GHG emissions in cattle farming

2. Transitions and transformations

What are transitions?

Transitions are processes of change in the structure, culture, and practices of a system in society for a certain goal like sustainability. This includes well-known examples such as the energy transition and the digital transition. Importantly, successful transitions combine both technological and social and behavioural changes.

In transition management theory¹⁸, there are four main transition phases incorporating new social practices, ideas and technologies:

- > Experimentation, including research and development
- > Growth
- > Consolidation and scaling
- > Mainstreaming established technology or social practice (also called maturity)

Most transitions are ‘non-linear’, meaning that they rarely follow the transition phases in a predictable and sequential manner. Instead, moving between one phase to the other is often enabled by ‘windows of opportunity’ which are influenced by larger, external ecological or socioeconomic trends or shocks¹⁹. Trends and shocks that can have a significant impact include things like digitalisation, wars and conflicts, pandemics, trade wars and policies²⁰, the rise of AI, elections and volcanic eruptions. Transitions can be accelerated when smaller actors like startups or grassroots movements with a new or alternative product or idea (also referred to as a ‘niche’ actors) are able to take advantage of opportunity windows to challenge the status quo (also referred to as ‘the regime’) and present alternatives.

Such a change reaches a tipping point,” when change in part of a system becomes self-perpetuating beyond a threshold, leading to substantial, widespread, frequently abrupt and often irreversible impact”²¹. For example, niche remote working tools like Zoom became mainstream during the COVID-19 pandemic and are still widely used in the hybrid workplace²².

Similarly, the Russian-Ukraine war will have a lasting effect on the structure of European energy systems, because countries like Germany and the Netherlands are moving away from their reliance of Russian gas imports, boosting technologies like heat pumps²³.

What are transformations?

A transformation or a transformative change is a specific type of transition that involves profound changes at a deep level and/or on a large scale of systems change. A transformation involves a deep or widespread change in the design and norms of a system, going beyond more surface-level factors like parameters and processes. In other words, a transformation is a system-wide reorganisation in the design and intent of the structures, culture and practices that determine how impact is made²⁴.

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What are optimisations?

In addition to transformation, another distinct transition type is optimisation²⁵. Optimisation refers to making incremental steps to improve the existing system, rather than substantially changing the system. Optimisation solutions focus on adjusting impact parameters and processes on a relatively small scale, while transformations involve deeper or widespread change. Therefore, optimisations and transformations are differentiated by depth and scale. Both optimisations and transformations are positive changes if they help work towards lasting and real sustainable outcomes. Some optimisations can be seen as building blocks for later transformations. However, optimisations can also lead to ‘locking in’ non-sustainable systems, thereby preventing deeper system changes in the long term.

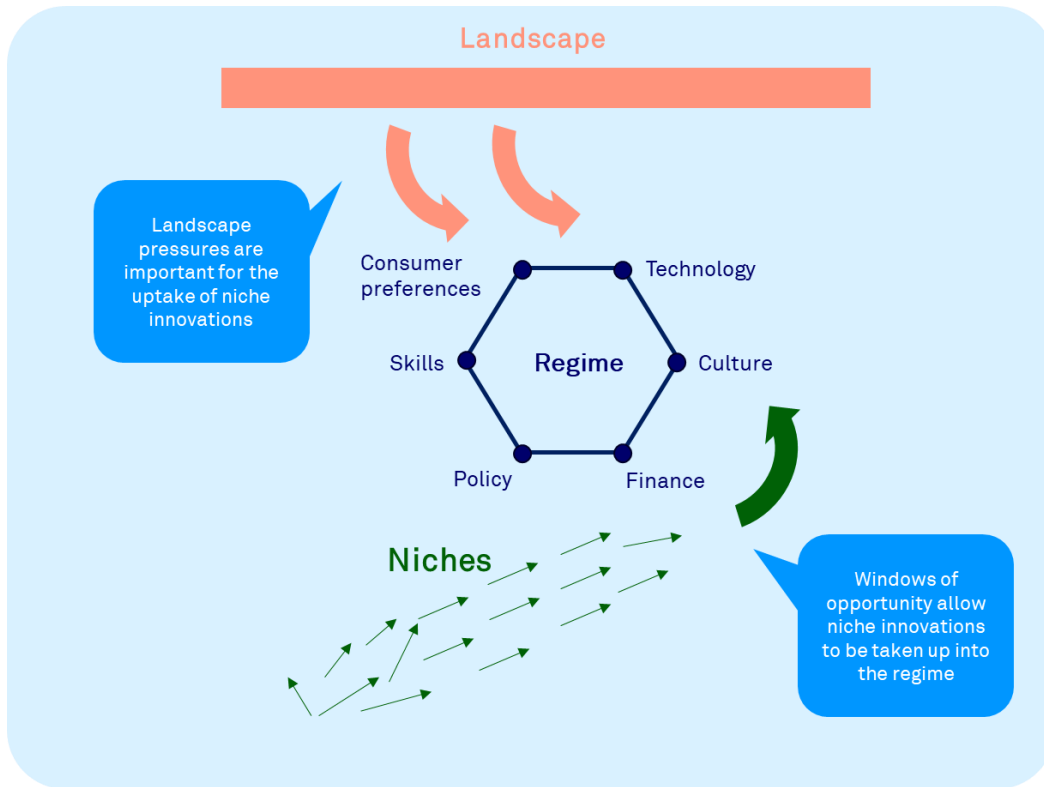


Figure 3 - The multilevel perspective (Geels & Schot, 2007)

3. Evaluating transformative potential

Financial institutions and other organisations should strive to better understand how they can effectively contribute to transformations. Yet, determining whether a transition has been a transformation or an optimisation, can only be done after the transition has happened. When deciding whether to finance an initiative, and under which conditions, a bank like Triodos Bank should look at the transformative potential of a client or investment, rather than the impact that the client already has made. Transformative potential is the potential of positively contributing to a transformation. It describes how a company or organisation can contribute to bringing about deep and widespread systems change.

Maintaining a systemic and long-term perspective is crucial for determining whether a certain company or initiative has transformative potential. Only when there is a clear vision of both the goal and the pathway for societal change within the whole system or sector, it can be related back to individual actors like companies or initiatives. Such an evaluation requires expertise of the system or sector in which the organization operates.

For instance, understanding the extent to which a large battery can contribute to solving local grid stability and enable more renewable energy integration requires knowledge about energy systems.

Transformative companies might produce a similar product or service as a non-transformative company, but with a different approach. For example, the contribution of an organic farmer to transforming the food system will be higher if they engage in experimentation to further increase agrobiodiversity, or if they use their experience to be vocal about local food policies. Transformative potential can thus manifest itself both in *what* the company does and *how* the company does it. We have identified six different factors that help us evaluate the transformative potential of companies: depth, scale, mission and motivation, experimentation, collaboration and comprehensive change.

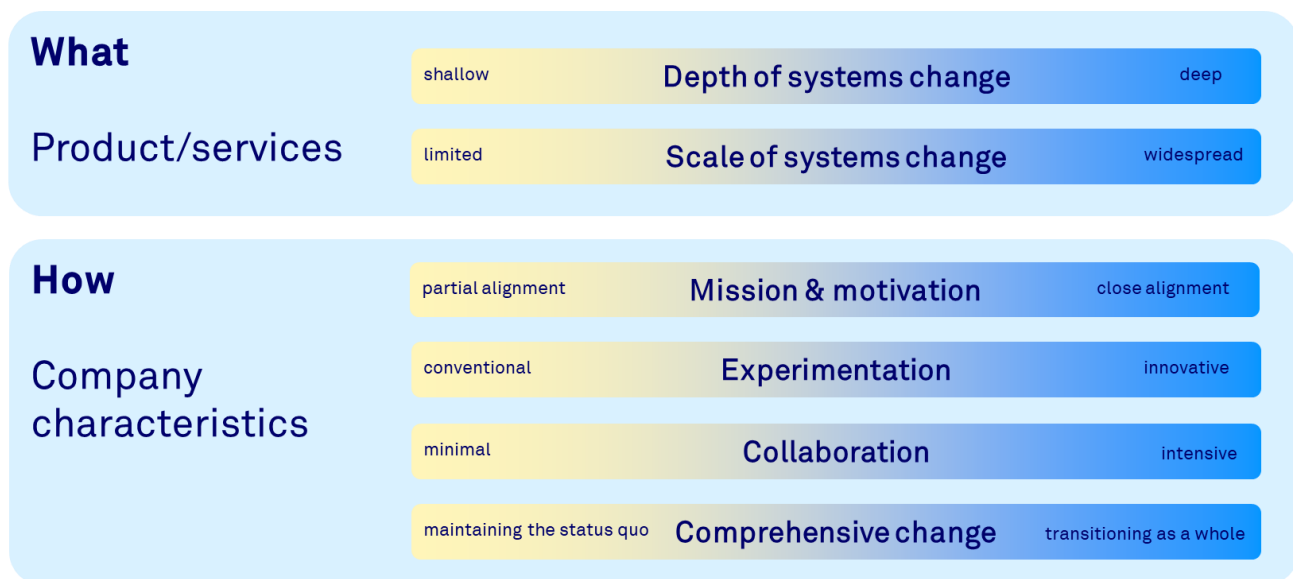


Figure 4 - Framework for evaluating transformative impact potential in companies and other organizations

3.1 The What: Understanding the company and the sector

When a lender or investor needs to determine if a company's product or service has transformative potential, it is crucial to have a solid understanding of the company's sector and a clear idea about how the company can transform its sector, community or society at large. Using our definition of transformation as a transition that is profound in level of depth and/or scale of systems change, we need to understand the depth and scale of change that a company can contribute to.

Depth of system change

To assess depth, it is important to understand how the company's product or service differs from the current offerings in a sector, community, or area. Use the iceberg model to consider whether the organisation's solution has the potential to react to, anticipate, redesign, or inspire system change. For instance, a company moving to a more extensive form of mixed agriculture will have a deeper impact on decreasing GHG emissions than a company providing methane-reducing additives to cow feed²⁶. Redesigning fashion systems by decreasing the number of fashion seasons and style cycles will address the volume of clothing production and consumption with greater impact on reducing the environmental footprint²⁷.

Solar irrigation company **SunCulture** is a good example of an organisation that effectively demonstrates the depth of change for transformation in energy systems. SunCulture offers productive off-grid solar technology for smallholder farmers. Its flagship products are high-quality yet affordable solar irrigation pumps that can pump water from as deep as 100 metres for crop irrigation and livestock rearing, as well as domestic uses. The syndicated debt facility from Hivos-Triodos Fund will enable SunCulture to scale up, mitigating over 20,000 tonnes of CO₂ annually as farmers replace diesel pumps with solar ones. It will also facilitate income growth and job opportunities in rural communities. In the iceberg model, replacing diesel pumps with solar pumps is a design-level change.



Scale of system change

Scale refers to the extent to which the change affects the different components and players in the system, for instance across business lines, sectors, socioeconomic and cultural groups, and geographically. In some cases, the company can already reach a large part of the system, enabling them to have a widespread impact. In other cases, scalability can be evaluated by the potential of the organisation to reach scale later, or by providing a solution that can be reproduced and scaled up by others.

Giga Buffalo, the largest utility scale lithium-ion energy storage system in the Netherlands in 2022, is an investment from Triodos Energy Transition Europe Fund that exemplifies transformation through the importance of scale and scalability in solutions that support the transition to renewable energy. The energy storage system has an output power of 25 M. Utilising the battery enhances the effectiveness of renewable energy systems. Giga Buffalo could reduce up to 11,500 tonnes of CO₂ emissions per annum. This equates to the electricity consumption of around 9,000 households in the Netherlands. Demonstrating both the financial health and impact from the investment has helped make the case for further development of larger battery storage systems and other battery technology developments. Giga Rhino was followed by other large Giga batteries, like Giga Rhino and Giga Giraffe, and the development of batteries Giga Lion, Giga Camel, Giga Blue Whale, Giga Wild Boar and Giga Leopard.

3.2 The How: Company characteristics

Next, we look at four characteristics that help to identify companies with transformative potential²⁸: Mission and motivation, Experimentation, Collaboration and Comprehensive change.

Mission and motivation

Mission-orientation or 'directionality' is key to delivering transformative change²⁹. A company with transformative potential has a mission statement that focuses on changing the system and creating positive impact. Entrepreneurs will be faced with many types of decisions that influence their impact on a future that we cannot fully predict. Evaluating the mission and motivation of the entrepreneur or organisation helps us to trust that they will take the organisation in the right direction.

An organisation with a mission focussed on transforming the food system is **Herenboeren**, financed through the Triodos Regenerative Money Centre. Herenboeren Nederland supports citizens in the development of nature-driven cooperative Herenboerderijen. These are mixed farms of around 20 hectares, each providing 200-270 households (about 500 people) with vegetables, fruit, meat and eggs. Herenboeren wants to encourage the responsible use of agricultural land and bring farmers and citizens closer together to restore the connection with our food and a healthy earth.



Experimentation

Facilitating and participating in experimentation is important for building niches in transitions. This includes not only technological innovation, but also social practices³⁰. Experimentation by companies is necessary for the development of new and more sustainable niches that can replace the status quo and help society-level learning³¹. There are a lot of ways in which companies can engage in experimentation. For example, we can look at whether a company is bringing a highly innovative product to the market in line with a societal transformation, investing in its research and development department, or supporting university research. An organisation can also experiment by trying out new ways to build relationships with customers or clients, such as offering direct-to-consumer food subscriptions.

A company that is transformative by exemplifying the power of experimentation well is **The Biobased Factory**, financed by Triodos Bank Netherlands. Biobased building materials like miscanthus, hemp and sorghum are important emerging sustainable alternatives to building materials like cement, with high environmental impacts. The Biobased Factory develops machinery that can be used to process the crops for different use cases across the building, chemical and logistics sectors. They work together with pioneering farmers growing such crops. For this collaboration, it is very important that the machinery is modular and moveable, since the processing needs to happen close to the harvest area to limit both expenses and carbon emissions. By making its machinery more cost-effective through experimentation with processing biobased materials, the Biobased Factory will contribute significantly to normalizing biobased materials in housing systems.

Collaboration

Transitions and transformations can only be the result of interactions between many actors. An important aspect that fosters innovation, spreads

knowledge and scales transformative change is collaboration. Companies that actively participate in networks that are aimed at transitions have greater potential for transformation because they can share knowledge about ideas, technologies and practices. More collaboration among market players both within and across sectors can give emerging ideas more legitimacy³². Collaboration between companies can help to leverage networks to influence public policy and set industry norms. On a company level, we can evaluate the strength and extent of collective learning and engagement of a company with its stakeholders, such as peers, suppliers, consumers, governments, employees, scientists, NGOs and local communities.

The Wyre Natural Flood Management project is a great example of amplifying the power of collaboration for transformation. This project applies the use of natural flood solutions techniques on 70 hectares of the River Wyre catchment in Lancashire, UK. The initiative is a pioneering partnership between The Rivers Trust, Wyre Rivers Trust, and Triodos Bank UK. The two trusts provide technical expertise on flood management and biodiversity enhancement, and Triodos Bank UK contributes to structuring a dedicated debt facility. The beneficiaries of the project include local utilities, the municipality and insurance companies, working together with local farmers and landowners to deliver sustainable flood management. The learnings of the project and collaboration between many types of stakeholders are shared in a [case study by the Green Finance Institute](#). Other natural flood risk management project developers, like those in the Ribble River catchment area, are already finding valuable lessons from this study.



Comprehensive change

Solutions or innovations will not work if they are not used to replace existing business models and practices. In their own organisations, companies should set targets and follow through on transitioning the organisation as a whole. This includes phasing out unsustainable practices both in their own operations and in their value chains, not *just* phasing in a sustainable product. Leaving more polluting parts of businesses untouched can risk lock-ins of unsustainable technologies and stranded assets³³. On a company level, comprehensive change can be shown by effective transparency, for example on progress towards setting targets such as science-based targets, supply chain traceability targets, recycling targets and diversity hiring targets. Evidence of comprehensive change can also be shown by how the company is investing in the right parts of the organisation by mobilising sufficient resources.

Signify is a global provider of light products and services and exemplifies the comprehensive change principle well. At the forefront of the transition from traditional lighting to more energy efficient LED lighting across the world, Signify plays an important role in reducing energy consumption on a large scale. Apart from working on the phase-in of a more sustainable lighting alternative, Signify is also phasing out less sustainable aspects of their operations in a holistic manner. In 2020, manufacturing waste to landfill decreased to zero and the use of renewable electricity in operations increased to 100%. Signify is committed to 90% greenhouse gas reduction by 2040 with a transparent climate transition plan covering Scope 1, 2 and 3. They are continuously working on increasing the gender balance across leadership teams. Signify also pushes an alternative business model 'Light as a Service', aiming to make 32% of its revenue to come from circular products and services by 2025¹.



4. Spearheading transformative change at Triodos Bank

Banks and investors have the potential to be powerful changemakers. Financial institutions control the flow of capital, influence corporate strategies, and shape both the economic and social landscape. Lending and investing involve decisions based on projections of future success, which essentially allows financial institutions to decide what will thrive and what will not. Most financial decisions today are focused on short-term gains, with risk-return profiles as the primary guide. While assessing risks and returns is essential, it alone is not enough to steer financing towards a sustainable future. A forward-looking approach can drive innovation and social progress. By not merely maintaining the status quo but actively shaping the future, financial institutions can become crucial agents of change. Their actions not only respond to current conditions but also help create the future, making them vital contributors to transformative systems change both within their sectors and beyond.

For this to occur, financial institutions must recognize the real-world impact of their lending and investment decisions. They need to adopt a long-term perspective and understand the critical transitions that must take place to foster sustainable progress.

As Triodos Bank, we are a part of a range of systems. We are part of the banking system in five European countries, but also the larger European financial system. We are part of systems in the real economy, like the energy system through financing renewable energy and storage projects, or as a mortgage provider in housing systems. Since systems are complex webs of interactions between a range of different stakeholders, Triodos Bank cannot create transitions by itself. Instead, individuals and companies like Triodos Bank can contribute to transitions across their spheres of influence³⁴. Triodos Bank focuses on contributing to transitions in five themes: Energy, Food, Resources, Wellbeing and Societal.

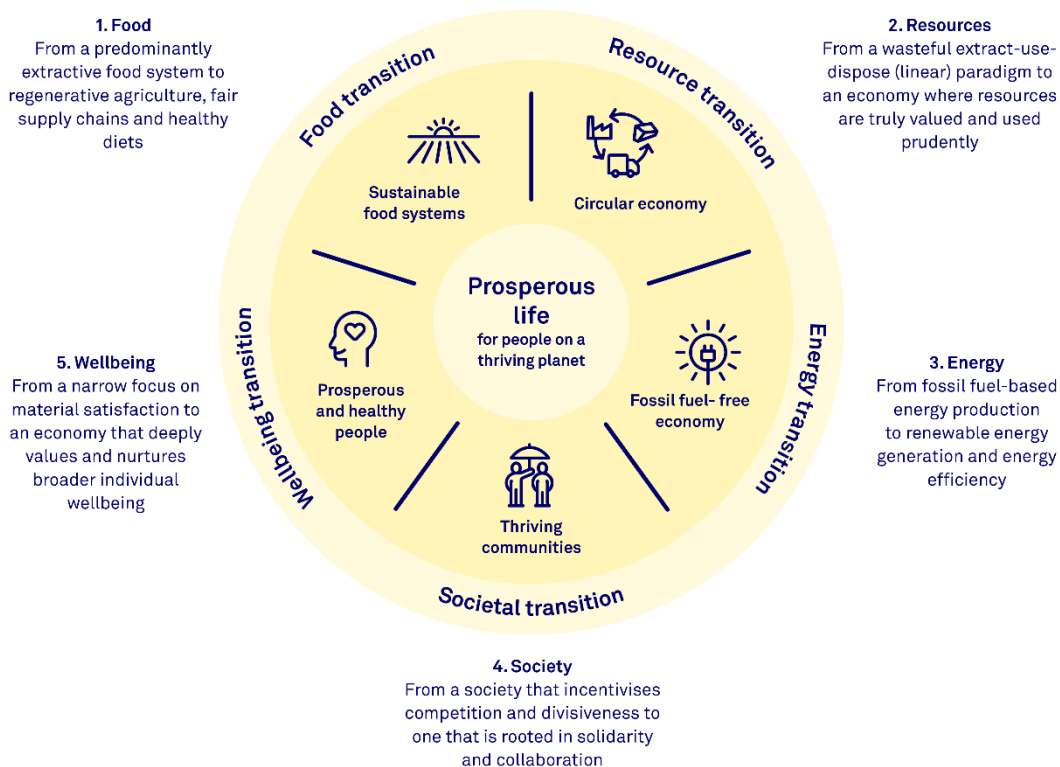


Figure 5 - Triodos Bank's five interlinked transition themes

Articles of association Triodos Bank: Triodos Bank believes in the transformative power of money. Through our activities as a financial institution, we make money work for positive change and promote the conscious use of money. By doing so, we aim to contribute to social renewal based on the principle that every human being can develop themselves in freedom, that they each have equal rights, and all bear responsibility for the consequences of their actions on other people and the earth.

We always need to work together with other stakeholders, and we aim to do this through financing change, changing finance and strengthening networks.

Financing change

Triodos Bank can contribute to accelerating transitions in multiple ways. For example, we can do this by financing companies who contribute to transitions and transformations. Triodos Bank group consists of multiple entities that provide organisations with different types of finance, investments, loans, donations and other money-related instruments.

- › **Triodos Bank** operates in five countries: Netherlands, Belgium, Germany, Spain and the United Kingdom, lending money to organisations working to bring about positive change.
- › **Triodos Investment Management** manages 20 funds with a range of risk-return profiles. Impact private debt and equity funds invest in Europe and emerging markets through a range of financial instruments. Impact equities and bonds funds invest globally in listed equities and bonds.
- › **Triodos Regenerative Money Centre** lends, invests and donates money with an innovative and impact-first approach.

We can link these different financing activities to different phases of transitions: experimentation, growth, consolidation, and mainstreaming. Financial institutions can make deliberate choices in financing companies contributing to these different parts of a transition. For example, financing innovative early-stage niche players that bring new technologies and social concepts to transitions, including NGOs, researchers and companies is an important part of this contribution.

As shown in section 3, the transformative potential framework helps to identify transformative aspects of clients and investees. Using different financial instruments, Triodos Bank puts different qualities of money to work, in order to help companies accelerating transitions during different phases.

An important aspect of financing change is setting the right example, for instance by financing entrepreneurs that would otherwise not receive finance. For example, Triodos Bank financed the installation of one of the first Dutch electric wind turbine. Designing pioneering financial products is another way to set the right example, like when Triodos Bank launched a mortgage whereby the interest rate is linked to the choice of materials for the home. Setting the right example is also important in the phase-out of parts of the system that need to be delegitimised³⁵, such as in the exclusionary criteria in our minimum standards³⁶.

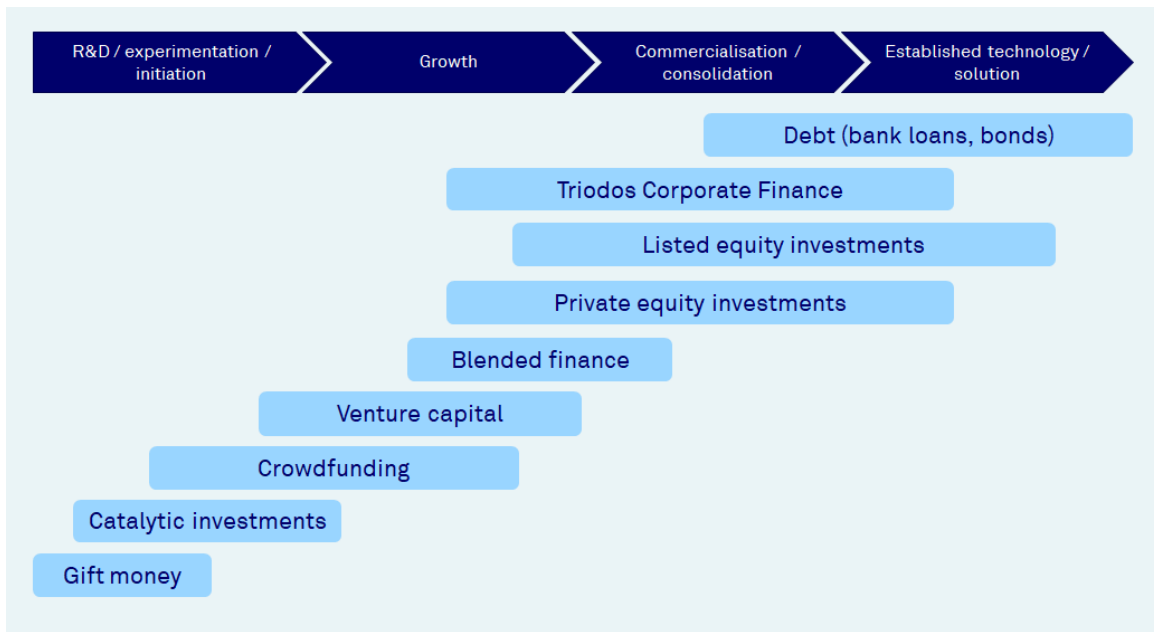


Figure 6 – Triodos Bank qualities of money for each transition phase

Changing finance

Next, we can and will continue to influence stakeholders to contribute to transitions through our thought leadership. For instance, Triodos Bank uses engagement tools to turn clients and investees into changemakers or help them make steps in the right direction. Triodos Bank also lobbies policymakers and influences industry standard setters to tip the balance towards more mission-oriented policy³⁷ and favourable conditions for transitions. We also influence peers in the financial sector to create an environment that is conducive to accelerating transitions. We participate in various networks that represent the systems we are a part of, such as the Dutch Banking Alliance, the Sustainable Finance Lab, the Global Alliance for Banking on Values, and the Finance Impact Hub of the Club of Rome. Lastly, Triodos Bank can influence the

behaviour of retail clients and the larger community through sharing information and campaign on sustainability transitions.

Strengthening and facilitating networks

Networks play a key role in accelerating transitions. As well as financing change and changing finance, a third key role for Triodos Bank in transitions is facilitating networks of frontrunners in client, investee and co-worker communities. We can champion this as a way of spreading best practices in each of our transition themes. Triodos Bank plays a crucial role in connecting companies in the real economy. As such, it is essential for the bank to foster impactful networks. We bring leading entrepreneurs together to co-create, as we did recently for local energy community projects, post-growth businesses, the arts and culture sector, the bio-based building sector and organic farmers.

Does Triodos Bank engage in transition finance?

Transition finance is an emerging term in sustainable finance. This term is increasingly used in regulatory frameworks of the European Union, such as the EU Taxonomy. We understand the emerging definition of 'transition finance' to be financing companies shifting from polluting to cleaner operations, with a primary focus on mitigating climate change and reducing carbon emissions.

We believe the term 'transition finance' risks diverting investments from truly sustainable solutions and is currently too narrowly focused on climate impacts. At Triodos Bank, we focus on companies that actively contribute to society-level transitions, not companies in transition from harmful to green. We aim to accelerate sustainability transitions that ensure individual and collective wellbeing while maintaining the health of our planet. We prioritise societal contributions over individual business model transitions, considering both social and environmental factors. Triodos Bank aims to enable positive change in five integrated transition themes: Food, Energy, Resources, Wellbeing and Societal.

While we expect companies to transition unsustainable components towards sustainability, they must meet our exclusionary criteria. We aim to finance or otherwise enable the sustainability transitions of companies that already meet these minimum standards, for instance through engagement with our As One to Zero climate action plan. If not, we expect them to meet our minimum standards with a plan for their company transition. For example, our organic conversion loan supports farmers transitioning from conventional to organic agriculture within approximately two years.



5. Towards a financial sector that fosters transformations

Financial institutions must play a pivotal role in tackling urgent global issues such as climate change, biodiversity loss and inequality. We need to assess the transformative potential of financing activities to create a greater impact beyond traditional impact and ESG investments³⁸. We have shown in this paper that there is a possibility to make a next step; to contribute more, deeper and better to a societal transformation. We also understand, also from our practice, that it is not always easy. A society where it is still allowed to finance nature destruction, to finance pollution and underpaid workers is a society where it is easier to make profits in preserving the status quo in the short term.

Of course, this is also a call upon policy makers and society: if we would, for instance have government policies aiming at phasing out fossil fuels, taxing pollution and subsidising and scaling up sustainable practices, a transformation would be easier³⁹. But we don't live in a world where that happens fast enough⁴⁰. Therefore, we need action

from private actors. We urge fellow financial institutions to adopt the same systems thinking approach. The transformative potential framework outlined in this white paper offers a practical starting point to evaluate the transformative potential of clients and investees. At Triodos Bank, we will continue to learn and develop our approach to transformative change by building on this framework.

By using a transformative approach, financial institutions can position their portfolios more effectively to create transformative change, contributing with loans and investments to significant, large-scale changes rather than merely incremental adjustments. This is not because it is easy. It is because it is necessary. Now is the time for leadership across the financial sector. Together, we can build a more transformative and impactful future—one where our financial decisions contribute to the systemic change needed to create a sustainable and equitable world.

References

- ¹ [IPCC] Intergovernmental Panel on Climate Change, (2023). *Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Geneva, Switzerland.
- ² Díaz, S., Settele, J., Brondízio, E. S., Ngo, H. T., Agard, J., Arneth, A., ... & Zayas, C. N. (2019). Pervasive human-driven decline of life on Earth points to the need for transformative change. *Science*, 366(6471), eaax3100.
- ³ Chancel, L., Piketty, T., Saez, E., Zucman, G. et al. (2022). World Inequality Report 2022. World Inequality Lab, wir2022.wid.world.
- ⁴ Triodos Bank. (2024). Triodos Bank on post-growth. [Triodos Bank on post-growth | Triodos Bank](https://www.triodosbank.com/en/our-approach/post-growth)
- ⁵ United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. [21252030 Agenda for Sustainable Development web.pdf \(un.org\)](https://www.un.org/sustainabledevelopment/agenda-2030/)
- ⁶ We are inspired by academic institutions like the Deep Transitions Lab, an initiative of the Universities of Utrecht and Sussex, as well as the Dutch Research Institute for Transitions (DRIFT) at Erasmus University Rotterdam. These institutions have been important centres for sustainability transition studies, to which this paper is indebted, through theories like Systems Thinking, the Multilevel Perspective, Transitions Management, and the Deep Transitions framework.
- ⁷ Transitiecoalitie Voedsel. (2021). *Impact Rapport Transitiecoalitie Voedsel: Samen een wereld te winnen*. [Transitiecoalitie Voedsel – Transitiecoalitie Voedsel](https://www.transitiecoalitievoedsel.nl/)
- ⁸ Simon, L., Nijhof, A. & Janssen, M. T. (2023). *TransMission: The Mission-Driven Transition Approach to Managing Complex Change Processes*. [TransMission-E-book_ENG.pdf \(newforesight.com\)](https://www.newforesight.com/transmission-e-book-eng.pdf)
- ⁹ Gupta, J., Bai, X., Liverman, D. M., Rockström, J., Qin, D., Stewart-Koster, B., et al. (2024). A just world on a safe planet: A Lancet Planetary Health–Earth Commission report on Earth-system boundaries, translations, and transformations. *The Lancet Planetary Health*.
- ¹⁰ Triodos (2023). [Regenerative economy vision statement](https://www.triodosbank.com/en/our-approach/regenerative-economy).
- ¹¹ Meadows, D. H. (2008). *Thinking in systems: A primer*. London: Earthscan. [Meadows-2008.-Thinking-in-Systems.pdf \(fit.edu\)](https://www.earthscan.com/publications/Thinking-in-Systems.pdf)
- ¹² Meadows, D. H. (2008). *Thinking in systems: A primer*. London: Earthscan. [Meadows-2008.-Thinking-in-Systems.pdf \(fit.edu\)](https://www.earthscan.com/publications/Thinking-in-Systems.pdf)
- ¹³ This includes STEEPLE: social, technological, economic, environmental, political, legal, and ethical factors.
- ¹⁴ Meadows, D. H. (1999). Leverage Points: Places to Intervene in a System. Hartland: The Sustainability Institute. [Leverage Points: Places to Intervene in a System - The Donella Meadows Project](https://www.sustainabilityinstitute.org/leverage-points/)
- ¹⁵ Abson, D. J., Fischer, J., Leventon, J., Newig, J., Schomerus, T., Vilsmaier, U., ... & Lang, D. J. (2017). Leverage points for sustainability transformation. *Ambio*, 46, 30-39.
- ¹⁶ Fischer, J., & Riechers, M. (2019). A leverage points perspective on sustainability. *People and Nature*, 1(1), 115-120.
- ¹⁷ Davelaar, D. (2021). Transformation for sustainability: a deep leverage points approach. *Sustainability Science*, 16(3), 727-747; Kim, D. H. (1999). *Introduction to systems thinking* (Vol. 16). Waltham, MA: Pegasus Communications.
- ¹⁸ Rotmans, J., Kemp, R., & Van Asselt, M. (2001). More evolution than revolution: transition management in public policy. *foresight*, 3(1), 15-31.
- ¹⁹ Geels, F. W., & Schot, J. (2007). Typology of sociotechnical transition pathways. *Research policy*, 36(3), 399-417.
- ²⁰ Yao, G., Zhang, X., Davidson, E. A., & Taheripour, F. (2021). The increasing global environmental consequences of a weakening US–China crop trade relationship. *Nature food*, 2(8), 578-586.
- ²¹ Lenton, T. M., Mckay, D. I. A., Loriani, S., Abrams, J. F., Lade, S. J., Donges, J. F., ... & Rockström, J. (2023). *The global tipping points report 2023* (Doctoral dissertation, University of Exeter).

- ²² Barrero, J. M., Bloom, N., & Davis, S. J. (2023). The evolution of work from home. *Journal of Economic Perspectives*, 37(4), 23-49.
- ²³ Pedersen, T. T., Gøtske, E. K., Dvorak, A., Andresen, G. B., & Victoria, M. (2022). Long-term implications of reduced gas imports on the decarbonization of the European energy system. *Joule*, 6(7), 1566-1580.
- ²⁴ [IPBES] Intergovernmental Panel on Biodiversity and Ecosystem Services. *Glossary: transformative change*. Accessed 15-06-2024 at: <https://www.ipbes.net/glossary-tag/transformative-change>
- ²⁵ Geels, F. W., Kern, F., Fuchs, G., Hinderer, N., Kungl, G., Mylan, J., ... & Wassermann, S. (2016). The enactment of socio-technical transition pathways: A reformulated typology and a comparative multi-level analysis of the German and UK low-carbon electricity transitions (1990–2014). *Research policy*, 45(4), 896-913.
- ²⁶ Roques, S., Martinez-Fernandez, G., Ramayo-Caldas, Y., Popova, M., Denman, S., Meale, S. J., & Morgavi, D. P. (2024). Recent Advances in Enteric Methane Mitigation and the Long Road to Sustainable Ruminant Production. *Annual Review of Animal Biosciences*, 12(1), 321-343.
- ²⁷ Schmidt, J.K. & Vocke, T. (2021). *Dress to change: A fashion business model for planet and people*. Triodos Investment Management. <https://www.triodos-im.com/dress-to-change>
- ²⁸ These characteristics are inspired by multiple sources, including: Hockerts, K., & Wüstenhagen, R. (2010). Greening Goliaths versus emerging Davids—Theorizing about the role of incumbents and new entrants in sustainable entrepreneurship. *Journal of business venturing*, 25(5), 481-492.; Schaltegger, S., Loorbach, D., & Hörisch, J. (2023). Managing entrepreneurial and corporate contributions to sustainability transitions. *Business Strategy and the Environment*, 32(2), 891-902.; Transition Plan Taskforce. (2023). Disclosure Framework:https://transitiontaskforce.net/wp-content/uploads/2023/10/TPT_Disclosure-framework-2023.pdf
- ²⁹ Kemp, R., Pel, B., Scholl, C., & Boons, F. (2022). Diversifying deep transitions: Accounting for socio-economic directionality. *Environmental Innovation and Societal Transitions*, 44, 110-124.
- ³⁰ O'Rourke, D., & Lollo, N. (2015). Transforming consumption: from decoupling to behavior change, to system changes for sustainable consumption. *Annual Review of Environment and Resources*, 40(1), 233-259.
- ³¹ Sengers, F., Wieczorek, A. J., & Raven, R. (2019). Experimenting for sustainability transitions: A systematic literature review. *Technological Forecasting and Social Change*, 145, 153-164.
- ³² Kishna, M., Niesten, E., Negro, S., & Hekkert, M. P. (2017). The role of alliances in creating legitimacy of sustainable technologies: A study on the field of bio-plastics. *Journal of Cleaner Production*, 155, 7-16.
- ³³ Caldecott, B., Clark, A., Koskelo, K., Mulholland, E., & Hickey, C. (2021). Stranded assets: Environmental drivers, societal challenges, and supervisory responses. *Annual review of environment and resources*, 46(1), 417-447.
- ³⁴ Axelsson, K., Wigg, C., & Becker, M. (2024). Is impact out of scope? A call for innovation in climate standards to inspire action across companies' Spheres of Influence. *Carbon Management*, 15(1), 2382995.
- ³⁵ Loorbach, D., Schoenmaker, D., & Schramade, W. (2020). *Finance in transition: Principles for a positive finance future*. Rotterdam: Rotterdam School of Management, Erasmus University.
- ³⁶ Triodos Bank. (2022). *'Our minimum standards provide boundaries' | Triodos Bank*
- ³⁷ Mazzucato, M. (2017). *Mission-oriented innovation policy: challenges and opportunities*. [mission-oriented-policy-innovation-report.pdf \(thersa.org\)](https://www.thersa.org/~/media/thersa/documents/2017/07/mission-oriented-policy-innovation-report.pdf)
- ³⁸ Penna, C. C., Schot, J., & Steinmueller, W. E. (2023). Transformative investment: New rules for investing in sustainability transitions. *Environmental Innovation and Societal Transitions*, 49, 100782.
- ³⁹ Moberg, E., Allison, E. H., Harl, H. K., Arbow, T., Almaraz, M., Dixon, J., ... & Halpern, B. S. (2021). Combined innovations in public policy, the private sector and culture can drive sustainability transitions in food systems. *Nature Food*, 2(4), 282-290.
- ⁴⁰ Richardson, K., Steffen, W., Lucht, W., Bendtsen, J., Cornell, S. E., Donges, J. F., ... & Rockström, J. (2023). Earth beyond six of nine planetary boundaries. *Science advances*, 9(37), eadh2458.

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