Enabling sustainable food systems in practice

Examples of enabling conditions for internalising externalities in the Dutch agri-food sector

A practice contribution to FOODCoST, building on FOODCoST insights and grounded in Dutch agri-food practice.

FOODCOST
Redefining the value of food

Future Up

Introduction: from FOODCoST insights to practice

This guide is inspired by insights developed within the FOODCoST project, which aims to redefine the value of food through tools, policies, and business models that support sustainable production and consumption. It builds in particular on the work of Work Package 3: Business and value-chain models and strategies.

FOODCoST insights show that internalising externalities requires a systemic approach. It depends on how value chains are organised, how risks and benefits are distributed, whether positive externalities are recognised and rewarded, and whether businesses have access to the right incentives, finance, tools and market conditions

These insights provide the conceptual basis, while the guide adds a complementary practice perspective by showing how internalisation can be translated into action in real market settings. Drawing on examples from the Dutch agri-food system, it explores how market-related enabling conditions can help value-chain actors address externalities and accelerate the transition towards a more sustainable food system.

For readers interested in a deeper theoretical understanding, we encourage further exploration of the FOODCoST project and its outputs.

Future Up's Food & Agriculture programme

The practical examples in this guide are grounded in Future Up's Food & Agriculture programme. The programme works towards a future-proof food system that benefits nature, people and the economy, with a particular focus on strengthening the market conditions for sustainable agriculture.

A central focus of the programme is biodiversity restoration. This includes addressing negative externalities linked to conventional agricultural production, such as soil degradation, loss of ecosystem functions, pesticide dependency and pressure on water quality. At the same time, the programme helps recognise and reward the positive externalities created by farmers who apply sustainable farming principles.

Future Up works with farmers, producers, companies, buyers, caterers, financiers and public actors to create favourable market conditions for sustainable agriculture and facilitate collaboration across the value chain.. The programme focuses on three related areas:

1. creating markets and long-term demand for products from sustainable farmers;
2. supporting farmers in the transition to natural agriculture through knowledge, practical experience and market access;
3. influencing policy and procurement so that rules, incentives and purchasing practices support the transition

Routes to action: organising the conditions for internalisation

A recurring insight from both FOODCoST and Future Up's Food & Agriculture Programme is that internalising externalities requires a systemic perspective. Food value chains involve many different actors, each with different roles, levels of market power, access to capital and exposure to risk.

Dutch practice shows that internalisation rarely happens through one stand-alone strategy. Sustainable practices only become practical and economically viable when the right market conditions are in place. This often means reorganising value chains, reshaping business relationships and adjusting market incentives.

For this reason, this guide describes several routes to action. These routes show how different enabling conditions can help overcome barriers and, when combined well, accelerate the transition towards sustainable food systems.

The following examples show how enabling conditions can be organised in practice. They are grouped into three routes to action:

1. Turning sustainable farming into concrete products and market access
2. Creating demand through procurement practices
3. Reconfiguring value chains to scale sustainanble sourcing

The purpose of these examples is to show how FOODCoST insights can become actionable in practice and how they appear in real-life situations for companies, farmers and other value-chain actors. The routes are not separate categories or a new framework, nor are they intended to be exhaustive. There are many other pathways that are needed to accelerate the transition towards a sustainable food systems and the field is continuously evolving, with new approaches, insights and collaborations emerging over time.

Route 1: Turning sustainable farming into concrete products and market access

The challenge in practice

Positive externalities are often difficult to reward when they remain abstract. Biodiversity restoration, healthier soils, and stronger ecosystems are valuable, but companies, buyers and consumers need concrete ways to recognise and support them.

For farmers, the transition to more sustainable agricultural practices requires investment, time, new business models and secured demand. When market demand does not keep pace, farmers carry much of the risk and many of the costs themselves.

This route illustrates how product development and market access can help translate positive externalities into recognisable products, purchasing decisions and recurring demand.

Using familiar products to tell a new farming story: Broodje Natuurlijk

The Dutch sandwich is a daily staple, deeply rooted in Dutch food culture and a common choice for both breakfast and lunch. It is therefore widely available in (company) restaurants, public institutions, hospitals, universities, hotels, cafés and meeting facilities, making it a familiar and accessible product across many everyday settings.

Broodje Natuurlijk (Natural Sandwich) is a concept developed by Future Up partners in which sandwiches are developed using local ingredients sourced from sustainable farmers, including those applying regenerative and nature-inclusive practices. By connecting the products of these farmers to a familiar and widely consumed product, the concept provides a practical vehicle for introducing products from nature-inclusive and regenerative agriculture into everyday food environments, while helping to create new markets, strengthen market demand and increase market recognition for these farming practices. Local natural sandwiches are developed using local famous chefs and local ingredients from local farmers.

The concept links sustainable farming practices to a concrete product. Rather than asking buyers to engage with an abstract topic, the sandwich makes the transition visible, understandable and actionable. It connects farmers, producers, caterers, food service providers and institutional buyers around one recognisable proposition. Furthermore, secured demand for the sandwich is ensured through value chain collaboration, which creates opportunities to scale for farmers.

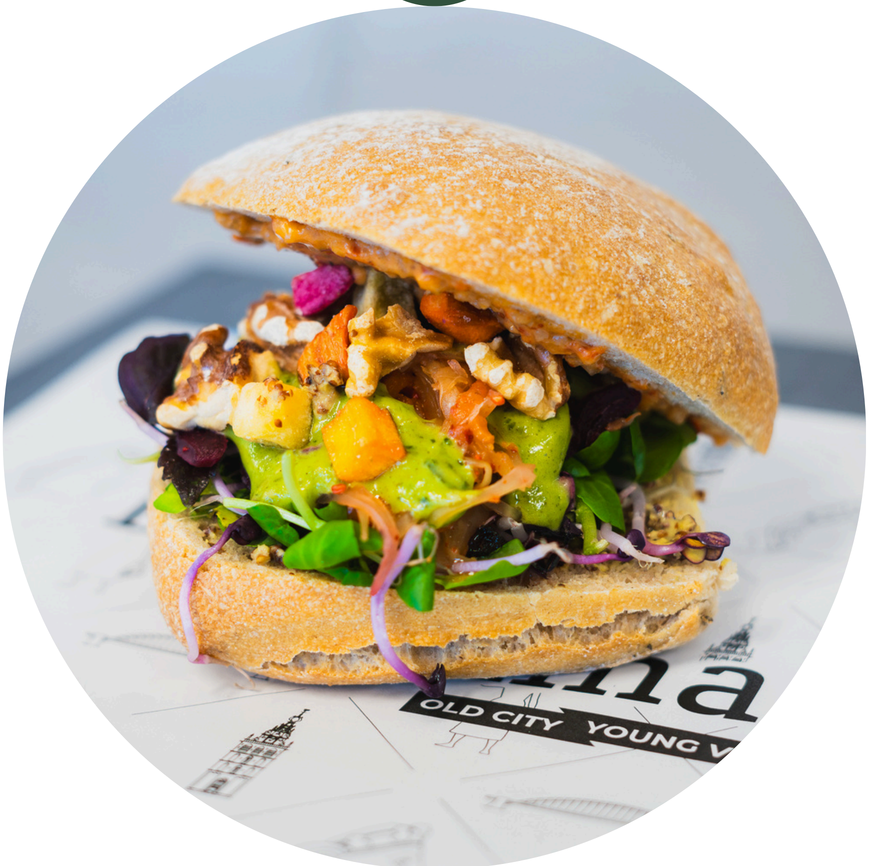
Local sandwiches have already been successfully developed and marketed in Utrecht, Njmegen, Rotterdam and Amsterdam. The following initiatives show how this can work in practice:

Broodje Utrecht

Broodje Utrecht uses ingredients from local farmers and producers and is offered in company restaurants of important regional organisations such as NS, Koninklijke Jaarbeurs, St. Antonius Hospital and the Province of Utrecht. By making local and sustainable ingredients part of an everyday lunch option, the sandwich makes sustainable food choices visible, understandable and easy to choose for both the organisations offering them in their food assortments and for the consumers. Using ingredients from local farmers also added a compelling story behind the product, helping to increase willingness to buy.

Broodje Nijmegen

Broodje Nijmegen, another local sandwich initiative, consists of ingredients produced by farmers and producers from the Nijmegen region. It involved collaboration between regional farmers, public hospitals, universities and food service companies, including Radboudumc, Radboud University, HAN University of Applied Sciences, Compass Group and Vermaat. The sandwich is sold in restaurants of several participating organisations, creating a direct market for regional products and showing how local sourcing combined with secured demand can create opportunities for farmers. Here too the story behind the sandwich and local farmers involved, helps increase awareness and willingness on sustainability among wider audiences.



Local value chain arrangements

In most cases, the introduction of local sandwiches has led to the development of new value-chain arrangements, creating regional logistics and ordering infrastructure for local farmers through platforms and supply-chain actors such as Oregional and Lokalist. As a result, major food service companies operating the catering facilities of participating organisations, including Vitam, ISS and Van Gelder, as well as wholesalers such as BidFood and Sligro, now also offer these products.

These arrangements help connect farmers and producers with buyers, while also giving them access to distribution channels through wholesalers and food service providers that were previously out of reach.

What this route illustrates

This route illustrates how positive externalities can become more visible, marketable and valued when they are translated into concrete products. A product makes sustainable agriculture easier to explain, easier to purchase and easier to include in procurement or catering arrangements.

It also shows how value capture can start to take shape. Farmers who create positive externalities need routes through which that value can be recognised in the market. Product concepts, sourcing relationships, procurement agreements and market channels can all help connect sustainable farming practices to real demand.

Route 2: Creating demand through procurement practices

The challenge in practice

Sustainable products and sourcing practices only becomes feasible when there is sufficient and secured demand. An organisation may want to source products from sustainable farmers, but other actors in the value chain, such as wholesalers, often have minimum volume requirements before they are willing or able to adapt their sourcing.

This route illustrates how buyers and procurement can help create the volumes needed for sustainable farming practices to become economically viable.

Organising Buyers and Buy-in: National Buyers Collective

Future Up's national "Buyers Collective for Natural Food and Drinks" brings together procurement professionals from large public and private organisations. The collective uses purchasing power as a force for good by creating opportunities for products from sustainable farmers, while also advancing participants' own sustainability objectives.

The collective operates as a 'peer-learning group'. Participants learn from each other and from experts, exchange knowledge and translate sustainability ambitions into procurement strategies. Lessons learned are shared with other practitioners, helping to spread practical insights and inspire wider adoption among similar organisations. This is important because many buyers face similar barriers and need practical examples of purchasing criteria, 'how-to' examples from peers, market connections to the required products, and other easy-accessible pathways to move from ambition into action.

By working together, buyers pool demand and create a stronger and more credible signal to the market. Public organisations in particular can use their often high spending on public procurement as leverage and drive change. Participation in the collective already led to several practical market and value-chain changes: participants became launching customers of the local sandwiches and are now also buying other products from farmers involved. Many other participants have changed their purchasing strategies entirely and included criteria for sustainable products in tenders, creating more opportunities for sustainable farmers and encouraging food service providers to adapt their assortment.

The following examples show how different mechanisms can support new procurement practices and strengthen market demand:

Four principles of natural farming

An important result from the buyer group has been the development of the Four principes of natural farming together with experts and practitioners from across the sector. These principles provide a practical description of what nature-inclusive and regenerative farming practices and criteria are. They are used both as a basis to asses farmers involved in the local sandwich initiatives, as well as a foundation for procurement criteria in tenders and sourcing strategies. By creating a shared language around sustainable farming practices, the principles help buyers translate sustainability ambitions into concrete purchasing decisions. The principles are increasingly being used by other actors.

Farm visits

Internal buy-in within organisations is crucial, even when their sustainability strategies already include specific ambitions on sustainable procurement. Ambitions often still need to be translated into buying decisions and mechanisms. Farm visits, shared learning sessions and concrete examples have helped buyers and decision-makers understand what nature-inclusive and regenerative agriculture can mean in practice. Visiting farms allows stakeholders and decision makers to see farming systems firsthand and better understand the positive value created on the farm. While formal measurement tools and impact frameworks remain important, these direct experiences often play a crucial role in building awareness, strengthening commitment and influencing procurement decisions. Farm visits facilitated through the Food & Agri programme has accelerated buy-in and procurement changes on multiple occasions already and also led to new market channels for farmers involved.

Consumer-facing channels to accelerate demand

Consumer-facing food companies also play an important role in creating demand. Crisp, another member of the buyer collective, works directly with many farmers, growers and food producers and has strengthened its sourcing strategy towards sustainable products. By offering these products through a consumer-facing platform, Crisp helps connect sustainable farmers with the market, which creates additional sales channels and greater visibility.

Another notable example is NS, the Dutch national railway company, which has publicly committed to transitioning its food offering towards regeneratively produced food in all its' employee and consumer-facing outlets. Commitment and lessons learned from high-profile (public) organisations leads to other organisations to follow more quickly.

What this route illustrates

This route illustrates that demand can be organised and that (public) procurement can act as a market-shaping tool. Buyer collaboration can lead to practical procurement criteria, sourcing decisions and, in some cases, broader strategic commitments. These send a strong demand signal through the value chain and encourage actors to adapt their sourcing practices accordingly.

This route also shows that value creation and value capture need to be connected to the market. Farmers may create positive externalities, but market recognition does not follow automatically. Buyers who recognise this value need to translate their ambitions into concrete buying mechanisms.

Examples from high-profile organisations, new market channels and value-chain arrangements can help create the conditions for positive externalities to be recognised and rewarded. Over time, this can contribute to wider market recognition and support the scaling of sustainable farming practices.

Route 3: Reconfiguring value chains to scale sustainanble sourcing

The challenge in practice

Even when buyers want sustainable products and farmers are able to produce them, the value chain is not always ready to connect supply and demand. Products are not always available through regular channels. Logistics can be fragmented. Food service companies do not always know how to include new products in menus, and farmers often need more predictable demand before they can scale production.

This creates a coordination challenge. One buyer alone usually does not create enough volume to change how wholesalers, food service companies or logistics partners work. At the same time, farmers often lack the infrastructure, market connections or sales channels needed to supply larger customers.

This route illustrates that working on externalities often requires new value-chain arrangements. These arrangements help connect farmers, buyers, wholesalers and food service companies in ways that make sustainable sourcing easier to organise and scale.

Value chain arrangements for regenerative menu options in food service

PwC, a partner in the Buyers Collective for Natural Food and Drinks described in the previous example, wanted to introduce regenerative and healthy menu options in its employer canteens which are outsourced to food service company ISS. The products it wished to include were not yet available through regular channels yet.

Wholesalers ISS works with needed minimum guaranteed volumes before they could adapt their sourcing and assortments. Farmers themselves were not used to selling directly to food services companies, nor wholesalers and did not yet have the appropriate infrastructure nor market connections to do so.

At this stage, the demand from one organization, PWC, was not enough to create movement across the chain. Therefore Future Up's Food & Agri programme connected multiple public and private organisations and food service companies with similar ambitions to pool their demand. This created sufficient volumes and leverage towards the biggest wholesalers for them to explore new sourcing relationships with regenerative farmers and adapt their assortments

This led to several practical changes in how products are sourced, distributed and made available through the value chain:

Assortment changes

Wholesalers such as Bidfood and Van Gelder have been matched to regenerative farmers from Future Up's Food & Agriculture Programme and have started sourcing from them directly. As a result, regenerative products became part of their assortments, making them widely available for other food service companies who they work with.

Access to sustainable products for other market segments

By bringing regenerative products into the assortments of wholesalers and food service companies, access was created beyond the initial buyer group. Organisations in other market segments can now more easily add sustainable menu options to their food offering and source from regenerative farmers through their existing food service companies and wholesalers. These segments include hospitality, universities, hospitals, transport companies, large consulting firms, and public organisations such as ministries and provinces.

New sales channels and value chain arrangements for farmers

In turn, regenerative farmers began working with logistics partners and online platforms to supply new channels, as described in route 1. Direct supply from local farmers to wholesalers or food service companies is often not common practice, nor always feasible within the existing system. New businesses and value-chain arrangements were therefore created to make these market connections possible.

Through these arrangements, farmers gained access to new sales channels beyond their existing networks. This enabled further scaling and is now also helping other farmers to become more sustainable or to scale their sustainable production.

What this route illustrates

This route illustrates that driving sustainability, and in particular the internalisation of externalities, may require changes across the entire value chain and a willingness from multiple actors to move and adapt their business models.

Market demand can contribute to broader changes elsewhere in the market, including new sourcing relationships, new logistics arrangements, expanded wholesaler assortments, new regional supply infrastructure and easier access for other organisations that want to source more sustainably. Pooled demand can act as leverage to create the market conditions needed for this.

Closing reflections

The examples in this guide show that internalisation as a driver of the transition towards a sustainable food system is not a theoretical exercise. Across the Dutch agri-food system, companies, farmers, financiers, public institutions and intermediaries are already applying internalisation strategies in real market settings.

A key insight is that internalisation rarely happens through one strategy or one actor alone. It depends on enabling market conditions such as market demand, value-chain collaboration, procurement, incentives and the recognition of positive externalities. In practice, this requires changes in how food value chains operate: how demand is created, how value chains are organised, and how sustainable practices are recognised and rewarded.

Market demand is a particularly powerful leverage point. Innovative and tangible products, combined with buyer collaboration, suitable procurement mechanisms and new value-chain arrangements, can help translate sustainability ambitions into concrete demand for sustainable products. When demand grows and becomes more predictable, actors across the value chain are better able to adapt their strategies, sourcing decisions and investments. This creates the conditions for sustainable farmers and producers to thrive and scale.

For practitioners, the message is clear: the successful adoption and scaling of internalisation strategies depends on organising the market conditions that make sustainable practices viable, scalable and rewarding. The examples in this guide show that these conditions can be deliberately shaped. When they reinforce each other, they can move from isolated examples to a practical pathway for accelerating the transition towards more sustainable food systems.

About Future Up

Future Up helps businesses grow sustainably and stay competitive in a changing economy.

We connect the right partners, drive action and create the conditions for a fair and sustainable market.

Through practical programmes, strategic partnerships and strong public affairs, we work towards a level playing field and visible impact.
That's how we make sustainable business the norm - in both the market and public policy.

About FOODCoST

FOODCoST is a European funded project that aims to support the transition towards sustainable food systems by (i) proposing a harmonising methodology to calculate true costs of food (ii) formulating strategies to internalize externalities in business models and policy and (iii) assessing the impact of those strategies on sustainability.

The project has now been completed and has generated many useful insights for businesses, policymakers and other value-chain actors. For readers interested in a deeper theoretical understanding, we encourage further exploration of the FOODCoST project and its outputs.

Funded by
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